



Harn Engineering Solutions Public Company Limited

Annual Registration Statement/
Annual Report 2024
(Form 56-1 One Report)



**QUALITY LIVING
THROUGH
SUSTAINABLE ENGINEERING**

QUALITY LIVING THROUGH SUSTAINABLE ENGINEERING

CO₂



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In case this Annual Registration Statement / Annual Report (Form 56-1 One Report) references information disclosed on HARN's website, the disclosed information shall be deemed to be part of Form 56-1 One Report. The Board of Directors certifies the correctness and completeness of disclosed information and annual information disclosure in Form 56-1 One Report.

About HARN

In 2024, the Board of Directors has conducted a systematic annual review and approval process for HARN’s vision, mission, and business strategies to ensure alignment with Economic, and Environment, Social, and Governance (ESG) factors and both short-term and long-term business trends. This approach is in line with the global movement toward net-zero greenhouse gas emissions and rapid technological advancements. HARN aims to establish itself as a leader in providing comprehensive and sustainable engineering services while to deliver suitable returns and simultaneously enhancing the sustainable quality of life for stakeholders, driving long-term sustainable organizational growth.

Vision

“ We are committed to be a leading provider of sustainable total engineering solutions

that meet customer needs to improve quality of life, society, and environment ”

Mission



Committed to developing sustainable engineering systems to enhance the quality of life, society and environment, harnessing technology for digital transformation, creating competitiveness with wisdom and human resource value



Leading the environmental impact reduction from operations under BCG Model



Enhance the quality of life for all our stakeholders under management is based on the principles of equity, fairness, positive thinking and professional responsibility



Create long-term value for the company and society under prudent management and good corporate governance

Strategic Directions

In 2024, HARN remains committed to achieving its established vision and mission by following its strategic direction and plans. HARN continues to build upon its core business strengths while accelerating expansion into new business areas, particularly those aligned with global transformation trends. This approach aims to enhance competitiveness, strengthen capabilities, and create long-term sustainable business growth.

HARN executes its strategy through 2 core business pillars: Business and Sustainability (B+S), ensuring a balanced focus on economic, environmental, social, and governance aspects. At the same time, HARN actively seeks investment opportunities to enhance its existing offerings in fire protection, air conditioning, sanitation, refrigeration, digital printing, 3D bioprinting, and IoT systems. Additionally, HARN collaborates with business partners to develop high-value products that cater to specific customer needs.

To effectively implement this strategy, HARN drives the B+S approach through the following dimensions:

B: Business

HARN focuses on economic growth by leveraging Smart & Lean strategies to develop sustainable engineering solutions, improve quality of life, social, environmental, and integrate digital technology into operations. This enhances efficiency, service excellence, and customer satisfaction while strengthening competitiveness through intelligence-driven strategies and strategic partnerships.

S: Sustainability, balance across 3 key sustainability dimensions:

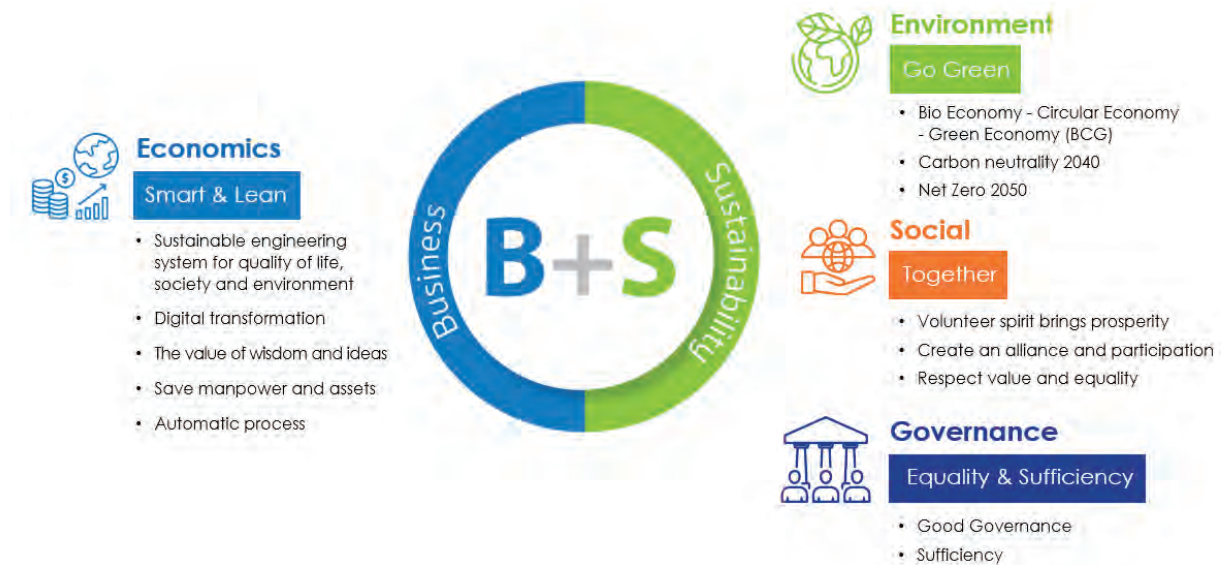
- **Environmental**, driven by Go Green is committed to holistic economic development, integrating bio-economy, circular economy, and green economy principles. It emphasizes responsible resource utilization and material reuse while promoting environmental and social sustainability. HARN has set ambitious goals to achieve carbon neutrality by 2040 and net-zero greenhouse gas emissions by 2050.

- **Social**, driven by Together to fosters a corporate culture of social, community and environmental responsibility across all levels of the organization. Through continuous projects, it enhances employee skills, talent retention, succession planning, human rights protection, and workplace safety. These initiatives instill confidence among shareholders and investors in HARN’s long-term sustainability.





- **Governance**, driven by Equality & Sufficiency to prioritizes strong corporate governance by ensuring effective organizational structures and management mechanisms. It fosters transparent relationships between the board, executives, employees, and shareholders, aiming to create long-term value while considering the interests of all stakeholders.

The Chief Executive Officer actively communicates these strategies plan across all levels of management and employees, and ensure the consistent implementation of strategic initiatives, including an annual review of the strategic plan throughout the year to maintain effectiveness. Progress updates are reported to the Board at every board meeting, including to the non-executive directors.

HARN remains steadfast in its commitment to sustainable business growth and maintaining its leadership in comprehensive sustainable engineering services. Through a strong focus on Environmental, Social, and Governance (ESG) principles, alongside a stakeholder-centric approach, HARN strives to achieve its ultimate goal of becoming a truly sustainable organization.



Financial Highlights Information

			2024	2023	2022
ผลการดำเนินงาน					
	Sales and Services Revenues	MB.	1,239.04	1,299.62	1,219.66
	Total Revenues	MB.	1,271.50	1,326.23	1,242.29
	Costs of Sales and Services	MB.	891.98	908.61	873.26
	Gross Profit	MB.	347.06	391.01	346.40
	Net Profit/(Loss) Attributable to Owners of the Parent	MB.	87.60	114.04	88.78
	Total Comprehensive Income/(Loss) Attributable to Owners of the Parent	MB.	87.24	112.44	88.84
ฐานะทางการเงิน					
	Total Assets	MB.	1,799.75	1,754.03	1,783.10
	Total Liabilities	MB.	421.75	370.85	434.48
	Total Equity Attributable to Owners of the Parent	MB.	1,379.32	1,383.42	1,347.99
อัตราส่วนทางการเงิน					
	Return on Equity ^{1/}	%	6.34	8.35	6.66
	Return on Assets ^{2/}	%	6.42	8.20	6.58
	Gross Profit Margin	%	28.01	30.09	28.40
	Net Profit Margin ^{1/}	%	6.80	8.53	7.15
	Debt to Equity Ratio	Times	0.31	0.27	0.32
	Total Assets Turnover Ratio	Times	0.71	0.75	0.72
ข้อมูลสำคัญในตลาดทุน					
	Par Value per Share	Baht	0.50	0.50	0.50
	Book Value	Baht/Share	2.36	2.37	2.31
	Dividend per Share ^{3/}	Baht/Share	0.12	0.15	0.13
	Dividend Payout Ratio	%	80.00	75.00	86.67
	Basic Earnings/(Loss) per Share	Baht/Share	0.15	0.20	0.15

Note :

Referring to consolidated financial statement of Harn Engineering Solutions Pcl.

1/ Use profit (loss) and shareholders' equity of the parent company only for the calculation.

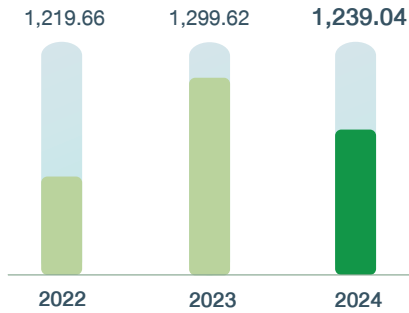
2/ Earnings before interest and tax used in calculation.

3/ Not confirmed until the approved by the 2025 Annual General Meeting of Shareholders.



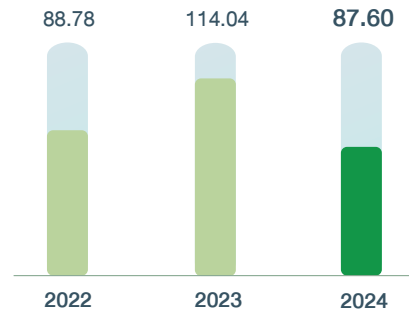
Sales and Services Revenues

1,239.04 MB



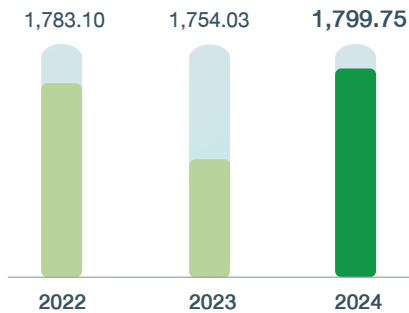
Net Profit/(Loss) Attributable to Owners of the Parent

87.60 MB



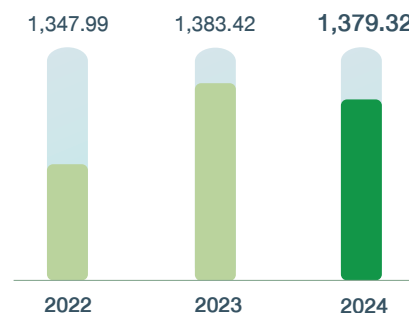
Total Assets

1,799.75 MB



Total Equity Attributable to Owners of the Parent

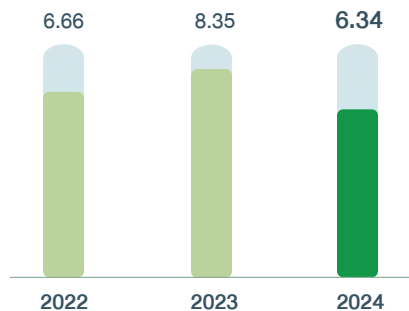
1,379.32 MB



Return on Equity

Use profit (loss) and shareholders' equity of the parent company only for the calculation.

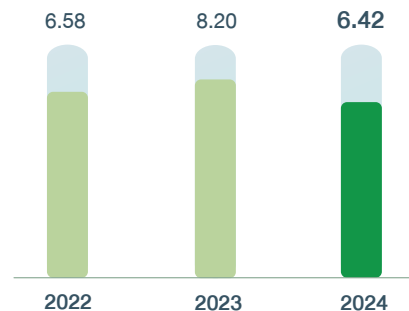
6.34 %



Return on Assets

(Earnings before interest and tax used in calculation)

6.42 %



1960

● Harn Watthana Limited Partnership

1998

● established Chillmatch Co., Ltd.

2011

● established FIRE Victor Co., Ltd.

2022

● established QIIS Co., Ltd.

2014

● FIRE, Entered the main stock exchange

2016

● changed the name from FIRE to HARN and increased capital **292.25 MB**



2017

● Join the announcement of intention to be the Private Sector Collective Action Coalition against Corruption (CAC)



2018

● Certified as a member of the Private Sector Collective Action Coalition against Corruption (CAC)




2019

● expand subsidiary "HarnVietnam" in Vietnam
● Received CG rating "Excellent 5 stars" ★★★★★



- Received **“SET ESG Ratings”** – A Level in 2024 Sustainability Assessment.
- Certified as a Member of the Collective Action Against Corruption (**CAC**) or the 2nd Consecutive Term. 
- Received CG rating of **“Excellent 5 stars”** for 6th year 
- **Signed MOU** or Research on Carbon Storage Assessment and Net Carbon Sequestration Balance of Dry Dipterocarp Forests Using Remote Sensing. 
- Committed to the **“Energy Beyond Standard”** Energy Conservation Network – 2024. 
- Received CPCRT Partner Award – **Platinum Level**.

2024

- Received a Green Certificate for its Product: Printing Machine
- Received CG rating of **“Excellent 5 stars”** for 5th year 
- Received a “Certificate of Excellence in the Management of Drug Problems” 
- Signed a memorandum of understanding on academic between **SANYO** and King Mongkut’s University of Technology North Bangkok

2023



- Join the announced and took part in the Energy Conservation Network under **“Energy Beyond Standard”** project
- Received CG rating of **“Excellent 5 stars”** for 4th year 
- HARN new building accredited by **DGNB GmbH the Gold Certificate** organised by the German-Thai 

2022

- Open Showroom **“Digital Centre Excellence”** 
- Received CG rating of **“Excellent 5 stars”** for 2rd year 

2021

2020

- Joint venture registered **“Aiyaraharn”** 
- Received CG rating of **“Excellent 5 stars”** for 2nd year 



HARN was “SET ESG Ratings” in 2024 at level A, indicating its commitment to sustainable operations, including environmental awareness, social responsibility, and good governance (ESG).

On November 11, 2024, Mr. Wirat Sukchai, Chairman of the Executive Committee, attended the second certification ceremony of the Thai Private Sector Anti Corruption Alliance (CAC) on CAC Certification 2/2024, which links anti-corruption with ESG.

Certified the CG score certification for listed companies in 2024 and was awarded the “Excellent” 5-star rating for the 6th consecutive year.

On September 9, 2024, HARN by Dr. Jain Chamnarong, executive directors and Mr. Thammanoon Tripetchr, Chief Executive Officer, together with the Network Partners, the Department of National Parks, Wildlife and Plants, signed a MOU on Research on Assessment of Carbon Storage and Net Carbon Fixation Balance of Tank Forest Ecosystems by Remote Surveying.

HARN participated in the Energy Beyond Standards 2024, with the intention to be a significant force in promoting sustainable energy conservation, organized by the Department of Alternative Energy Development and Energy Conservation.

On June 14, 2024, HARN was awarded the CPCRT Partner Platinum Award, a recognition given by Charoen Pokphand Group to outstanding business partners on CPCRT Partner Day 2024. The award was received by CEO, Thammanoon Tripetch.

Aiyaraharn participated in the “Export Fruit and Refrigeration Energy saving Innovation” seminar organized by HARN’s refrigeration business unit, introducing an IoT monitoring system that helps monitor the operating status and temperature of refrigeration rooms.

AiyaraHARN was to lecture on “Guidelines for the Application of IoT Technology for Energy Management and Product Quality Control in the Cold Chain Industry” at Material Science and Technology (MSAT) 2024 organized by the National Center for Metals and Materials Technology (MTEC).

Year 2023



HARN has established a policy for operating electric trains (BEVs), gradually replacing each used vehicle upon expiration or when cost-effectiveness improves. 4 electric trains have already been replaced.



On December 19, 2023, HARN installed the second batch of solar panels. With the production capacity of the first batch of solar panels, the HARN office building is a green energy building with a total power generation of 307 kW/h, accounting for 25% of energy consumption. Therefore, the HARN office building belongs to ZEB (Zero Energy Building), which is in line with the national sustainable development direction.



On November 15, 2023, SCG Chemicals Public Company Limited issued a green certificate for environmentally friendly products and services. Harn Engineering Solutions Public Company Limited, digital printing business obtained the Product: Printing Press Green Certificate at SCGC Go Green Together in 2023.



October 31, 2023, certified with CG Score as having good corporate governance principles for listed companies at a 5-star “Excellent” for the 5th consecutive year



HARN passed the criteria for an outstanding establishment in drug prevention on August 16, 2022 and received a “Certificate of Excellence in the Management of Drug Problems” on June 26, 2023.



Mr. Wirat Sukchai, Chairman of the Executive Committee of Harn Engineering Solutions Public Company Limited and the president of the association of Listed Companies in the Market for Alternative Investment (mai) led the executive team of the association. “Volunteer Coach” who takes care of social businesses in the SET Social Impact GYM project, visits Yaring, Pattani to visit social entrepreneur businesses to monitor business operations and increase business potential foster future business cooperation.



HARN joined the SET Social Impact Gym 2023 with the concept of “I-done ideas”, which is a project aimed at developing business potential for social enterprises. The project aims to involve social entrepreneurs in caring for and solving various social problems. Including agriculture, vulnerable groups, community development, health, education, and environment, and sustainably expanding business and social outcomes.



May 23, 2023, HARN signed a memorandum of understanding on academic between SANYO and King Mongkut’s University of Technology North Bangkok. To develop a prototype of a commercial refrigeration system in Thailand. Intended for carry out academic work research and development of commercial refrigeration system prototypes consulting, training, design, maintenance, knowledge exchange, transfer and operations related to commercial refrigeration systems in order to maximize the benefits in the country’s refrigeration industry

Year 2022



On December 6, 2022, it was certified as an organization that has shown intention to conserve energy and cooperate in the network of energy conservation, “Energy Beyond Standards.” HARN is focused on and determined to be an important mechanism to help Thailand overcome the energy crisis by conducting energy conservation within the organization and being an important force in promoting sustainable energy conservation.



On November 22, 2022, Mr. Thammanoon Tripetch, Chief Executive Officer, participated in a discussion on the topic “2D Barcode Printing Techniques on Products” at the 2022 Annual General Meeting of Code Institute, GS1Thailand Annual Meeting 2022, on the topic of “Next Generation of Retail Business for Consumer Safety & Protection, the new dimension of retailers joining to care for consumers.” Mr. Thammanoon also brought the printer to display at the event, as well as giving advice to enhance and develop the use of product barcodes to see the benefits of use.



October 30, 2022 was certified with CG Score as having good corporate governance principles for listed companies **at a 5-star “Excellent” for the 4th consecutive year**



Since July 4, 2022, HARN has facilitated the installation location of the “Tao Bin” vending machine, one of the projects for the disabled, to support the employment of the socially disabled for the year 2022. This project encourages people with disabilities to have access to jobs and career opportunities in their hometowns to be able to earn income and become self-resilience as well as a valuable member of the community.



On August 22, 2022, HARN received the Green Building Award, DGNB Standard Gold Certificate, organized by the German-Thai Chamber of Commerce and DGNB GmbH. The design concept of HARN building started from foreseeing the direction and future trends in creating sustainability for employees, companies, people, society, environment, and the world in the future, thus originating the idea of constructing buildings under the “Green Building” concept. In addition, it is also a space to learn about sustainable engineering in line with HARN’s vision of providing sustainable engineering solutions, believing that quality of work life is important.



On June 11th, 2022, HARN took part in supporting the “Plant & Protect” project by Care the Wild, which aimed to plant and restore forests in Ban Oi, Moo 11, and Ban Bunreng, Moo 4, located in Ban Vieng Subdistrict, Rong Kwang District, Phrae Province. The project covered an area of one rai (400 sq m) and was in collaboration with the MAI association of registered companies in the Stock Exchange of Thailand.

Year 2021



October 30, 2021 was certified with CG Score as having good corporate governance principles for listed companies at a 5-star “Excellent” for the 3rd consecutive year

Year 2020



November 19, 2020 was certified with CG Score as having good corporate governance principles for listed companies at a 5-star “Excellent” rating for the second consecutive year.

June 24, 2020 HARN joins hands with Aiyarafun Group signed a joint venture for digital business development to build IoT Products and Solutions system to operate smart building development service under the name “Aiyaraharn”.

HARN has been listed as one of the 20 companies that Thaipat Institute has selected as the ESG Emerging List of Sustainable Way Companies, based on the environmental, social and governance (ESG) trends of start-up companies or in the process of working that has the opportunity to generate more long-term returns for investors.

Harn Vietnam (“Subsidiary”) has successfully sold 1UV Digital Inkjet label printer and can be installed successfully by a team of Vietnamese engineers without requiring engineers from abroad to support due to the COVID-19 situation that does not allow foreigners to enter the country during that time.

Message from the Board of Directors



HARN Engineering Solutions Public Company Limited (“HARN”) is committed to being a leader in providing comprehensive engineering services, covering fire protection systems, air conditioning systems, refrigeration systems, sanitary systems, digital printing systems, 3D bioprinting systems, and Internet of Things (IoT) solutions. The aims to achieve stable and sustainable growth and profitability while adapting to global trends. HARN focuses on expanding investments in high-value products, low-carbon businesses, and strategic partnerships while integrating cutting-edge technology with a team of professionals. Additionally, dedicated to conducting business under a sustainable framework by setting an ambitious target of achieving net-zero greenhouse gas emissions by 2050.

Business Environment and Strategic Response

The year 2024 continues to present global challenges due to complex and unpredictable business conditions. Key concerns include geopolitical tensions that drive inflation and high policy interest rates, economic recessions that slow global growth, increased competition from Chinese investments, and political uncertainties. Moreover, climate change remains a pressing global issue. HARN closely monitors external factors and uncertainties, establishing clear organizational strategies and proactive plans to ensure adaptability and resilience.

Short-Term Operational Plan

HARN’s short-term focus is on strengthening internal operations and optimizing controllable factors. Key measures include improving overall operational efficiency, implementing strict and effective cost-control measures, making prudent investment decisions, mitigating economic downturn risks to restore profitability, and maintaining financial stability. Efficient working capital management, liquidity control, and asset optimization are prioritized to mitigate financial impacts and sustain cash flow.

Long-Term Strategy and Framework

HARN remains confident in its B+S strategy but the need for periodic review, adjustments, and prioritization to align with industry shifts and preparing for future growth by focusing on four key strategic dimensions:

1. Economic Dimension

Aims to enhance competitiveness and drive growth while reducing carbon emissions by optimizing costs, improving operational efficiency through digitalization, expanding the customer base, and adding value to its products. In 2024, HARN is develop IoT innovations to reduce energy consumption in refrigeration systems, develop technology and seek eco-friendly products in fire protection, air conditioning, and sanitary, advancing digital printing innovations by implementing 2D barcodes instead of 1D barcodes for enhanced consumer safety. Additionally, is leveraging technology to enhance efficiency and support data-driven analysis within organization to better meet customer needs.

2. Environmental Dimension

Sustainability is embedded in core business operations, with a clear roadmap to reduce greenhouse gas emissions. In 2024, has exceeded its emission reduction targets through initiatives such as transitioning to renewable energy, adopting electric vehicles in business, and promoting efficient resource utilization based on the 3R principles. Also exploring carbon capture technologies and studying the net carbon sequestration potential of dry dipterocarp forests under the “Vanapha Project.”

3. Social Dimension

Recognizing the importance of social responsible through ongoing social development initiatives, such as HARN Give and Share, Jitarsa Phacharoen, Wildfire Insurance Volunteers, and SET Social Impact GYM, covering various aspects such as the environment, education, public health, community well-being, and support of educational quality in schools and drive the Ban Ko Sandbox project, aimed at addressing environmental issues (wildfires and PM2.5), promoting local agriculture, and sustainable livelihoods for communities. Additionally, collaborate on academic development with Sanyo Co., Ltd. and King Mongkut’s University of Technology North Bangkok while also funding research through the National Research Council of Thailand (NRCT) for development of bio-material printheads with embedded measurement devices for 3D/4D printing, and research Bio-compatible Soft Materials for 3D Printing, with researchers and the MTEC research team. to enhancing the quality of life for Thai society.

4. Governance Dimension

Remains committed to strong corporate governance, risk management, and internal controls, compliance with laws and regulations to strengthen operations. The enhances operational transparency, and minimizes risks that could impact its business. Continues to uphold ethical business practices and its commitment to anti-corruption measures.

Recognition and Achievements

Dedication to sustainability, balanced across environmental, social, and economic aspects under the ESG framework, has earned it notable accolades:

- SET ESG Ratings: Achieved an A rating for the first time.
- Corporate Governance Report (CGR), attained an excellent rating for the sixth consecutive year.
- Annual General Meeting (AGM) Checklist, scored 100% for the seventh consecutive year.
- Thai Private Sector Collective Action Against Corruption (CAC), successfully renewed certification for the second time.
- CPCRT Partner Award, received the Platinum Award for outstanding business partnership performance in 2024.

Commitment to Stakeholders

On behalf of HARN Engineering Solutions Public Company Limited, extend our gratitude to all stakeholders for their trust and continuous support. HARN remains steadfast in its commitment to sustainable business practices, resilience in the face of challenges, and transparent, accountable operations, strive to create long-term value for all stakeholders equitably and fairly.

Section

1

Business and Performance



Structure and Business Operation

1. Business Policy and Overview

1.1 Background

Harn Engineering Solutions Public Company Limited (“HARN”) previously known as Fire Victor Public Company Limited was set up on, May 9, 2001, named Fire Victor Company Limited, with an initial registered capital of Baht 1 million, HARN was established to engage in import and distribution of valves and equipment for fire suppression system and valves and equipment for sanitary system and air-conditioning system, including fire suppression system installation services. Later on, February 21, 2003, July 24, 2006, October 10, 2012 and April 21, 2014 increased its registered capital to Baht 3 million, Baht 4 million, Baht 65 million and Baht 130 million respectively, for use as working capital in its business operation.

On May 22, 2014, the change from company limited to public company limited and the increase of the registered capital of Baht 175 million with enlisting the stocks to the Market of Alternative Investments (mai). Later September 22, 2014 the change in the value to Baht 0.50 per stock, which increases the registered capital stocks to 350 stocks million. In November 2016, entering in a joint venture with Chillmatch Company Limited and Q II S Company Limited., with a long history of being a distributor and consulting, designing engineering systems since 1965, with more than 60 years of experience and reputation. This time, HARN is ready to focus on being the leading provider of sustainable solutions with product variety ranging of safety engineering systems, refrigeration system, air-conditioning system, sanitary system and digital printing systems in Thailand and neighboring countries, leveraging its strength and expertise to further enhance operational efficiency, and developing high value products, which will enable it to efficiently develop products according to the market demand.

In addition, in order to strengthen competitiveness digital printing business in Vietnam, on July 30, 2019 has established first subsidiary, named “HarnVietnam Co., Ltd” with a registered capital of 800 million Vietnamese dong, which is about Baht 1.05 million, HARN holds 100% of the shares of first subsidiary, Later on June 24, 2020 has established second subsidiary, named “Aiyaraham Co., Ltd.” with a registered capital of Baht 2 million, HARN holds 65% of the shares of second subsidiary in the registered capital to conduct business services Internet of Things (IoT).

Also, HARN has been awarded ISO 9001:2000 since 2006 and migrated ISO 9001:2008 since 2009, presently migrated certified ISO 9001:2015 in 2017 by UKAS (United Kingdom Accreditation Service) UK-based world-class certification body with quality inspection and verification conducted by SGS (Thailand) Company Limited.

HARN consists of five core business groups:

1. Safety & Comfortable Business, distributing products in fire suppression system, air-conditioning system, sanitary system, including the provision of consulting, designing and firefighting system installation service in projects.
2. Refrigeration Business, distributing products in refrigeration system.
3. Digital Printing Business, distributing products in digital printing system and 3D medical.
4. Internet of Things (IoT) Business (“Second subsidiary”), development services for IoT products and solutions.

1.2 Company Information



Company Name : Harn Engineering Solutions
Public Company Limited



Abbreviation: HARN



Stock Exchange : mai



Registered Number : 0107557000217



Website : www.harn.co.th



Industry Sector : Industrial

Establishment	May 22, 2014
First Trade Date	November 13, 2014
Authorized Capital	292,250,000 Baht
Fully Paid-Up Common Shares	584,500,000 Share
Voting Right Ratio	1 : 1
Par Value	0.50 Baht
Paid-up Capital	292,250,000 Baht
Type of Business	Import and distribution of products fire suppression system, air-conditioning system, sanitary system, refrigeration system and digital printing system, 3D printing for medical applications system and provide development IOT Products and Solutions, including the provision of consulting, designing services in projects and provision of engineering solutions complete.
Head Office	559 Soi Soonvijai 4, Rama 9 Road, Bangkapi, Huaykwang, Bangkok 10310 Phone (02) 318-9744 Fax (02) 318-9744 ext. 4000
Subsidiary	The 1 st Harn Vietnam Co., Ltd. 68 Nguyen Hue, Ben Nghe Ward, District 1, Ho Chi Minh City, Vietnam. The 2 nd Aiyara Harn Co., Ltd. 559 Soi Soonvijai 4, Rama 9 Road, Bangkapi, Huaykwang, Bangkok 10310
Warehouse	The main warehouse, 888/14-16 Moo.21, Bang Phli Yai, Bang Phli, Samut Prakan 10540, Phone (02) 105-3295 The 2 nd warehouse, 509 Soi Soonvijai 4, Bangkapi, Huaykwang, Bangkok 10310, Phone (02) 318-9744 The 3 rd warehouse, 38/43, Moo 4, Lam Luk Ka Road, Lam Luk Ka, Lam Luk Ka, Pathum Thani 12150
Company Secretary	Miss Wasukan Boonmee, Tel: +66 (0) 2318-9744 ext. 4011 Email: wasukan.b@harn.co.th
Investor Relations	Mr. Wirat Sukchai, Tel: +66 (0) 2318-9744 ext. 5001 Email: wirat.s@harn.co.th
The person taking the highest responsibility in finance and accounting	Mr. Wisit Wachiralappaitoon, Tel: +66 (0) 2318-9744 ext. 4004 Email: wisit.w@harn.co.th
The person supervising accounting	Miss Ananya Proyngoen, Tel: +66 (0) 2318-9744 ext. 4090 Email: ananya.p@harn.co.th

2. Nature of Business

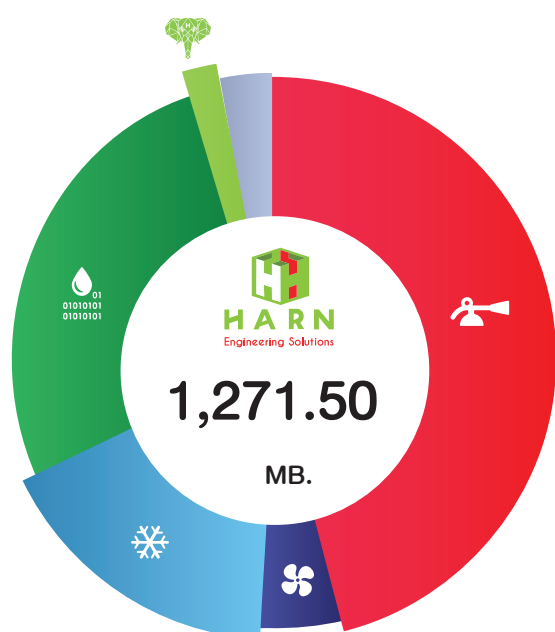
2.1 Revenue Structure

The revenue structure consists HARN's products of 5 groups as following:






Type	Share holding	2024		2023		2022	
		MB.	%	MB	%	MB	%
Revenues from sales and services							
• Fire suppression products and firefighting system installation services	100%	595.99	46.87	643.83	48.55	599.74	45.06
• Air-conditioning and sanitary products	100%	64.69	5.09	59.88	4.52	55.70	4.49
• Refrigeration products	100%	219.14	17.23	247.32	18.65	230.34	18.54
• Digital printing products and 3D Medical	100%	357.86	28.15	346.55	26.13	366.65	29.51
• Internet of Think products (Aiyaraharn)	65%	2.15	0.17	2.04	0.15	7.35	0.59
• Eliminate inter-business unit transactions		(0.79)	(0.06)	-	-	(0.12)	(0.01)
Total revenues from sales and services		1,239.05	97.45	1,299.62	98.00	1,219.66	98.18
Other income ^{1/}		32.46	2.55	26.61	2.00	22.63	1.82
Total revenues		1,271.50	100.00	1,362.23	100.00	1,242.29	100.00

Notes: Referring to Harn Engineering Solutions Pcl.'s audited consolidated financial statement

1/ Other income included gains/losses on investment in mutual funds and marketable securities, interest income, dividend income, and gains/losses on exchange rate, Including rental and service income from investment properties etc.



Revenue Structure Year 2024

	Fire Protection & Safety 595.99 MB. 46.87%
	Air-Conditioning & Sanitary 64.69 MB. 5.09%
	Refrigeration 219.14 MB. 17.23%
	Digital Printing and 3D Medical 357.86 MB. 28.15%
	Internet of Think 2.15 MB. 0.17%
	Other income 32.46 MB. 2.55%

2.2.2 Description of Products and Services

HARN consists products and service of 5 main groups as fire suppression products and firefighting system installation service in projects, air-conditioning and sanitary products, refrigeration products, digital printing products and 3D medical, and Internet of Things products (IoT).

2.2.1 Fire Suppression Products and Firefighting System Installation Service



Fire suppression products are part of engineering systems of buildings, small and large factories, power plants, and petrochemical industrial plants, used for prevention, alarming and control of fire and smoke. The products distributed by HARN include valves and fittings that are erected in the fire protection system. Valve is a device used for starting or stopping the flow of water in the fire protection system and is fixed with a pipeline in such system. There is valve for controlling the flow of water, valve for starting or stopping the flow of water during repair and maintenance of the system, valve for preventing reversal of water, and so on. Equipment for fire protection system serves as a component or an auxiliary device applied jointly with the main equipment to allow for complete functioning of the fire protection system, including other firefighting devices such as Fire protection valve, such as Grooved coupling and fitting, Fire hose cabinet including internal equipment, Fire hose, fire extinguisher and sprinkler systems (fire sprinkler head), Flexible sprinkler and fire pump.

Firefighting system installation services; HARN also provides consulting, designing and installation services for all types of firefighting systems such as Foam fire protection system, FM-200, NOVEC 1230, CO₂, Inert Gas and Fire Alarm System in both buildings and factories as well as the petrochemical industry and power plants, in which the demand for fire extinguishing system is likely to increase in order to comply with building and factory control

laws that requires a renovation on these facilities to be equipped with a standard fire protection system. It has a skillful engineering team to coordinate with customers, introduce HARN's products, and design and offer products and services to customers according to the international fire protection standards, as well as post-installation system test-run service, including fire extinguishing system inspection service in which the installation of fire extinguishing systems, fire valves and equipment will be used together with the equipment involved in various fire extinguishing systems, including foam fire extinguishing system, gas automatic fire extinguishing system, fire alarm system and video fire detection system (VFDS)

1) Fire suppression system products

1. Fire Protection Valve

It is installed in the fire protection system. The valve is UL/FM certified for fire protection system and can withstand a working pressure of not less than 175 psi (pound per square inch). Different types of valves are as follows:



OS&Y Gate Valve



Butterfly Valve



Check Valve



Ball Valve



Globe Valve

2. Grooved Coupling and Fitting

It is used for connecting pipes in the fire extinguishing system. It replaces the conventional pipe welding with an electric welding machine and a wire to connect the pipes. Some Grooved Couplings can also support expansion and contraction or the movement of pipes and buildings. It can especially connect the pipes up to 10 times faster than conventional pipe welding.



Coupling



Fitting

3. Sprinkler

It is used with the automatic fire suppression system to protect property and life, which is likely caused by fire. It also possesses an automatic fire extinguishing feature without control. It can immediately control while the fire is still small, so it stops expansion with less smoke and in a limited area. Moreover, the automatic fire suppression system gives people in the building more time to evacuate the fire.



4. Flexible Sprinkler

It is installed for fire sprinklers, which should be up to 10 times faster than welded installation. It can also be promptly moved, modified or leveled up and down to suit the ceiling level. So, working time is reduced and problems are eliminated.



5. Fire Hose Cabinet and Equipment

Fire Hose Cabinet, it is a red cabinet for fire extinguishers, with glass in front that can be opened or broken to bring assistive devices out in case of an emergency.



Hose Valve,

it is a valve to supply water from the fire hose system to the outside.



Hose Station, it possesses fire extinguishing properties by having the coolness to extract heat from the fuel materials until reaching the point where it can not be ignited.



Fire Hose Rack



Fire Hose Reel

It is used to extinguish fuels that contain carbon compounds, such as wood, paper, cloth, garbage, etc. HARN owns the brand “Spark” for fire hose kits

Fire Department Connection, it is a device for receiving water from outside the building or the fire truck to supply into the building’s fire suppression system.



Portable Fire Extinguisher, it is a fire extinguisher installed inside or outside the building, along with other fire extinguishing systems. It can be used for primary extinguishing while the fire is starting. There are 6 main types (according to substance types contained in the fire extinguisher). HARN owns the “Guardian” brand of fire extinguishers.

1) **Multi-Purpose Dry Chemical,** it is filled in a red tank with various types of pressurized chemical powder. It can extinguish fires: Class A, B, C, or perhaps Class D if containing special chemical powder. It is cheap and easy to buy for general areas, such as offices and homes.



2) **Carbon Dioxide (CO2),** it is filled in red tanks. The end of the hose is shaped like a cone. The injected gas is a very cold vapor like dry ice to reduce the heat of a fire, without leaving any stains. It can extinguish fires: Class B and C, suitable for machine rooms, production lines of various industries, electrical equipment room, etc.



3) **Water,** it is filled in a stainless-steel tank. It can extinguish fire: Class A, suitable for outdoor without conductive media.



4) **Foam,** it is filled in stainless steel tank. When injected, it forms a foam covering the burning fuel surface. Therefore, it can extinguish Class A and B fires, but not Class C because it is conductive. It is suitable for fire extinguishing in the industrial sector or thinner fuel, and flammable, volatile substances.



5) **Wet Chemical-Kitchen,** it is filled in a stainless-steel tank for extinguishing fire: Class K. It is suitable for kitchens to extinguish fire caused by frying oil.



6) **Halotron-1,** it is filled in a red or green tank with clean substances or halotron-1 inside. When injected, it can evaporate by itself without leaving any stains. It can extinguish fire: Class A, B, C, suitable for computer rooms, clean rooms, electrical rooms, and electronic equipment storage rooms.



6. Switch

Flow Switch,

it is a device in the wet pipe fire suppression system. A signal is sent to the control panel of the fire alarm system when the device detects a flow in the pipe caused by the working of a fire sprinkler or fire hose.



Pressure Switch

it detects pressure in the fire water pipe system. When the pressure changes, it sends a signal to the control room



Alarm Gong

it is a sound alarm notification in case of fire. The sound alarm is featured by using water flow as a mechanical drive.



7. Fire Pump

2) Firefighting System Installation Services

HARN provides consulting services for design and installation of various fire suppression systems, such as Foam Fire Protection System, Fire Pump System, Fire Water Pipe System, Gas Automatic Fire Suppression Systems (FM-200, NOVEC 1230, CO2, Inert Gas), and Fire Alarm System for projects in both buildings and factories, as well as petrochemical industry and power plants, which tend to require more installation of fire suppression systems in compliance with building and factory control laws and the need of renovation towards a standardized fire protection system. HARN has a team of expert engineers to coordinate with customers, recommend products, including designing and presenting products and services according to the international firefighting standards, along with the testing after fire suppression system installation and the system inspection such as using of valves, fittings, and other related devices in the fire suppression systems (Products in item 1). The details of projects for fire suppression systems are as follows:

1. Foam Fire Protection System

It is a system that mixes water and foam concentrate to extinguish the fire, using the principle of foaming or creating foam on flammable liquids to block oxygen from the fuel. The foam fire protection has important equipment as follows:

Bladder Tank it is used to fill foam fire extinguishers which can extinguish the fire caused by oil.



Foam Concentrate

- 1) Aqueous Film Forming Foam**, it is a foam solution used for extinguishing fires caused by Hydrocarbon fuels such as crude oil, gasoline, diesel, etc., which are not suitable for extinguishing fires caused by Polar Solvent fuels (a fuel that can combine with water such as thinner, alcohol).
- 2) Alcohol Resistant Aqueous Film Forming Foam**, it is a foaming solution for extinguishing fires caused by hydrocarbon fuels and polar solvents.



Foam and water mixer and foam injection equipment



Foam inductor



Foam Branch Pipe

2. Gas automatic fire suppression system

It is a fire extinguishing system in which the extinguishing agent is not conductive, with no leaving of stains, and not causing damages to equipment after the injection of a fire extinguishing agent. It is suitable for extinguishing fires: Class A, B, C, especially the electrical/electronic equipment rooms, including:

Automatic fire suppression system

- 1) Carbon dioxide (CO2)**



- 2) Inert Gas** such as Nitrogen (N2), Argon (Ar), Inergen (N2+Ar+CO2), Argonite N2+Ar)



Automatic fire suppression system FM-200



Automatic fire suppression system NOVEC 1230

3) **Fire Alarm System** it is an alarm system in case of a fire for evacuation and firefighting to reduce the loss of life and property. Main equipment in the system consists of Control Panel, Detectors, sound or light alarm, Manual switch



4) **Video Fire Detection System - VFDS**, it applies the principle of image analysis, whether smoke or a flame, in the detection area. This device is connected to the building's control cabinet. If there is smoke or a flame, the device sends a signal to the control cabinet for a notification. Main equipment in the system consists of a Camera, VFDS Sever, Device Alarm box, Monitor.



For the operations of various projects, HARN has insurances with insurance companies to protect against damages that may arise from the installation of the system. It considers the nature of work in each job from time to time, such as insurance against damages to the employer's goods/property in case of installing a fire suppression system in the used areas, such as a warehouse where goods are stored, etc. Also, HARN has added protection for bodily injury to employees or agents of the employer. HARN provides regular service by checking the equipment when it expires. If the products or devices are under warranty or in the service contract. In case the products of customers have problems, HARN will coordinate with distributors abroad and consider the causes of damage together to negotiate on product insurance claims according to the product warranty agreement, under the product warranty period of approximately 1-2 years from the date that the products leave the port of the distributing country

2.2.2 Air-Conditioning and Sanitary Products



Air-conditioning products are devices incorporated to main water-based air-conditioning system of large buildings, used for controlling temperature and air quality at an appropriate level. Meanwhile, sanitary products in the building engineering system include water supply system, water drainage system, ventilation system, etc. HARN distributes products that are

devices in air-conditioning and sanitary systems, such as valves which open and close to control and stabilize the flow of cold water to ensure efficient functioning of the air-conditioning system and the sanitary system and are fixed with a pipeline in such system. In the sanitary and air-conditioning system, there are also other major components or auxiliary devices such as Stop valve, Pressure gauge, Thermometer (device to measure the temperature and water pressure in the system), Flow Switch, Aluminum Filter, Grooved Coupling and Fitting, Pump Room Solutions, Copper pipe and Copper fitting And Refrigerant, In addition to importing and distributing well-known international brands, HARN also owns the "Valtec" brand for valves and sanitary and air conditioning products and is the owner of "Koppar" brand for copper pipe products.

1. Water shut-off valve

It is used to control the flow of water, whether off-on or water flow adjustment, as follows:

Gate Valve, with a lot of weight and space required for installation. It is suitable for use in the water pumping room and fire pump room, outside the building or general area. It is not suitable for water flow control.



Butterfly Valve, it is for on-off water, with lightweight, less space for installation in the buildings or general area. It is not suitable for water flow control.



Ball Valve, is used for turn on-off the water. It is suitable for small pipes and can turn on-off immediately. There is less leakage because of more valve closed contact.



Globe Valve, It is for controlling the water flow rate to cause the dropping of water pressure between the front and the back of the valve.



Balancing Valve, it is for balancing water in the air conditioning system to adjust the flow rate to the desired value. According to the designed state, the amount of water is adjusted to flow into the cool air of the air conditioning system.



Automatic Pressure Independent Control Valve (PICV), it controls the on-off of cool water and the amount of water flow being sent to the cool air in the air conditioning system to send the coolness as specified.



2. Pressure Gauge

It is to display pressure values with its units as pound-force per square inch (PSI) and kilograms per square centimeter (kg/cm²)

Liquid Filled Gauge, it is suitable for installation in vibration areas to reduce the impact of pressure and make the life-longer use.

Non-Filled Gauge, it is suitable for general installation.



3. Thermometer

It is used to measure temperature or heat level, which can be divided into main types as follows:

Liquid-in-Glass Thermometer, it is for general temperature measurement, with the property of expanding liquid when heated and contraction when unheated. It is expressed in Fahrenheit (F) and Celsius (C) degrees.



BiMetal Thermometer, here are expansion properties of 2 types of metals. When heated, both types of metals expand unequally. The temperature generally ranges from -75 C to 550 C range



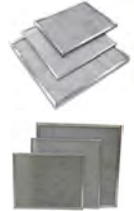
4. Flow Switch

It is used to detect the flow of water, with protective properties of water pump damages due to non-flowing water. It is installed in the same direction as the flowing of water in the pipe.



5. Aluminum Filter

It is washable and can filter dust and dirt in the air and make cleaner ventilation. It also prevents dust and dirt from clogging in the air conditioner, with a water-washable feature.



6. Copper pipes and copper fittings

It is suitable for all types of refrigeration and air-conditioning applications. The copper pipes that HARN distributes come in many types and sizes, including straight pipes (sizes K, L, M), pancake coil, as well as various types of copper fittings. HARN owns the “Koppar” brand for copper pipe products.



COPPER TUBE and PANCAKE

COPPER FITTING

BRAZING ROD

7. Refrigerant

acts as a medium for transferring heat out of the passenger compartment by absorbing heat into itself under low temperature and pressure, then transfers heat away from itself at high temperature and pressure. HARN owns the “Yuki” brand for refrigerant products.



8. Refrigeration system: Variable Refrigerant Flow (VRF)

It is an air conditioning system that can change the amount of refrigerant according to the load of cooling and the number of internal units installed. It is also a commercial air-conditioning system suitable for a limited area of installation with hot coil (outdoor unit) because 1 coil can install multiple evaporators (indoor unit). The evaporators can be separated independently, thus controlling the temperature accurately with the view of an orderly-look building.



2.2.3 Refrigeration Products



Refrigeration products are equipment used in cold storage system or goods transport system for freezing or lowering the temperature of products that require a stable temperature control. In general, a cooling system can lower the temperature to between -30°C and $+25^{\circ}\text{C}$., HARN offers a complete range of refrigeration products, consisting of Compressor, Condenser, Evaporator, Customized evaporator, Inverter, Defrost on Demand (DOD) equipment, Inverter for Compressor and valve in the refrigeration system, had available in many types, as Check-Valve, Ball-Valve, Shut off valve, Solenoid valve and Expansion-valve which is an important device used for starting or stopping the liquid flow and the cooling pressure.

HARN has also designed and produced Condensing units, both single and rack forms, by using a piston and screw-type compressor, including design and production of small cooler set for drinks vending machines by integrating all equipment and cooling concepts into one product unit that can be used for prompt installation of a cold storage system or goods transport system. It also distributes small ready-made condensing kits of “Danfos” brand for small cold rooms or convenience stores.

1. Compressor

Is used for compressing refrigerants in the vaporized state by creating pressure through the reagent copper pipes to the evaporator, hot coil, and expansion valve. The compressor is one of the components in Condensing Unit.



2. Condenser

It is a high-pressure refrigerant condensing device that changes the liquid state from vapor to liquid and takes the heat out of the liquid by Air Cooled Condenser seen from outside of the evaporator and Watercooled-Condenser, using water to cool the liquid and Evaporative Condenser.



3. Evaporator

It is a low-pressure refrigerant evaporation device that changes the liquid state from liquid to vapor by bringing the cooling in the evaporator into the room to cool the room temperature with a fan, seen as the installed hanging on the ceiling in the room.



4. Customized Evaporator

It is an evaporator that can be manufactured and designed to match the application very well and support a wide range of applications from the general refrigeration industry to the specific refrigeration industry that requires durable equipment of the highest safety, such as the industry related to chemicals and flammable materials, with a variety of protection, whether it is chemical corrosion resistant, exploding protection (ATEX-Execution), germ protection, etc.



5. Refrigeration control valves include:

HARN owns the “Blue Ice” brand for its refrigeration equipment products, including refrigeration valves, cooling devices, desiccant devices, pressure gauges, etc.

Expansion Valve, it is used to reduce the pressure of the refrigerant in the evaporator to control the evaporation temperature in evaporator valves designed for specific applications for temperature work, Air Condition, Cold Room and Freezer Room.



Electronic Expansion Valve, it is for reducing the pressure of refrigerant in the evaporator, controlled by an electric signal of high accuracy to increase cooling capacity and provide ease of use, with added value for the cooling system that is able to work in all temperature ranges.



Solenoid Valve, it is designed for specific applications in refrigeration plants with all voltages and frequency ranges. Valves are also be designed according to customer requirements.



Shut-off Valve, it is a manual on-off valve designed for installation in the refrigerant pipes on the liquid, suction, and hot gas sides of the refrigeration system. Valves can be connected to copper pipes by welding or screwing.



Ball Valve, it is a manual on-off valve that can be operated in both directions as required. Ball valves are designed for installation in pipes with high gasket density, making less loss of pressure. It has the maximum refrigerant flow when fully opened. Ball Valve is also designed for operations over wide temperature ranges and approved for use with any fluorinated refrigerants. Standard ball valves may be used in high pressure refrigerant applications, including R410A and CO2 work with pressures up to 90 bar (1300 psig).



6. Condensing units

HARN designs and manufactures condensing units according to European standards for long-lasting durability, ease of service, and easy installation, which can be chosen in a variety of temperatures, Ideally for freezer rooms, cold storage rooms, hypermarkets, supermarkets, convenience stores, refrigeration industry, air conditioning system, or areas for economical and efficient room temperatures, available from -30°C to +25°C and with cooling capacities from 4 to 112 kW or 2 to 50 hp, while moving towards data systems with Industrial Internet of Thing (IIOT) as follow:

Multi Compressor Rack (Screw and Piston Compressor)

it is a combination of several compressors in the same set to reduce energy costs, save installation expenses and time, lower maintenance costs, and increase longer life of use, and have the greater cooling capacity with a wide range of temperatures. It is suitable for industrial and commercial businesses, such as department stores, distribution centers, etc

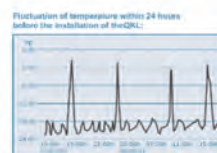


Control equipment unit, it is for protection and energy saving, reduce electricity costs, as well as remind and prevent problems in the cooling system, lower maintenance costs, and create added value.



7. Defrost on Demand (DOD)

It is suitable for all kinds of cold rooms to store products. The microprocessor in the DOD helps to control the temperature with power management and humidity level in the air, including the defrosting frequency in accordance with the actual working conditions without any adjustments with difficulties just as other brands of control devices, making it easy to implement with a precise intelligent defrosting control system, as well as the use of the remaining energy in defrosting (Latent Energy) for usefulness. This results in savings of 15 - 25% in energy costs.



8. INVERTER

It helps to control the speed of the compressor to work continuously according to actual cooling load conditions with continuous work control to improve cooling efficiency and help reduce temperature changes in the cooling areas, as well as make the temperature at the cooling point accurate

As a result, the set temperature is consistent to make the goods stored in good quality and maintain freshness for a long time, while saving up to 40% and extending the life-long use of the compressor. While working, the compressor does not suffer any tractions.



9. Danfoss Condensing units

It is a small prefabricated condensing unit, with a cooling capacity from 0.7 to 11 kW in the temperature range of +15 to -15 °C and 0.6 to 6 kW in the temperature range of -10 to -40 °C. It is suitable for small cold rooms, prefabricated cold rooms, and freezer rooms in restaurants with limited space. It is designed with maximum cooling efficiency, compact shape, low noise, lightweight, and is easy for installation and maintenance

- Reduce the amount of refrigerant filling up to 35%
- Able to be installed both indoors and outdoors
- Use several refrigerants in one model



- Work at outdoor temperature up to 48 degrees Celsius
- Reduce time for service and maintenance
- Corrosion resistant of Micro channel coil and panel

10. Small refrigeration kit for beverage vending machines

It is compact and can be used with a small refrigerator or automatic beverage vending machine. It is designed to provide maximum cooling efficiency, with durability to cover all functions and energy saving as important in the design.



11. Telechill Smart Solutions (S2)

HARN aims to maximize customer benefits by ensuring safety and environmental friendliness in refrigeration systems. To achieve this, HARN has innovated, researched, and developed IoT-based Energy Saving Solutions under the name Telechill Smart Solutions (S2). This system enables real-time, remote monitoring of refrigeration system performance anytime, anywhere. More importantly, it significantly reduces energy consumption, lowers operational costs for cold storage businesses, and minimizes environmental impact, aligning with the global goal of achieving net-zero CO2 emissions.



2.2.4 Digital Printing Products and 3D Medical



HARN distributes Digital Printing Products and 3D Medical System such as CIJ - Continuous InkJet Printer, TTO - Thermal Transfer Over-printer, Laser Printer, TIJ - Thermal Inkjet Printer, Print and Apply Labeler, PIJ - Piezo Inkjet Printer, Labeler, including printer equipment and various types of consumables including 3D Printer etc. as follows:

Digital printing product group for printing of manufacture/ expiry dates and lot number

Consists of machine for printer texts on packages, feeder, printing equipment, various types of supplies, etc. HARN's products are coding printers for printer manufacture/expiry dates and texts such as lot numbers as well as graphics, GS1 Barcode, GS1 2D Datamatrix, GS1 QR code, prize drawing code numbers on such surfaces as plastic bottle packaging, glass bottle, metal/aluminum can, paper box, glossy paper, plastic

envelope, aluminum foil, plastic cup and others. It employs technologies such as inkless laser coding, non-contact inkjet printing, printing with ink ribbon, printing with ink cartridge, etc.

Digital printing product group for 3D printing

Distributes and provides digital file printing service and packaging. For the Thailand 4.0 medical industry, i.e., conversion of MRI/CT scan file into 3D file to have higher quality images that enable users to have comprehensive views of normal and abnormal spots and printing of organ model from MRI/CT scan which can well support education, diagnose, preoperative planning, included medical research and development with digital technology.

After-sales services

For all product groups distributed to end-users encompass advice and consultancy for selection of product specifications that meet requirements, installation of the machines, training, and repair and maintenance, as well as insurance, etc.

1. Inkjet (CIJ – Continuous Inkjet)

It is used to print the manufacture date, expiration date, and lot number. It can also be applied to almost all surfaces such as plastic, metal, glass, mirror, aluminum, film, paper, wood, and synthetic wood, including smooth, rough, or curved surfaces, making it a highly popular and multipurpose printing technology. It is suitable for automated production lines, semi-automatic or installed with other machines particularly, the printer has a system to prevent clogged nozzles, which can be adaptable to all formats with many ink colors to choose, various properties, low printing costs, energy saving, and environmentally friendly.



2. Laser Printer

It is used to print the date of manufacture. Expiration date, and lot number, etc. on plastic, glass, paper, and sticker products. It is a laser light system using heat to react with printing surfaces as numbers / letters without using ink. It can work automatically by entering the numbers or letters on the control screen and updated according to the real date and time. It has the advantage of saving costs, high speed, production efficiency, less burden of care and maintenance.



3. TTO (Thermal Transfer Over-printer)

It is used to print the date of manufacture, expiration date, lot number, logo, GS1 Barcode, GS1 2D Datamatrix, and GS1 QR Code, etc., onto film, plastic, paper of smooth surface. TTO uses the heat of the print head to melt ink for printing numbers, letters on the area with detailed text accurately and clearly. It can also specify the text to be printed on the control screen and update it according to the real-time and date. Moreover, it can be installed for all types of sachets packing machines. Particularly, it is a clean technology, no volatile matters, and high quality, sharp, easy to read, and beautiful. It is suitable for large volumes of data with cost-effectiveness and high speed.



4. TIJ (Thermal Inkjet Printer)

Used for printing production date, expiration date and batch number, logo, GS1 Barcode, GS1 2D datamatrix, and GS1 QR code on film, plastic, and paper. In areas with smooth surfaces, TIJ is equipped with intelligent ink cartridges, taking the printer’s usage standards to a new level. Ink includes both water-based and alcohol-based inks, which have undergone surface and adhesive performance tests. Inks have special properties. Long indentation time, uniform printing intensity, good printing quality, and clarity. The printer supports data transmission through computer systems and supports UDI (Unique Device Identification) printing.



5. Automatic Labeler

This is a high-performance, precision sticker labeling machine capable of operating at speeds ranging from 1 to 40 meters per minute, with automatic speed adjustment. It supports sticker sizes with widths of 18-125 mm and lengths of 15-200 mm. The machine features a memory function for different product sticker sizes, significantly reducing setup time. It offers three labeling methods: Roller Type, Air Jet Type, and Air Blow Type, allowing stickers to be applied to various container shapes, including cylindrical, rectangular, conical, as well as foil bags, films, and boxes. The machine can be installed in multiple orientations, including side, top, or bottom application, to accommodate diverse production needs.



6. 3D Printer

It is a printer for creating models or forming parts according to the customer's specific designs by printing the workpieces with high-efficiency and high-quality resin to create a model. The workpiece surface is smooth and sharp at every point. Ideal for the Medical Industry 4.0, where digital technology, 3D printing, scanning, and 2D-to-3D file conversion software play a crucial role in creating, developing personalized medical devices. This technology enables the printing of organ

models from MRI/CT scan files, as well as cutting guides, drill guides, and molds for shaping PMMA materials into cranial implants, among other applications. Additionally, it supports high-quality 3D PDF visualization for enhanced data presentation to support education, diagnosis, preoperative planning, and digital medical research and development.



7. Packaging printers and other packaging equipment

It letters stencils for printing on the sides of large packages which are not suitable for the conveying belts, Hot Foil Printer, roller type printer, high speed labeling machine, Print & Apply Labeler, and a set of date stamps, etc.

8. Printing equipment and various types of consumables

It printing ink, ink mixture, ink remover, ink ribbon, resin solution, filter kit, equipment spare parts for manual printer, roller and foil sets to print production date, etc.

2.2.5 Internet of Things Products (IoT)



Ayaraham Co., Ltd. (“subsidiary”) operates a business Internet of things systems and Building Management Systems (BMS), had offers product distribution, consulting services, and design & installation solutions across 4 main categories:

1. Building Facility Management IoT

This is the first product/service introduced by Ayaraham, designed for online utility monitoring. It enables building technicians and project managers to track building system operations and access historical data, which is crucial for maintenance planning and optimizing energy usage. Additionally, it helps reduce the need for on-site visits by building managers overseeing multiple properties, ultimately enhancing operational cost efficiency in facility management. Since 2020, Ayaraham has completed installations in 8 locations, with 1 additional project currently in progress, covering both Bangkok and other provinces. The primary target customers for this product are condominiums and factories.



2. Building Management System (BMS)

This product/service is an enhancement of the Building Facility Management IoT, specifically for Building Automation Systems (BAS) and Building Management Systems (BMS). It not only provides operational data but also enables smart building control, optimizing utility usage and energy efficiency. Since 2020, HARN has completed 4 BMS installations, with 3 additional projects currently in progress in both Bangkok and other provinces. The primary target customers for this product are office buildings and factories.



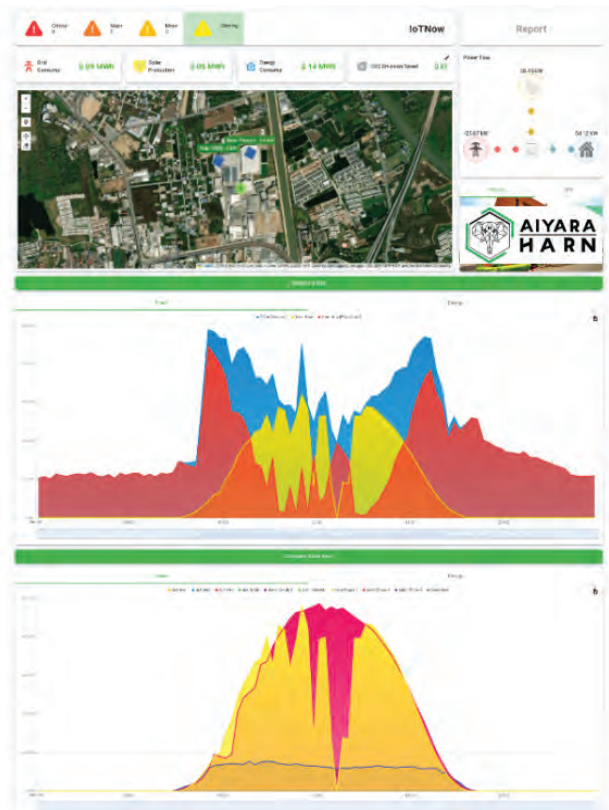
3. Cold Storage IoT

This product/service is a collaboration between Aiyaraham and HARN's Refrigeration Systems Business, designed for monitoring refrigeration system operations and cold storage room temperatures. It is compatible with multiple brands and models of refrigeration control devices, offering easy installation, 24/7 operation, and real-time data tracking. Additionally, it provides instant alerts for system abnormalities, supports multi-branch monitoring, and generates summary reports for performance analysis, energy usage, and system health assessment. Aiyaraham is responsible for the development, production, and service under the IoTNow! brand, while HARN's Refrigeration Systems Business handles marketing and distribution under the product name Telechill S2 Smart Solution. Sales and services began in January 2024, with a total of 53 units ordered by end users within the same year. The target customers for this product are small cold storage facility owners, typically managing 3-5 rooms per branch and requiring monitoring for up to 10 refrigeration devices.



4. Energy Management IoT

This product/service shares infrastructure with the Cold Storage IoT under the IoTNow! name. It is used for monitoring energy management systems, particularly those related to solar rooftop electricity generation. The product and service can display the amount of energy produced by the solar panels, the energy consumption required by the building, the energy purchased from the electricity supplier, the energy sold back to the electricity supplier, and generate summary reports showing energy efficiency and consumption patterns during different periods. This allows users to leverage the data for management purposes, helping to reduce costs and increase energy efficiency in their businesses. This product started sales and services in 2024, with a total of 2 projects ordered by end users in 2024.



2.3 Marketing and Competition

2.3.1 Marketing Policy

HARN has engaged in import and distribution of Fire Suppression products, Air-conditioning products, Sanitary products, Refrigeration products, Digital Printing products, 3D Medical products, and providing IoT products and solutions system development, as well as firefighting system installation HARN has engaged in import and distribution of Fire Suppression products, Air-conditioning products, Sanitary products, Refrigeration products, Digital Printing products, 3D Medical products, and providing IoT products and solutions system development, as well as firefighting system installation service in projects.

More 50% of its total sales revenues as most of its products, which are relevant to building engineering such as fire protection, air-conditioning, sanitary and refrigeration systems, are supplied mainly to contractor's groups of building construction projects,

2.3.2 Marketing of Key Products and Services

1) Pricing Policy

HARN policy on pricing is Cost Plus Pricing whereby the determination of HARN products selling price must be flexible and suitable to the characteristics of each product, distribution channel, target customers, volume and value of the orders as well as taking in consideration the market price of that product, which in some instance, a discount may be given in accordance with the market conditions and the competition in that moment in order to remain competitive in the market. At the same time, the gross profit margin must be maintained at a level that can support the cost of sales, administration and other operations.

Regarding pricing for project works, HARN mainly determines the service charges in accordance with the customer's budget and the cost of each project where there shall be flexibility in the quotations given in order to compete with other competitors in the market, while at the same time, importance must be given to the quality of service as well as the products and equipment used in the task, in order to build continuous credibility and trust from the customers. Moreover, in offering quotations, HARN must achieve adequate level of gross profit margin to support the cost of sales, administration and other operations.

2) Target Customers Groups and Distribution Channels

HARN main target customers are customers in building construction projects, government and factor industrial such as office buildings, condominiums, hospitals, shopping malls, electric trains, industrial plants, cold storages and warehouses, including international contractors from Korea, Japan, China, USA and Europe for large petrochemical and power plants, as examples, that require an installation of building engineering system such as firefighting system for safety in accordance with building control laws, sanitary and air-conditioning system in buildings or factories, cooling system in cold storage.

government and factory, including office buildings, condominiums, hospitals, shopping malls, electric trains, industrial plants, cold storages, and so on. As such, HARN's business operation relates directly to the construction industry which grows in tandem with the country's economy, or gross domestic product (GDP), but is prone to more volatility. That is, when the economy begins to recover, construction of various properties will expand at a greater and more rapid pace, but in the wake of economic slowdown it will decelerate faster and in line with the permitted areas of construction in each year. Nevertheless, HARN has the ability to distribute business risks, which is demonstrated by the Refrigeration business unit and Digital Printing business unit being correlated to the food and packaging industry, which is different from the Safety and comfortable business unit.

HARN clients may be direct clients who hold the ownership of the construction project, or project contractors who purchase HARN products to install in their projects, as well as stores or distributors of products related to the various systems who purchase HARN products to resell to project contractors or direct users, in which HARN has always have a good relationship the mentioned group of clientele. Moreover, there are groups of clients who regularly order HARN products because of their confidence in the quality and the safety of the products, in which most of them have received international standards certification, combining with excellence service by the sales team who possess great knowledge about the various products. However, in 2023 and 2024, HARN does not have any clients who's revenue exceeds 10% of total revenue from sales and services.



HARN, sells products in the country by HARN Sales & Marketing team have 162 employees with sales responsibilities divided by each type of product and the sales of project works, are responsible for customers' contact, and product presentation to the customers as well as continuously coordinating with the producers or business partners to recognize the current customers' demands and future demand trends including the products' detail, trends of products' quantity and price from the producers in the market for the benefit of effective planning, sales and product pricing.

Most of products HARN receives advance orders from the customers where there is a time period to prepare the purchase and delivery to the customers as per the agreement, in which most of the time the customers will inform their specific requirement including the products' standards, the source or the producers, in order for HARN to be able to offer the products as per the customers' needs along with quotation and other sales conditions. Most of the products distributed are from producers whom the customers trust and in compliance with the standards used in the works of fire protection system, air-conditioning system, sanitary system, refrigeration system and digital printing system, customers therefore continuously trust in products.

Therefore, the commodity distribution channels consist HARN's of 3 main channels as following:

1. Main contractors or system contractors are clients of construction projects, governments, industrial factories, and cold storage contractors. Contractors shall source the products or install HARN products in the various projects based on detailed information outlined by project designers. In 2023

and 2024, the product sales ratio 59.80% and 56.81% of total sales and service revenue, respectively.

2. Retail or related product suppliers are customers who enable HARN to distribute its products more widely, accounting for 8.35% and 5.97% of total sales and service revenue in 2023 and 2024, respectively. Additionally, in some cases, merchants or suppliers are partners in selling certain products. In order to install in the project according to customers' request or resell to contractors who order products from HARN, the product may be from other manufacturers that HARN is not a distributor of, or it may be a product with low market demand and no HARN inventory.

3. End users are direct customers of building owners, factories, and general users. They sell digital printing products, including products and/or services for firefighting system installation projects. HARN has prepared an engineering team, the design, installation, inspection, and maintenance services of the firefighting system, including sales to general retail users, accounted for 31.85% and 37.23% of the total sales and service revenue in 2023 and 2024, respectively.

2.3.3 Conditions of Competition

1) Safety and Comfortable Business

1.1) Marketing

In 2024, sales declined slightly compared to the previous year. The challenging construction market conditions were one of the contributing factors. The main factors included rising labor costs and the shortage of skilled workers, which impacted the competitiveness of businesses and increased operating costs. Additionally, the lengthy training process for new workers caused delays in some projects or prevented them from starting as planned. Furthermore, the overall economic slowdown in the country and rising interest rates affected investments in large real estate construction projects, which require substantial capital. These investments were impacted by market uncertainty and higher material costs, forcing contractors to face increased costs and shortages of some materials. This led to delays or increased expenses in project execution. Changes in government policies or regulations related to construction, such as quality control and material procurement or contractor management, could also create uncertainty in the operational process. Businesses need to adapt and invest more time in preparation, which could reduce demand in certain construction markets, such as office buildings or commercial real estate, due to shifting consumer behavior, affecting the growth trend of the market.

However, even though the construction market has contracted, some segments are still growing, such as infrastructure improvement projects and those related to the development of technology or new innovations, such as data centers. Therefore, being prepared to tackle challenges and looking for new opportunities will continue to be crucial for businesses in the construction market.

Air-Conditioning System and Fire Suppression Equipment

In 2024, overall sales decreased compared to 2023 due to the uncertain economic conditions, which led to a reduction in large-scale construction projects and factory developments. This caused a decline in the demand for fire-fighting equipment in line with the market situation. However, the sales team adapted by compensating for the loss in sales by increasing air conditioning system products, such as copper pipes, which resulted in a 10% increase in sales compared to 2023. This reflects the response to continued demand in the air conditioning system market, particularly in certain product categories. Additionally, the promotion of the House Brand, such as VALTEC, was highly successful, achieving a 30% increase in sales compared to 2023. This success resulted from a marketing strategy focused on increasing sales of HARN's own brand products. Building trust in the brand and customer satisfaction with products manufactured by HARN has been a key strategy for clear growth.

For 2025, the sales division for air conditioning systems and fire-fighting equipment plans to continue promoting House Brands and expanding the air conditioning product market. The team will also focus on developing new marketing strategies, especially by introducing new innovations that can better meet customer needs in the highly competitive market, aiming to further increase sales of HARN's brand.

Fire Suppression System for Industrial Projects

The overall sales performance in 2024 was successful, with a sales increase of approximately 7% compared to the previous year. This growth was driven by market expansion and positive developments in several factors, such as the commencement of key project deliveries, including the One Bangkok project and the 3 substations of the Electricity Generating Authority of Thailand (EGAT). Over 90% of products were installed and delivered, which was a major factor in driving sales growth. The primary customer group remains contractors, accounting for 70% of total sales. The highest-selling products in 2024 were fire extinguishing gases for installation in electrical rooms and data centers, under the HYGGOOD brand, which customers trust due to the high quality of the products. In terms of service sales, 2024 saw a 33% growth due to HARN being certified as a filling station with international standards by UL (Underwriters Laboratories) from the United States. This certification allows HARN to issue certificates for filling substances to customers. Additionally, the Preventive Maintenance (PM) services increased by over 30% due to more service contracts being obtained compared to the previous year.

For 2025, the sales outlook is expected to continue growing from the increased sales in 2024, with outstanding orders pending installation and delivery. There are also several ongoing bids for new projects. Furthermore, inspection service work is expected to grow from the existing customer base, with an increased number of quotations awaiting finalization, leading to a higher chance of winning contracts. Therefore, the sales division for fire protection systems in industrial projects is expected to continue growing due to the increased orders and opportunities from various bids, as well as high demand for service work from current clients. As a result, the overall sales and service performance in 2025 is expected to have a positive trend.

Fire Suppression System for Petrochemical and Power Plant Projects

In 2024, total sales increased by approximately 40% compared to 2023, reflecting a strong recovery after the COVID-19 period. Projects that had been delayed during the pandemic resumed, leading to a clear increase in project deliveries and revenue recognition. There is also a positive outlook for continued sales growth in 2025, driven by the projects received in late 2024, which are expected to be delivered within 2025. Additionally, there is potential for market expansion into factories lacking fire protection systems, particularly with the installation of water-based fire protection systems, for which several projects have been quoted, totaling more than Baht 100 million. The announcement of the successful bidders is expected in Q2 of 2025. Overall, the expansion into new markets and the delivery of pending projects will contribute to the continued growth of HARN in 2025.

1.2) Competition

Importing and distributing fire suppression products

Has medium level of competition from existing competitors. This is because the products are concerned with safety; therefore, the equipment must be of good quality with certified international standards and reliable distributors. The core competitors of HARN are companies that distribute the products from overseas in which the numbers are not extremely high due to limited recognition of the brands at the global level. Also, most of the producers have the policy of dealing with only one distributor or appoint few representatives in order to prevent inside competitions between the distributors. However, there are about 4-5 direct competitor who imports fire extinguisher products for the buildings and factories market. In some cases of the business operation, the competitors may become the trade partners in buying products from HARN as well. When considering the market share of HARN by comparing with the revenue of the 3 main competitors who holds approximately 80% of the market share, HARN owns about 25% of the market share. Our fire protection product sales presumably occupy 10% of total industrial market share of fire protection products in general.

Servicing contract projects, designing, supplying, installing and testing the fire suppression system

Has few competitors. This is because installing the firefighting system in projects requires specialize skills of design engineer. The main competitors are the group that distributes and contract the fire engineering projects. This business still has the potential to grow since the government had issued the stricter law to prevent fire including the renovation of buildings and factories in accordance with the Thailand Building Control Act B.E. 2535 (1992), resulting in higher demands for goods and services relating to the fire extinguisher system.

Importing and distributing products for sanitary and air conditioning system

In the past year, the competition remains fierce. However, due to the large market size and the large diversity of HARN products as well as product acceptance by customers, as well as there is an increase in the searches for products in the group of sanitary and air-conditioning system, therefore a continued growth is anticipated with greater distribution channels to the customers. HARN has the advantage of selling various products that are well known in the market and can reach both general customers and contractors equally.

The main competitors are companies that are the distributors of the products valve are installed air-conditioning systems with water 5 competitors, water control valve (PICV) 5 competitors, water pressure temperature devices 2 competitors, copper 5 competitors, and VRF air-conditioning 5 competitors, when comparing the all revenue of the Safety and Comfortable business unit with 22 main competitors, HARN has accounted 3% of total market value.

2) Refrigeration Business

2.1) Marketing

As for the refrigeration market in 2024, the overall competition in the cooling system business showed high competitions in terms of prices, product quality and the availability of the products for distribution. The best-selling products in the past year were condensing units and compressor, of which customers have confidence in the design and production by HARN, including HARN's accumulated experience in machine assembly that made production fast and error-free. The second-best selling products were evaporator products, which were sold to many customer groups, such as convenience stores, industrial plants, and cold storages. In today's refrigeration market, there is high competition from both domestic and international distributors, in particular, competitors from China, who manufacture low-cost prefabricated cooling systems, have been increasingly entering the Thai market for sales and installation.

However, the refrigeration system business still relies on its strengths in design, after-sales service, spare parts availability, and the integration of IoT technology, which helps differentiate it from competitors and attract business operators. The cooling system business also plans to expand the distribution of the Telechill S2 product line to customers in the retail and convenience store sectors. In Q4 2024, the company received an order for 38 monitoring systems to be installed in retail meat shops, with deliveries scheduled to commence in early 2025. The industries that drove the growth of refrigeration systems follow:

Frozen Food Industry

Thailand exports a wide range of frozen food products to markets worldwide, with key export categories including fresh, chilled, and frozen fruits and vegetables, frozen seafood, and fresh and frozen poultry. In 2024, Thai fruit exports demonstrated remarkable growth. From January to August 2024, Thailand exported approximately 1.4 million tons of fresh fruit, valued at USD 4.2 billion (around THB 150 billion). China remains the primary market, with increasing demand for Thai fresh fruit imports. Additionally, other potential markets such as South Korea, Hong Kong, and Malaysia have also shown a rise in fresh fruit imports from Thailand.

For Thailand's agricultural exports in 2024, fresh, chilled, frozen, and dried fruits accounted for the highest export value, reaching USD 6.51 billion, representing 22.58% of total agricultural export value. However, in Q2 2024, fresh, chilled, frozen, and dried fruit exports to China showed a downward trend due to intensified price competition from Vietnam, which has impacted the export prices of Thai fruit. Nevertheless, despite challenges in the Chinese market, overall Thai fruit exports in 2024 continued to show strong growth.

Krungsri Research Center anticipates that domestic demand for frozen and processed poultry factories will increase in line with the gradual economic recovery and the resurgence of the tourism sector. Meanwhile, international demand is expected to expand, driven by opportunities in the halal food market, particularly in Muslim-majority countries in the Middle East and neighboring countries such as Malaysia. Additionally, Thailand's strength lies in its well-established production processes, which are widely

recognized by international trading partners. However, certain challenges may constrain growth, including China's decision to lift anti-dumping measures on Brazilian poultry products and Europe's support for imports from Ukraine. These factors may impact Thailand's competitiveness in the global poultry market.

Retailing business

In 2025, Thailand's retail sector is expected to grow at a rate of approximately 3% to 5% compared to the previous year, with the majority of sales still driven by domestic consumers. However, retailers continue to face risks from increasing competition with imported goods and rising costs. According to Kasikorn Research Center, while government stimulus measures such as the second phase of financial support for senior citizens, the third phase of the Digital Wallet program, the Easy E-Receipt tax deduction measure, and the "You Fight, We Help" initiative along with the gradual recovery of international tourism, will support retail sales growth at 3%, reaching a market value of Baht 4.3 trillion, the growth rate is slowing. This remains lower than the average growth rate over the past three years (2021–2023), which stood at 6.1% per year.

Overall, retail sales in Thailand are primarily driven by consumer spending, with Thai consumers accounting for approximately 82% of total retail sales. However, high living costs and sluggish purchasing power recovery have led consumers to adopt more cautious spending behaviors. A survey by Kasikorn Research Center indicates that over 32% of respondents have become more strategic in their spending while their overall expenses may not change significantly, they are adjusting their behavior by reducing the quantity of goods purchased or services used, such as dining out less frequently or cutting back on luxury purchases.

Meanwhile, spending by international tourists, which makes up around 18% of total retail sales, continues to grow but at a slower pace, in line with the projected deceleration in tourist arrivals in 2025. Additionally, shifts in tourist spending habits such as a preference for street food and reduced purchases of souvenirs further impact retail sales. As a result, it is expected to take some time before the share of international tourist spending returns to its pre-COVID-19 level of approximately 25%.

The hypermarket and discount store market in 2025 is expected to continue growing, driven by key factors such as store expansion and investment. Hypermarket operators have planned investments of Baht 4-5 billion in 2025 to expand their branches and enhance store formats. The sector anticipates opening 3-5 large-scale stores and approximately 250 small-format stores to adapt to consumer preferences and evolving shopping behaviors. However, the hypermarket market still faces challenges from intense competition and shifting consumer behavior. As a result, operators must adjust their strategies, business models, and promotional campaigns to align with current market trends and consumer demands.

The supermarket sector, which primarily serves middle to high-income customers and is known for its product quality and variety, is expected to experience continued growth in Thailand in 2025.

Leading supermarket operators have planned store expansions and investments in new locations to reach a broader customer base. This includes expanding into high-purchasing-power urban areas and enhancing online distribution channels. Consumers continue to prioritize convenience in shopping, seeking high-quality and value-for-money products, further driving the sector's growth. Convenience store / Minimart in 2025, it was still able to grow by focusing on the strategy of selling ready-to-eat food products and home delivery services to attract customers who want convenience, which helped boost some sales. At the same time, we also saw that large, branded hypermarket operators have opened smaller stores in the market to compete for market share in this group. This made the competition in this market continued to be more intense.

2.2) Competition

Importing and distributing products for refrigeration system

The competitive landscape of the refrigeration system business remains under pressure from various factors, including intense price competition, the need for fast delivery, competition from numerous domestic distributors, and the influx of low-cost imported products from China. However, the refrigeration system sales segment retains certain advantages, such as the ability to maintain stock in advance and provide prompt service

3) Digital Printing Business Unit

3.1) Marketing

The main target groups of HARN's digital printing products are end-users group industrial factories. Printing on packages is one of the crucial steps in manufacturing process of industrial plants, encompassing the printing for manufacture/expiry dates or lot numbers or texts on packages before distribution. The target customers also include newly opened factories and/or production line expansion, and factories needing to replace the existing system and products that have depreciated according to their useful life. HARN currently sells digital printing products to a broad variety of industries since there is demand for such products in all industry sectors. The industries that are major end-users of its products are food and beverages, consumer products, construction, pharmaceutical and medical device, and electrical appliances and electronics, etc. Hence, the trend of digital printing products relates closely to the private sector investment index and the industrial factory construction value, which could mirror the overall situation of all industries.

3.2) Competition

Has medium level of competition. This is because the customers emphasize more on good after sales services and the readiness of after sales staffs, inventories spare parts that the customers need to use regularly. Most of the goods sold are well known

during unexpected situations to meet customer demands efficiently. Additionally, having an in-house assembly plant allows for customized design and strict quality control. In 2024, the company successfully produced and launched a significant number of condensing units and compressor racks into the market, earning high customer satisfaction for both product quality and after-sales service.

Additionally, energy-efficient innovations and IoT-integrated systems have been developed and introduced to the market to enhance brand differentiation and add value. As modern business owners increasingly prioritize digital control and data communication, the cold storage industry has adapted by integrating advanced technologies such as wireless monitoring of cold room temperatures and equipment status. These innovations play a crucial role in reducing energy consumption, lowering operational costs for cold storage businesses, and minimizing environmental impact aligning with the global trend toward net-zero carbon emissions (CO₂ Emission). However, competition in this market remains intense. Therefore, businesses must closely monitor industry trends and consumer behavior to adjust their marketing strategies in response to evolving market demands

brand with high quality had been appointed to solely be the distributor. The revenue structure can be divided into 3 categories; 1) the revenue from selling the machines; 2) The revenue from selling supplies; and 3) Revenue from spare parts, services, and servicing contracts.

The main competitors are companies that are the distributors of the products from foreign countries which there are not many since the brands that are accepted worldwide are extremely limited. Therefore, the customers in the medium and large size factories will mainly choose the brands with the international standards. The competition for Chinese made products entering the market through distributors has begun to emerge, and participate in the exhibition itself, which leads to intensified competition, and customers have more choices to choose the goods that best meet their needs. By comparing the revenue of the digital printing business with the top 10 competitors, the total sales are Baht 2,105.36 million or 75.57% of total market value, and other of 25 competitions, the total sales are Baht 680.52 million or 24.43% of total market value. Digital Printing Business has the sale decreased by 5.96% when comparing the total sale of top 10 of increases by 0.71%, and ranking among the top three with a market share of about 12.21% of the total market. (Source: Department of Business Development, sales in 2023)

2.4 Procurement of Products or Services

More than 70% of product or service orders come from multiple overseas manufacturers, which most of them are producers of leading products related to firefighting system, air-conditioning system, sanitary system, refrigeration system, digital printing and 3D Medical. HARN has a policy which focuses on selling quality products and with standards that match with the customers' requirements, procurement and selection procedure to obtain quality products, certified by various credible departments or institutions. In this regard, HARN aware importance of the safety and health of customers is one of the businesses operationally.

In ordering products to sale, HARN has an advance ordering plan in the appropriate quantity, taking into consideration the market trends, the customers' demands in each time period including the inventory quantity in order to prepare sufficient number of products for distribution, reducing the damage from opportunity loss due to lacking product in the inventory or

the inability to source the products on time and enough to satisfy the customers' demands. At the same time, the inventory quantity must be controlled to an appropriate level not allowing the products to be left in the inventory for too long until causing to expire, or damage from depreciation according to period or the over useful life.

There are over 13,000 categories of products sold by HARN under over 60 famous brands. Within this number HARN owns 7 brands, namely HARN, VALTEC, Spark, GuardiaN, BLUEICE, KOPPAR, YUKI, and 45 brands that HARN has been appointed in Thailand for 5 producer's brands including 2 US producers' brands which are Potter Electric and Weiss, 3 German producers' brands which are KUBA, ESK SCHULTZE and DOD defrost on demand, as well as producers from other countries which are DOMINO (UK), KORTHOFAH (Netherlands) and EDM (Japan) etc. The products that HARN imports and distributes are divided into product groups as follows:

Product group	Manufacturer	Brand country
1. Valves and firefighting equipment which includes piping system equipment, groove coupling, fire extinguish valve, automatic sprinkler, fire hose set, fire line, fire hose rack, portable fire extinguisher, chemicals, firefighting foam, firefighting foam equipment, automatic fire suppression system, smoke detection system, clean fire suppressant system, fire and smoke detection camera, etc.	POTTER ELECTRIC	USA.
	VICTAULIC	USA.
	MOYNE ROBERTS	Ireland
	BADGER	USA.
	GIACOMINI	Italy
	HYGOOD	United Kingdom
	5-ELEM	China
	NIBCO	USA.
	CHEMGUARD	USA.
	WAGNER	Germany
	SIEMENS	Germany
	SRI	Malaysia
	GKB	Taiwan
RELIABLE	USA.	
2. Valves and sanitary system equipment which includes gate valve, butterfly valve, check valve, air vent, strainer, pipe and piping system equipment, pipe connector, pressure and temperature measuring devices, etc.	WEISS	USA.
	VICTAULIC	USA.
	HONEYWELL	USA.
3. Balancing Valve and Valve for automatically adjusting water flow and temperature (PICV)	OVENTROP	Germany

Product group	Manufacturer	Brand country
4. Cooling equipment which includes copper pipe and copper pipe connector, compressor lubricant, cooling agent, compressor, cooling coil, automatic defrost control equipment, energy saving equipment, pressure control device etc.	Kelvion	Germany
	DOD	Germany
	ESK SCHULTZE	Germany
	BITZER	Germany
	ABB	Finland
	DANFOSS	Denmark
	O&F	China
	ZEILABEGG	Germany
	EBM PAPST	Germany
	BVA	China
	Suniso	Belgium
	9 LIFE	Taiwan
	NARA	South Korea
	3Q	Thailand
EVAPCO	USA.	
5. Digital printing system equipment for packaging which includes printer manufacture, expiry dates, machine for printer texts on packages, feeder, 3D printing, 2D to 3D converter for 3D printing, printing equipment and various types of consumables etc.	Domino	United Kingdom
	Korthofah	Netherlands
	EDM	Japan
	MSSC	USA.
	United RIB type	USA.
	ETEC	Germany
	Materialise	Belgium
	Yeacode	China

HARN selects a manufacturer in order for HARN selects a contract manufacturer to produce HARN branded products by taking into consideration the capability of the manufacturer and the capability of the factory. For each brand uses a manufacturer who has been engaged in trade for a long time, which is a production contract from time-to-time, no long-term contract is made. In the past, the distribution ratio of products under HARN own brand is considered small in comparison to the imported products from foreign countries. The sales ratio in 2023 and 2024 is calculated at 3.68% and 5.42% of the total revenue.

In this regard, in 2023 and 2024, HARN did not receive order from any one of the manufacturers exceeding 30% of the total order value.

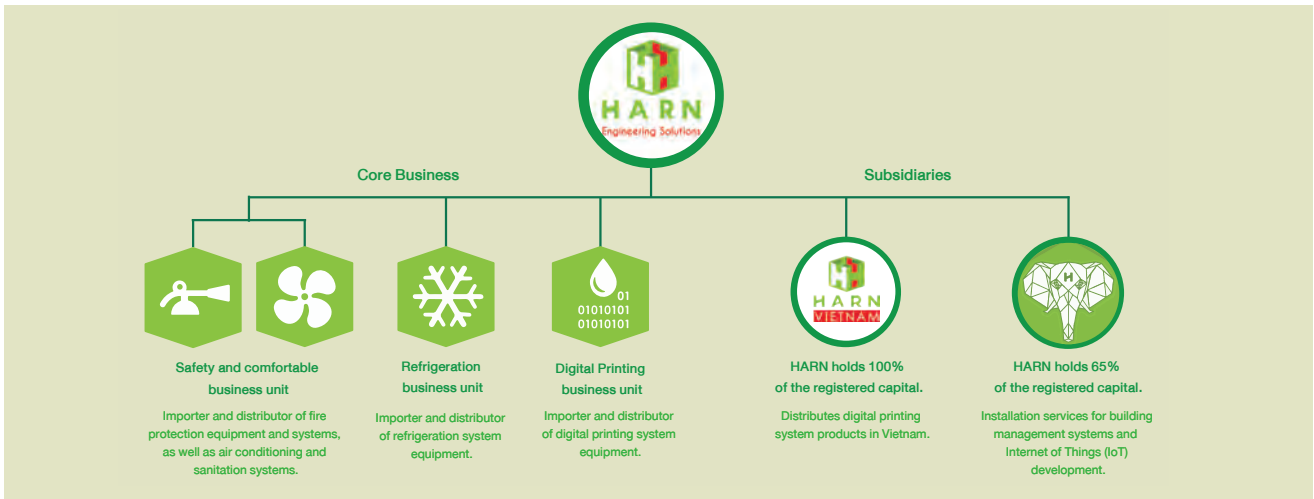
2.5 Undelivered Project

As of December 31, 2024, HARN has pending orders (excluding subsidiaries) totaling approximately Baht 430.93 million, divided into sales of Fire Suppression products and Firefighting System Installation services, as well as Air-Conditioning and Sanitary products Baht 323 million, Refrigeration products Baht 64.15 million, and Digital Printing products and 3D Medical Baht 43.78 million, which are awaiting delivery in 2025.

3. Shareholding Structure of HARN

HARN’s business operations focus on creating added value for the business while innovating. Its mission is to develop sustainable engineering systems to improve quality of life, society, and the environment, and to lead in reducing the impact of operations on the environment and enhancing the quality of life for stakeholders under the BCG model. In order to create long-term value for the company and society under good corporate governance, HARN has a clear and transparent equity structure, **without** a pyramid shaped equity structure, and therefore will not cause conflicts of interest for any party. The business structure and business connections are as follows:

3.1 Business Structure of HARN and Subsidiary



HARN consists businesses of 3 main groups: (1) Safety and comfortable business unit, distributing fire suppression products and firefighting system installation service in projects, including air-conditioning and sanitary products (2) Refrigeration business unit, distributing refrigeration products (3) Digital Printing business unit, distribution Digital printing products and 3D Medical.



HARN established HarnVietnam Co., Ltd. (“first subsidiary”) to engage in the distribution of digital printing products in Vietnam, with a registered capital of 8,000,000 Vietnamese dong, approximately Baht 1,057,444. HARN held 100% of first subsidiary shares on July 30, 2019.

HARN has partnered with Aiyarafun Group, with Mr. Prasertsak Dej-udom and Mr. Satt Vanichikij have signed a joint venture agreement to provide intelligent building services and develop IoT systems for products and solutions, including computer program development and related services. In the name of Aiyarahan Co., Ltd. (“Second Subsidiary”), the registered capital is Baht 2,000,000. As of June 24, 2020, HARN holds 65% of the registered capital of second subsidiary.

3.2 Parties with Conflict of Interest

- None -

3.3 Relations with Major Shareholders' Business Group

HARN has mission make a good investment return to shareholders, make grow our business in a sustainable, create long term values for stakeholders, under the supervision of the guidelines of the Stock Exchange of Thailand (SET) and the Office of the Securities and Exchange Commission (SEC), including the provisions of the Public Limited Companies Act B.E. 2535 (including those amended), its shareholding structure is clear and transparent, **without** cross shareholding with major shareholders, and therefore will not cause any conflict of interest for either party.

3.4 Shareholders

HARN had shareholding structure as of December 31, 2024, the record date for the year as follows:

Shareholders	No. of Share holders	No. of shares held	%	Legal Entity			Individual person		
				share holders	shares	%	share holders	shares	%
Thai shareholders	3,395	510,581,225	87.35	6	1,514,252	0.26	3,389	509,066,973	87.09
Foreign shareholders	3	73,918,775	12.65	1	73,316,475	12.55	2	602,300	0.10
Total	3,398	584,500,000	100.00	7	74,830,727	12.81	3,391	509,669,273	87.19

The list of the top 10 shareholders of HARN as at December 31, 2024 is as follows (there are 165,310,620 shareholders, representing 28.283% of the total number of shares).

No.	Names		Shares	% Share
1.	Mr. Wirat	Sukchai	89,657,617	15.339
2.	Mrs. Sirima	Iamsakulrat	81,884,151	14.009
3.	Nice Noble Limited		73,316,475	12.543
4.	Mr. Jain	Charnnarong	68,953,030	11.797
5.	Miss Nopporn	Charnnarong	26,307,444	4.501
6.	Mr. Thammanoon	Tripetchr	23,786,313	4.070
7.	Mrs. Bongorn	Taepaisitpong	15,900,000	2.720
8.	Miss Panatda	Thongliam	14,832,149	2.538
9.	Mrs. Nopparat	Sukchai	13,000,000	2.224
10.	Mr. Pracha	Phromphonchai	11,552,201	1.976
Total top 10 shareholders			419,189,380	71.717

Note:

- Number 3 are nominee accounts, exercise no influence over HARN's management policy formulation, including director nomination.
- Number 1, 2, 4 and 6 with significant influence on the establishment of HARN's policy and strategy, but are ineligible for voting at shareholders' meetings in any agenda has conflict of interest, for other shareholders no significant influence of HARN's.

3.5 Registered and Paid-up Capital

As of December 31, 2024, HARN's registered share capital was of Baht 292,250,000, comprising of 584,500,000 common shares at a par value of Baht 0.50 per share. Paid-up capital was Baht 292,250,000 in paid-up capital, or 584,500,000 common shares. There are no other types of shares with rights or conditions different from common shares and **no** shares or securities that change the status of the Company as the underlying assets.

3.6 Issuance of Other Securities

As of December 31, 2024, HARN has **no** convertible securities, and **no** debt securities.

3.7 Dividend Policy

3.7.1 HARN's Policy

HARN's dividend payout policy is to pay at least 40% of the separate net profit after deductions of all categories of reserves as specified in applicable laws, considering of the consolidated financial statements. Each year, the dividend payments are subjected cash flows and investment plans and other necessities and factors the Board of Directors (the Board) deems appropriate. The Board may consider paying the annual dividend with approval from the Annual General Meeting of Shareholders (AGM), except to the payment of interim dividend, which the Board has the authority to approve periodically when HARN's profit deems appropriate. The interim dividend payment shall be reported at the following AGM.

Dividend Payment	2024 ^{1/}	2023	2022	2021
Interim dividend payment (Baht per share)	-	-	-	-
Annual dividend payment (Baht per share)	0.12	0.15	0.13	0.10
Stock dividend (Baht per share)	-	-	-	-
Earnings per share (Baht) ^{2/}	0.15	0.20	0.15	0.12
Dividend payout ratio (%) ^{2/}	80.00	75.00	86.67	83.33
Par Value (Baht per share)	0.50	0.50	0.50	0.50
Outstanding ordinary shares (Share)	584,500,000	584,500,000	584,500,000	584,500,000

Note : Ordinary person shareholders may request a tax credit at rate of 20/80 of the dividend payment pursuant to the guidelines set forth in Section 47bis of the Revenue Code.

1/ The 2024 dividend payment of Baht 0.12 per share paid being submitted to approval at the 2025 Annual General Meeting of shareholders.

2/ Referring to consolidated financial statement of Harn Engineering Solutions Pcl.

3.7.2 Subsidiary's Policy

The Dividend Policy for Subsidiaries of HARN shall be considered by the Board of each subsidiary, and later proposed to each subsidiary's AGM for approval each year. Consideration shall be made on investment plans and other requirements, such as adequacy of cash flow of each company after deducting reserve funds in compliance with the law.

Risk Management

1. Risk Management Policy and Plans

1.1 Risk Management Policy

Recognizing the value of risk management under changing circumstances that may affect businesses due to internal and external factors, HARN relentlessly complied with the principles and approach of COSO, an international standard on risk management. Regards risk management as a critical component of all its business processes that must be comprehensively connected, so it has risk management policy for everyone to observe. The Risk Management Committee were thus appointed to steer overall risk management for maximum effectiveness.

1.2 Risk Management

Corporate risks are systematically managed through various risk management committees to give risk management plans effectiveness and efficiency in line with corporate goals and strategies. Operational risks fall under the supervision of executives responsible for managing and controlling risks to manageable levels and this has been spelled out in the job descriptions of all units.

However, HARN has investigated and applied various risk management tools, including adopted Risk & Control Self-Assessment (RCSA) to help analyze the risk factors and prioritized to assess the level of impact of the major risks and Key Risk Indicators (KRI), to indicate the impact on operating results in

the form of the existing control level, as well to define measures, prevent and monitor. In addition, it monitors key changes in external factors and emerging risks to develop proactive risk management measures before such risks harm business.

HARN cultivates risk management awareness among all its employees along with nurturing risk management ambiance and culture, focusing on due resource allocation and provision of assorted supports for continuous improvement of corporate risk management efficiency, a risk management policy has been published on a website www.harn.co.th accessible to all, along with risk management training courses, as well as an annual review opinion and understanding of corporate risk management.

2. Risk Factors Facing HARN's Businesses

2.1 Risks Facing Businesses

HARN analyzes internal and external risks that affect business, various trends economic, social, political, technological, industrial, competitor, including important goals and strategies of the organization and others to arrive at corporate risk factors, grouped as follows:

2.1.1 Risk from Loss of Distributorship Status

HARN is a distributor fire suppression product, air-conditioning products, sanitation products, refrigeration products, and digital printing products, and 3D Medical products, including Internet of Things systems, containing various products. HARN is a world-renowned products distributor, and the top three brands have sales for 54% and 49% of the total sales revenue in 2023 and 2024 respectively. Therefore, if HARN loses its position as a distributor of major brand products, it may adversely affect HARN's income.

Being appointed as a brand distributor is an important factor in HARN's business. As a distributor of two partners has the

characteristics of established representative age and no representative age limit. However, for most of the brands distributed by HARN, it has **not** yet officially entered into distributorship contract with the brand owners. If the company is losing the rights to sell these brands, it may cause significant impacts on the total sales of the company under whatever circumstances, for example, trade partner entering joint venture with another company or trade partner discontinuing business, etc. Since 2011, HARN's brands had never been revoked since being authorized as the distributor. Nonetheless, over more than 60 years, the company had good relationships with suppliers,

customers and adheres to ethical trading conditions. Therefore, the Company has been trusted with the manufacturing that owns the brand and has been appointed as distributor.

HARN has distribution coverage of over 60 brands, as well as a large customer base of over 5,400 customers, with the image of professional distributor of the complete engineering products and rich business experience, as well as developed and improved its distribution channels to cover changing target customer groups. HARN is confident that if it loses distribution authorization of any brand, it will be able to secure alternative brand to satisfy the market demand. Furthermore, HARN also has a policy to reduce the risks and the damage arising from the loss in becoming a distributor, by selecting high-quality goods and goods, new

technologies constantly emerging, and also the development of brands under HARN trademark in some products to meet the needs of customers. In 2024, the 5.42% of HARN's own brand sales revenue to sales and service revenue.

As can see, HARN's sales have grown in an orderly manner, coupled with Hahn's efficient distribution channels and strong sales team. As a distributor, products can create sustained sales growth, including the application of IoT technology to the company's products. Become a distributor that meets customer needs and continuously create added value for products. Believe that the brand owner will continue to designate HARN as the distributor. Therefore, it is classified as an organizational level risk and evaluated to be controlled at a satisfactory level.

2.1.2 Risk from Brand Owners Implementing Marketing by Themselves

If a foreign brand owner intends to enter the Thai market without going through HARN, there may be the risk of losing the agency right of the brand and the risk of competing with such brand owner companies.

However, HARN firmly believes that this kind of risk is unlikely, because HARN has won the trust of the owner brand company to create good sales in Thailand. In addition, the owner of the brand must consider the value of investing in and selling the product itself. In addition, the distribution of products in the construction engineering for fire suppression system, air-conditioning system, sanitary system, refrigeration system, digital printing system and 3D medical, must be able to offer a broad variety

and comprehensive solutions, can fully meet satisfaction customers, due to customers will consider the convenience of ordering goods from dealers who have the required goods. HARN, as a multi-brand dealer, has a team proficient in goods, maintains good relations with customers for a long time, and has a strong customer base in many industries, which can help reduce the risk of sales decline when any brand owner enters the Thai market. Over the past years, some brand owners from abroad assigned their subsidiaries to directly operate on their behalf, but they failed, so they have switched back to the original distribution method through distributors, it is therefore classified as assessment the risk control at a satisfactory level.

2.1.3 Regulation Risks

Risks of non-compliance or inadequate compliance with changes in rules, laws, and regulations may affect a negative impact on the Company's reputation or lead to penalties, fines, or loss of business opportunities.

HARN, it has formulated a performance monitoring policy for all employees, monitored new investigated laws and regulations, changes in government policies, e.g. laws on trade competition and the Public Procurement and Supplies Management Act, laws concerning public-sector financial discipline, laws on anti-corruption, Personal Data Protection Act (PDPA), human rights law, laws on cybersecurity, climate change law, and laws whose interpretation is unclear, causing a discrepancy in compliance as well as its HARN image and reputation.

To ensure that HARN's operation complies with the laws, regulations, announcements, rules, the public sector's, and regulatory corporate, directives that bind businesses to be enforced in the future, include operation context as well as changes. HARN has determined the acceptable risk level of the organization, communication with management and employee to raise awareness of the workplace rules, as well as set goals to monitor and prevent risks of violating laws and regulations related to business operations. Operate in line with the corporate governance code and adequate internal control by performance reports are to the Risk Management Committee. In 2024, HARN **did not** violate good corporate governance, code of conduct, compliance with relevant laws and regulations, and has safety management and legal standards.

2.1.4 Business Disruption Risks

The management and control of safety risks for its operations by setting long-term goals to control incidents that cause losses and affect lives, property, and the environment. Targets for accidents that cause injuries to employees and contractors until work stoppage must be zero. Defined work standards equivalent to international standards and creating a safety culture for employees and contractors through imparting knowledge and activities to raise awareness of safety are fundamental to the organization-wide and continuous improvement of operations. Domestic and international operations are likely to be affected by operations interruption from human errors, catastrophes, threats of political instability, together with terrorist activities, epidemics. Therefore, values Process Safety by focusing on systematically managing and controlling operating risks through the introduction of engineering technology and sophisticated international standards, to lower the likelihood and impacts of such threats cyber, as well as closely monitored the geopolitical conflicts and domestic political situations, has safety, health,

and environmental management standard and the business continuity management system standard to prevent disruption and prevent value-adding activities under business chain from being disrupted. In addition, HARN also review, improve and develops connection business management with human resource preparation plans, work from anywhere, and information system preparedness plan to ensure a practical connection between business units

Personnel Health and Safety, had regular provision of news and information along with easy access and continuously monitoring the number of infected people, including people at risk, continuously announcing measures and guidelines from relevant government agencies to determine measures and guidelines to prevent and reduce the risk of infection in HARN's work areas.

Risk control results are at a controllable level without deaths or accidents from operations, and **not** affected by threats that significantly affect HARN's costs.

2.1.5 Manpower and Competency Capacity Risks are Insufficient for Business Growth.

Challenges in ensuring preparedness with regard to its people, organization, and culture to support new business models and evolving work formats in an efficient, adequate, and timely manner. This is risk could harm its businesses and long-term goal achievement.

Therefore, HARN has restructured the workforce and modified the recruitment strategies as well as improved potentials to keep up with business requirements to be in line with the vision, strategy, and direction of the organization and align with the New Normal, modification of corporate image communication, personnel development planning that addresses future needs by designing essential expertise and enhancing knowhow among related personnel, introduction of technology to support personnel development, and improve the succession plan for positions critical to the success of the organization.

Moreover, has created learning media, added communication channels, and strengthened relations within the organization to address needs from all groups of age, and modified the work format for job flexibility, increasing welfare schemes' diversity,

also modified plans and activities to enhance engagement with HARN to ensure the alignment with employees' needs and expectations while supporting compliance with the human rights in the workplace.

In 2024, the survey results of employee engagement, happiness, and satisfaction with work had an average of 83.49%, an increase of 2.23% from 81.26% in 2023. However, HARN tracked and improved activities, policies, and work methods to increase efficiency. In addition, the turnover rate in 2024 of 15.55%, achieving the goal of not exceeding 14% per year, a decrease of 3.87% compared of 11.68% in 2023. The recruitment rate for 2024 is 21.43%, which is more than the set target of 18% and an increase of 8.05% compared of 13.38% in 2023. However, the current number of employees per employee is 95.75%, still at a controlled risk level.

HARN is committed to continuously improving its operational systems to attract and retain talented professionals. Additionally, the company reviews its compensation structure annually to ensure alignment with market rates for comparable positions.

2.1.6 Personal Data Protection Act (PDPA)

Personal data is a risk that must be properly managed as it may fall into the wrong hands. Failure to safeguard personal data also negatively affects the business credibility. HARN recognizes the importance of safeguarding personal data of our employees, customers and stakeholders, which have been collected, used, disclosed, and transferred.

HARN has established a Personal Data Protection Policy, a Cookie Policy, as well as policies on data recording, reporting, and retention on its website www.harn.co.th, with the aims at enhancing the data security standard as so to comply with the

Personal Data Protection Act (PDPA), e.g. establishing a personal information working group, and setting up a cookie and consent management database, training and communicate personnel within the organization, regularly check whether the operation complies with the above policies, etc., are the responsibility of the Personal Information Protection Officer (DPO) responsible for protecting personal information to prevent confidential information from being disclosed to third parties. If there are complaints about personal information, they can be notified through the website www.harn.co.th.

2.1.7 Volatility Exchange Rate Risk

Fluctuations in the exchange rate, directly and indirectly, affect the costs of products. As the prices of fire protection system products, air-conditioning and sanitation system products, refrigeration system products, digital printing system products, and biological 3D printing system, refer to the prices of foreign manufacturers, However, the fluctuation of exchange rate will affect HARN's gross profit to some extent, Tender offer and payment for products are primarily denominated in US dollar, Pound Sterling and Euro currency, while most products are almost entirely for local distribution in Thai baht.

However, its import volume in 2023 and 2024 made up 76.19% and 73.39% of total volume of product procurement respectively. Tender offer and payment for products are primarily denominated in US dollar, Pound Sterling and Euro currency totally 99.21% and 99.49% of product procurement of foreign currency respectively.

To ease risks of baht fluctuation, HARN has the exchange rate management policy, including risk management requirements of maybe impact the financial condition as the follow:

- Require a pre-opened foreign exchange trading limit with financial institutions to prevent such risks. The contract value covers all existing of product procurement of foreign currency. HARN balances its purchasing forward foreign currencies its foreign-currency product procurement invoice in each ordering

cycle, including while managing its foreign-currency deposits in USD, GBP, EUR, JPY and AUD for smart repayment from customer in foreign currencies.

- Also continuously monitor the trend in the change of the currency for evaluation and to manage the risks from the exchange rate closely

In addition, if foreign exchange rates change to the level that leads to sharp increase in its cost, HARN will revise its selling prices based on market conditions with prior notice thereof to its customers. HARN also keeps a stock of products to accommodate product distribution in advance. Therefore, foreign exchange volatility does not have any significant impact on the revenues and costs of HARN.

To ease risks of foreign currency fluctuation, in 2023 and 2024, HARN has purchasing forward foreign currencies for smart repayment and commercial transactions total Baht 536.53 million and Baht 587.84 million, or 92.29% and 95.65% of its import volume. Furthermore, HARN managed its exchange rate risk by always keeping abreast of foreign exchange movement, resulting in only not much risk exposure as can be seen from its exchange risk management outcome. In 2023 and 2024 which recorded foreign exchange gains of Baht 2.97 million and Baht 3.27 million, respectively, it is therefore classified as assessment the risk control at a satisfactory level.

2.1.8 Risk from Impairment of Goodwill

HARN has record goodwill from a fair value of the consideration for the purchase and acceptance of entire business transfer of net assets of Chillmatch Co., Ltd. and subsidiary, which is higher than a fair value of Chillmatch Co., Ltd. and subsidiary as of the date of issuance of newly ordinary shares as a consideration for the said entire business transfer. by issuing additional shares worth Baht 675.36 million in exchange for the identifiable net assets of both companies, valued at Baht 340.69 million, goodwill amounting to Baht 334.67 million was recognized. In this respect, the executive of HARN will conduct an impairment test in every year and set aside an allowance for impairment loss (if any). HARN may therefore be exposed to risk in case the auditor considers that there is impairment of goodwill which then affect HARN's net profit and loss, equity and debt to equity ratio.

As of the year ending December 31, 2024, HARN's management has prepared financial projections for the Refrigeration Systems

and Digital Printing Systems business units to conduct an impairment test on goodwill. The value-in-use assessment was performed using the discounted cash flow (DCF) method, which calculates the present value of projected net cash flows expected to be generated over an estimated five-year period (from January 1, 2025, to December 31, 2029). The discount rate applied was derived from the business unit's Weighted Average Cost of Capital (WACC) at 5.81%, with a terminal value growth rate of 0%.

Management has determined that goodwill impairment did not occur for the Digital Printing Systems business unit. However, the Refrigeration Systems business unit experienced an impairment loss of Baht 18.70 million as of December 31, 2024. Consequently, the carrying amount of goodwill as of December 31, 2024, was recorded at Baht 315.97 million. This assessment complies with financial reporting standards and has been audited by a certified public accountant.

2.1.9 Risk from Corruption

HARN is committed to conducting business with honesty, transparency, and fairness in accordance with the principles of good corporate governance. Regardless of whether the business activities are within the country or oversea for the government agencies or private companies. HARN will comply with the relevant law and regulations, as well as never accept to all forms of corruption directly and indirectly.

protect from the illegitimate activities i.e. products import, customs clearance, product offer, sales auction, and/or high value project installation services, as well as internal processes which may result from neglected operators, i.e. procurement, control of goods or assets, facilitation bribing, bribing or being asked for bribing from government officials, improper disbursement of expenses, or incorrect accounting, etc., Therefore proceed as follows:

- Prepare and announce the policies and guidelines for anti-corruption. In order to request cooperation from executives and employees throughout the organization to adhere to the same approaches and consistent with HARN's risk management process and communicating to internal and external stakeholders. As well as promoting the encouragement of trading partners to join in implementing anti-corruption measures.

- Established a Risk Management Committee, analyze and determine measures manage business risks, prevent and monitor risks of corruption both at the organization and operation levels a quarterly basis.
- Define the management structure, appropriate roles and responsibilities, provide the channels for complaints and whistleblowing in transparent and fair manner, as well as an adequate and appropriate internal control and audits from external independent auditors. Directly report to the Audit Committee for proposal to the Board of Directors quarterly, including have internal monitor to quality standards ISO 9001:2015 every year.
- Announced the intention as member Thai Private Sector Collective Action Against Corruption (CAC) since March 21, 2017, with a certified for member CAC on quarte 3/2018 and certified for CAC recertification first time on quarte 3/2018, and certified for CAC recertification second time on quarte 2/2024.

In 2024, there were **no** complaints or reports of corruption, **not** any violations of ethical and code of conduct. The results of corruption risk control are controllable.

2.2 Emerging Risk

2.2.1 Cybersecurity Threats Risks

Present, cybercrime comes in the form of a variety of attacks and threats, and new methods or technologies are being used to launch attacks through various channels more and more. This, coupled with the changing nature of the business and competition, has spurred to adopt digital technology for enhanced work efficiency and competitiveness. Use of digital technology, however, poses a risk and increases HARN's vulnerability to cyber-attacks, lead to financial losses, affect credibility and corporate image.

HARN is realize the dangers of these mentioned threats. Therefore, the policies and information technology development plans have been prepared, plans and investments have been provided to develop information technology systems in compliance with international standards to prevent and decrease the risks from potential cyberthreats. AS well as continuous development of information technology personnel, provide adequate and suitable internal control and audits from external independent auditors for the operations, including provide the communication, notification, enhancing knowledge and understanding, as well as cultivating caution in all personnel in the organization. In addition, defining the permission to access information, suspend inappropriate use, setting up the network to set up a data

backup center to support emergencies, and prepare the plan to respond with cyber incidents, Test the system and practice the information system recovery plan. In order to ensure the risks can be managed effectively and reduce potential impacts on the organization and business opportunities an and continually meet customers' and stakeholders' needs

In 2024, review the policy and development plan of information technology in Digital Transformation 2022-2025 both hardware and software. Also, a goal of 100% achievement is set each year for all activities to increase competitiveness by using digital technology in accordance with the business operation strategy and response to cyber threats. The budget planning of Bath 2.32 million has already been approved by the Board of Directors.

The operating performance against cyber threats has been analyzed and resolved on cyber security flaws of the organization, with protection from external attacks through applications, use of the Virtual Private Network (VPN) system, external email authentication, restriction of access to hazardous sites, prevention against virus infection, backup data to avoid data damages in case of an emergency, and drills of emergency situation plans to deal with such events. Meanwhile, important resources are allocated as appropriate for the performance of operations.

Hardware Road map - 2024

1. Hardware Good Performance	Supply and modernize the deteriorated computer equipment and notebooks.	100%
2. Software ลิขสิทธิ์ถูกต้อง	Purchase and procure licensed software valid for the organization, while suspending illegal personal devices within the organization.	
3. Network and Security Good Performance	Open a VPN license for employees and optimize sufficient internet speed for overall use in the organization, including an effective protection against viruses and cyber threats from outside.	
4. Network Anywhere	Server on Cloud management, Employees use Wi-Fi within the organization to support Digital Transformation	

Software Road map - 2024

Digital Transformation project	<ul style="list-style-type: none"> - Manage the working processes in a digital form and improve the ERP system, including various programs to stably and accurately operate according to the process, with verifiability. - Develop processes, reduce costs, increase revenue, change the method of operations, upgrade business efficiency, and create a modern corporate image. 	99.62%
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2.2.2 Climate Change Risks

Currently, the climate change crisis is becoming increasingly severe, with the scope of affected areas continuously expanding. This issue has gained more attention at the international level, as reflected in the key discussions at the 29th Conference of the Parties (COP 29) to the United Nations Framework Convention on Climate Change (UNFCCC), held from November 11-22, 2024, in Baku, Azerbaijan. The 198 parties to the UNFCCC (197 countries + the European Union) are working together to prevent the global temperature from rising more than 1.5 degrees Celsius above pre-industrial levels.

HARN conducts business in numerous countries is faced with challenges from additional future rules and regulations prescribed by governments to mitigate environmental issues, challenges of shifts in consumer behavior and market trends toward a preference for products and services from manufacturers with low carbon, and packaging that is compostable. There are also challenges from higher operating costs during the initial stages of investments in low carbon and green technologies. If could not timely transform business models, the impacts from these risks may affect corporate image, as well as a rise in financing, and operating costs from taxation that exert environmental impacts.

To drive leadership in sustainability, HARN has announced its carbon neutrality goal by 2040 and a net-zero greenhouse gas emission target by 2050, under the BCG economic model, which covers three key approaches: Bio-Circular-Green (Bio-Circular-Green Economy). Various policies have been communicated to executives and employees to align their operations with these goals, and regular communication is maintained to ensure ongoing alignment.

HARN has defined the measures to control and decrease the impacts. To promote of the BCG economic model for the environment, society, and communities in a sustainable manner, it consists of:

- Establishing a Carbon Footprint Management Task Force and a Sustainability Task Force to set clear goals for addressing climate change. These teams will define targets and implement actions through various supporting mechanisms to effectively achieve net-zero greenhouse gas emissions.
- Reduce energy sources that emit greenhouse gases and increase the use of alternative energy such install solar cells to replace electricity and use electric vehicles to replace fossil fuels.
- Adjusting the use of resources in operations through the 3R strategy by reducing unnecessary usage (Reduce), optimizing usage by reusing (Reuse), and recycling (Recycle). For example, promoting the reduction of plastic use and participating in the Recycle Project, where stretchable plastic is recycled into recycled plastic pellets, which can then be used as raw materials in the production process including, water management through reducing water consumption, treating, and reusing.
- Enhancing knowledge and building awareness among executives and employees on the proper waste segregation methods.
- Develop products, services, and solutions in accordance with the circular economy principles, especially low-carbon products which help reduce GHG emissions across the value chain.
- Collaborate with the government, private sector, and people sectors to play an integral role in planning and management of forest fire and conservation to restore green areas to reduction environmental problems regarding PM2.5

2.3 Investment Risks for Shareholders

- None -

2.4 Risks Facing Investing in Foreign Securities

- None -

Driving Business for Sustainability

1. Sustainability Management Policy and Targets

1.1 Sustainability Management Policy

With a strong commitment to operate and drive sustainable growth for the business, covering all 4 dimensions: economy, environment, society, and governance, to support its vision: “We strive to be the leader in providing comprehensive and sustainable engineering services that meet customer needs in developing the quality of life, society, and the environment.” This is integrated into every step of business operations, under the principles of corporate governance and code of conduct, while considering the impact on stakeholders as well as the value chain. Therefore, HARN has set its policy for sustainable organizational development based on two key business strategies: Business (B) and Sustainability (S) or B+S. This drives HARN’s sustainability efforts in each dimension, in alignment with long-term operational goals, and emphasizes readiness to address potential future crises. It also focuses on developing employees’ skill sets and integrating technology to improve work processes, enhancing the organization’s competitiveness for sustainable growth.

Following a review of the policy content and its operational effectiveness by the Board of Directors in 2024, improvements have been made in areas related to sustainable business operations, reflecting HARN’s sustainability efforts in each dimension. These are disclosed on the website www.harn.co.th and communicated with executives and employees across the organization.

Economic

- Monitor the development of sustainable engineering technologies related to improving the quality of life, society, and the environment, and select high-quality products suitable for the market to offer as services.
- Promote the use of digital technology to transform business operations, workflows, and services in order to improve work efficiency and enhance customer satisfaction.
- Place importance on the values, wisdom, and ideas of employees and executives, providing opportunities for research and the development of new innovations and out-of-the-box ideas that meet the needs of customers, society, and the environment. Human resources are considered the most valuable asset of the organization and must be well taken care.
- Emphasize the efficient use of human resources, optimizing workforce deployment through digital technology and automation systems as much as possible.

Environment

- Develop a new holistic economic model, adhering to the principles of a 3-dimensional economy, which includes a



bioeconomy system that focuses on the efficient use of biological resources, a circular economy system that considers the maximum reuse of materials, and a green economy system aimed at addressing pollution to reduce the environmental impact sustainably.

- Address climate change by striving to find business solutions that reduce greenhouse gas emissions and even capture these gases to prevent their release into the atmosphere. Create awareness and set an example of a lifestyle among employees and executives, to become a culture that minimizes greenhouse gas emissions. Develop greenhouse gas-related businesses as new, challenging ventures for the organization.
- Commit to carbon neutrality by 2040 and achieving net-zero greenhouse gas emissions by 2050. If possible, accelerate the process of achieving neutrality as quickly as possible, without delay, and use the knowledge gained to create new businesses.
- Promote environmentally responsible operations by managing environmental quality and biodiversity according to relevant laws and regulations. Invest in, develop, and improve environmental management systems, while seeking new measures and methods to enhance management efficiency and better control environmental quality. Innovate and explore ways to reduce the use of resources and energy, as well as minimize the release of pollutants, waste, and greenhouse gases, to prevent, control, and reduce environmental, community, and social impacts as much as possible.

Social

- Cultivate a volunteer culture to employees and executives by fostering a culture of “giving” to stakeholders and society without the expectation of receiving anything in return. Promote social and community responsibility by supporting public welfare activities for society and the environment, and encourage HARN employees to participate in social activities.
- Respect the value and equality of individuals, honor differences, listen to opinions transparently, treat workers equally and fairly, assign tasks according to their abilities, and provide appropriate compensation. Prohibit the use of illegal labor, including employees and workers of partners and/or stakeholders. Safeguard and protect the safety of employees and HARN’s property without infringing on the rights and safety of others, including the protection of personal rights, confidentiality of information, data disclosure, and use of personal data. Treat employees of HARN and partners equally, considering human rights principles across the entire supply chain.
- Create a positive work atmosphere and environment to ensure employee happiness and safety, and raise safety standards according to legal requirements. Set a work accident goal of “zero” and prohibit any operations without proper safety controls and safety equipment. Ensure appropriate and sufficient safety training related to the work.

Corporate Governance

- Promote good corporate governance to ensure that HARN can create added value for both itself and society in a sustainable way, so that all parties follow the same practices in line with the 5 basic principles of good corporate governance: Integrity, Fairness, Transparency, Responsibility, and Accountability.
- Promote and raise awareness of the importance of conducting business in strict adherence to laws, regulations, and guidelines relevant to business operations.
- Conduct business in compliance with laws relating to anti-corruption, both domestically and internationally, where HARN operates its business.
- Place importance on and engage stakeholders by being open to transparent and constructive feedback, treating everyone equally, and respecting differences.
- Encourage fair competition.
- Promote respect for property rights and avoid intellectual property infringement.
- Protect personal data and safeguard online privacy with modern technology and robust security systems.

Security

- Set a target to achieve zero work-related injuries and illnesses by developing, improving, and elevating occupational health and safety standards in accordance with legal requirements.
- Prohibit any activities that do not comply with safety control measures, including the absence of safety equipment and insufficient or inappropriate safety training, as well as the active involvement in cultivating a safety culture within the community and society on a consistent basis.

Tax Policy

HARN aims to be an organization with sustainable growth, responsible for taxes, and compliant with accounting standards and tax guidelines, following the practices below:

- Tax Structure: Avoid using fraudulent tax structures or those that are incorrect, or creating complexities for initial tax benefits and tax avoidance.
- Tax Incentives: Strive to utilize tax incentives in a legal and effective manner, in line with sustainable and appropriate business decisions, within the framework of the country’s tax policies.
- Tax Transparency: Report tax-related responsibilities to the government transparently, ensuring it is auditable.

Practice and Respect for Human Rights Policy

- HARN is committed to conducting business in accordance with the law and human rights principles, emphasizing respect for the rights, freedoms, and equality of individuals as guaranteed and protected by both Thai law and international law. Management and employees are required to uphold human rights principles, adhere to the rule of law, respect human dignity, rights, and freedoms, and treat all parties equally, following these practices:
- Promote and encourage the adherence to fundamental human rights principles and equality at all levels, regardless of nationality, race, skin color, gender, language, religion, political beliefs, or other beliefs, ethnicity, or social origin, property, birth, or any other status, which forms the basis of social coexistence.
- Support and respect the protection of human rights by regularly monitoring and ensuring that its business does not contribute to human rights violations, such as not supporting forced labor, opposing child labor, or any other actions that demonstrate disrespect for human rights principles or do not meet international human rights standards, rights, freedoms, and equality.
- Management and employees have the duty and responsibility to promote the rights of individuals wherever HARN or its subsidiaries operate, to ensuring that business activities do not involve or refrain from actions that violate human rights.

Information Disclosure

- Disclose the policy for sustainable organizational development, sustainability operations, and performance results in all dimensions, in accordance with the criteria and regulations of relevant agencies, as well as the United Nations' international standards, sufficiently, with transparency, and in a timely manner, to demonstrate the commitment and intention to develop the organization sustainably.
- Disclose the policy for sustainable organizational development to directors, management, employees, and stakeholders so they are informed and adhere to it in their work and business operations of HARN.

Practice and Follow-up Actions

The directors, executives, and employees at all levels have a responsibility to support, promote, and operate in accordance with sustainable organizational development policies, become an organizational culture, while considering balanced interests in economic, social, environmental, and corporate governance.

1.2 Sustainability Management Targets

HARN sets sustainable development goals that consider the impact of business operations, reflecting trends in Environment, Social, and Governance (ESG) aspects, both in the short and long term that is appropriate, to achieving carbon neutrality by 2040 and net-zero greenhouse gas emissions by 2050. Working Group on Sustainability is tasked with driving strategies and guiding operations to align with the framework in order to achieve HARN's sustainability goals and support the United Nations' Sustainable Development Goals (SDGs) as follows:

- Reduce electricity consumption by 30% by 2028 through the transition to renewable energy.
- Control fuel energy consumption, reducing by 5% per year by transitioning 60% of company vehicles to electric cars within 3 years and 100% within 5 years.
- Control the use of tap water, reducing by 3% per year through monitoring and managing water usage, and inspecting water-related equipment.
- Reduce the amount of non-hazardous waste, hazardous waste, and air pollution from HARN operations by 5% per year by applying the 3R principle: Reduce, Reuse, Recycle.
- Control the emission of greenhouse gases in Scope 1 and 2 by reducing by 5% per year, and reduce Scope 3 to net zero by 2050 through various projects and reducing the use of resources and energy that contribute to greenhouse gas emissions.

Promote Moral, Ethical, Social, and Environmental Responsibility











Raise awareness and instill good consciousness, support participation in social and environmental responsibility activities for directors, management, and employees by ensuring comprehensive communication and providing training on ethics, integrity, corporate governance principles in operations and business conduct, as well as social and environmental responsibility that significantly contributes to sustainability, making it a regular part of the organization's culture every year.

- Source products that replace current products with environmentally friendly alternatives, aiming for 25% of revenue by 2040.
- Support green projects or environmentally friendly initiatives, including renewable energy, at least once per year.
- Organize environmental activities for the community and society at least once per year.
- Provide environmental training for relevant employees and stakeholders in the value chain at least once per year.
- Manage the environment in compliance with legal requirements and other relevant regulations, ensuring zero violations of environmental laws and regulations.



Key Sustainability Issues of the Long-Term Plan 2028

HARN analyzed sustainability development issues covering various business activities and stakeholder expectations as follows:

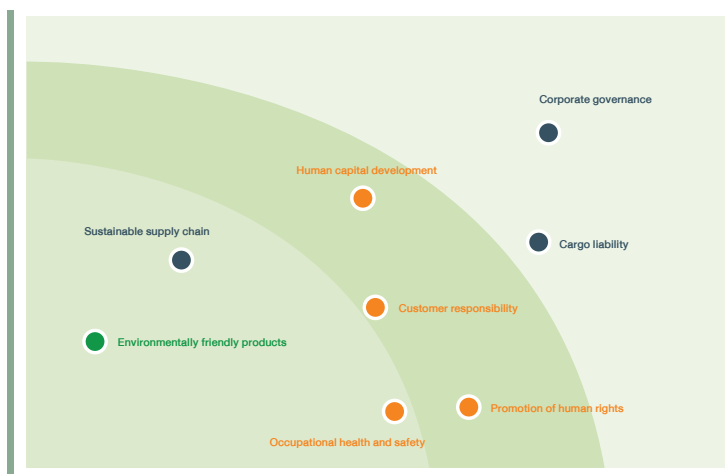
Key sustainable issues		Strategies	Drivers of success	Supporting Sustainable Goals
S (Sustainable)	B (Business)	E Economics	Smart & Lean <ul style="list-style-type: none"> Striving to the sustainable development of engineering systems to enhance the quality of life, society, and the environment. Elevating digital technology to enhance operational efficiency and customer service, fostering impressive customer experiences. Fostering competitiveness through intellectual capacity, preserving valuable personnel, and succession planning. Conserving manpower and resources, establishing efficient partnerships. Improving the efficiency of automated workflows. 	  
		E Environment	Go Green <ul style="list-style-type: none"> Developing an integrated economy, including the Bio Economy, Circular Economy and Green Economy Aiming for Carbon Neutrality by the year 2040 and achieving Net Zero greenhouse gas emissions by the year 2050 	  
		S Social	Together <ul style="list-style-type: none"> Fostering a spirit of engaging in activities for the common good without seeking personal gain Enhancing relationships and participation with partners. Treating each other equally, showing respect for diversity, and embracing individual differences. 	 
	G Governance	Equability & Sufficiency <ul style="list-style-type: none"> Promoting good corporate governance to create sustainable value for oneself and society. Encouraging moderation, rationality, and resilience under conditions of knowledge and ethics. 	 	

1.3 Key Sustainability Assessment Results

Risk impact and key business opportunities

Risk	Opportunities
<p>Inside - Out</p> <p>Environment</p> <ul style="list-style-type: none"> Waste of after-sales service The use of energy resources Greenhouse gas emissions 	<p>Economic</p> <ul style="list-style-type: none"> Using technology in the workflow Product and Service Responsibility (Product and Service Development) <p>Social</p> <ul style="list-style-type: none"> Safety of life and property Human Capital Development Health and Safety <p>Environment</p> <ul style="list-style-type: none"> The use of energy resources Greenhouse gas emissions
<p>Outside - in</p> <p>Industry</p> <ul style="list-style-type: none"> Product price competition <p>Social</p> <ul style="list-style-type: none"> Changes in working methods Contractors and workers (lack of installation knowledge, lack of skilled labor) <p>Technological</p> <ul style="list-style-type: none"> Product and Service Technology <p>Economic</p> <ul style="list-style-type: none"> Product price competition Currency exchange rate <p>Environment</p> <ul style="list-style-type: none"> Interest in environmentally friendly products <p>Political</p> <ul style="list-style-type: none"> Geopolitical Conflict of Laws 	<p>Social</p> <ul style="list-style-type: none"> Contractors and workers (lack of installation knowledge, lack of skilled labor) <p>Environment</p> <ul style="list-style-type: none"> Climate change, pollution Interest in environmentally friendly products <p>Political</p> <ul style="list-style-type: none"> Commercial Tax Law

HARN prioritizes sustainable development issues as follows:



Economic and Governance

- Sustainable supply chain
- Cargo liability
- Corporate governance

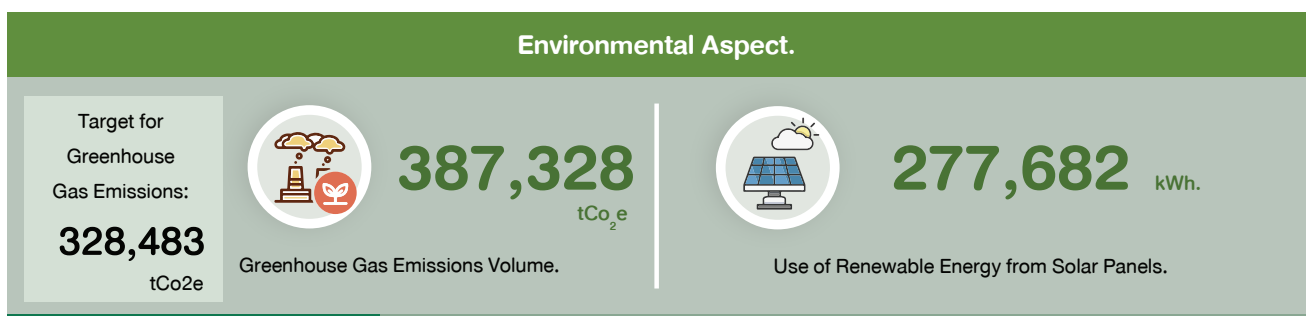
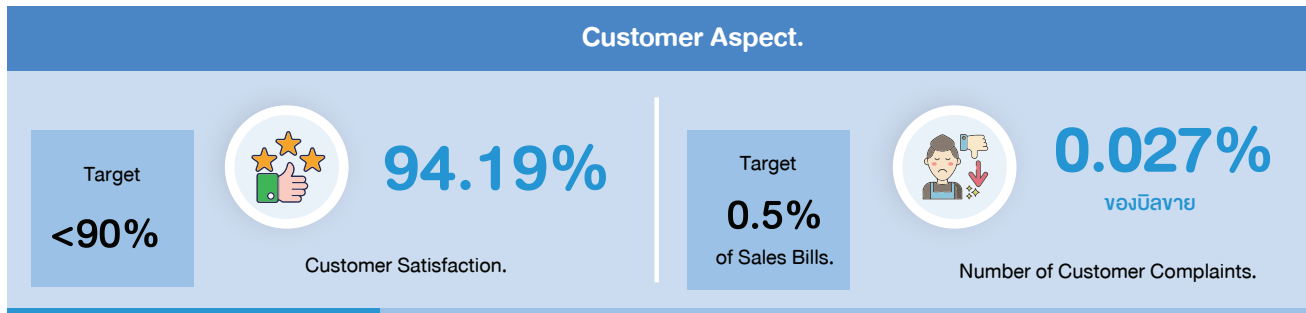
Social

- Human capital development
- Occupational health and safety
- Promotion of human rights
- Customer responsibility

Environment

- Environmentally friendly products

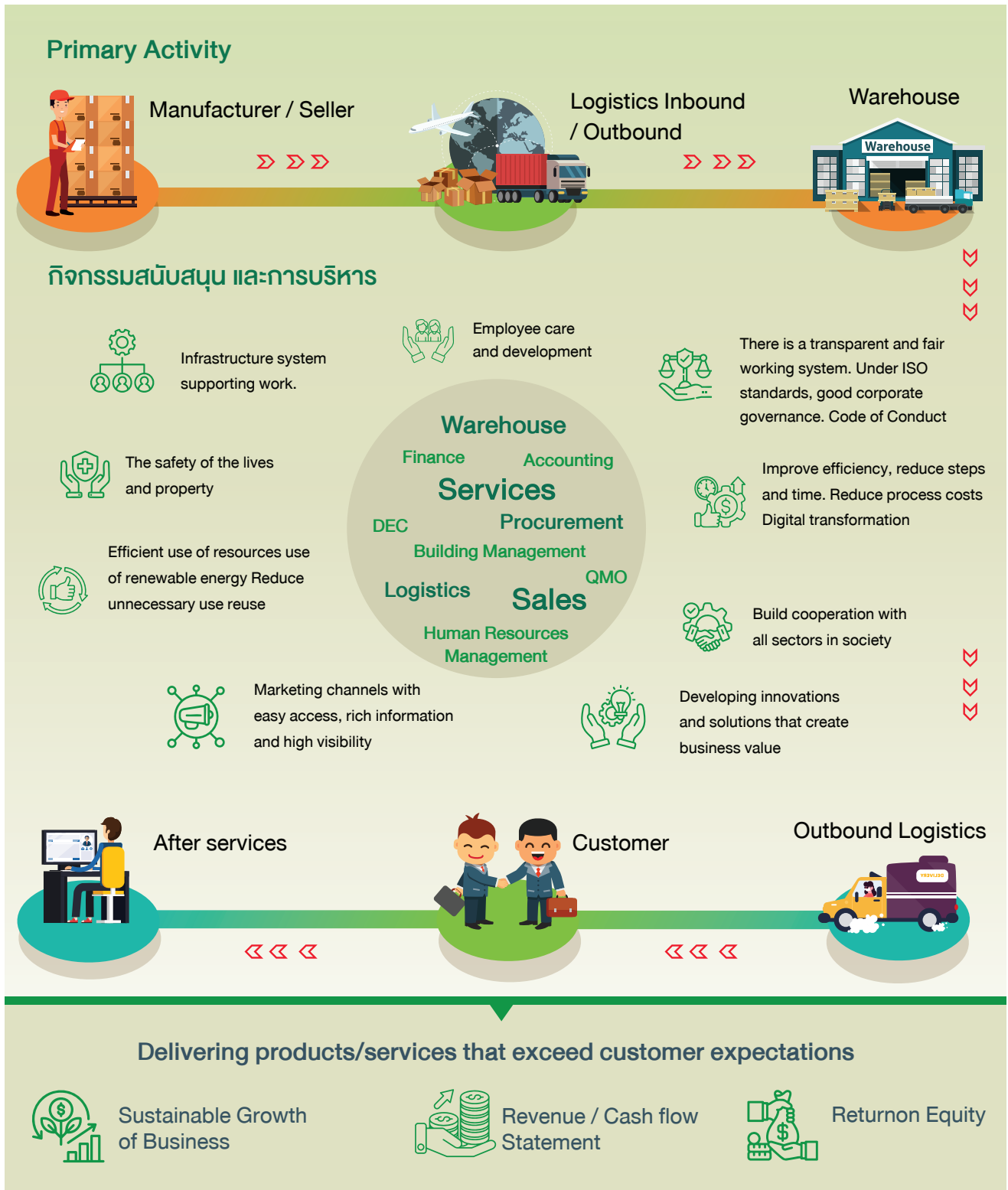
1.4 Summary of Sustainable Development Performance in 2024



2. Impact Management to Stakeholders in the Business Value Chain

2.1 Business Value Chain

The directors, executives, and employees at all levels of HARN are responsible for supporting, promoting, and implementing work in alignment with the company's sustainable development policy until it is fully integrated into the corporate culture. Operations are carried out with consideration for a balanced approach to economic, social, environmental, and corporate governance benefits. HARN identified stakeholders by analyzing their involvement along the supply chain, take the principle of universal human rights seriously, ranging from crude procurement, inventory, marketing and sales, distribution and customer service as shown in the diagram below:










2.2 Stakeholder Analysis from the Business Value Chain

To ensure our mission to balance all groups of stakeholders equally, HARN analyzes and identifies key stakeholders across the entire value chain in the areas of economic, environmental, social, and corporate governance, with consideration for human rights principles. Emphasizing stakeholder engagement, both internal and external, HARN utilizes various communication channels to gather feedback, suggestions, and expectations from each stakeholder group. This process enables the company to establish appropriate action plans to effectively address these expectations.



Stakeholder participation

Stakeholder	Expect	Company's response to hope	Communication and Participation
Employee and Executives 	<ul style="list-style-type: none"> Treated equally fair, there is an opportunity to grow and progress It is safe and hygienic have remuneration and welfare suitable 	<ul style="list-style-type: none"> Promote participation and two-way communication in organization Promote safety at work There are channels for complaints or suggestions Labor problems or complaints equal to 0% Salary and other benefits compare results with the labor market every year <ul style="list-style-type: none"> Central Division In standard Sales Service Group Above average market No employee accidents from work 248 employees equal 0% The number of employees with the criteria metric is 100% Working satisfaction is 83.49% 	<ul style="list-style-type: none"> Conference, LINE Official, company announcement, intranet, email, Digital Signage, direct communication from CEO to employees via Town Hall once a year
Customer 	<ul style="list-style-type: none"> Deliver goods and services in accordance with the agreement Employees have knowledge and understanding of products / services. Able to provide accurate helpful advice Obtaining on-time after-sales service Personal information security 	<ul style="list-style-type: none"> Educate to customers/partners through the Knowledge Sharing Project and employee training Product / service complaints were 0.027% 114 employee sale and service training with average training of 20.7 hours Customer satisfaction is 94.10% 8 Knowledge Sharing Projects have been organized in Bangkok, its vicinity, and other provinces 	<ul style="list-style-type: none"> Visits, LINE Official, FB, Website, Seminar

Stakeholder	Expect	Company's response to hope	Communication and Participation
Trade partners and/or creditors 	<ul style="list-style-type: none"> Fair, follow the commercial terms Have been aware of the problem and how to fix it honestly. 	<ul style="list-style-type: none"> Communicate news and a complete, timely trading policy Visit and exchange information to improve collaboration Vender evaluation 2 a year 12 field/assessment visits Domestic supplier evaluation results for 2024: 95.45% in the first half and 95.20% in the second half International supplier evaluation results for 2024: 96.04% in the first half and 97.47% in the second half 	<ul style="list-style-type: none"> Visits, websites, e-mails, conferences, seller evaluation
Competitor 	<ul style="list-style-type: none"> Competition freely on the legal framework 	<ul style="list-style-type: none"> Not any seeking competitors' confidential information through dishonest No complaint of infringement of competitor's property 	<ul style="list-style-type: none"> Facebook, Website: www.harn.co.th
Investor 	<ul style="list-style-type: none"> Sustainable business growth Continuously receive returns Business operations are transparent 	<ul style="list-style-type: none"> Increase growth channels and expand business to new potential markets Have good corporate governance Developing full range of solutions and services Pay a dividend not less than 40% CG Score "Excellent" level ESG Rating Score "A" level 	<ul style="list-style-type: none"> Shareholder meeting Opportunity Day performance conference Investor Relations Website Company visits
Government and regulatory agencies 	<ul style="list-style-type: none"> Comply with all applicable laws, rules, regulations and regulations. Operate business responsibly and with transparency. 	<ul style="list-style-type: none"> Review relevant laws, rules and regulations Repeat operation test regular There is no penalty for neglecting to comply with the law Become an affiliate Thailand Private Sector Collective Action Coalition Anti-Corruption (CAC) No corruption, unethical, or unethical behavior. CG Score "Excellent" level 	<ul style="list-style-type: none"> Website www.harn.co.th Visiting the staff according to the notification Monthly report submission
Community, Social and Environment 	<ul style="list-style-type: none"> Conduct business to reduce the impact on the communities and the environment 	<ul style="list-style-type: none"> Promote natural resources protection activities/campaigns and use resources wisely Use renewable energy with solar panels, accounting for 41.92% of the total electricity used in 2024 	<ul style="list-style-type: none"> Website: www.harn.co.th

3. Economic Sustainability Management (Smart & Lean)

3.1 Economic Policy and Practice

HARN aims to be maintain the leader in distributor and services with the “Sustainable Solutions” of the engineering system by utilizing the knowledge in products selection and develop innovations which responds to the customers’ demands in order to enhance the quality and the safety of the consumers life with high quality products, modern technologies, sales and services that are fast, accurate and worth the value, including the provision of expertise consulting. These are the tools which create customer’s satisfactions, enhance flexibility and increase the ability to compete, including securing the brand loyalty, gaining value in the long term to HARN. In addition, also seek more cost-effective and appropriate investment opportunities through the following strategies:

Selling products with acceptable quality and standards

Focus on selling quality products with globally recognized standards where HARN shall select quality products specially building engineering system products such as firefighting system, air-conditioning system, sanitary system and cooling system, including digital printing system products which greatly importance to safety, product storage process and the continuity of production process. Therefore, it is crucial to select good quality products which are certified by international standards and suitable to the customers’ needs, well known products which are popular and widely accepted in the market, to build trust, confidence and customer satisfaction continuously.

Increase of commodity dealers

HARN plans to expand the range of dealership in building engineering products which include firefighting system, air-conditioning system, sanitary system and cooling system as well as digital printing system where the products will be ordered gradually in order to increase customers’ choices whereby the customers’ needs will be supported in all groups of product standards. Furthermore, HARN shall increase the number of personnel to be sufficient with the business expansion, especially in the work in firefighting system installation projects and other building engineering system work. HARN pushes to have adequate number engineers to support works in projects which are increasing in amount and value.

Offers a variety of products in complete range with sufficient stock to meet the customers’ demands without leaving the customers to spend much time waiting for the products

HARN is one of the distributors of complete range of building engineering products by being the leader in business of importing and selling products in firefighting system, cooling system, air-conditioning system and sanitary system including digital printing system, with a large selection of products. Most of the products sold are imported from other countries which takes time in ordering and waiting for the products to be transported



into the country. HARN therefore must do a sales projection, make plans for product orders and keep an appropriate amount of stock in order to have sufficient current products to meet the customers’ demands and able to deliver the products to the customer in a timely manner without delay which may damage the sales and the opportunity of a return customer. At the same time, HARN will not overstock that it would contribute to a high cost of stock keeping, until causing damage from depreciation according to period or the over useful life.

Organize promotional activities to stimulate sales

HARN organizes promotional activities on a regular basis such as participation in trade shows to create awareness and reach the target customers directly. There are product seminars/training for project designers and clients to create product familiarity for them to choose the products that HARN sells. There are advertisements in the various magazines which relate to the business of HARN as well as sending invitations to project designers to join activities in visiting the factories of producers in foreign countries, who are famous in global market, in order to study the technology and gain new perspectives on the concepts of building industry to elevate the standards of construction in Thailand, which is one of HARN CSR policies, and building confidence in the products imported by HARN to be sold leading to their choosing of HARN products to be used in the various projects with confidence.

HARN is still committed to sharing the engineering knowledge of HARN with its customers and the general public by posting contents on Facebook and HARN’s website to establish a with wider knowledge and deeper insights, did a project called “Knowledge Sharing” enhance product awareness among existing and target customers, establish relationships with customers nationwide, foster credibility and brand loyalty, instill confidence in product quality and after-sales service, enhance knowledge and skills in the field of work and correctly maintaining products in accordance with engineering principles. Adhering to the principle that “providers

always learn and grow,”. Including still to strengthen relationships through continuous customer visits, sales staff are consistently trained to understand product to enhancing their expertise to effectively convey accurate information to customers, and there is a focus on product development and seeking new products to increase sales opportunities.

Additionally, HARN has been driving operations to achieve its sustainability goals by participating in research/innovation

development projects with both public and private sectors. This collaboration allows for the exchange of knowledge on research and technologies related to HARN’s products, maximizing benefits in the industry, promoting learning for graduates in academic institutions to meet international standards, improving consumer quality of life, and creating business opportunities.

Academic Partner, government, and Standard regulatory agencies



3.2 Economic Performance

3.2.1 Innovation Development

HARN’s core business involves the whole engineering system, fire protection system, air conditioning system, sanitation system, refrigeration system, digital printing system, biological 3d printing system and Internet of Things system, Enhance Innovation Strategy through the planning and allocation of resources to support research and innovation to strengthen competitive advantage and promote the achievement of the Carbon neutrality and Net Zero Target. Operational Framework e.g., market-focused innovation, enhances employee capacity,

determined a future investment direction that focuses on the high value & low carbon business group to increase the competitiveness, and can be further developed into high value businesses through direct and indirect investment in innovation. Also supports the development of innovation, encourages the establishment of long-term cooperation with third-party agencies or experts. HARN implemented various innovation projects, as follow:

1) Vanapa Project

In 2024, HARN signed a Memorandum of Understanding (MOU) with the Ananda Mahidol Foundation Scholarship Alumni Association, Kasetsart University, Silpakorn University, the Geo-Informatics and Space Technology Development Agency (GISTDA), Siam Cement Group Public Company Limited, Mew Space & Advanced Technology Co., Ltd., and the Department of National Parks, Wildlife, and Plant Conservation on a research project to assess carbon sequestration and the net carbon dioxide fixation balance of the dry dipterocarp forest ecosystem through remote sensing surveys, under the name “Vanapa Project.”

tower, known as a Flux-Tower, operating continuously for 24 hours. The data will then be analyzed using mathematical models to calculate greenhouse gas emissions. This method is standardized, fast, and accurate.

The signing of this agreement marks a collaboration between the public sector, private sector, and the Department of National Parks, with the aim of developing carbon measurement, carbon accounting, and carbon credit assessment from natural forests, both above and below ground, using remote sensing technology and evaluation under Tier 3 standards. This will track greenhouse gas emission reductions resulting from forest degradation and deforestation caused by recurring wildfires in the Mae Ping National Park, Lamphun Province, and help the forest naturally regenerate by reducing the frequency and recurrence of wildfires.

At the same time, research will be conducted to assess carbon credits from reducing wildfire recurrence by working with the Department of National Parks and local communities to manage the forest, prevent wildfires from entering the area, and manage water resources in forested headwaters. This will enable the forest to regenerate naturally. A process and standard will be created by experts from all eight agencies, and the proposed system will be presented to the Thailand Greenhouse Gas Management Organization (Public Organization) to open up opportunities for businesses to support wildfire reduction by investing in community enterprises. These enterprises will create new jobs for forest management in collaboration with communities in exchange for carbon credits generated through the process, which will be evaluated using scientific equipment and satellite data that can be verified.

The Tier 3 standard assesses carbon dioxide exchange using the Eddy Covariance Technique, employing geo-informatics and satellite data processed together with ground-based measurements collected by permanent monitoring equipment installed on a

If this process is applied comprehensively to conservation forests nationwide, it is expected that a significant amount of funding from the private sector will flow into wildfire reduction efforts through job creation in communities, which will help reduce PM2.5 dust and air pollution sustainably.

2) Safety & Comfortable Business (SC)

Since 2023, HARN introduced “Quick Installation Products”, which provided a solution for current needs, particularly in fire protection systems and air conditioning systems. These products are crucial and require efficient, safe, fast, and environmentally friendly installation. They replace traditional pipe welding, resulting in cleaner systems without requiring experienced labor. In 2024, sales of Quick Installation Products increased compared to 2023, demonstrating the success of product development and marketing that meets the demand for products that reduce installation time. This solution also addresses the shortage of skilled labor and rising labor costs, responding well to current market trends.

Additionally, plans have been made to provide product training for contractors and interested parties to increase knowledge,

understanding, and confidence in using HARN’s products. This will help improve installation efficiency and ensure that the products are used to their full potential. Moving in this direction will allow HARN to build a larger customer base and increase product acceptance in the future, as well as strengthening relationships with customers and providing opportunities for sustainable market expansion.

Furthermore, HARN aims to develop technology and seek environmentally friendly products, such as inert gas fire extinguishing agents for fire protection systems, which are non-toxic to consumers and the environment, and PEX pipes for plumbing systems, which are odorless, clean, safe, hygienic, free from toxins, and environmentally friendly.



3) Refrigeration Business (RF)

Refrigeration Business Unit has collaborated with AIYARAHARN CO., LTD. (“subsidiary”) to develop energy-saving innovations for refrigeration system. We have designed and installed an innovation of energy-saving system is named Telechill Smart Solution (S2), which is an Internet of Things monitoring system. This is a new product introduced to the cooling system market, which features temperature monitoring, alerting, and statistical recording capabilities for tracking the energy efficiency of cooling systems via a control room display immediately. This helps maintain the quality of products in cold storage and ensures they are safely delivered to customers, reducing risks and preventing product quality loss more effectively.

Most importantly, it can help reduce energy consumption of refrigeration systems, lower costs for cold storage businesses, and minimize environmental impact, aligning with the trend of achieving zero greenhouse gas (CO2 Emission) emissions. This will create a competitive advantage and contribute to increased sales growth.



Telechill S²
Smart Solutions

In 2024, the seminars in several regions where it has been done throughout the past several years. In order to reach customer groups in several regions and to provide information and know-how of the products. Including new technology innovations for products that save energy and maintain the refrigeration system that HARN distributes for maximum efficiency. Organizing seminars on topics to meets the demands from customer groups in every region to expand the customer base and increase efficiency.

From July 10 to 12, 2024, the executives from the Refrigeration Systems Business and the Digital Printing Systems Business participated in the Cold Chain Exhibition at BITEC Exhibition and Convention Center. The event focused on discussions about industrial technology innovations, the latest trends, and strategies for dealing with future impacts. Dr. Sukit Litikorn, Director of the Engineering Support Division, gave a lecture on “The Use of Cooling for Product Storage and Preservation.” Mr. Vachiravit Akaraseranee, Director of Project Sales, lectured on “Principle of Cold Room Air Distribution.” Mr. Kittiphong Kittimethaveenan, Director of Sales, discussed “Making Cold Rooms Environmentally Friendly with IoT Technology.” Mr. Phanuwat Intraphat and Mr. Pramoth Kanjanasrisukkul, Sales Managers, presented on “Energy-Saving Innovations in Refrigeration Systems,” and Mr. Withoon Thamee, Director of Sales, gave a lecture on “Revolutionizing Product Labeling: Advanced Printing Technologies for Cold Storage.”



Additionally, HARN participated in a seminar with the National Farmers’ Council of 14 Southern Provinces, titled “Innovation in Cooling Technology for Agricultural Product Quality Preservation and Making Cold Rooms Environmentally Friendly with IoT Technology,” held on July 30–31, 2024, at the Diamond Plaza Hotel in Surat Thani. The seminar had 100 attendees.



HARN also attended a seminar with the Chumphon Provincial Agricultural Office on the topic “Cold Rooms for Freezing Fruit Storage,” held on August 15, 2024, at the Emerald Twin Hotel in Chumphon. The seminar had 200 attendees.



Furthermore, HARN organized a seminar on “Energy-Saving Innovations and Environmentally Friendly Refrigeration Systems,” in collaboration with the R290 training thailand team from the Refrigeration and Air Conditioning Engineering Technology Department at King Mongkut’s University of Technology North Bangkok. The lecture, “Using Environmentally Friendly Natural Refrigerants (R-290) and Safely Managing Flammable Refrigerants,” took place on August 16, 2024, at HARN’s office. The seminar was attended by 88 participants from 34 organizations.



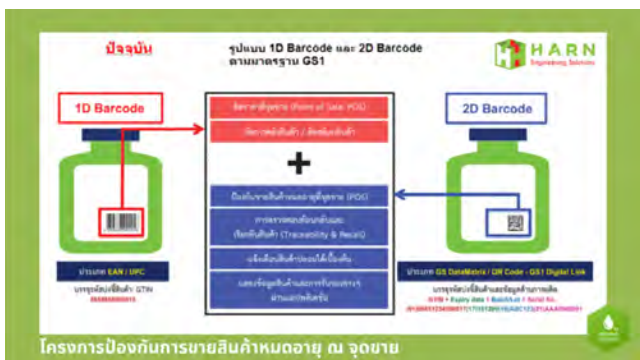
In addition, HARN hosted a seminar on “Export Fruits and Energy-Saving Innovations in Refrigeration Systems” on November 21, 2024, at the Deluxe Building, Thammasat University Rangsit Center, with 40 attendees.



4) Digital Printing System Business (DP)

Digital Printing Business have the opportunity to join as a partner to driving new innovations with GS1 Thailand, Federation of Thai Industries to improve safety for consumers. GS1 Thailand is an agency under the Federation of Thai Industries. Who acts as the only official registrar for issuing product barcode numbers according to the GS1 international standard in Thailand. Which has taken care of the issuance of barcode numbers to Thai and Lao PDR entrepreneurs for over 40 years with mission to promote and support the use of the GS1 international standard to meet standards and cover all industries to reduce costs and increase ease of doing business as well.

GS1 Thailand Institute has moved forward to drive the innovation for consumers. By joining with CP All Public Company Limited along with CPRAM Company Limited in implementing 2D barcodes instead of 1D barcodes for checking and alerting expiration dates of consumer products at selling point. It has started piloting with ready-to-eat food products produced by CPRAM in 7-Eleven stores to build confidence in food safety for consumers. This technology also facilitates employees to check the expiration date of products. This will reduce working time and increase accuracy for inspection. In 2022, The project to implement 2D barcodes according to the international standard GS1 has been launched on the topic “2D Barcodes: Solution for Consumer Safety”, which meets the demands of reliable products, raising the safety for consumers, at Chiang Mai.



In 2024, HARN participated in several events to promote the use of barcode technology with GS1 Thailand at various locations, such as the Road Show events in Suphanburi, Ubon Ratchathani, Trang, and Chiang Rai, among others. Additionally, Mr. Sattayamon Mahanam, Sales Manager, was honored by GS1 Thailand to serve as a speaker at the 2024 GS1 Thailand Annual General Meeting. The event, held at The Berkeley Hotel Pratunam, focused on the theme “GS1 Global Standards for Developing a Sustainable Thai Industry with Accurate, Transparent Data and Increased Consumer Safety.” The goal was to promote and drive the Thai industry forward by utilizing accurate and verifiable product data to enhance consumer safety and contribute to a balanced and sustainable Thai economy.

HARN remains committed to disseminate and promoting the use of the GS1 barcode standards across various industries, supporting the adoption of new technologies and innovations in business processes, and preparing for future changes and challenges. HARN is also building a partnership with GS1 Thailand to strengthen networks and continue sharing knowledge.



For 3D for Medical Application products (“3DMed”), creates an organ model with advanced 3D printing technology to help diagnose and plan effective treatment in the 3D for Medical Application, Siriraj Hospital made a memorandum of agreement 3D model files continuously in 2024 totaling 25 cases, and there have been increased a total of 1 case. Rajavithi Hospital has a total of 36 cases, and last year there were a total of 13 cases, the more than 300 cases cumulative of cases in 2024 which HARN is also a coordinator between the Faculty of Dentistry, Chulalongkorn University, King Mongkut’s University of Technology Thonburi, and Materialise to organize a workshop on the application of Mimics program in creating 3D files and 3D models used diagnostic purposes and surgical planning for about 15 medical doctors, while being in the process of coordinating to arrange a workshop for Khon Kaen University. This can be another success as a leader and professional in bringing the 3D technology to the medical field.

In 2024, HARN 3DMed participated in knowledge exchange and experience in terms of image file making and 3D model making for surgical planning, as well as utilizing 3D images and models with students from the Department of Biomedical Engineering, Faculty of Engineering, Srinakharinwirot University.



As a result of this knowledge exchange and the specification presentation in 2024, achieved a total accumulated revenue of Baht 30.14 million from sales. It is expected that in 2025, there will be additional opportunities to close sales for the 3D Bio-printer and 3D Bio-printer Axolotl.

Furthermore, HARN has recognized the growing interest in reducing carbon footprints through the use of various technologies that HARN sells and services. The company has opted to use environmentally friendly printing technologies to differentiate itself in the market and add value to both its business and customers. As a result of this commitment, HARN was awarded a certificate for environmentally friendly products in the “Printing Machine” category by SCG Chemicals Public Company Limited.



The main printing technology used in the production line includes:



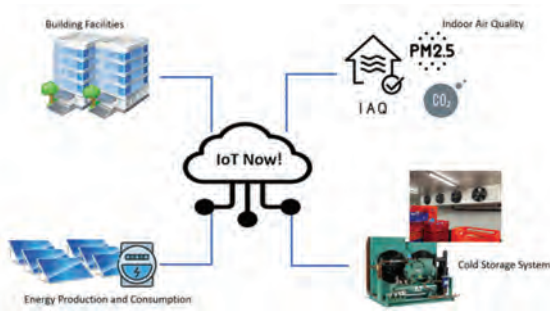
- The CIT technology is a printing machine that uses less energy and can use ink and solvents derived from alcohol, which have a lower evaporation rate than solvents derived from MEK. It features the Green Pack technology, which helps distill volatile solvents for reuse, thus reducing waste from packaging containers and improving production efficiency.
- The TTO technology is a printer designed for installation with packaging machines. It has up to 4 ink-saving modes, helping to reduce ink consumption by up to 60%.
- The TIJ technology, commonly known as cartridge ink printing, is notable for requiring less maintenance, providing high print resolution, offering adjustable resolution settings, using less energy, and featuring an Auto-Swap function that helps reduce time and the number of ink changes.
- The LASER technology is a printing machine that does not use chemicals in printing, resulting in longer machine life, high print quality, low maintenance, and no consumables required.
- The print code and data verification technology helps prevent and reduce waste caused by printing errors in real time, thereby increasing work efficiency, enhancing product reliability, and preserving the environment.

In addition, HARN also participated in research funding support with the National Research Council of Thailand. Under the project of “The biomaterial print head with embedded measurement device for 3/4D printing. It can be said that the result from research and development meets the goals to the project. HARN has also supported research funding for soft materials printed with a Bio-compatible 3D printer in collaboration with Dr. Raviphat Maneechote and the MTEC research team. They produced realistic prosthetic fingers using soft materials with digital technology to expand and create business opportunities.

5) Internet of Things System Business (Aiyaraharn)

In 2024, Aiyaraharn has conducted research and development of 3 projects of Internet of Things products, were further developed from the research that was pushed into products in early 2024, There was of 1 Platform Software development project and 2 Hardware projects. These products are designed with the intention of working under the same ecosystem. Details of the products are as follows.

Product 1 : IoT Platform Software (IoTNow)



IoTNow is a Platform Software on Cloud that Aiyaraharn developed to be the control center and operational data monitoring for IoT products that are implemented, sold, and provided by Aiyaraharn. The platform consists of the Dashboard and Control Panel for IoT work in the aspects of building systems, tracking systems for energy usage, electricity generation with solar cells, Refrigerator system, and indoor air quality systems. Customers can observe information and control the operation of these systems at the website via the internet, where IoTNow provides annually subscription. Currently, we have started providing services to customers in the refrigeration system, Solar power generation system and indoor mechanical tracking system.

Product 2 : IoT Gateway for Cold Storage System version 1.5



This product is an extension of the IoT Gateway for Cold Storage, which was developed in 2023 and launched for sale in early 2024. During the first quarter of 2024, its firmware was upgraded to support a wider range of temperature controllers from multiple brands, increasing compatibility from a single model to five models—all of which are among the most popular controllers in Thailand’s cold storage market.

Additionally, the product’s capability was enhanced to support up to six controllers per gateway, regardless of whether they are from the same brand or model. This improvement provides greater flexibility and better meets the needs of small cold storage owners who manage approximately 3–5 rooms per branch and require monitoring for no more than ten refrigeration units. As a result, total sales in 2024 reached 53 units.

Product 3 : iCDU with IoT Ready



This is another product that builds upon the IoT Gateway for Cold Storage and is being developed in collaboration with HARN’s Refrigeration Business. The goal is to enhance its capabilities beyond merely a monitoring system for refrigeration systems, transforming it into a comprehensive solution that both controls and tracks system performance via IoTNow! With this development, refrigeration control systems distributed by HARN’s Refrigeration Business, which were previously standalone systems, will now feature built-in IoT capabilities. This advancement will enable customers to manage their refrigeration systems more efficiently, with full remote management capabilities, while also enhancing customer service and support. The product is currently in development and is expected to be available for sale in the second half of 2025.

3.2.2 Promote fair competition

In order to ensure that the treatment of business competitors complies with international standards and remains within the legal and regulatory framework concerning fair competition, HARN has established a code of business ethics for dealing with competitors, aligning with these principles, with the guidelines as follow;

- Undertake the business activities in compliance with the law and competition regulations, and cooperate with the government authorities.
- Establish the procedure and measure preventing the involvement in or conspiracy with the behavior against fair competition.
- Ensure the employees be aware of fair competition and compliance with applicable competition law.

- Promote fair competition and activities, and support anti-monopoly and anti-dumping.
- Pay attention to social context and not take advantage of natural or social conditions, such as poverty, to unfairly create competitive advantages.

In 2024, HARN is committed to conducting business under policies that promote fair, transparent, and non-discriminatory competition, **not** any advantage by seeking competitors' confidential information through dishonest or improper means, and do not defaming competitors using slander that led to reduction or limitation of trade competition, including **no** legal case between competitors.

3.2.3 Promote social responsibility in value chain

HARN supports and promotes business operations to be strong, grow, and progress under the balance of the economy, society, environment, and corporate governance, while creating sustainability throughout the value chain, with the ultimate goal of enhancing the quality of life for people in society in accordance with policies that promote social responsibility in the value chain, with the guidelines as follow:

- HARN places importance on sourcing products responsibly by selecting products from partners and manufacturers who are transparent, traceable, and socially and environmentally responsible.
- Focuses on sourcing environmentally friendly products and promoting good health by selecting items that are beneficial to health and do not harm the environment.
- Aims to improve transportation efficiency by reducing management costs, shortening delivery times, and promoting the reduction of carbon emissions into the atmosphere.

- Focused on developing sales channels and communication in the online format to meet customer expectations and adapt to the changing behaviors of customers/consumers in the digital age.
- Dedicated customer service unit that acts as a communication channel to offer exclusive benefits to customers, gather feedback, and provide after-sales services.
- Complies with the laws and regulations of relevant regulatory authorities, fostering understanding and communication throughout the organization and building trust through the disclosure of corporate governance operations across various channels.

In 2024, HARN **not** any violation of good corporate governance, code of conduct and compliance with relevant laws, rules and regulations, has safety and legal management standards.

3.2.4 Promote respect for assets rights

HARN aims to conduct business in accordance with policies that promote respect for assets rights, with the guidelines as follow:

- Appropriately check to ensure that is legally allowed to use and grant the right to use a certain property.
- Not participate in any activity violating other person's properties, for example, inappropriately using advantageous marketing position, producing fake products, and intellectual property infringement.
- Fairly pay for the use or acquisition of a certain property.
- Establishes guidelines to protect the rights of stakeholders who suffer damages from violations resulting from operations, ensuring compensation is provided at no less than the rate specified by law.

In 2024, HARN not any violation of intellectual property infringement by complying with the law related regulations. HARN allows for reporting of any possible offence or filing any complaint of any breach of law or ethics through chairman of Audit Committee. HARN has an established procedure for actions to be taken after getting the whistleblowing. The matter shall be investigated and then reported submitted to the Board's for acknowledgement.

In addition, HARN also sets a practice guideline for the directors, top executives and employees, including code of ethics and accountability for the stakeholders to creating behavioral standard for the operation of such personnel on an integrity basis. It is also set code of conduct a guideline for the Board members, executives, to employee's organization-wide to be aware and follow. In this regard, and monitor such performance on a regular basis.

3.2.5 Customer/Consumers Responsibility Management and Development

1) Confidentiality of Customer's Personal Data

HARN to the importance of respecting the rights and committing to protect the personal data of customers which have been collected, stored, used, and revealed in presenting products and services to meet the needs as appropriate, accordance with personal data protection notice to show transparency in its operations, which has policies and guidelines are in accordance with the Personal Data Protection Act (PDPA) through its website www.harn.co.th, covering the following:

- Personal data collected by HARN
- Objectives of personal data processing
- Disclosure of personal data
- Duration of personal data collection
- Rights of the owners of personal data
- Contact channels to HARN and personal data protection officers
- Review of policies on privacy

The personal data protection officers (DPO) are responsible for protecting customers' personal data. To protect confidential information from leaking to external parties, the confidentiality of the data is categorized by level of importance and is limited to the scope of duties and responsibilities assigned. HARN provides a complaint channel regarding customers' personal data through the website www.harn.co.th. If any customer has a complaint, HARN will investigate the facts, consider corrective actions, provide advice or suggestions, and identify measures to resolve the issue. A suitable time frame for investigation will be set, taking into account the nature of the issue and the corrective action to be taken in collaboration with the relevant parties. In case of financial damage, compensation will be provided based on the severity of the issue, or legal penalties may be applied depending on the case.

In 2024, HARN complied with the framework of the Personal Information Protection Act (PDPA). There were no complaints from customers regarding the protection of their personal data.

2) Responsibility to Consumers/ Consumers

HARN is committed to selling products that meet international standards, developing services in line with customer expectations and satisfaction, and adhering to business ethics when interacting with customers with responsibility and integrity with the highest benefit of customers in mind, under the policies that focus on customer responsibility and development. Emphasis is placed on the development of products, services, and solutions, utilizing information technology and technology as tools to manage sales processes to improve the efficiency of delivering products and services to customers as targeted. Also uses technology to monitor potential issues and obstacles to ensure that planning for expansion and product delivery aligns with customer needs. Additionally, HARN is transitioning to an environmentally friendly business and fosters customer engagement through Facebook, its website, Line Official Account, and seminars, allowing customers to securely access and exchange information via digital systems.

Furthermore, HARN continuously focuses on improving its management system in accordance with ISO 9001:2015 standards and developing the correct knowledge and understanding among employees and stakeholders regarding workplace safety to ensure

the safety and reliability of products and services delivered to customers. A department is designated to regularly inspect product quality standards every month, and a separate unit inspects the operational systems, service processes, and methods for addressing feedback and complaints. These activities are aligned with company policies, announcements, and operating regulations, and suggestions and complaints will be promptly considered for improvement and corrective action within an appropriate time frame.

In 2024, there were no complaints from customers regarding the safety and environmental aspects of product use, according to an audit by the ISO Certification Institute from SGS (Thailand) Co., Ltd. on November 27-28, 2024. HARN has no major legal deficiencies that violated relevant regulations and laws.

HARN with realization of the importance of products that enhance quality of life and safety of customers/consumers, HARN has paid great care and attention to all processes on an end-to-end basis until the goods reach the customers/consumers according to policies and guidelines, as follows;



3) Quality and standard of the products

HARN emphasizes on the quality and the standard of the distributed products so that the customers can be confident in the quality and the safety of the products that follows the terms and conditions agreed upon with HARN. The products sold by HARN are mostly certified by the UL (Underwriters

Laboratories) and/or FM (Factory Mutual) and/or BS (British Standard) and/or TIS (Thai Industrial Standards) and/or EN (European Standard) and/or Vds Standard. As for HARN's OEM, these are produced under BS or ASTM International, including all aspects of HARN's operation is certified by the ISO 9001:2015.

- Note:**
- Underwriters Laboratories (UL), safety standards by the Underwriters' Laboratories Inc. (UL), non-profit independent organization from the USA. Responsible in testing and prepares the safety standards and safety insurance of the products.
 - Factory Mutual (FM), responsible in testing protective and fire extinguisher equipment of the insurance group in the USA.
 - British Standard (BS), safety standards by the British Standard Institution (BSI)
 - Thai Industrial Standards (TIS), industrial standards, products guaranteed by the Thai Industrial Standard Institute.
 - VdS is an independent institution that tests fire prevention and extinguishing equipment That guarantees safety and reliability in the field of fire protection and safety Germany


4) Products Insurance


HARN ensures the damages or defectives of products following the insurance conditions of the products that HARN distributes or installs for the customers for 6 months to 1 year, for the machines and the spare parts, respectively. The products of HARN had been insured already by the suppliers for similar time.


For project sales, after completion of installation work, HARN ensures the installed products under the conditions for 1 year where the suppliers also ensure the products to HARN for 1 year as well and may consider purchasing additional warranty from the seller in case the customer wants a longer warranty.

5) Processes of storing products in warehouses and transportation products

HARN has 3 warehouses: as follow;

 **The main warehouse**, is located at 888/14-16 Moo.21, Bang Phli Yai, Bang Phli, Samut Prakan 10540. The rental area covers 6,374.23 square meters which HARN owns the ownership to store valve products and other products in Fire protection system, Air-Conditioning system, Sanitary system, Refrigeration system and Digital printing system. This place is also used to assembly equipment's on a made to order basic.

 **The 2nd warehouse**, is located at 509, Soi Soonvijai 4, Bang Kapi, Huay Kwang, Bangkok 10310. Is rented from a related companies with HARN to store products, assembly and maintenance of printers and equipment in digital printing system. This place is also used to assembly equipment's on a made to order basic.

 **The 3rd warehouse**, is located at 38/43, Moo 4, Lam Luk Ka Road, Lam Luk Ka, Lam Luk Ka, Pathum Thani 12150. This place covers 80 square meters and is rented from an external company provides the warehouse service which is not involved with HARN. It is used to keep hazardous chemicals that purchased from manufacturer and wait to distribute to customer or use to install the fire protection system for customer.

Processes of storing products in warehouses

Warehouse staff prepare space to store and a bar code product as details receives from a purchasing staff to check correctness and make an acknowledgement receipt. Which warehouse

staff will inspect product type, quality, quantity, bar code, and acknowledgement receipt to correctness. Then, will store products in warehouse, placing products came first outside and products came later inside for convenience in next distribution and control quality of product before reaches customer. In case of incorrect purchasing and product defect/damage, the warehouse staff will report to the purchasing division in order to examine as well as inform manufactures, and/or the insurance.

Processes of transportation products

Delivery staff record a picking list and makes a delivery control note to the warehouse staff for check name of customers, product quantity, delivery place, and to plan a logistic route, in order the sales division will have data to inform customer an appointment about the estimated delivery time. Also, packing staff to collect documents related for all delivery to transportation providers who contracted by HARN for check type, detail, and total of products delivery, then, sign on the delivery control note as evidence. After that, deliver to accord to route specified, In case of emergency delivery or appointment for advanced shipping, the packing staff will receive a delivery note from salesperson and coordinate with to transportation providers who contracted by HARN.

HARN distributes products from warehouses to customers (shipping cost included in product price) by HARN trucks and other delivery trucks hired from the transportation operators outside who are not involved with HARN. Now, operators are selected and registered as the approved vendor list (AVL) by our HARN. We also have insurance for products kept at warehouses to prevent damage or accident during storing and operating in case of fire, lightning strikes, earthquake, storm, flood, and other accidents in warehouses. Now, the insurance covers assets at the Head Office and products at warehouses. As of December 31, 2024 our HARN have insurance on product

shipping domestically for high value purchasing to prevent loss or damage from accident, during lifting product to the delivery truck and transporting on truck. HARN is an only beneficiary and from 2012 until present, HARN **never** claim damage from a serious accident except for some minor accidents from moving products at warehouses, costing less than Baht 10,000 in each time.

Note : HARN's will determine a sum assured in each year according to asset values from the latest financial budget before having insurance and review the increase/decrease of insurance amount as appropriate.

6) Customer Relationship Management Plan

HARN recognizes the importance of customer satisfaction, which is why it has implemented the ISO 9001:2015 quality management system within the organization. The quality policy is stated as: "We will create a lasting impression on customers with fast service, high-quality products, and continuous development of personnel through ongoing improvements in work processes." This is to maintain customer satisfaction with products and services, and the principles are communicated to all business units.

Also focuses on managing good relationships with customers through various marketing activities, such as regular customer visits, promotional activities, customer satisfaction surveys at least once a year, and training sessions about products and services. These efforts lead to trust and the development of long-term partnerships with customers, HARN aiming for customer loyalty and repeat business.

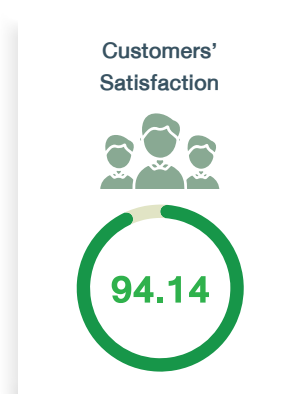
Additionally, HARN systematically manages customer complaints through its website at www.harn.co.th, ensuring complaints are handled, tracked, and reported across all business units. Customer satisfaction surveys for HARN products and services are conducted annually to continuously improve product quality, services, and internal processes. These surveys provide important data that enhances understanding of customer needs.

In 2024, the Quality Management Department is responsible for evaluating service quality, complaint handling, regulatory compliance, and conducting customer satisfaction surveys in October 2024. The proportion of complaints resolved within an appropriate time frame is 100%, and the results from the 2024 customer satisfaction survey show an average score of 94.14%, a 0.64% increase from 2023, and exceeding the target by 4.14%, which was set at 90%.

According to the satisfaction survey, HARN has maintained a high level of customer satisfaction by improving product quality, increasing communication channels, and offering post-sale services. It also regularly shares beneficial business information with customers, as well as communicates survey results to relevant departments, on improving products, services, and internal processes to meet customer expectations.

HARN remains committed to managing good customer relationships, focusing on marketing activities, and providing ongoing product knowledge training for staff involved in sales. Continuous product development is also prioritized to ensure that products and services meet customer expectations and remain trustworthy.

Customers' Satisfaction	2024	2023	2022
Products and Services (Quality, variety products and services quality)	93.50	92.91	93.38
Sales, Service and Project engineers (Product, service, troubleshooting, and installation knowledge)	94.27	93.65	94.29
Other services (Management, provision of information, communication with HARN)	94.64	93.94	94.78
Overall average	94.14	93.50	94.15



4. Environmental Sustainability Management (Go Green)

4.1 Environmental Policy and Practice

HARN recognizes that its business operations have both direct and indirect environmental impacts on stakeholders throughout the value chain. Therefore, the company has established an environmental policy, which is publicly available on its website at www.harn.co.th. HARN is committed to driving and supporting initiatives that minimize environmental impact, ensuring business growth aligns with sustainable environmental management. Focuses on setting operational frameworks to ensure that its business activities consider the reduction of environmental and community impacts while also supporting climate change mitigation efforts.

HARN is dedicated to working with and encouraging stakeholders across the value chain, including partners, service providers, contractors, non-controlled businesses, joint venture partners, and customers to adopt the principles of its environmental policy through the following practices:

- 1) Continuously adhere to relevant environmental laws, standards, regulations, and agreements with customers, partners, or stakeholders within the value chain.
- 2) Define environmental objectives and targets to prevent and mitigate environmental impacts resulting from HARN's activities, products, and services, while also promoting environmentally friendly products and services.
- 3) Reduce direct and indirect carbon dioxide emissions in operations, aiming for Carbon Neutrality by 2040 and Net Zero Emissions by 2050.
- 4) Enhance processes and products to minimize environmental impact while maintaining high-quality products and services. This includes ensuring compliance with customer requirements regarding restricted substances.
- 5) Optimize the use of energy, utilities, waste, and pollution control within operations including fuel, electricity, water, solid waste, hazardous waste, air pollution, and greenhouse gases to reduce environmental impact. Promote efficient use of limited resources based on the 3R principles is to reduce unnecessary consumption, reuse materials for maximum efficiency, recycle materials through reprocessing or transformation, including integrate Circular Economy principles to minimize waste generation.
- 6) Raising environmental awareness, provide education, and communicate the environmental policy to employees and all individuals working under HARN's control. Including providing relevant environmental training programs to enhance knowledge and encourage environmentally responsible practices.
- 7) Strengthen relationships with society, government agencies, private organizations, and other related entities by continuously supporting and participating in activities for natural resource and environmental conservation.
- 8) Continuously improve operational methods and workplace environments to meet safety standards and protocols, reducing accidents and preventing occupational diseases that may arise from work activities, thereby minimizing risks to occupational health and safety.
- 9) Provide mechanisms for stakeholders across the value chain to share opinions and suggestions on environmental issues to drive continuous improvement in processes and foster sustainable coexistence.
- 10) Regularly monitor and review environmental policies, including management plans to adapt to the current situation.



HARN has established the Sustainability Working Group and Carbon Footprint Management Working Group, chaired by Mr. Thammanoon Tripetchr (CEO) and advised by Dr. Jain Charnarong (directors), advisor to oversee all aspects of effective sustainability operations. In line with HARN’s sustainability goals for controlling organization’s greenhouse gas emissions, Scope 1, Scope 2 and Scope 3 are compliant.

This includes establishing guidelines for resource management and control to ensure maximum efficiency, raising awareness, and providing education on environmental issues. Communication

with the board of directors, executives, and employees is maintained to foster ongoing environmental responsibility, along with training and seminars for target employee groups and relevant working committees.

Additionally, the Building Management Department and the Occupational Health, Safety, and Environmental Department are responsible for overseeing resource utilization within the organization to ensure efficiency. They are required to report operational results in the monthly Sustainability Committee meetings for continuous improvement and optimization.

4.2 Environmental Performance

In 2024, HARN organized a training session on “Reducing Waste, Sorting Properly, and Disposing Correctly” on October 9, 2024, and a seminar on “Climate Resilience” on December 9, 2024, for 24 executives and 14 employees. Additionally, HARN communicated information on “Carbon Reduction and Climate Change Mitigation” through email, LINE Official Account, Intranet, and Digital Signage to enhance awareness and understanding

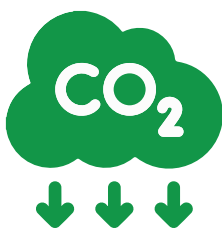
among all employees about the threats of global warming. Also reviewed the risks and creates a plan the goals for controlling organization’s greenhouse gas emissions, promote use of business electric vehicles to reduce impacts on the environment and greenhouse gas emissions in the value chain, including the follow-up on the operating performance systematically.



4.2.1 Climate Change Action

The current climate change crisis is becoming increasingly severe, with the affected areas expanding continuously. This issue has gained global attention, as reflected in the key discussions at the 29th United Nations Climate Change Conference (COP 29), which aims to limit global temperature rise to no more than 1.5°C above pre-industrial levels. The rising concentration of greenhouse gases directly impacts human life, biodiversity, and the environment, leading to more extreme weather conditions, seasonal fluctuations, and natural disasters.

Recognizing the urgency of this issue, HARN prioritizes reducing greenhouse gas emissions to mitigate global warming, implemented climate risk analysis and assessments, including risks such as flooding and regulatory changes in response to climate change that could affect business operations. In response, HARN has developed risk mitigation and adaptation to potential risks to achieve the committed to achieving carbon neutrality by 2040 and reaching net-zero greenhouse gas emissions by 2050.



2040
Target: Achieving Carbon Neutrality.



2050
Target: Net Zero Greenhouse Gas Emissions.

4.2.2 Greenhouse gas emission management from business operations

1) Energy Management

Energy Management

HARN remains committed to managing electricity and fuel consumption efficiently. The company aims to reduce electricity consumption by 30% or equivalent 6% per year by 2028 and decrease fuel consumption by 5% per year, compared to the 2023 baseline.



Reducing Electricity Consumption by **30%** compared to the 2023 baseline.



decrease fuel consumption by **5%** compared to the 2023 baseline.

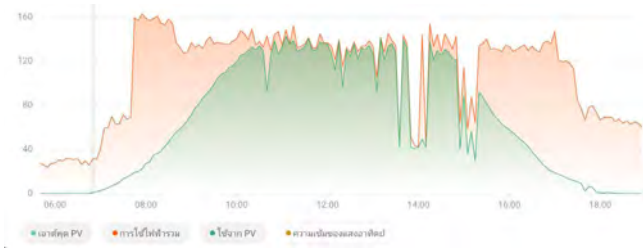
Operations Energy Management

HARN there is a system for data collection of electricity to analyze and plan on electricity control, while promoting indirect energy savings, with the installation of 330 solar panels size of 127 kW and selected the PoE Lighting system to control the lighting system from the lights inside the building by using internet lines instead of electric wires. The system automatically dims the light from the lamp when there is enough sunlight from outside. Additionally, the building harnesses natural light to create brightness without introducing heat (Light Harvest). This can save electric energy and expenses, including the reduction of environmental impacts.

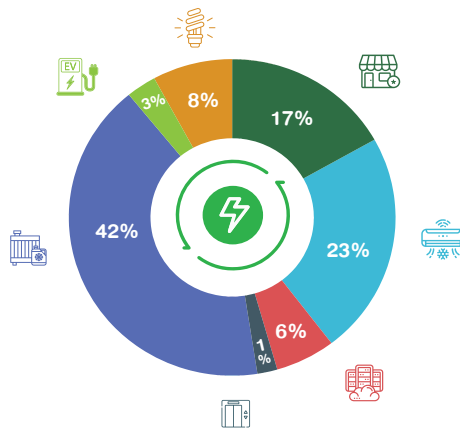
Also, HARN to learn and establish a building and energy management system by its internal team, together with Aiyaraham Co., Ltd. ("Subsidiary"), which Internet of Things (IoT) know-how, we target for energy in architectural design no more 100kWh/m²/year, which is considered lower than in Bangkok office building. Furthermore, in early 2024, HARN installed an additional 177 kW solar panel. Therefore, in 2024, it can generate more electricity from renewable sources by approximately 20%, and statistics had electricity consumption in HARN's building of 60.9 kWh/m²/year, this exceeds the design goal of 40%, and it was a building with very low energy per square meter, approaching a zero-energy building (ZEB) of 57 kWh/m²/year. Moreover, HARN's has been awarded the DGNB (Green Building) standard, Gold Certificate level by the German-Thai Chamber of Commerce and DGNB GmbH in 2022.



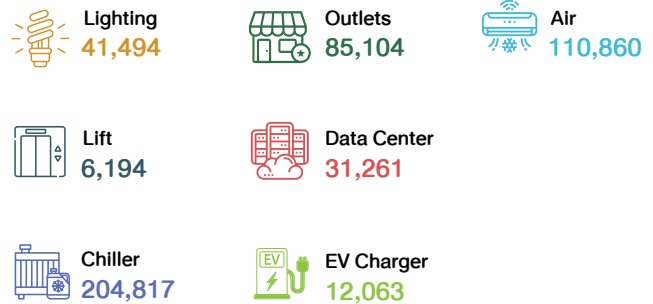
The data on graph from the Building Management System above, the proportion of solar panel (green) with the electricity that needs to be purchased from the Metropolitan Electricity Authority (MEA) (orange) each day. It is noticeable that during the period between 10:00 a.m. and 3:00 p.m. has capability to generate electricity equal to the demand. In 2024 it found the proportion of energy consumption in the HARN office as follows:



Energy consumption ratio (%)



2024 HARN Building Energy Consumption Ratio (kWh)



It can be seen that the chiller, including AHU & A/C are the systems that energy for 64% of the total electricity, that HARN's office building has only 9% of the energy, which is lower than the lighting system, typical buildings 25% of the total energy, so HARN aims to optimize the maintenance these

two systems for always maximum efficiency to reduce energy. What HARN has built in this office building will become a corporate culture of energy-saving consciousness, and no matter where employees are located, they will always have a sense of reducing energy loss.



Additionally, to minimize emissions from fossil fuel usage, HARN has set a goal to transition 60% of its corporate vehicle fleet to electric vehicles (EVs) within three years and achieve a 100% transition within five years, compared to the 2023 baseline. The company will gradually replace vehicles as they reach the end of their lifecycle to meet its annual fuel consumption reduction target of 5%. In 2024, HARN has already replaced four fuel-powered company vehicles with electric vehicles as part of this initiative

Activities Energy Management

HARN participated in the Energy Beyond Standards 2024, with the intention to be a significant force in promoting sustainable energy conservation, organized by the Department of Alternative Energy Development and Energy Conservation.



Performance Energy Management

In 2024, HARN achieved a 13.68% reduction in electricity compared to the baseline year of 2023. This was primarily due to the installation of an additional 177 kW of solar panels. Additionally, fuel consumption decreased by 4.17% compared to the baseline year, driven by the transition to four electric company vehicles. The details of our energy management initiatives are as follows:

Electricity Consumption	Unit	2024	2023	2022
Electricity purchased target ^{1/}	kWh	563,731.16	421,168.80	414,135.63
Total electricity consumption	kWh	795,338.15	759,308.15	669,899.00
- Electricity purchased	kWh	517,656.00	599,714.00	526,461.00
- Electricity from renewable energy sources	kWh	277,682.15	159,594.15	143,438.00
Percentage of total electricity purchased compared to target	%	(8.17)	42.39	27.12
Ratio of total electricity purchased to total number of employees	kWh / Person / Year	2,087.32	2,498.81	2,140.09
Total electricity expense	Baht	2,491,508.33	3,076,766.67	2,513,039.47
Percentage of total electricity expense to total expenses	%	0.22	0.26	0.22
Percentage of total electricity expense to total revenues	%	0.20	0.23	0.20
Ratio of total electricity expense to total number of employees	Baht / Person / Year	10,046.40	12,819.86	10,215.61

Note : 1/ In 2022, the company set a target to reduce electricity purchases by 30%, followed by a 20% reduction target in 2023 and a 6% reduction target in 2024, compared to the baseline years of 2021, 2022, and 2023, respectively.

Fuel Consumption	Unit	2024	2023	2022
Fuel consumption target ^{1/}	Liters	379,329.01	298,264.16	149,687.71
Total fuel consumption	Liters	382,641.36	399,293.69	313,962.28
- Diesel fuel Consumption	Liters	241,666.14	270,488.38	193,584.71
- Gasoline fuel Consumption	Liters	126,031.82	109,063.00	96,973.08
- Other fuel Consumption	Liters	14,943.40	19,742.31	23,404.48
Total fuel expense	Baht	22,359,426.55	21,856,911.74	20,973,866.94
Percentage of total fuel expense to total expenses	%	1.97	1.85	1.86
Percentage of total fuel expense to total revenues	%	1.76	1.65	1.69

Note : 1/ In 2022 - 2024, set a target to reduce fuel consumption by 5, compared to the baseline years of 2021, 2022, and 2023, respectively.

2) Water Resources Management

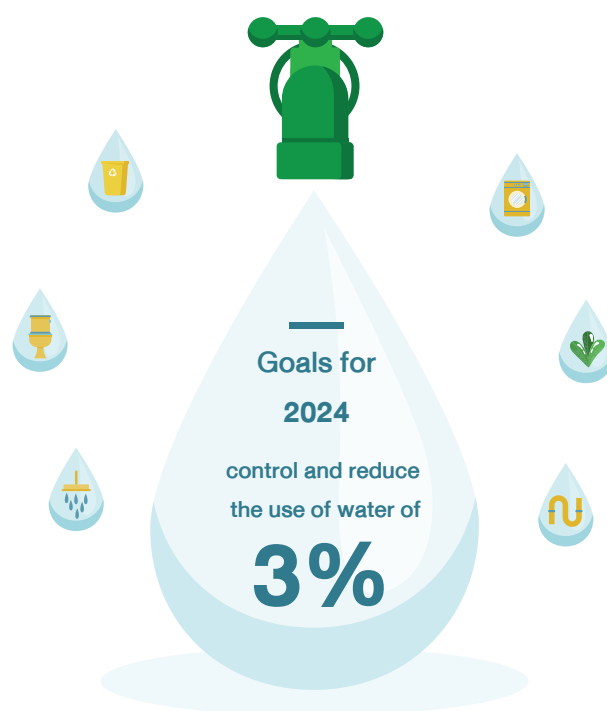
Targets Water Resources Management

HARN has engaged in import and distribution, the main procedures do not major problems water issue. However, HARN the importance to wisely water resources management, set the goal compared with the base year 2023 in order to control and reduce the use of water of 3% per year.

Operations Water Resources Management

HARN continuously promotes integrated water management, emphasizing efficient water usage and planning in accordance with circular economy principles, enhances water management efficiency by recycling wastewater from Air Handling Units (AHUs) in the air conditioning system is used to water plants. This initiative not only reduces water expenses but also minimizes wastewater discharge into natural water sources.

Additionally, HARN regularly inspects and monitors water usage and equipment to prevent leaks and reduce water loss, as well as has also installed an automated water system integrated with a rainfall measurement system, ensuring that watering is paused during rainfall. This approach further optimizes water consumption efficiency.



Performance Water Resources Management

In 2024, HARN achieved a 1.03% reduction in tap water consumption compared to the baseline year of 2023. This decrease resulted from initiatives to promote awareness and encourage responsible water usage, as well as regular inspections of water-related equipment. The details of our water resource management efforts are as follows:

Water Withdrawal	Unit	2024	2023	2022
water withdrawal target ^{1/}	CMB	9,670.90	9,471.50	8,132.95
Total water withdrawal	CMB	12,442.00	12,571.00	9,970.00
Percentage of total water withdrawal compared to target	%	28.65	32.72	22.59
Ratio of total water withdrawal to total number of employees	CMB / Person / Year	50.17	52.38	40.53
Ratio of total water consumption to total revenues	CMB / Revenue	0.00001	0.00001	0.00001
Total water withdrawal expense	Baht	195,028.03	212,343.00	168,674.91
Percentage of total water withdrawal expense compared total expenses	%	0.017	0.018	0.015
Percentage of total water withdrawal expense compared total revenues	%	0.015	0.016	0.014
Ratio of total water withdrawal expense compared total number of employees	Baht / Person / Year	786.40	884.76	685.67

Note : 1/ In 2022-2023, set a target to reduce water withdrawal by 5%, followed by a 3% reduction target in 2024, compared to the baseline years of 2021, 2022, and 2023, respectively.

3) Waste and Pollution Reduction Management

Targets Waste and Pollution Reduction Management

HARN applies circular economy principles in waste, waste material, and air pollution management, aiming to minimize waste generation while implementing the 3R principles: Reduce unnecessary use, Reuse materials efficiently, and recycle to maximize resource value. Additionally, HARN advances the concept of eliminating environmentally harmful materials and chemicals, rethinking disposal methods to ensure materials are repurposed or transformed for further use.

HARN has set a target to reduce non-hazardous waste sent to landfills by 5% per year compared to the 2023 baseline, as well as decreasing hazardous waste, chemical waste, and air pollution from operations by 5% per year. Furthermore, HARN aims to maintain zero pollution-related complaints arising from its operations



reduce non-hazardous waste sent to landfills
5% compared 2023



decreasing hazardous waste, chemical waste, and air pollution by operations
5% compared 2023



Reduce air pollution by 5% compared 2023 and achieve Zero pollution complaints.




Operations Waste and Pollution Reduction Management

HARN, encourage employees to manage waste correctly, creating the awareness of energy conservation, raise the employees to awareness the environmental issue, in addition, launched segregation by the type of 5 waste, namely, ordinary waste, food waste, recycled waste, hazardous waste and chemical waste, by authorized individuals from the Department of Industrial Works, Ministry of Industry is the operator who disposes of chemical waste e.g. solvents and contaminated containers, can be verified and traced back. Meanwhile, the non-hazardous wastes, food waste and hazardous waste be sent to landfill by government agencies. For recycled waste such as plastic, paper, glass, metal, are delivered to other service providers for proper separation and recycling.

Additionally, HARN implements air pollution control measures in parallel with its operations, ensuring compliance with legal standards. These measures cover emissions from fire suppression agent refilling processes, 3D printing parts manufacturing, and printer demonstrations conducted within office buildings and warehouses. Furthermore, HARN manages vehicle emissions from both company cars and delivery trucks with environmental policies, which promotes the transition to electric vehicles (EVs) instead of fuel-powered cars. Also conducts regular inspections of third-party transport vehicles to ensure they meet emission standards, thereby reducing environmental impact. Additionally, HARN has installed air quality monitoring devices within and around its office buildings to maintain a healthy indoor environment.

Activities Waste and Pollution Reduction Management

1. **Manages each type of waste** the 3R principle, all activities were 100% successful

 <h3>Reduce</h3> <ol style="list-style-type: none"> 1. Reduce paper usage, adjust work methods by developing digital systems 2. Send documents through electronic means such as email 3. Store documents as files through shared drives 4. Meetings through Conferences and E-Meeting 5. Send questionnaires through Google Forms 6. Distribute training materials through electronic channels 	 <h3>Reuse</h3> <p>Reuse single-sided waste paper</p>	 <h3>Recycle</h3> <p>Classifying waste, adding value by selling different types of waste</p>

2. Effuse classification

Encourages employees to separate waste into different categories to reduce the amount of waste sent to landfills, including helping to reduce pollution and protect the environment. Proper waste sorting has led to a decrease in the amount of waste that needs to be sent for landfill disposal and an increase in recyclable waste compared to the previous year.



3. WON Project

HARN has encouraged employees to separate plastic bags and film for the mechanical recycling process, transforming them into recycled plastic pellets (Post Consumer Recycle Resin: PCR), which can be used as raw materials in manufacturing again more sustainable through product design and production, reducing the need for natural resources and helping to tackle the plastic waste issue. Additionally, the WON project an environmental initiative that benefits the public, with every 1 kilogram of plastic bags and film collected contributing 5 Baht to be donated to environmental foundations.

In 2024, HARN contributed 23.40 kilograms of plastic bags and film to the program, a donation of 117 Baht to environmental foundations.



Performance Waste and Pollution Reduction Management

In 2024, HARN achieved a 74.10% reduction in non-hazardous waste compared to the baseline year of 2023. This was driven by a shift to measuring actual waste weight, along with initiatives to raise employee awareness of environmental issues and educate them on proper waste segregation in accordance with the 3R principles. In 2022 and 2023, waste weight calculations were based on an average of 1.07 kilograms per person per day, as referenced in the 2022 Waste Management Report by the Pollution Control Department.

Hazardous waste and chemical waste from operations also decreased by 45.62% compared to the baseline year of 2023. This reduction resulted from the adoption of environmentally friendly product technologies and the implementation of more standardized and efficient waste management planning. Additionally, air quality within and around HARN remained at 100% compliance with regulatory standards, with no reported air pollution complaints. The details of our waste and pollution management initiatives are as follows:

Waste Generation	Unit	2024	2023 ^{2/}	2022 ^{1/2}
Non-hazardous waste target ^{1/}	Kg.	47,154.53	56,375.85	57,652.65
Total non-hazardous waste	Kg.	12,853.40	49,636.35	59,343.00
Percentage of total non-hazardous waste compared to target	%	(72.74)	(11.95)	2.93
Ratio of total non-hazardous waste to total revenues	Kg. / Revenue	0.00001	0.00004	0.00051
Hazardous waste target	Kg.	4,227.50	5,215.50	6,716.50
Total hazardous waste	Kg.	2,420.00	4,450.00	5,490.00
Percentage of total hazardous waste compared to target	%	(42.76)	(14.68)	(18.26)
Ratio of total hazardous waste to total revenues	Kg. / Revenue	0.000002	0.000003	0.000004
Total recycled non-hazardous waste	Kg.	5,770.90	-	-
Percentage of total recycled non-hazardous waste compared to total non-hazardous waste	%	0.45	-	-

Note : 1/ In 2022-2024, set a target to reduce non-hazardous waste by 5%, compared to the baseline years of 2021, 2022, and 2023, respectively.

2/ In 2022-2023, calculations were based on an average of 1.07 kilograms per person per day, as referenced in the 2022 Waste Management Report by the Pollution Control Department.

4) Greenhouse Gas Emission to Reduce Management

Targets Greenhouse Gas Emission Management

HARN is a group of the “industrial”, importing and distribution of Fire Suppression products, Air-conditioning products, Sanitary products, Refrigeration products, Digital Printing products, 3D Medical products. Recognizing the impact of climate change, continuously implemented projects to reduce greenhouse gas emissions from business operations and set the goals compared with the base year 2023 in order to control and reduce organization’s greenhouse gas emissions, scope 1 and scope 2 of 5% per year, and by 2050, reduce scope 3 to zero to achieve the goal to aim for carbon neutrality by 2040 and Net Zero Emission by 2050.



reduce organization’s greenhouse gas emissions, scope 1 and scope 2 of 5% compared to 2023 baseline.



Goals for carbon neutrality 2040 Scope 3 net emissions target is Net Zero by 2050

Operations Greenhouse Gas Emission Management

HARN analyzed the risks and opportunities, formulated a strategic/innovative plan to support HARN’s greenhouse gas emission reduction. For example, installed solar panel to increasing the proportion of renewable energy, transforming the company’s cars into electric vehicles, implementing technology and digital systems in workflows, implementing long-term business restructuring towards low-carbon businesses, pursuing new environmentally business opportunities based on the circular economy, offsetting

carbon using nature based solutions through Care the wild “Plant & Protect” project, exploring means of applying the Carbon Capture and Storage technology. In addition, Dr. Jain Charnarong, Executive Director of HARN realized the environmental problems regarding PM 2.5, with collaborates with the government, private, and people sector through “Ban Kor Sandbox” project to forest fire reduction and restore green areas to reduce the villagers’ poverty, and wisdom creation.

Activities Greenhouse Gas Emission Management

HARN is a business the “industrial”, found that the activity with the highest organization’s greenhouse gas emissions is scope 3 is the use of sold products. HARN has become aware of the proportion of greenhouse gas emissions from the sale of a large quantity of compressors to the cold storage and air-conditioning industry. Although, HARN itself does not have a direct role in the energy consumption reduction process, it should strive to develop technology for customers in the supply chain. Refrigeration systems are directly related to the preservation of food and medicine, making them indispensable and a critical four factors. Compressors are considered crucial components consuming a significant high of energy. Furthermore, the efficiency of the system relies on several interconnected equipment to cost will be very high without good management. Therefore, HARN aims to customers with maximum efficiency, including the safety and environmental friendliness in refrigeration, it has developing Internet of Things (IoT) technology to enhance efficiency and reduce energy consumption in refrigeration systems.

HARN has collaborated with Aiyaraharn to invent, research, and develop the IoT system under the name Telechill Smart Solutions (S2). In addition to providing the ability to monitor the performance of refrigeration systems online at any time and from anywhere, the most significant benefit is its ability to reduce energy consumption in refrigeration systems, lower cold storage business costs, and minimize environmental impact, aligning with the goal of achieving net-zero greenhouse gas (CO2) emissions. Furthermore, the IoT system can integrate with other equipment that HARN distributes and can also be adapted to work with other widely used equipment in the market.

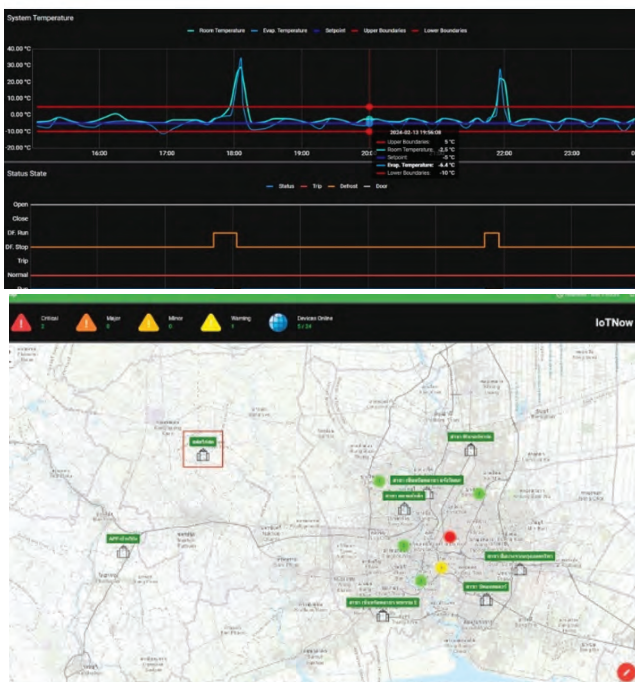


Telechill S²
Smart Solutions



The implementation of Telelchill S2 in cold storage, when compared, can reduce greenhouse gas emissions by over 2,936.41 kilograms of carbon dioxide equivalent (kgCO2e) per year, which is equivalent to planting 300 trees annually in a cold storage unit at -5°C temperature, using a 35-horsepower compressor in just one room. Therefore, Telelchill Smart Solutions (S2) not only enhances the efficiency of cold storage but also helps reduce operational costs sustainably and is environmentally friendly, allowing customers to adapt to future changes in energy, technology, and environmental friendliness.

Additionally, critical cold storage operation data will be stored on the Cloud system, making it possible to monitor and analyze the data to improve energy efficiency in refrigeration systems more effectively. In the future, HARN may utilize artificial intelligence to analyze this data, making the system smarter and potentially evolving into a strategy for expanding business in energy reduction solutions for HARN’s refrigeration systems.



Performance Greenhouse Gas Emission Management

In 2024, the direct and indirect business emissions of HARN increase 12%, compared with the base year 2023. However, HARN has implemented this plan, communicating through a variety of channels to strengthen culture, promote knowledge, and raise awareness of reducing greenhouse gas emissions to director, executives and employees consistently in order to the set goals. HARN complied with the prescribed standards and laws, did **not** pay any fines, and was **not** subject to any environmental penalties.

HARN’s carbon footprint calculation is based on the assessment principles and formulas cited by Thailand Greenhouse Gas Management Organization (Public Organization: TGO), which has not passed the review of TGO experts. The performance greenhouse gas emission management are as follows:

Greenhouse Gas Emissions	Unit	2024	2023	2022
Total GHG emissions target ^{1/}	tCo2e	328,482.92	1,016.77	505.24
Total GHG emissions	tCo2e	387,327.87	345,771.49	1,070.29
- Total GHG emissions - scope 1	tCo2e	1,121.12	1,039.11	807.11
- Total GHG emissions - scope 2	tCo2e	209.10	268.07	263.18
- Total GHG emissions - scope 3	tCo2e	385,997.65	344,464.32	-
Percentage of total GHG emissions compared to target	%	17.91	28.56	111.84 ^{2/}

หมายเหตุ : 1/ In 2022-2023, set a target to reduce GHG emissions by 5%, followed in 2024 by scope 1,2,3 a 5% reduction target and scope 3 a zero-reduction target in 2050, compared to the baseline years of 2021, 2022, and 2023, respectively.

2/In 2021, the carbon footprint was calculated incomplete the first time, led to a high percentage comparison the target in 2022.

5. Social Sustainability Management (Together)

5.1 Social Policy and Practice

HARN, as a company providing engineering services in fire suppression systems, air conditioning, sanitation, refrigeration, digital printing, and 3D bioprinting, is committed to maintaining its role as a socially responsible organization by conducting business responsibly. This is achieved by leveraging the capabilities of its personnel, technology, and partnerships with both public and private sector networks to create positive impacts on society, communities, and the nation. These efforts include human resource development, community and social development, and promoting the conservation and restoration of natural resources and the environment, supports the underprivileged to improve their quality of life, aiming to avoid any negative impacts that business operations might cause.

HARN has taken into account and aligned its efforts with the needs, expectations, and concerns of all stakeholders through participatory processes to build relationships and understanding. This approach creates balancing shared value between the organization and society, and leading to sustainable mutual growth in the future to strives to create a positive image and holistic social outcomes.

There are 5 practical policy and guidelines as follow:

1. Human rights respect
2. Fair treatment of employees
3. Strengthen and develop employees' capability; support culture and values of HARN in line with the goals, strategies and direction of business expansion.
4. All executives are responsible for human resource management in accordance with the policy and management guidelines of HARN.
5. Enable information technology to develop human resources in various fields.

5.2 Social Performance

5.2.1 Human rights respect policy

HARN strictly adheres to the principles of international human rights organizations, supporting and respecting the protection of human rights throughout the value chain, has established a Human Rights Policy, which is integrated into the Human Resource Management Policy and is publicly available on its website, www.harn.co.th.

HARN strict compliance with legal requirements in all its operational processes and throughout its business value chain, according to a 100% business activity plan, conducts risk assessments related to human rights impacts and opportunities, covering all HARN's business operations, under the management approach that respects human rights, such as safety and occupational health, migrated labor, security, supplier's workplace conditions, the standard of living of communities, and the rights of natives/employees to ensure to keep risks manageable. Also, the implementation of this plan is to be monitored every quarter,



report to the Board for acknowledgment and comments. This year 2024 no complaints and not any violation of human rights in business process, are practical guidelines as follow:

- promote and motivates has guidelines to the practice based on the principle of basic human rights and equality by disregarding the differences between nationalities, race, skin color, sex, language, religions, political or any other beliefs, ethnicity or social background, wealth, birth or other status this is the foundation of social coexistence.
- Supports and respects the protection of human rights by regularly inspecting its own business so that it does not involve with activities which violates the human rights, for example, not supporting forced labor, or opposing to child labor, or any other issues that demonstrate a lack of respect for human rights principles or are not in line with international standards regarding human rights, freedoms, and equality.
- Respects the opinions of the employees which cover the freedom of opinions that is free from outside influences, obtaining information or ideas from various Medias, including providing the communication to freely listen to the opinions of the stakeholders.
- Monitors compliance with human rights requirements within the organization and promotes compliance to human rights principles in accordance with international standards by subsidiaries, partners, and all stakeholders.
- Protects the rights of stakeholders who have been harmed by human rights violations arising from business operations, by considering compensation for damages not less than the amount prescribed by law.
- Executives and employees have the duty and responsibility to promote the rights of individuals in all locations where HARN or its subsidiaries operate, ensuring that business operations do not participate in or refrain from taking action that may result in human rights violations.

5.2.2 Fair treatment of employee's policy

HARN is committed to driving its business with a focus on ethical treatment of labor in a fair manner, is established as a policy and guideline in the Code of Conduct, which is publicly available on the website www.harn.co.th, which strict implementation and monitoring of these practices according the plan of 100% of business activities, in 2024 there were no disputes, did not violate the laws regarding labor, consumers, employment, trade competition, environment, as well as no protests or strikes, the practice guidelines are as follows:

- Strictly comply with the laws and regulations which relate to the employees.
- Provide a good working atmosphere, safety, and good occupational health to make employees happy at work.
- Treat the employees gently, respect their individuality and human dignity.
- Fair remunerations for employees, taking into account responsibilities, economic conditions, and current wage rates.
- The promotion, relocation, including rewards and disciplinary

actions are conducted fairly by considering the knowledge, capabilities and suitability of the employees as a standard, non-discrimination, and provide equal and equal opportunities for all.

- Adhering to the code of conduct, with importance attention to the development of staff's ability and consistently, and provide comprehensive and fair career development opportunities.
- Avoid any unfair actions which may affect the stability of the employees' jobs or threaten and create stress to the employees.
- Provide opportunities employees for all have the rights to opinions or complaints when they are treated unfairly in an equal and impartial manner.
- According to the established rules and procedures, immediately consider opinions or complaints and take corresponding fact-finding procedures.

5.2.3 Strengthen and Employees Development

HARN there a policy to continuously promote personnel development at all levels, improve their higher performance and prepare them for tough competition, encouraging learning opportunities and develop knowledge, skills and gain experience that contribute to the growth of organization, which annual training in and outside, including overseas training and study, so as to develop their skills. Moreover, HARN following up, assessing, applying gained knowledge to the workplace, create growth of knowledge together within the organization

HARN defined its core values as "POSITIVE", which is significant in molding the management and employees at all levels to team work behavior clearly, as responsible the organization the outside society.



HARN is determined to execute its human resource development plan as soon as its employees start working at HARN by providing training focused on knowledge and basic skills necessary for the work, focused on developing good so as to strengthen the motivating to develop potential and work, with a long-term master plan and regular communication with employees to raise awareness of a learning organization, can access and leverage such. This help promote employee progress and to value increase tangible for the business. In 2024, the internal employees training and development of the company are as follows:

1) Strengthening core organizational capabilities

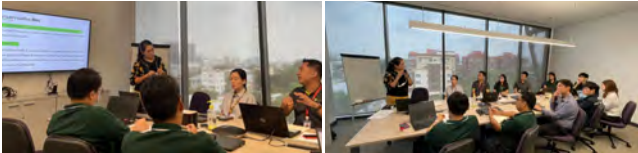
1.1) Course on HARN NEW GEN

This course fosters the mindset and awareness of the importance of displaying behaviors aligned with HARN's values, with a focus on utilizing one's own potential to contribute to the organization. The success of the organization does not come from the abilities of executives, employees, or any single individual, but from unified collaboration. The focus is on the success of the organization over individual interests, adhering to the principle of teamwork, which stems from positive attitudes and good relationships. This builds mutual trust, which in turn leads to cooperation and a collective drive toward the same goal, there were 26 persons in this training of 3:30 hours per person.



1.2) Risk Management Course within the Organization

Business to achieve long-term stable growth, it is essential to have a solid foundation in risk management to prevent and mitigate the impacts of potential risks arising from various variable factors, including fraud and corruption in different forms. This course helps department executives to actively participate in managing work-related challenges and obstacles, fostering engagement in preventing and reducing the likelihood of incidents and their potential impacts. This, in turn, ensures that operations proceed in line with the organization's objectives and goals, there were 10 persons in this training of 3 hours per person.



1.3) Internal Auditor Course for Quality Management System Standards (ISO 9001:2015 Internal Auditor)

Effective internal quality audits help ensure that an organization's activities are aligned with standard requirements. Internal quality auditors within the organization are crucial to internal processes, and therefore, they must be equipped with the necessary knowledge and skills for conducting internal audits to enhance confidence in planning and executing activities efficiently, in compliance with the standards, there were 7 persons in this training of 6 hours per person.

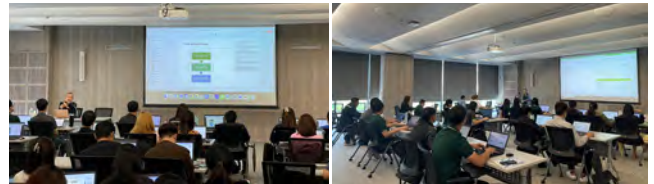


2) Sales and service

Sales and service personnel are crucial to the success of any business. Developing their knowledge, skills, attitudes, and motivation in sales and customer service will enhance their expertise in presenting HARN's products and services in alignment with customer needs. This, in turn, fosters a positive personality, a service-oriented mindset, and professionalism in consulting, recommending, and solving problems, ensuring customer satisfaction. Such efforts contribute to achieving the business goals in line with the vision: "We are committed to being a leading provider of sustainable, comprehensive engineering services." Additionally, promoting opportunities for employees to attend overseas study tours and training in product knowledge, operational systems, and relevant new technologies will encourage them to share new insights and experiences within the organization, continuously improving the products and services.

1.4) Course of Intro Generative AI

Generative AI is revolutionizing the way every organization operates. This course serves as a key to significantly enhancing work efficiency and quality by applying this technology across various areas within the organization. It aims to create greater outcomes, accelerate work processes, and form a vital foundation to elevate the organization's capabilities amidst the competition and challenges of the digital era. The training was conducted in two batches, there were 68 persons in this training of 3 hours per person.



1.5) Growth Mindset Course for Sustainable Self-Development

This course encourages employees to learn, understand, and develop the mindset needed to keep pace with constant changes. It emphasizes the importance of achieving success in the workplace through a professional perspective, focusing on self-development, organizational growth, and fostering a positive attitude towards oneself and others. This ultimately leads to greater collaboration and teamwork, there were 37 persons in this training of 6 hours per person.



2.1) Course of Sales Professional

This course is designed to provide a systematic understanding of the sales process, from customer segmentation to post-sale follow-up. It covers practical sales techniques at each stage, enabling employees to apply them effectively and having the correct and mindset perspectives of professional salespeople, helping empowering employees to enhance their skills, leading to greater efficiency in their work, there were 22 persons in this training of 6 hours per person.



2.2) Victaulic Knowledge of Victaulic Fire Protection and HVAC Systems

This course provides employees with an in-depth understanding of products related to fire protection systems and HVAC systems. It aims to enhance their ability to provide accurate, comprehensive, and efficient consultations and recommendations to customers, there were 13 persons in this training of 6 hours per person.



2.3) Knowledge of Yeacode Products and Usage Techniques

This course helps employees learn and understand Yeacode products, including techniques and methods for using Yeacode printers. It enables them to provide effective guidance and problem-solving support to customers, there were 22 persons in this training of 6 hours per person.



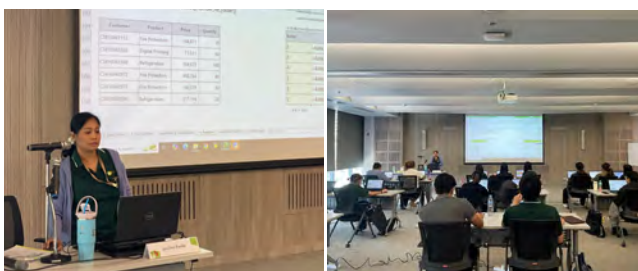
Additionally, sales and service personnel continuously enhance their knowledge and understanding of various products and services to further develop their skills and expertise. This ongoing learning builds customer confidence in HARN's offerings, such as Victaulic grooved end valves, TROX air conditioning products, Giacomini valve products, proper selection of water misting systems, installation and basic troubleshooting of Hisense VRF air conditioning systems, IQ module and extension board devices from Bitzer, IRS reciprocating compressor technology, smart electronic protection devices for screw, knowledge of Domino Vx Series TTO, technical expertise in Domino Mx Series printers, knowledge of Domino Vx350i printers, skills in installing, operating, and maintaining Yeacode printers, and understanding of Air dryer products.



3) Development of Teaching Skills within Organization Project (Train the Trainer)

3.1) Course on Using Microsoft Excel for Data Summarization and Report Generation

In today's work environment, the volume of data continues to increase, making it essential to have accurate and timely data to support decision-making. This course emphasizes the importance of employees understanding how to efficiently and accurately store and manage large amounts of data to utilize it and improve work efficiency, there were 21 persons in this training of 6 hours per person.



3.2) Course on SAP Purchasing Process Knowledge

This course aims to enhance understanding of the purchasing process and procedures, ensuring employees can correctly and thoroughly carry out purchase orders through the SAP system. It also covers how to use the system for recording orders, generating related reports for analysis, and making informed decisions, ultimately improving operational efficiency, there were 14 persons in this training of 6 hours per person.



3.3) Course on Weiss Pressure Gauges and Thermometers Products Knowledge

This course aims to provide employees with knowledge and understanding of Weiss pressure gauges and thermometers. This will enhance their ability to provide accurate and appropriate product recommendations and advice to customers, there were 18 persons in this training of 3 hours per person.



3.4) Course on Quality Management System Requirements (ISO 9001:2015)

Help employees learn and understand the fundamentals and processes involved in working under quality management system requirements. It aims to enhance work efficiency and according with the ISO 9001 system, covering planning, implementation, inspection, and product traceability for issue resolution and prevention. Employees will be able to apply these principles in their daily work, ensuring standardized practices that align with quality requirements and contribute to achieving operational objectives, there were 6 persons in this training of 6 hours per person.



3.5) Course on How do you improve your English email writing skills?





Help learners gain knowledge and understanding of how to write accurate English emails. It equips them with the skills to communicate professionally within and outside the organization, effectively reducing and preventing errors in communication and coordination among stakeholders, there were 25 persons in this training of 3 hours per person.



In addition, HARN also promoted employee learning through online self-study on the website of the organization called of “HARN Academy” in which employees are able to learn and develop self-study anytime, anywhere, and supports various devices, which the topics are related to the important policies of HARN, personal finance. Employees can learn and test their

understanding of online courses, such as corporate governance principles, code of conduct, anti-corruption within the organization etc. to ensure employees at all levels have the knowledge and understanding of correct practices, as well as the awareness of importance, roles and duties, which is a process of the effective prevention and anticorruption in the organization.

4) Summary of Employee Training and Development

Course	Description
 Basic work course	Knowledge about organizational goals, policies, values, work culture, and knowledge that all employees need at work.
 Core competencies of the enterprise	Knowledge and skills required by employees at all levels to promote the performance of their duties and influence the company's goals and vision.
 Position capability	Improve the work potential and professional knowledge and skills, so that understand the factors that affect oneself or one's job, so that they can develop or adapt to changing conditions.
 Management ability	Manage work and personnel knowledge and skills management based on roles responsibilities. Establish leadership, learning, and development enhance the competitiveness of the organization.

Employee development	Unit	2024	2023	2022
Total number of employees	person	248	240	246
Employee training target	person/year	≥ 6	≥ 6	≥ 6
Number of training hours	hour	6,379	6,364	3,114
Average number of employee training hours	hour	25.72	26.52	12.66
Expenses on training	baht	665,905	1,031,586	246,959

5.2.4 Human Resource Management

1) Manpower planning and employment

HARN has an employment policy which focuses on equity, no limitation or discrimination on gender, race, religion, and culture, based on qualifications, experience, and capacities as specified in the code of conduct with transparency and fairness to all candidates who are internal employees and candidates who are external employees. In 2024, HARN had a total of 248 employees, with different age, gender, education level, and various operational characteristics, while retaining the employee rate according to the manpower plan of 95.75% and there is also a voluntary turnover rate of 15.55% employees.

HARN maintains its duties in compliance with the law and the importance according to the Promotion and Development of Quality of Life for Persons with Disabilities Act, B.E.2550 (2007) for support to people with disabilities their sufficient income in life. In 2024, HARN has notified its intention to comply with the occupational promotion under Section 35 (allowing concessions) two persons with organizing relaxation massage activities for employees, with a total of Baht 239,440.

unit : person

The number of staff	2024			2023			2022		
	Female	Male	Total	Female	Male	Total	Female	Male	Total
Total employees	103	145	248	97	143	240	97	149	246
Employees who voluntarily resign	16	22	38	12	16	28	10	18	28
Newly recruited employees	24	27	51	12	13	25	13	23	36
Disabled employees	0	0	0	0	0	0	0	0	0
Non-employees with disabilities	1	1	2	1	1	2	0	0	0

2) Labor Disputes

- None -

3) Remunerations and Benefits for the Employees

HARN has a policy of fair compensation as well as creating career stability and fair career advancement opportunities and provide various welfare benefits for employees as required by law according to the following guidelines;

- Establish a welfare committee to provide employees with opportunities to participate in consultations. And propose relevant welfare suggestions that are beneficial to employees and the organization through designated communication channels.

- Participated in the wage surveys and HR Benchmark 2021/2023 to reconsider compensation and welfare which would help HARN in attracting and retaining skilled workers, as well as keeping the cost of HARN to be reasonable. Besides the salary, employees will fairly and appropriately receive welfare and other benefits in various forms.

Detail in section 2, topic: Governance Structure and Key Information of the Board, Board-Committees, Executives, Employees and Others, “Item 5.3 Remuneration for Employees of HARN, 5.4 Provident Fund, and 5.5 Other Remunerations”, page 163-164

4) Occupational Health, Safety and Working Environment

HARN recognizes the importance of safety, health, and well-being in the workplace for employees, contractors, and all related parties. As a result, has established policies and management systems that support safe operations in compliance with international standards and the Occupational Safety, Health, and Environment Act B.E. 2554 (2011) of Thailand. A safety committee has been appointed to oversee, monitor, and report on occupational health, safety, and environmental conditions comprehensively and equitably, in line with safety policies. The committee is also responsible for assessing risks and implementing

action plans and preventive measures to address safety, occupational health, and environmental concerns.

In 2024, HARN reviewed the safety, occupational health, and environmental management manual, operational procedures, and work practices to ensure compliance with legal requirements. This review serves as a guideline for safe operations and is used in employee training on safety, occupational health, and environmental issues. Driven by a commitment to implement safety, health, and environmental management practices for employees and contractors, HARN achieved the following results in 2024:

4.1) Statistics of accidents/absenteeism/illness rates resulting from work

Indicators	Target	Unit	2024		2023		2022	
			Female	Male	Female	Male	Female	Male
Employees								
Being sick at work until stopping work	0	person	0	0	0	0	0	0
Injured at work until work is stopped	0	person	0	0	0	2	0	0
Death due to work	0	person	0	0	0	0	0	0
Downtime Damage Rate (LTFR)	0	person	0	0	0	0	0	0
working hours	-	hours	205,090	205,090	189,098	281,512	190,961	290,932
Contractor								
Being sick at work until stopping work	0	person	0	0	0	0	0	0
Injured at work until work is stopped	0	person	0	0	0	0	0	0
Death due to work	0	person	0	0	0	0	0	0
Downtime Damage Rate (LTFR)	0	person	0	0	0	0	0	0

Note : Downtime Damage Rate (LTFR) refers to the number of individuals who are injured to the extent that they are unable to work, divided by 200,000 working hours. It measures the occurrence of work-related accidents that result in injuries preventing employees from returning to work on the following workday.

4.2) Seminars and basic fire drills are held

Training on Safety Knowledge for Technicians and Construction Contractors

Training sessions were conducted to provide knowledge and clarify safety, occupational health, and environmental policies. The training also emphasized the promotion and support of relevant safety measures for technicians and contractors working on customer construction sites. The goal was to ensure they understood the principles of safety management and could implement them consistently, reducing risks and preventing work-related accidents.



Safety Training for New Employees

Training sessions were conducted to provide new employees with knowledge on safety, occupational health, and work environment. The training aimed to ensure that new hires understood HARN’s safety, health, and environmental practices, along with relevant laws, regulations, and standards. It also made employees aware of the risks and hazards associated with their work, the importance of adhering to regulations, and raised safety awareness. In 2024, 49 new employees received the training, with an average of 6 training hours per employee per year. Post-training test results averaged 90%.

Fire Safety and Evacuation Training Course

With a commitment to ensuring that employees have the knowledge and skills to handle initial firefighting and respond to potential fire incidents, HARN conducted an annual fire evacuation drill on August 6, 2024, for 246 employees and tenants at HARN’s headquarters. This included 144 male employees and 102 female employees. The drill simulated a fire emergency and involved planning and assigning responsibilities before, during, and after the incident to ensure an effective response and mitigation. The training was led by instructors from the Bangkok Fire and Rescue Training Division and lasted 4 minutes and 15 seconds, meeting the required standards set by the Ministerial Regulation B.E. 2555 (2012) on the management and implementation of safety, occupational health, and environmental management regarding fire prevention and control.



5) Labor Relations Management

HARN has policies and guidelines for treating employees fairly with respect to their rights and freedom to form groups, it emphasizes internal communication within the organization to ensure that employees are informed about policies, work practices, and relevant work-related information, as well as to understanding goals in the same direction. HARN, communication channels are provided for opinions via LINE Official Account, Email and Digital Signage. Additionally, there are channels available for employees to lodge complaints or make suggestions that would benefit the overall organization, with no causes of any troubles to employees or the organization.

Safety Inspections in the Workplace

Regular safety inspections and monitoring of occupational health and environmental practices were conducted at the headquarters and warehouses according to the established plan to ensure that employees were working in compliance with safety regulations. Additionally, safety-related information was disseminated through various channels, including email, LINE Official, Intranet, and Digital Signage, to all employees at every level.



4.3) Annual medical check-up

To prevention and treatment physical health of employees to be healthy and strong. HARN provides medical check-up and examination according to risk factors according to job characteristics by selecting hospitals that meet standards for health check-ups for employees on February 7, 2024, in which 234 employees who are eligible for health examinations, 232 were actually examined, representing, 99%.



In addition, HARN sets up the welfare committee as representatives of employees to share their opinions in various welfare arrangements which will be beneficial and suitable for employees and the organization.

In 2024, HARN still a policy to encourage communication and creating happiness its staff through participate in various activities so they can have a bonding experience, and support for the growth of employees is provided throughout all times, covering both their professional and personal lives, which helps to create physically and mentally healthy, and establish good employee morale, leading to a sustainable growth.

5.1) Inheriting Songkran Tradition and annual make merit

In order to carry forward Thailand's fine cultural traditions, expressing respect and deference towards seniors, and fostering relationships, and providing encouragement, motivation, and the good relationship within the company, between management and employees.

5.2) Happy Friday

Promoting positive relationships among colleagues outside of work hours, emphasizing employee satisfaction to enhance quality, balance both work and personal life quality, and fostering confidence in being part of the team.



5.3) Annual travel

Activity that helps employee's fun and relaxation from work, strengthen relationships between colleagues, create love and bond of all employees in the organization to achieve new inspirations, be ready to their work.



5.4) HARN NO FAT Year 4

HARN places great emphasis on promoting the health and well-being of its employees by organizing a fitness competition aimed at reducing body fat and increasing muscle mass. The initiative encourages employees to adopt healthier habits, resulting in improved physical fitness and strength, while also fostering stronger relationships through shared activities. This helps create a conducive and happy working environment.



5.5) HARN GAMES

An activity to promote to participate in sport skills in order for employees to have good physical health, establish good internal relationships as well as acceptance and respect to the rules and results of sport competition to achieve good relationships through sports and exercise.



5.6) New Year Party

The year-end celebration activity provides an opportunity for all employees' enjoyment and relaxation. In addition, activities are carried out to promote creativity, express courage, strengthen team relationships and unity, which will lead to love and bonds within the organization.



5.7) The activity expresses congratulations for weddings, welcomes newborns, and celebrates the first homes

HARN is committed to being an integral part in supporting the growth of employees at every stage of life's successes to strengthen the gift of encouragement and creating satisfaction in the quality of life for employees.



5.8) The annual staff meeting

On March 8, 2024 the Chief Executive Officer, opportunity to communicate short-term and long-term goals, directions, and strategies, including emphasize vision, mission for employees at all levels, in order to create an understanding of performance to achieve the same goals, and organizing ceremony rewarding the employees whose years of service meet the criteria for the raising morale for work performance and support to being an important power to organizational success.



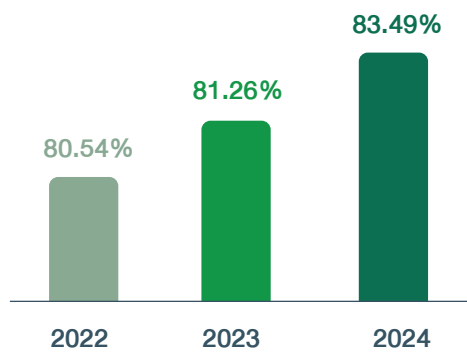
5.9) Survey of employees' engagement and work happiness and satisfaction

HARN believes that fostering job security, ensuring a positive work-life experience, and promoting health and happiness are key factors in enhancing employee productivity. To this end, HARN conducts an annual survey on employee engagement and job satisfaction. In 2024, 181 out of 245 employees participated in the survey, representing 73.88% of the workforce. The average satisfaction score was 83.49%, an increase of 2.23% compared to the 81.26% score in 2023, this result still falls short of the target, which was set at 85%. HARN has analyzed the data from the employee engagement survey to formulate action plans and make appropriate operational improvements. Activities have been organized to enhance employee engagement and encourage participation. Various criteria have been

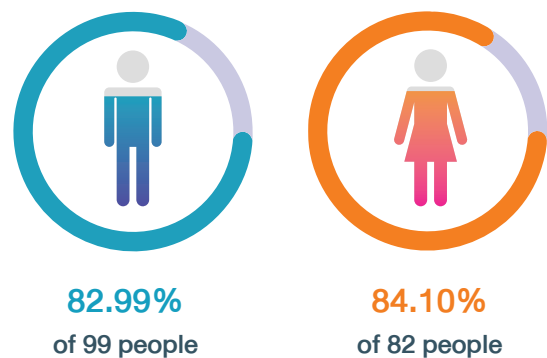
developed to ensure employees work with happiness and safety. Furthermore, communication about organizational news and updates has been consistently provided through various channels such as Digital Signage, email, LINE Official Account, and intranet to foster an understanding of the business direction and inspire employees. Additionally, these platforms serve as avenues for employees to voice their opinions or file complaints on various matters. Regular monthly meetings between the Chief Executive Officer and middle to senior management have also been scheduled to present work-related information, share feedback, and propose improvements to enhance the efficiency of work processes.

Overview of Employee Engagement Survey Result

Employee Engagement Statistics Year 2022-2024



Commitment by gender Year 2024



5.2.5 Information Technology in Human Resource Development

To provide accurate and complete information on Human Resources, as well as to effectively apply information in many aspects and reduce errors from operations. In 2024 HARN continued to utilize the Human Resource Management System or E-Business Plus, for various tasks including salary calculations, requesting leave approvals, overtime requests, medical benefits claim, as well as checking employee compensation information. Employees were able to perform these transactions independently through self-service access anytime, and anywhere. This has facilitated convenience and efficiency, reducing the burden of document verification and storage in human resource management. Additionally, there has been in the online performance evaluation

system, replacing paper-based registration for meeting/training, measuring outcomes, and testing knowledge in training, which can conduct through digital technology.

HARN is in ensure that the Administrative allocates resources efficiently and efficiency while considering effects to the resource management and value chain to achieve main goals and objectives sustainably. Also, to ensure has plans to develop information technology in organizational level that correlate to the needs of business continually, considering covering all dimensions in terms of increase business opportunities and development plans. Administer risks information technology along with cyber security to achieve objectives and main goals of the business.

5.3 Community & Social Performance

HARN as a company providing engineering services in fire protection systems, air-conditioning, sanitary, refrigeration, digital printing, and 3D bioprinting. Having a mission to sustainably contribute to society by conducting business responsibly by leveraging the capabilities of its personnel, technology, and collaboration with both public and private sector partner networks. Creating positive impacts on society, communities, and the nation, initiatives include developing human resources, communities, and society, as well as promoting conservation and restoration of natural resources and the environment.

Additionally, promoting opportunities for disadvantaged individuals to improve their quality of life aims to mitigate potential negative impacts of business operations. HARN has considered covering and aligning with the needs, expectations, and concerns of all stakeholders through participatory processes to foster relationships and understanding. This involves creating shared value between the organization and the community in balanced, leading to sustainable collaboration in the future. This approach aims to generate social holistic images and outcomes, with details as follows:

5.3.1 Support in the form of donations

HARN implemented social through various processes, to uplift the level of creating social shared value in the form of Creating Shared Value and operated as a social enterprise with the aim of maximizing the positive impacts to the society. In 2024 support was provided for community and environmental welfare activities, encouraging employees to participate in the following social activities

1) HARN Give and Share EP.2 Project

HARN provides employees with the opportunity to donate unused consumer goods, passing them on to the “Leftover-Request” project. This initiative converts donated items into educational funds for children under the care of the Baan Nokkamin Foundation. It is a part of our effort to contribute to society while fostering a sense of fulfillment through the act of giving to those less fortunate.



2) Jit Arsa Pha Charoen Project

HARN extended assistance to flood victims in Northern Thailand in Mae Sai District, Chiang Rai Province. Representatives from management and staff delivered essential supplies for daily living to alleviate the hardships faced by those affected. Additionally, financial support was provided to various schools to aid in the restoration of their buildings, enabling them to resume normal operations. The total contribution to the project amounted to Baht 87,811.



Baan San Sai School



Baan San Mana School



Baan Muang Daeng School



Mai Long Korn Community School, Friendship No. 169

3) Wildfire Volunteer Insurance Project

HARN contributed funds to purchase life and accident insurance for 20,000 volunteers of the National Parks, Wildlife, and Plant Conservation Department across the country. This initiative, part of the “Wildfire Volunteer Insurance” project organized by the Bangkok Breath Council, aims to provide security and motivation for volunteers who risk their lives to fight wildfires.

These individuals face the potential for injury, disability, or even death, which can significantly impact their families. The average insurance cost is Baht 30 per person, providing coverage of Baht 100,000 in case of death or disability. Recognizing the importance of this issue, HARN, along with its management and employees, collectively donated a total of Baht 42,299, securing insurance for 1,410 volunteers, accounting for approximately 7% of the total number.



5.3.2 GYM Participation in the SET Social Impact GYM Project



HARN participated in the SET Social Impact GYM 2024 program, which is designed to enhance the business capabilities of social entrepreneurs to run their businesses effectively, enabling them to actively contribute to addressing social issues across various dimensions, such as community development, agriculture, health, and the environment, while sustainably expanding both business and social achievements.

In 2024, Mr. Wirat Sukchai, Chairman of the Executive Board of HARN, participated in the SET Social Impact GYM 2024 as a “volunteer coach” for Thanyamai Co., Ltd., a social enterprise working to address community development and agricultural issues. Thanyamai focuses on transforming communities into eco-tourism destinations, creating products that reflect local identity, and generating additional income by adding value to local resources, promotes environmental sustainability to ensure ecological balance in the areas it develops.

Throughout the 9-week duration of the program, from August to October 2024, totaling 34 hours, Mr. Wirat Sukchai provided in-depth business model consulting, focusing primarily on organic rice as the core product. His guidance emphasized strategies for positioning rice as the main revenue-generating product, targeting a niche market with strong purchasing power, logo creation and packaging design that reflects the community’s identity and environment, have cost analysis was conducted to set competitive pricing that differentiates the business from its competitors, also offered insights on managing the organization and community, as well as developing and expanding products that showcase the community’s unique characteristics to generate additional income. This approach not only helps sustain agricultural businesses and community livelihoods but also supports the conservation of the Thai Sarus Crane, which resides in the community’s area in Buriram Province.

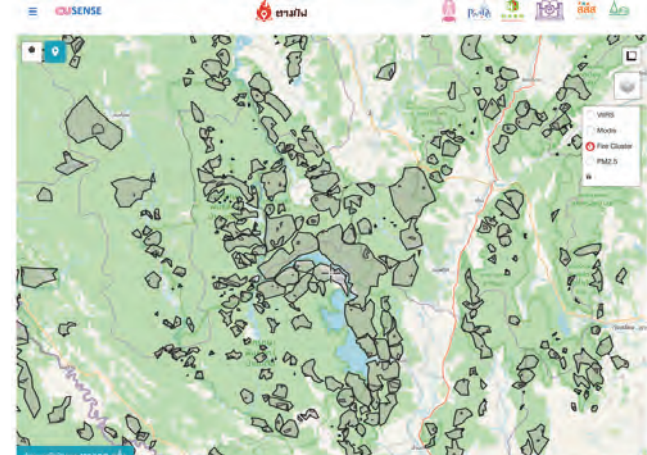
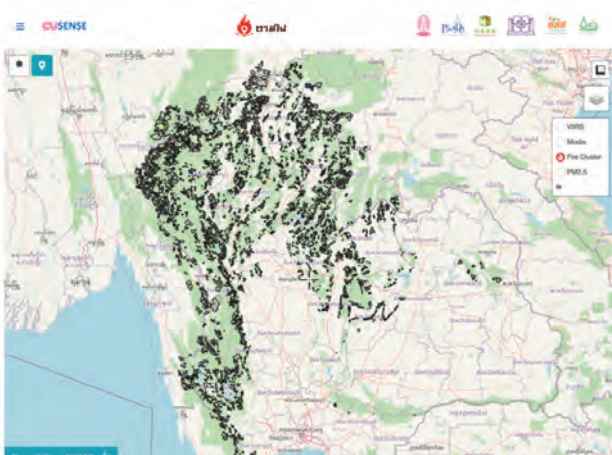
Participation	Action	Output	Support sustainable goals
Thanyamai Co., Ltd.			
offering advice and recommendations for in-depth business operations.	HARN participated as a volunteer coach for a total of 34 hours over 9 weeks, providing continuous business planning consultation throughout the program, both at the Stock Exchange of Thailand office and online.	<ol style="list-style-type: none"> Understanding of business goals through the Business Model Canvas, along with receiving recommendations and shared experiences in both advanced business skills and general foundational business knowledge. Identified business opportunities and target customer groups in the current market, while developing a timeline for business growth according to short-term and long-term plans, with guidance and insights from the volunteer coach throughout the program. Established a clear business model focused on organic rice as the primary product, positioning it as the main revenue generator by targeting a niche market with strong purchasing power. 	<div style="display: flex; flex-direction: column; gap: 10px;"> <div style="background-color: #e91e63; color: white; padding: 5px; text-align: center;"> 01 NO POVERTY </div> <div style="background-color: #e67e22; color: white; padding: 5px; text-align: center;"> 12 RESPONSIBLE CONSUMPTION AND PRODUCTION </div> <div style="background-color: #27ae60; color: white; padding: 5px; text-align: center;"> 15 LIFE ON LAND </div> </div>

5.3.3 Participation in forest fire reduction and conservation efforts to restore green areas

Dr. Jain Chamnarong, the Director, attention and importance to safety of community, society, environment and quality of life, has realized the environmental problems regarding PM 2.5 and begun to study the solutions to reduce forest fires and villagers' poverty which is called "Ban Kor Sandbox," Ban Kor (Kor village), Kor sub-district, Li district, Lamphun province is one of the villages which has suffered the most from forest fires in Thailand. Over the past 24 years, the area of Mae Ping National Park which surrounds Ban Kor has been exposed to forest fires up to 22 times which amounts to burning area between 110,000 -275,000 rai per year. by for the cooperation from the civic sector to work with villagers and government officials in solving forest fire problems and reducing the villagers' poverty through water and soil resource managing, reforestation, livestock and fishery, travel, and wisdom creation. Even the new plants have been recovered after a few months of forest fires, the microorganisms which cannot be seen with the naked eye were also destroyed, especially fungi. The tree roots of the Dipterocarpus Family in the Deciduous Dipterocarp Forest are colonized by fungi. Such must have fungi provide water and nutrients for plants, and in exchange, the plants will photosynthesize and provide sucrose and glucose to the fungi. The symbiosis relationships bring which will help the abundant trees in the Deciduous Dipterocarp Forest, even in dry areas lacking minerals in the soil. But when the forest fires often occur, microorganisms and fungi are destroyed, the Deciduous Dipterocarp Forest will dwarf lack the abundant. Moreover, the fires prevent the soil from holding water, which is why Ban Kor had such a long dry season such that other plants could not be grown, except field corn. To reduce forest fires in the Mae Ping area by raising the quality of life, in 2022 the club encouraged villagers to have the right to make a living in the park area under Section 64. The villagers had a resolution to help the Mae Ping National Park with forest fire

prevention, conservation, rehabilitation, and learning to achieve sustainability when they receive the right. The Groundwater Department also initiated a large groundwater supply project to solve the problem of drought caused by the royal initiative to help the people to have water sources for building a tap water supply system in the village in order to solve the water shortage problem, along with using the budget from the Groundwater Fund to develop groundwater for large-scale agriculture of 500 rai, as well as digging over 33 artesian wells in the area under Section 64 to have sufficient water for cultivation for another 500 rai. The addition of groundwater will help the villagers change their methods from monoculture in the rainy season to mixed crops throughout the year to gain more income and stability and to reduce forest burning according to the objectives.

In addition, in 2022, the company supported the Young Forest Fire Detective Challenge Project, in cooperation with the Office of Policy Administration of the Prime Minister, the Anandamahidol Foundation Scholarship Awardee Association, and Chulalongkorn University, in creating a "Tam Fire" application to display the heat points in a time series, which shows the size and direction of the fire front of wildfires day by day. We will see the behavior of fire from birth until it goes out. When the heat points in a time series are displayed on a map showing things covering the land, it makes us know the motives for incineration to provide long-term protection. In 2023, develop "Tam Fire" was developed to enhance the capability of pinpointing forest fire origins from ignition to tracking continuous spread, enabling the delineation of fire perimeters in each unit. This is the first Forest Fire Map in Thailand in 2023. This map is highly beneficial for elucidating motivations behind forest burning in various areas. Understanding these contexts can lead to addressing the root causes of forest fires in the future.

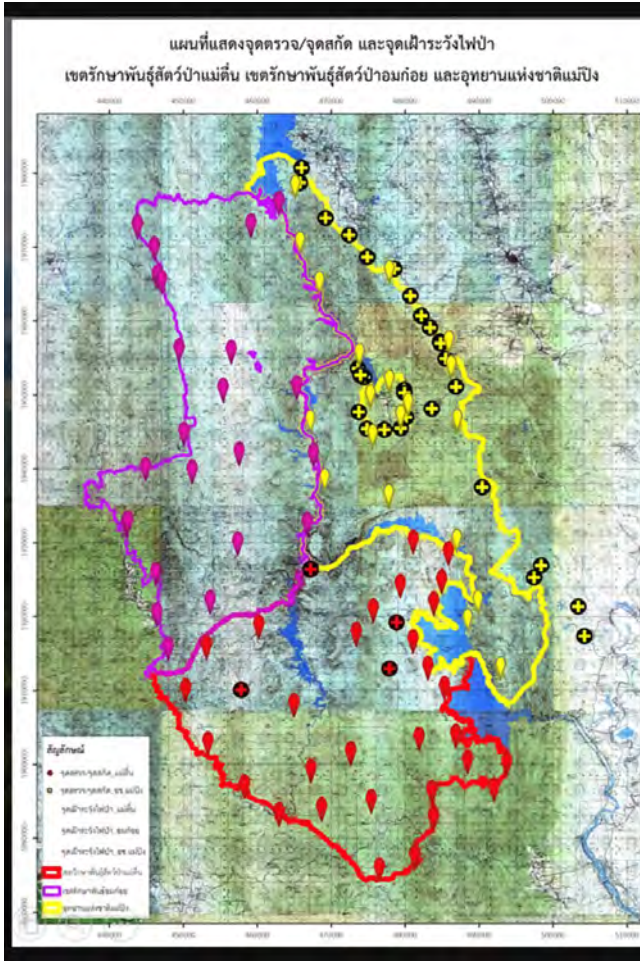


The forest fire map of 2024 and an enlarged image of the forest fire map in the area of Mae Ping, Omkoi, MaeTuen
The polygons contained within each unit represent the positions of forest fire origins within the unit

The "Tam Fire" application has been made accessible to the people sector for analyzing forest fires in the area without any charges. From November 13, 2021, to February 1, 2025, there have been 173,538 visitors to the application, averaging approximately 6,000 visitors per month.

Furthermore, towards the end of 2023, Dr. Jain Charnarong proposed to the government of Prime Minister Srettha Thavisin to designate the Mae Ping, Omkoi, MaeTun areas as special learning zones for forest fire reduction. The government assigned the Ministry of Natural Resources and Environment, the Ministry of Interior, and the security sector to collaborate in integrated efforts within the area. Additionally, the security







sector, in collaboration with the national parks, began working on-site and changing the attitudes of individual forest burners, establishing camps within villages alongside local residents throughout the wildfire season. This initiative is considered the first concerted effort involving three ministries to earnestly reduce forest fires in the country.



In the social sector, the Northern Thailand Breath Council, along with Chiang Mai Breath Council and Lamphun Breath Council, began engaging with local communities in collaboration with the Internal Security Operations Command (ISOC) and the 3rd Army Area (Region 3), various development projects have been implemented in the area, along with efforts to support local villagers who oppose wildfires. These villagers are encouraged to clearly express their desire for clean air to community leaders and fellow residents, while also exerting pressure on individuals responsible for setting forest fires within their villages.

It has been found that building alliances with those involved in setting fires, with the support of local authorities, security forces, and national park officials, has proven highly effective. When all parties work together diligently, no fires occur.

Since 2024, the government of Ms. Paetongtarn Shinawatra has continued this cooperation between the Department of National Parks, local authorities, and security forces. The results from the experimental efforts in 14 chronic wildfire clusters across Thailand aim to reduce wildfires by an additional 25%, in line with the target.

Participation	Action	Output	Support sustainable goals
“Ban Kor Sandbox” Project, Ban Kor (Kor village), Kor sub-district, Li district, Lamphun			
Addressing forest fire issues in the area while alleviating livelihood challenges through the management of water and soil resources, the cultivation of alternative crops, livestock and fisheries development, tourism promotion, and the enhancement of knowledge and wisdom.	HARN, in collaboration with civil society, the private sector, the public sector, and local communities, provides consulting and operational planning support both on-site at Ko Village and through online platforms.	<ol style="list-style-type: none"> Addressing environmental issues (forest fires and PM2.5) through economic development to ensure social stability by supporting the Junior Forest Fire Detective project since 2022 and developing the “Tam Fire” application (tamfire.net) since 2023. Generating income and livelihoods, implementing sustainable resource management in the area to ensure long-term agricultural water availability and stimulate the local economy for 900 households, approximately 2,400 people engaged in agriculture across 16,000 rai of land. This is achieved through water and soil resource management, alternative crop cultivation, livestock and fisheries development, tourism promotion, and knowledge enhancement. The initiative aims to increase household income by 30%, compared to the 2022 baseline, where the average monthly income was baht 2,083 The implementation of the beef cattle farming development project has resulted in increased household income of Baht 78,000 per year for 20 participating individuals. Additionally, a case study on the groundwater development project is currently underway. Addressing inequality ensuring that local communities attain living standards and opportunities comparable to the national level. 	     

Management's Discussion and Analysis (MD&A)

In reading Management's Discussion and Analysis (MD&A), investors are advised to study the supporting documents including the consolidated financial statements, financial information, overall performance, together with note to financial statements and this document.

1. Operating Results and Financial Position Analysis of HARN and Subsidiaries

The overall Thai economy in 2024 showed signs of improvement compared to the previous year due to the recovery of the tourism sector and increased domestic spending. Government expenditure expanded with accelerated budget disbursements. However, private sector investment remained sluggish, particularly in residential construction projects. The Thai Baht experienced volatility, logistics costs increased due to geopolitical conflicts, and the global economy had not fully recovered. Competition in the industrial sector continued to be intense both domestically and internationally, with low-cost foreign products competing against high-quality standard products from manufacturers represented by HARN in Thailand. Consequently, the company had to strengthen its market position by emphasizing quality standards and enhancing marketing efforts to retain existing customers and expand its customer base. Additionally, the private sector faced increasing liquidity constraints, prompting HARN to exercise greater caution in extending credit and delaying product deliveries.

Despite these challenges, HARN remains committed to developing high-quality products and services that meet customer demands while adhering to corporate governance principles. The company is also actively seeking new investment opportunities to diversify its portfolio and generate returns for shareholders. On February 13, 2025, HARN registered a new subsidiary, its third, with a registered capital of Baht 3 million. HARN holds a 100% stake in this subsidiary, which will engage in the medical equipment business, including trading, manufacturing, assembling, modifying, and sterilizing medical devices, as well as producing and selling synthetic rubber, prosthetics, and related raw materials or products.

For the year 2024, HARN recorded total revenue from sales and services of Baht 1,239.04 million, a decrease of Baht 60.58 million or 4.66% compared to 2023, which recorded revenue of Baht 1,299.62 million. Other income amounted to Baht 32.46 million, an increase of Baht 5.85 million or 21.98%. Cost of sales and services stood at Baht 891.98 million, a decrease of Baht 16.63 million or 1.83%. The gross profit margin was 28.01%, down 2.08% from 30.09% in the previous year. Selling expenses

decreased by Baht 3.38 million or 2.86%, while administrative expenses decreased by Baht 20.82 million or 13.73%. The net profit attributable to HARN was Baht 87.60 million, a decrease of Baht 26.44 million or 23.19%, with a net profit margin of 6.80%, compared to 8.53% in 2023. HARN's key financial ratios for the years 2024 and 2023 are as follows: the current ratio stood at 4.17 and 4.18 times, the debt-to-equity ratio was 0.31 times and 0.27 times, and the return on equity (ROE) was 6.34 and 8.35 times, respectively. These financial ratios indicate that HARN maintains a strong financial position with high liquidity, low debt obligations relative to shareholders' equity, no reliance on financial institution borrowings, and a strong ability to generate returns for its shareholders.

HARN has complied with financial reporting standards and exercised careful judgment to ensure that assets are appropriately and accurately valued in the financial statements. The details are as follows:

- 1. Review of Loss Rate Calculation for Expected Credit Loss (ECL):** HARN reviewed the calculation of the loss rate for sales on credit using the Simplified Approach in accordance with Thai Financial Reporting Standard (TFRS) No. 9 on Financial Instruments. This assessment covered trade receivables and other current receivables. The review concluded that there were no material changes in the loss rate from the year 2023.
- 2. Impairment Testing of Goodwill for the Refrigeration System Business Unit and Digital Printing System Business Unit:** The company conducted a financial forecast review for both business units to test goodwill impairment. The assessment was performed using the Value in Use method, based on the Present Value of Future Free Cash Flows (DCF) projected over a five-year period (January 1, 2025, to December 31, 2029). The discount rate applied was derived from the Weighted Average Cost of Capital (WACC) for each business unit. Management concluded that goodwill impairment was not required for the Digital Printing System business unit. However, impairment was recognized for the Refrigeration System business unit, resulting in an expense of Baht 18.70 million recorded in the financial statements of year 2024.

3. Recognition of Expected Credit Loss in HARN's Separate Financial Statements for 2024: In the separate financial statements for 2024, HARN recognized expected credit losses for short-term loans, accrued income, and deposits related to intercompany transactions with Aiyaraham Co., Ltd., a 65%-owned subsidiary in Thailand. This was due to Aiyaraham Co., Ltd. reporting an accumulated loss exceeding its equity by Baht 3.77 million in 2024, raising substantial uncertainty about its

ability to continue as a going concern. Given this situation, management exercised prudence in financial reporting and decided to recognize an expected credit loss allowance of Baht 3.77 million in the separate financial statements. However, as of December 31, 2024, Aiyaraham Co., Ltd. still had pending projects and ongoing bidding activities in line with its business plan. Management expects the subsidiary to continue its operations without any plans for liquidation.

1.1 Overall Performance of HARN and Subsidiaries

1.1.1 Revenues from Sales and Services

Revenues	For the year ended December 31							
	2024		2023		Inc/(Dec)		2022	
	MB	%	MB	%	MB	%	MB	%
Sales and Services Revenues								
1. Fire Protection Products and Projects	595.99	46.87	643.83	48.55	(47.84)	(7.43)	559.74	45.06
2. Sanitary and Air-conditioning Products	64.69	5.09	59.88	4.52	4.81	8.03	55.70	4.49
3. Refrigeration Products	219.14	17.23	247.32	18.65	(28.18)	(11.39)	230.34	18.54
4. Digital Printing Products	357.86	28.15	346.55	26.13	11.31	3.26	366.65	29.51
5. Internet of Things Products (Aiyaraham)	2.15	0.17	2.04	0.15	0.11	5.39	7.35	0.59
Elimination of intersegment sales	(0.79)	(0.06)	-	-	(0.79)	(100.00)	(0.12)	(0.01)
Total Sales and Services Revenues	1,239.04	97.45	1,299.62	98.00	(60.58)	(4.66)	1,219.66	98.18
Other Income ^{1/}	32.46	2.55	26.61	2.00	5.85	21.98	22.63	1.82
Total Revenues	1,271.50	100.00	1,326.23	100.00	(54.73)	(4.13)	1,242.29	100.00

Note : ^{1/} Other income included gains/losses on investment in mutual funds and marketable securities, interest receivable, dividend income, and foreign exchange gains/losses, including rental and service income from investment properties etc.

HARN has two subsidiary companies: Harn Vietnam Company Limited, which deals in the sales and servicing of digital printing systems in Vietnam (HARN owns 100% of the shares), and Aiyaraham Company Limited, which is involved in the sales of products and services related to IoT systems in Thailand (HARN owns 65% of the shares). The revenue from sales and services consists of the revenue from Fire Protection Products and Projects at 46.87%, Sanitary and Air-conditioning Products at 5.09%, Refrigeration Products at 17.23%, Digital Printing Products at 28.15%, Internet of Things Products at 0.17% and other income of 2.55% with the total revenue 2024 of Baht 1,271.50 million baht, reflecting a decrease of Baht 54.73 million (4.13%) compared to the previous year. This decline was primarily due to Baht 47.84 million or 7.43% decrease in the Fire Protection Products and Project, caused by project delivery delays, a slowdown in condominium construction due to an oversupply situation, economic recession, and payment difficulties faced by key contractor customers, leading to postponed product deliveries. Additionally, the Refrigeration Product saw a revenue decline of 28.18 million baht or 11.39%, attributed to a highly competitive market, delayed

investment plans from some customers, and a decrease in cold storage and distribution center construction projects.

According to the consolidated financial statements, HARN's other income increased by 5.85 million baht or 21.98%. A significant contributing factor was the recovery of 3.21 million baht from bad debts, which the company successfully collected after legal proceedings. This is considered a non-recurring transaction. Additionally, other income saw an increase from the previous year due to factors such as foreign exchange gains, rental income from office buildings and warehouses, interest income, and dividend income.

In 2024, HARN does not rely on any single customer contributing more than 10% of its total revenue from sales and services, as stated in the consolidated financial statements. However, when analyzed by business unit, two units exhibit dependency on major customers with revenue contributions exceeding 10% : 1. Refrigeration System Business Unit have two major customers account for 28.49% of the unit's total revenue from sales and services and 2. IoT System Business Unit (Aiyaraham) have four major customers contribute 88.37% of the unit's total revenue from sales and services.

Sales and services revenues can be divided according to customer groups as follows:

Customer Group	For the year ended December 31							
	2024		2023		Inc/(Dec)		2022	
	MB	%	MB	%	MB	%	MB	%
1. Contractors	703.86	56.81	777.17	59.80	(73.31)	(9.43)	629.34	51.60
2. End-users	461.24	37.22	413.93	31.85	47.31	11.43	509.82	41.80
3. Trading/Dealers	73.94	5.97	108.52	8.35	(34.58)	(31.87)	80.50	6.60
Total sale revenue and service	1,239.04	100.00	1,299.62	100.00	(60.58)	(4.66)	1,219.66	100.00

In 2024, HARN reduced its reliance on contractor customers by 9.43% while increasing revenue from direct end-users by 11.43% from sales and services. This shift aligns with the decline in revenue from fire protection systems and project sales compared to the previous year, as detailed in Section 1.1.1: Revenue from Sales and Services. However, HARN has adopted a strategy to further increase its revenue share from direct end-users by expanding its fire protection system inspection services for office

buildings and factories, developing the assembly line for ICPU cooling units, and investing in 3D printing for medical applications. This strategic shift also brings financial benefits, including reduced credit risk and lower allowance for doubtful accounts under TFRS 9 financial reporting standards, as direct end-user customers historically have a lower incidence of late or uncollectible payments compared to other customer segments.

1.1.2 Cost of Sales and Service

Cost	For the year ended December 31							
	2024		2023		Inc/(Dec)		2022	
	MB	%	MB	%	MB	%	MB	%
Cost of Sales and Services								
1. 1. Fire Protection Products and Projects	436.13	73.18	468.70	72.80	(32.57)	(6.95)	422.15	75.42
2. 2. Sanitary and Air-conditioning Products	49.35	76.29	44.12	73.68	5.23	11.85	40.19	72.15
3. 3. Refrigeration Products	180.70	82.46	184.64	74.66	(3.94)	(2.13)	172.54	74.91
4. 4. Digital Printing Products	225.03	62.88	209.83	60.55	15.20	7.24	233.14	63.59
5. 5. Internet of Things Product (Aiyaraham)	1.27	59.07	1.32	64.71	(0.05)	(3.79)	5.39	73.33
Elimination of intersegment	(0.50)	63.29	-	-	(0.50)	(100.00)	(0.15)	125.00
Total Cost of Sales and Services	891.98	71.99	908.61	69.91	(16.63)	(1.83)	873.26	71.60
Gross Profit	347.06	28.01	391.01	30.09	(43.95)	(11.24)	346.40	28.40

The key components of cost of sales and services include product costs, import and transportation expenses, salaries for project engineers and installation teams, and contractor fees for equipment installation. In 2024, the total cost of sales and services amounted to 891.98 million baht, representing a decrease of 16.63 million baht or 1.83%. However, the gross profit margin declined to 28.01%, down 2.08% from the previous year. This decline was primarily due to delays in adjusting sales prices to match the rising costs of imported

goods and logistics. These cost increases were driven by geopolitical conflicts, which delayed the fulfillment of backlogged orders, and global economic volatility, which continues to put upward pressure on product costs in the global market.

In 2024 and 2023, HARN relied on two major overseas manufacturers/brand owners, the same suppliers for both years. Their combined share of total product and service purchases accounted for 33.70% in 2024 and 32.93% in 2023, respectively

1.1.3 Distribution Cost & Administrative Expenses

Expenses	For the year ended December 31							
	2024		2023 ^{1/}		Inc/(Dec)		2022 ^{1/}	
	MB	%	MB	%	MB	%	MB	%
Distribution Cost & Administrative Expenses								
Distribution Cost	114.90	9.03	118.28	8.58	(3.38)	(2.86)	113.16	9.11
Administrative Expenses	130.81	10.29	151.63	11.98	(20.82)	(13.73)	141.82	11.42
Total Distribution Cost & Administrative Expenses	245.71	19.32	269.91	20.35	(24.20)	(8.97)	254.98	20.52
Total Revenues	1,271.50	100.00	1,326.23	100.00	(54.73)	(4.13)	1,242.29	100.00

Note : ^{1/} The company has reclassified certain accounting items in the 2023 financial statements to align with the current classification of accounting items.

1) Distribution Cost

Distribution cost decreased by 3.38 million baht or 2.86%, mainly due to lower sales commissions for sales staff and service technicians, which fluctuate in line with the decline in sales and service revenue. However, the decrease in distribution

cost was less significant than the decline in sales and service revenue, as a portion of these expenses consists of fixed costs, such as salaries and benefits for sales personnel.

2) Administrative Expenses

Administrative expenses decreased by 20.82 million baht, or 13.73%, primarily due to a reduction of 12.62 million baht in the amortization of customer relationships acquired through business purchases and transfers, as this had been fully recognized in accordance with the company's policy in Q4/2023. Additionally, unrealized losses from investments in real estate and infrastructure funds, which incurred losses only in 2023, decreased by 12.31 million baht. However, salary and employee benefit expenses increased by 2.37 million baht.

Administrative expenses include salaries and benefits for support functions, executives, and the board of directors, as well as amortization of building and warehouse usage rights, utilities, depreciation, and professional fees. Furthermore, non-cash expenses related to the amortization of customer relationships and expected credit loss provisions are also included, in compliance with financial reporting standards. These are accounting expenses that do not require actual cash outflows (Non-Cash Items).

1.1.4 Expected Credit Loss

For the years ended December 31, 2024, and 2023, the company recognized expected credit losses as follows:

Expenses	For the year ended December 31							
	2024		2023		Inc/(Dec)		2022	
	MB	%	MB	%	MB	%	MB	%
Parent company	0.31	0.02	2.43	0.18	(2.12)	(87.24)	4.27	0.34
Subsidiaries								
- Harn Vietnam Co., Ltd.	-	-	-	-	-	-	-	-
- Aiyaraham Co., Ltd.	0.66	0.05	0.33	0.02	0.33	100.00	-	-
Expected Credit Loss	0.97	0.07	2.76	0.20	(1.79)	(64.86)	4.27	0.34
Total Revenues	1,271.50	100.00	1,326.23	100.00	(54.73)	(4.13)	1,242.29	100.00

HARN recognized expected credit losses of 0.97 million baht for the year 2024, representing a decrease of 1.79 million baht or 64.86% from the previous year. The decrease was primarily due to Baht 2.12 million reduction in expenses recorded by the parent company, resulting from more effective debt collection and payment follow-ups. However, the subsidiary, Aiyaraham

Co., Ltd., reported an increase of 0.33 million baht in expected credit losses due to certain customers refusing to accept work on some projects, creating uncertainty in debt collection. After careful consideration, management determined that it was appropriate to recognize these expected credit losses.

1.1.5 Impairment Loss on Assets

Expenses	For the year ended December 31							
	Consolidated Financial Statements				Separated Financial Statements			
	2024		2023		2024		2023	
	MB	%	MB	%	MB	%	MB	%
1) Expected Credit Loss on Deposits for Goods, Accrued Revenue, and Short-Term Loans to Related Parties	-	-	-	-	3.77	0.30	-	-
2) Impairment Loss on Goodwill	18.70	1.47	-	-	18.70	1.48	-	-
Impairment Loss on Assets	18.70	1.47	-	-	22.47	1.78	-	-
Total revenues	1,271.50	100.00	1,326.23	100.00	1,264.68	100.00	1,318.60	100.00

1) Expected Credit Loss on Deposits for Goods, Accrued Revenue, and Short-Term Loans to Related Party

According to the separate financial statements for the year 2024, HARN recorded an expected credit loss expense of 3.77 million baht. This loss arose from the impairment of deposits for goods, accrued revenue, and short-term loans to Aiyaraharn Co., Ltd. (a subsidiary in Thailand, in which HARN holds a 65% stake). Aiyaraharn Co., Ltd. incurred losses exceeding its equity by 3.77 million baht. This situation indicates significant uncertainty that may raise substantial doubt about the subsidiary's ability to continue as a going concern. Applying the principle of prudence in financial statement presentation, management reviewed and determined it appropriate to recognize the full expected credit loss allowance for the aforementioned deposits, accrued revenue, and short-term loans to related party in the separate financial statements.

As of December 31, 2024, the investment in Aiyaraharn Co., Ltd. was recorded at 1.30 million baht in HARN's separate financial statements, which are presented using the cost method. HARN has not recognized any impairment loss on this investment. Management has reviewed the subsidiary's five-year financial projections (from January 1, 2025, to December 31, 2029) and determined that impairment is not necessary. This assessment is based on the fact that Aiyaraharn Co., Ltd. still has outstanding projects to deliver to customers and ongoing bids for new projects in line with its business plan. Furthermore, management believes that the subsidiary has the potential for future growth and has no plans to cease operations.

2) Impairment Loss on Goodwill

On November 29, 2016, the company acquired and assumed all business operations of Chillmatch Co., Ltd. and QIIS Co., Ltd. through the issuance of additional shares amounting to 675.36 million baht in exchange for the identifiable net assets of both companies, which were valued at 340.69 million baht. This resulted in goodwill of 334.67 million baht. As part of the Purchase Price Allocation (PPA) process at the acquisition

date, goodwill was allocated as follows: 200.07 million baht to the Refrigeration system business unit and 134.67 million baht to the Digital Printing system business unit. The company has conducted regular impairment testing on this goodwill in accordance with financial reporting standards.

Summary of Operating Results for the Two Business Units Based on Cash-Generating Units (CGUs) for Goodwill Impairment Testing ;

	Unit	2024	2023	%
Refrigeration system unit				
Revenues from sales and services	MB.	219.14	247.31	(11.39)
Gross profit	MB.	38.42	62.65	(38.68)
Gross profit margin	%	17.53	25.33	(7.80)
EBITDA margin	%	3.88	8.33	(4.45)
Digital printing system unit				
Revenues from sales and services	MB.	351.14	340.14	3.31
Gross profit	MB.	130.27	134.75	(3.32)
Gross profit margin	%	37.07	39.62	(2.55)
EBITDA margin	%	15.89	17.49	(1.60)

At the end of the fiscal year on December 31, 2024, the management prepared financial projections for the refrigeration systems and digital printing systems business units to test the impairment of goodwill. In assessing the value in use, the present value of the expected future free cash flows (DCF)

was used, based on financial projections for the next 5 years (from January 1, 2025, to December 31, 2029). The discount rate applied was derived from the weighted average cost of capital (WACC) for the business units, which is 5.81%, and the terminal value growth rate was set at 0%.

The key financial assumptions are summarized as follows:

Key Financial Assumptions	2024	2023
Risk Free Rate :RF	2.49% referring 15 Years Government Bond Yield (data as of 30/12/2024)	2.70% referring 10 Years Government Bond Yield (data as of 28/12/2023)
Market Risk :RM	8.22% Referring average SET Total Return Index: SETTRI from investing in Stock Exchange of Thailand for the last 15 years from Y2009 - Y2024	The higher rate between: 1) 6.94% – Referencing the Country Default Spreads and Risk Premiums for Thailand, as published by Professor Damodaran, NYU (data as of 05/01/ 2024) and 2) 4.03% – Referencing the Investment Return Rate from the Stock Exchange of Thailand (SET), based on the SET Total Return Index (SETTRI) over the past 10 years (2013–2023)
Beta	0.58 Referring average INDUS (MAI) Beta for the last 2 years from Y2023 - Y2024 after adjust to Company’s leverage ratio	0.31 Referring to Harn’s Beta (data as of 28/12/2023)
Corporate Income Tax	20%	20%
WACC	5.81%	4.01%

The management has conducted a sensitivity analysis by changing the Weighted Average Cost of Capital (WACC) by +1.0% and -1.0% from the base case, with the following details:

Enterprise Value	WACC (Unit : Million Baht)		
	-1.0%	Base Case	+1.0%
Refrigeration system unit	36.69	182.48	(25.93)
Digital printing system unit	172.51	830.73	(121.82)

The management has exercised caution in preparing the data by using the best estimates based on past circumstances and future business strategies. The financial data has been reviewed for the appropriateness of the assumptions used in the preparation by the company’s certified public accountants. The opinions of the Board of Directors and the Audit Committee have confirmed that the management has made projections based on reasonable assumptions. They believe that the recording of the group’s losses has been completed

and accurately reflected in accordance with the relevant financial reporting standards.

Management has determined that goodwill impairment is not required for the Digital Printing System Business Unit. However, an impairment loss of 18.70 million baht was recognized for the Refrigeration System Business Unit. As a result, the carrying amount of goodwill as of December 31, 2024, stands at 315.97 million baht, reflecting a decrease of 5.59%.

Strategy for Revitalizing the Refrigeration System Business Unit

The Refrigeration System Business Unit faces intense competition as a distributor of foreign products, with no proprietary innovations of its own. However, the refrigeration market still holds significant growth potential. The company, as an authorized distributor of leading global refrigeration product manufacturers, benefits from a team of engineers who possess expertise and have received direct training from the manufacturers. This enables them to design and propose solutions that meet customer needs, improve operational efficiency, and reduce operational costs for clients.

In 2024, the business unit successfully developed the Cold Storage IoT smart cold room system, which is now fully operational. This system helps monitor and track the performance of refrigeration systems and uses the collected data to optimize energy usage, ensuring energy efficiency and cost-effectiveness. This represents a key milestone in the success of the IoT solution. The company is committed to driving the integration of IoT systems into its refrigeration offerings, presenting them to customers as energy-saving solutions. Furthermore, this initiative also contributes to the company's long-term sustainability efforts.

1.1.6 Net Profit

For the year 2024, the profit attributable to the shareholders of the parent company amounted to 87.60 million baht, a decrease of 26.44 million baht or 23.19% compared to the previous year. This decline was primarily due to a decrease in revenue from sales of goods and services, a lower gross profit margin, and an increase in fixed employee-related expenses. These expenses were included in both distribution costs and administrative expenses. Additionally, the company recognized an impairment loss on goodwill.

However, if the goodwill impairment loss, which is a non-cash expense, is excluded, HARN's net profit would have increased by 18.70 million baht to 106.30 million baht. Compared to the 2023 net profit of 114.04 million baht, this represents a decline of only 7.74 million baht or 6.79%.

In the criteria for preparing the consolidated financial statements, there were the eliminations of intercompany transactions, inventory's profit, intercompany receivable and intercompany payable, as well as investments and shareholders' equity of Subsidiaries Company.

1.1.7 Comprehensive Income

The total comprehensive income attributable to HARN for the year 2024 amounted to 87.24 million baht, representing a decrease of 25.20 million baht or 22.41% compared to the previous year. For 2024, the only item recorded in other comprehensive income was the foreign currency translation loss from a foreign subsidiary, amounting to 0.36 million baht.

1.1.8 Earnings before Interest, Taxes, Depreciation and Amortization (EBITDA)

EBIT and EBITDA	For the year ended December 31							
	2024		2023		Inc/(Dec)		2022	
	MB	%	aMB	%	MB	%	MB	%
Earnings before Interest and Taxes (EBIT)	114.13	8.98	144.94	10.93	(30.81)	(21.26)	114.05	9.18
Depreciation and Amortization	28.52	2.24	29.17	2.20	(0.65)	(2.23)	31.26	2.52
Customer Relation Amortization	-	-	12.62	0.95	(12.62)	(100.00)	13.85	1.11
Earnings Before Interest, Taxes, Depreciation and Amortization (EBITDA)	142.65	11.22	186.73	14.08	(44.08)	(23.61)	159.16	12.81
Total Revenue	1,271.50	100.00	1,326.23	100.00	(54.73)	(4.13)	1,242.29	100.00

HARN's Earnings Before Interest, Taxes, Depreciation, and Amortization (EBITDA) for 2024 amounted to 142.65 million baht, representing a decrease of 23.61% compared to 2023. The decline in monetary profit for 2024 was primarily due to a greater reduction in sales and service revenue compared to the decrease in cost of sales and services, as well as selling

and administrative expenses. Additionally, in 2024, the amortization of customer relationships acquired through business acquisition and transfer decreased by 12.62 million baht, as the full amount had already been recognized according to policy in Q4/2023.

1.2 The Company's Asset Management Capability HARN and Subsidiaries

1.2.1 Financial Position Analysis as of December 31, 2024 and 2023

Statement of financial position	As of December 31							
	2024		2023		Inc/(Dec)		2022	
	MB	%	MB	%	MB	%	MB	%
Assets								
Current assets								
Cash and cash equivalents	293.47	16.31	340.19	19.40	(46.72)	(13.73)	202.86	11.38
Trade and other current receivables	321.36	17.86	286.83	16.35	34.53	12.04	256.98	14.41
Current contract assets	323.14	17.95	316.10	18.02	7.04	2.23	431.09	24.18
Inventories	115.64	6.42	50.42	2.88	65.22	129.35	96.73	5.42
Other current assets	17.89	0.99	23.51	1.34	(5.62)	(23.90)	13.87	1.38
Total current assets	1,071.50	59.54	1,017.05	57.98	54.45	5.08	1,001.53	56.17
Investment property	165.80	9.21	162.85	9.28	2.95	1.81	153.35	8.60
Property, plant and equipment	100.61	5.59	105.90	6.04	(5.29)	(5.00)	124.56	6.99
Right – of – use assets	86.93	4.83	64.11	3.66	22.82	35.60	83.24	4.67
Goodwill	315.97	17.56	334.67	19.08	(18.70)	(5.59)	334.67	18.77
Other non – current assets	58.94	3.27	69.43	3.96	(10.49)	(15.11)	85.75	4.81
Total assets	1,799.75	100.00	1,754.01	100.00	45.74	2.61	1,783.10	100.00
Liabilities								
Current liabilities								
Trade and other current payables	229.02	12.73	212.15	12.10	16.87	7.95	270.51	15.17
Other current liabilities	27.97	1.55	27.61	1.57	0.36	1.30	28.03	1.57
Total current liabilities	256.99	14.28	239.76	13.67	17.23	7.19	298.64	16.75
Lease liabilities	99.55	5.53	70.06	3.99	29.49	42.09	78.35	4.39
Non-current provisions for employee benefit	36.91	2.05	34.04	1.94	2.87	8.43	30.77	1.73
Other non - current liabilities	28.30	1.57	26.97	1.54	1.33	4.93	26.73	1.50
Total liabilities	421.75	23.43	370.83	21.14	50.92	13.73	434.48	24.37
Shareholders' equity								
Shareholders' equity of the parent company	1,379.32	76.64	1,383.42	78.87	(4.10)	(0.30)	1,347.99	75.60
Non - controlling interests	(1.32)	(0.07)	(0.24)	(0.01)	(1.08)	450.00	0.63	0.04
Total shareholders' equity	1,378.00	76.57	1,383.18	78.86	(5.18)	(0.37)	1,348.62	75.63
Total liabilities and shareholders' equity	1,799.75	100.00	1,754.01	100.00	45.74	2.61	1,783.10	100.00

HARN had total assets of 1,799.75 million baht as of December 31, 2024, representing a increase of 45.74 million baht or 2.61%. Key asset components included cash and other current financial assets at 22.73%, trade and other receivables at

17.86%, inventories at 17.95%, investment properties at 9.21%, and goodwill at 17.56%. Trade payables and other current liabilities accounted for 12.73%. The significant items are detailed as follows.

1.2.2 Trade Receivable

Trade and other current receivables	As of December 31						
	2024		2023		Inc/ (Dec)	2022	
	MB	%	MB	%	%	MB	%
Trade and other current receivables							
Trade receivable	298.72	92.96	265.80	92.67	12.39	241.30	93.90
Other current receivables	21.25	6.61	22.82	7.96	(6.88)	21.33	8.30
Current portion of leased receivables	9.91	3.08	8.33	2.90	18.97	8.31	3.23
Less Allowance for Doubtful Accounts	(8.52)	(2.65)	(10.12)	(3.53)	(15.81)	(13.96)	(5.43)
Trade Receivable and Other Receivables - Net	321.36	100.00	286.83	100.00	12.04	256.98	100.00

Trade receivable	As of December 31						
	2024		2023		Inc/ (Dec)	2022	
	MB	Turn Over (days)	MB	Turn Over (days)	%	MB	Turn Over (days)
Trade Receivable by Segments							
1. Fire Protection & Sanitary Products and Projects	199.75	102	171.05	85	16.78	155.03	87
2. Refrigeration Products	49.09	82	49.44	61	(0.71)	32.54	61
3. Digital Printing Products	49.70	53	45.31	53	9.69	53.73	52
4. Internet of Things Products (Aiyaraharn)	0.27	23	-	-	100.00	-	-
Elimination of intersegment	(0.09)	-	-	-	(100.00)	-	-
Total Trade Receivable by Segments	298.72	83	265.80	71	12.39	241.30	71

HARN's account receivables can be divided into 4 products groups which are 1) Fire protection, sanitary and air conditioning systems 2) Refrigeration system 3) Digital printing system and 4) Internet of things system and has lease receivables due within one year were classified to trade and other current receivables in the financial statements.

Net trade receivables and other current receivables at the end of 2024 amounted to 321.36 million baht, an increase of 12.04% from the previous year. The accounts receivable turnover for 2024 (excluding other receivables and expected credit loss allowance) was 83 days, 12 days higher than the previous year, due to the rising private sector debt. However, HARN closely monitors debt collection and has tightened credit limits. This is reflected in the expected credit loss recorded in the 2024

comprehensive income statement, which amounted to 0.97 million baht, a decrease of 1.79 million baht or 64.86% from the previous year.

HARN has a policy for setting an allowance for expected credit losses (ECL) to account for potential losses from uncollected receivables in accordance with TFRS 9 on Financial Instruments. This standard requires entities to recognize expected credit losses by considering historical and current payment trends, along with forecasts of future economic conditions that may impact customers' ability to make payments. In 2023, HARN engaged external experts to calculate the loss rate and adopted the Simplified Approach for ECL calculation. In 2024, HARN reviewed the loss rate and found no significant changes that would materially impact the financial statements.

1.2.3 Inventories

Inventories	As of December 31						
	2024		2023		Inc/ (Dec)	2022	
	MB	%	MB	%	%	MB	%
Inventories							
Finished Goods	314.03	97.18	314.02	99.31	0.01	386.57	89.67
Goods in Transit	44.28	13.70	34.02	11.29	30.16	84.23	19.54
Work in process	0.56	0.17	-	-	100.00	-	-
Less Allowance for obsolescence and slow moving stocks	(35.73)	(11.05)	(31.94)	(10.60)	11.87	(39.71)	(9.21)
Inventories - Net	323.14	100.00	316.10	100.00	2.23	431.09	100.00

Finished Goods	As of December 31						
	2024		2023		Inc/ (Dec)	2022	
	MB	Turn Over (days)	MB	Turn Over (days)	%	MB	Turn Over (days)
1. Fire Protection & Sanitary Products and Projects	168.46	127	169.53	143	(0.63)	230.94	155
2. Refrigeration Products	83.10	157	72.68	164	14.34	92.95	169
3. Digital Printing Products	62.35	97	71.46	104	(12.75)	62.41	95
4. Internet of things Products (Aiyaraham)	0.41	108	0.34	84	20.59	0.27	16
Elimination of intersegment	(0.29)	-	-	-	(100.00)	-	-
Total Finished Goods	314.03	125	314.02	138	0.01	386.57	141

As of December 31, 2024, HARN has inventories divided into 4 products groups which are 1) Fire protection, sanitary and air conditioning systems 2) Refrigeration system 3) Digital printing system and 4) Internet of things system with the inventory turnover (excluding goods in transit) for 2024 was 125 days, improving by 13 days compared to the previous year. This faster turnover resulted from improved inventory management. Meanwhile, net inventory increased by 7.04 million baht, representing a 2.23% rise.

HARN has a policy for setting allowances for obsolete or slow-moving inventory, based on two conditions for consideration: 1) The inventory must be at least two years old and 2) The

annual turnover must be less than 20% of the remaining inventory units for two consecutive years. HARN believes that this allowance policy is sufficiently prudent to ensure that its inventory is not overstated beyond its Net Realizable Value (NRV) in accordance with financial reporting standards.

For the year 2024, the allowance for obsolete or slow-moving inventory amounted to 35.73 million baht, an increase of 3.79 million baht or 11.87%, due to a rise in slow-moving inventory that met the criteria. Nonetheless, HARN writes off and disposes of long-standing slow-moving inventory throughout the year to efficiently manage inventory and optimize storage space.

1.2.4 Investment property

Property type	Net book value (million baht) as of December 31			
	2024	2023	Inc/(Dec)	2022
Land	135.29	135.29	-	135.29
Factory Buildings	16.40	16.89	(0.49)	17.38
Building Improvement	0.41	0.51	(0.10)	0.61
Tools and equipment	-	-	-	0.07
Right-of-use assets	13.70	10.16	3.54	-
Total investment property - net	165.80	162.85	2.95	153.35

Investment properties as of December 31, 2024, had a net book value of 165.80 million baht. During the years 2023 and 2024, the company conducted a valuation of land and warehouse buildings by an independent appraiser authorized by the Securities and Exchange Commission. The valuations were reported on December 8, 2023, and January 17, 2024. The details of the investment properties are as follows ;

- 1) Five undeveloped land plots covering an area of 5-0-90 rai (2,090.00 square wah) located in Soi Chalem Phra Kiat R.9, Soi 28, Dokmai Subdistrict, Prawet District, Bangkok. The land was purchased in 2017 at a cost of 114.95 million baht. According to the independent appraiser's report dated December 8, 2023, the fair value of the land was 125.40 million baht. The land is free from any encumbrances.
- 2) Land with warehouse buildings: The property consists of a 6-2-00 rai land plot with three two-story warehouse and office buildings, located at 888/14 - 16 in the Jongsiri Parkland project, Bang Phli Yai Subdistrict, Bang Phli District, Samut Prakan Province. As of December 31, 2024, the book value of the property was 105.33 million baht. According to the asset valuation report dated January 17, 2024, the fair value was assessed at 126.87 million baht. (The book value of 105.33 million baht is presented separately in the financial statements as 68.18 million baht for land, buildings, and equipment, and 37.15 million baht under investment properties.)
- 3) Leasehold assets amounting to 13.70 million baht arose from a change in the company's holding purpose for certain office lease assets during 2023. The purpose was shifted from operational use to subleasing for rental operations. As a result, the company reclassified these office lease assets as investment properties at a cost of 14.51 million baht. Subsequently, in 2024, there was a modification to the office lease agreement, leading the company to transfer additional office lease assets to investment properties at a cost of 5.01 million baht. Depreciation was recognized during the year
- 4) The company's rental income from investment properties for the years ended December 31, 2024, and 2023, as recognized in the statement of comprehensive income, amounted to 7.60 million baht and 6.91 million baht, respectively. Operating expenses totaled 2.76 million baht and 2.55 million baht, respectively. The rental income was derived from a single warehouse tenant under a lease agreement that commenced on July 1, 2021, and was set to expire on June 30, 2024. The lease was subsequently renewed for an additional three years, from July 1, 2024, to June 30, 2027, ensuring full utilization of the warehouse space in alignment with the company's current warehouse usage plan.

1.2.5 Property, Plant and Equipment

As of December 31, 2024, HARN had land, buildings, and equipment – net, amounting to 100.61 million baht, reflecting a decrease due to asset disposals and increased depreciation during the year. Additionally, HARN had capital expenditure commitments totaling 0.05 million baht.

Property type	Net book value (million baht) as of December 31			
	2024	2023	Inc/(Dec)	2022
Land	37.36	37.36	-	37.36
Buildings and structures	30.81	31.72	(0.91)	32.63
Tools and equipment	2.05	2.86	(0.81)	3.90
Furniture and office equipment	17.00	18.12	(1.12)	22.30
Vehicle	6.87	7.61	(0.74)	6.54
Assets for rent and demonstration	6.05	5.17	0.88	21.21
Assets in progress	0.47	3.06	(2.59)	0.62
Total Property, Plant and Equipment – net	100.61	105.90	(5.29)	124.56

1.2.6 Right – of – use assets

Property type	Net book value (million baht) as of December 31			
	2024	2023	Inc/(Dec)	2022
Buildings	86.34	63.70	22.64	83.24
Office equipment	0.59	0.41	0.18	-
Total Right – of – use assets - net	86.93	64.11	22.82	83.24

As of December 31, 2024, HARN had right-of-use assets – net, amounting to 86.93 million baht, an increase due to the renewal of office building and warehouse lease agreements. The details are as follows:

- Entered into an office building lease agreement with Jannopsiri Co., Ltd., a related party. The lease commenced on May 1, 2024, and will expire on April 30, 2027. The company has the right to renew the lease for an additional 7 years after the contract ends, bringing the total lease term to 10 years.
- Entered into a warehouse lease agreement with Phraboriban Co., Ltd., a related party. The lease commenced on May 1, 2024, and will expire on April 30, 2027. The company has the right to renew the lease for an additional 3 years after the contract ends, bringing the total lease term to 6 year

The right-of-use assets consist of lease agreements for the headquarters building, warehouse, and office equipment, specifically photocopiers. HARN does not recognize right-of-use assets for lease agreements with a term of less than 12 months that do not include a purchase option or for leases of low-value underlying assets. This policy complies with Thai Financial Reporting Standard No. 16 Leases.

The changes in lease accounting standards, which shifted from recognizing rental expenses in each period to recognizing right-of-use assets and lease liabilities, have led to the amortization of right-of-use assets and the recognition of financial costs over the lease term. This change has resulted in a lower return on assets (ROA), a higher debt-to-equity ratio (D/E), and an increase in earnings before interest, taxes, depreciation, and amortization (EBITDA).

1.2.7 Goodwill and Customers' Relationship

Type of Assets	Net book value (million baht) as of December 31			
	2024	2023	Inc/(Dec)	2022
Goodwill	334.67	334.67	-	334.67
Less Allowance for Impairment of Goodwill	(18.70)	-	(18.70)	-
Goodwill – net	315.97	334.67	(18.70)	334.67

Type of Assets	Net book value (million baht) as of December 31			
	2024	2023	Inc/(Dec)	2022
Customers' Relationship	-	104.31	-	104.31
Less accumulated amortization	-	(104.31)	-	(91.68)
Customers' Relationship - net	-	-	-	12.63

Goodwill is an intangible asset that HARN acquired through the Entire Business Transfer (EBT) of Chillmatch Co., Ltd. and QIIS Co., Ltd. This was done by issuing additional shares valued at 675.36 million baht based on a swap ratio of 0.67 in exchange for the identifiable net assets of both companies, which had a fair value of 340.69 million baht. As a result, goodwill was recognized as an asset amounting to 334.67 million baht. According to financial reporting standards, this goodwill must be tested for impairment annually.

In 2024, HARN's management prepared financial projections for the Refrigeration Systems and Digital Printing Systems business units to test for goodwill impairment. The value-in-use assessment

was conducted using the Present Value of Future Free Cash Flow (DCF) method, based on estimated financial projections over approximately five years (from January 1, 2025, to December 31, 2029). The discount rate applied was derived from the Weighted Average Cost of Capital (WACC) for each business unit. Management determined that there was no impairment of goodwill for the Digital Printing Systems business unit. However, the Refrigeration Systems business unit recorded an impairment loss of 18.70 million baht as of December 31, 2024. As a result, the remaining goodwill balance reported in the financial statements was 315.97 million baht. Further details can be found in Section 1.1.5, "Asset Impairment Losses," under item 2, "Goodwill Impairment Loss."

1.2.8 Trade and Other Current Payables

The payment period for the year 2024 is 48 days, which is faster compared to 2023, when the payment period was 65 days. Trade payables and other current payables increased by 16.87 million baht, representing a 7.95% increase.

Trade and Other Current Payables	As of December 31						
	2024		2023		Inc/ (Dec)	2022	
	MB	Turn Over (days)	MB	Turn Over (days)	%	MB	Turn Over (days)
Trade Payables	136.21	48	106.51	65	27.60	168.73	53
Other Payables	92.81	n/a	105.64	n/a	(12.15)	101.78	n/a
Total Trade and Other Current Payables	229.02	48	212.15	65	7.95	270.51	53

1.2.9 Cash Conversion Cycle

รายการ	For the year ended December 31			
	2024	2023	Inc/(Dec)	2022
Average collection period (days)	83	71	12	71
Average sales period (days)	125	138	(13)	141
Less Average repayment period (days)	(48)	(65)	17	(53)
Cash Conversion Cycle (days)	160	144	16	159

In 2024, HARN's cash conversion cycle is 160 days, which is 16 days longer than the previous year. This slowdown is mainly due to a longer average collection period, as financial difficulties in certain business sectors have led to increased debt issues. However, the average inventory turnover has accelerated, and the average payment period has also shortened. Regarding the faster payment period, HARN follows a policy of maintaining strong relationships with its overseas suppliers, who have

appointed HARN as an authorized distributor of globally recognized products. Losing the right to distribute key branded products could negatively impact HARN's long-term sales. Maintaining good relationships with suppliers is fundamentally tied to maintaining financial credibility, which also enables HARN to negotiate better prices for goods and services. Since product costs are the most significant expense in HARN's trading business, effective cost management enhances its competitiveness and helps sustain profitability in the long run.

1.2.10 Types of Credit Limits and Interest Rates

Types of credit	Facilities (Million Baht)		Interest rates (% per annum)	
	2024	2023	2024	2022
Overdraft	9.00	9.00	MOR, MOR-0.50	MOR, MOR-0.50
Letter of Credit / Trust Receipt	120.00	120.00	MLR-1, MMR	MLR-1, MMR
Letter of Guarantee	74.00	74.00	1.00 – 2.00%	1.00 – 1.25%
Forward Contract	410.00	410.00	-	-
Total	613.00	613.00		
Forward Contract (Million USD)	7.00	7.00		

1.2.11 Foreign Exchange Risks

Currency	2024		2023	
	Proportion of Import according to Currency (%)	Proportion of Foreign Exchange Forward Contract Executed (%)	Proportion of Import according to Currency (%)	Proportion of Foreign Exchange Forward Contract Executed (%)
United States Dollar	48.39	90.71	50.89	88.77
Euro	21.49	102.02	22.05	98.20
Pound Sterling	29.60	100.94	26.26	99.45
Yen	0.47	109.91	0.43	77.32
Other	0.05	-	0.37	-
Total	100.00		100.00	

* Information in the above table is from the separated financial statement of HARN

Currency	As of December 31, 2024			As of December 31, 2023		
	Trade account payables	Risk hedging		Trade account payables	Risk hedging	
		Foreign Exchange Forward Contract (Balance)	(%) Proportion		Foreign Exchange Forward Contract (Balance)	(%) Proportion
United States Dollar	1,203,891	352,061	29.24	506,863	486,231	95.93
Euro	422,646	354,916	83.97	689,670	360,862	52.32
Pound Sterling	657,283	490,210	74.58	435,244	359,968	82.70
Yen	1,211,850	1,166,000	96.22	1,284,300	-	-

1.2.12 Foreign Exchange Gain and Loss

unit : Million Baht

Description	2024	2023	Inc/(Dec)	2022
Unrealized gain (loss) on exchange rate	(0.47)	(0.14)	(0.33)	0.13
Realized gain (loss) on exchange rate	3.74	3.11	0.63	(0.02)
Total gain (loss) on exchange rate	3.27	2.97	0.30	0.11

HARN enters into forward contracts with banks to buy/sell foreign currencies, considering exchange rates and appropriate delivery periods to ensure sufficient funds for debt payments. The company closely monitors market trends, exchange rate movements, and economic analyses to mitigate risks associated with currency fluctuations. Most of HARN's sales are domestic and primarily conducted in Thai Baht. However, in some cases, the company cannot immediately adjust product prices in response to rising costs, making it vulnerable to exchange rate volatility, which could impact product costs and gross profit margins. To manage this risk, HARN has agreements with certain customers to accept payments in USD, EUR, and GBP, which are deposited into the company's foreign currency accounts. This strategy helps hedge against exchange rate fluctuations to some extent.

As of December 31, 2024, and 2023, HARN implemented risk management strategies to hedge against currency fluctuations in USD, EUR, and GBP for foreign trade payables and non-cancellable purchase commitments (Firmed Commitments). This is because HARN issues sales orders to customers under agreements where payments are settled in Thai Baht. HARN does not engage in speculative currency trading, as it is not part of the company's core business, nor does it have sufficient expertise in predicting exchange rate movements. The company's primary goal is to mitigate exchange rate risks that could affect future cash inflows and outflows, keeping them within a manageable range. As a result, HARN recognized foreign exchange gains of 3.27 million baht in 2024 and 2.97 million baht in 2023.

1.3 Liquidity and Working Capital

1.3.1 Cash Flows from HARN's Financial Statement

unit : Million Baht

Description	For the year ended December 31			
	2024	2023	Inc/(Dec)	2022
Net Cash Flow from Operating Activities	117.18	197.61	(80.43)	91.98
Net Cash Flow from (Used in) Investing Activities	(63.75)	27.42	(91.17)	(62.25)
Net Cash Flow from (Used in) Financing Activities	(99.81)	(87.48)	(12.33)	(69.81)
Effect of translation adjustment on foreign currency financial statements	(0.34)	(0.22)	(0.12)	0.11
Net Increase (Decrease) in Cash and Cash Equivalents	(46.72)	137.33	(184.05)	(39.97)
Cash and Cash Equivalents - B/F	340.19	202.86	137.33	242.83
Cash and Cash Equivalents - C/F	293.47	340.19	(46.72)	202.86

1) Analyzing the Cash Flows Statement for the year ended December 31, 2024

In 2024, HARN reported a net cash inflow from operating activities of 117.18 million baht, a decrease of 80.43 million baht compared to 2023. This decline was primarily due to a 30.65 million baht reduction in profit before income tax and an impairment loss on goodwill amounting to 18.70 million baht. Additionally, trade receivables increased by 24.63 million baht, inventory rose by 14.27 million baht, and trade payables and other current payables grew by 16.70 million baht. Net cash used in investing activities amounted to 63.75 million baht, primarily due to a 64.44 million baht investment in other

short-term financial assets, including government bonds, real estate investment funds, and infrastructure funds, to generate short-term returns. Meanwhile, cash inflows from dividends and interest income totaled 6.29 million baht.

Net cash used in financing activities amounted to 99.81 million baht, primarily due to dividend payments of 0.15 baht per share, totaling 87.61 million baht, and lease payments for office buildings and warehouses under financial lease agreements amounting to 12.37 million baht.

2) Analyzing the Cash Flows Statement for the year ended December 31, 2023

HARN had a net cash flow from operating activities of 197.61 million baht for the year 2023, an increase of 105.63 million baht compared to 2022. The main reasons were a net profit increase of 24.32 million baht, a decrease in inventory of 135.25 million baht, while trade and other payables decreased by 59.04 million baht.

Cash flow from investing activities amounted to 27.42 million

baht, primarily from bond redemptions totaling 50.00 million baht, investments in other short-term financial assets of 15.84 million baht, and purchases of equipment and intangible assets amounting to 11.46 million baht.

Net cash flow used in financing activities resulted from dividend payments at a rate of 0.13 baht per share, totaling 75.98 million baht, and lease liability repayments of 11.38 million baht.

1.3.2 Capital Structure from the Financial Statement as of December 31, 2024

As of December 31, 2024, HARN's total liabilities amounted to 421.75 million baht, an increase of 50.92 million baht or 13.73% from the previous year. The key components of these liabilities include trade and other payables, accrued income tax, deferred income tax liabilities, employee benefit obligations, and lease liabilities. Notably, HARN has no interest-bearing debt from financial institution borrowings. With a capital structure free from bank loans, HARN incurs no interest expenses and maintains a strong liquidity position. Its

debt-to-equity ratio remains low, allowing the company to consistently distribute dividends to shareholders.

For the fiscal years 2024 and 2023, HARN declared dividend payments of 0.12 baht and 0.15 baht per share, respectively, representing payout ratios of 80.00% and 75.00% of net profit. However, the final dividend payment for the 2024 fiscal year at 0.12 baht per share remains subject to approval by the Annual General Meeting of Shareholders.

1.3.3 Important Financial ratios

Important Financial ratios	Unit	2024	2023	Inc/(Dec)	2022
Current ratio	Time	4.17	4.18	(0.01)	3.35
Debt to equity (D/E ratio) (D/E ratio)	Time	0.31	0.27	0.04	0.32
Return on asset (ROA) ^{1/}	%	6.42	8.20	(1.78)	6.58
Return on Equity (ROE) ^{2/}	%	6.34	8.35	(2.01)	6.66

Note : ^{1/} Use EBIT in calculation

^{2/} Net profit and shareholders' equity attributable to owners of parent company are used in calculation

HARN's liquidity ratio for 2024 stands at 4.17 time, closely aligning with the 4.18 time recorded in 2023. The debt-to-equity ratio for 2024 and 2023 is 0.31 and 0.27, respectively, reflecting the company's continued efficiency in managing liquidity and working capital. As HARN does not incur debt or rely on external loans, its capital structure remains independent of bank and financial institution borrowings. This results in zero interest expenses and a remarkably low debt-to-equity ratio. The total liabilities reported in the consolidated financial statements

primarily consist of trade and other payables amounting to Baht 229.02 million (12.73% of total assets) and lease liabilities for office buildings, warehouses, and equipment totaling Baht 108.50 million (6.03% of total assets). Additionally, HARN maintains credit facilities to support future business expansion or investments in engineering-related ventures. Key financial ratios include a return on assets (ROA) of 6.42% in 2024 and 8.20% in 2023, while the return on equity (ROE) is 6.34% in 2024 and 8.35% in 2023.

2. Factors That May Impact Future Operations

2.1 Factors on Environmental and Social Trends and Impacts

HARN identifies impacts, risks, and opportunities arising from its activities, operations, products, and services across the value chain, which may have both positive and negative effects on stakeholders. These are assessed in 3 dimensions: environmental, social, and corporate governance, including human rights considerations. HARN gathers and analyzes data from its value chain, internal and external factors, industry trends, and evolving standards to determine key sustainability issues. These issues are then systematically integrated into operations, strategic planning, and risk management.

In 2024, climate change remains a critical sustainability issue, incorporated into strategic direction and enterprise risk management. HARN has set a carbon neutrality target by 2040 and a net-zero greenhouse gas emissions target for both short and long-term goals by 2050, demonstrating its commitment to risk mitigation and business opportunities in response to climate change.

Key sustainability areas include innovation and technology, corporate governance and code of conduct, energy management, water resource management, waste and air pollution control, greenhouse gas reduction, occupational health and safety, and workplace environment. HARN has designated responsible departments for each area, ensuring progress is monitored and reported to the Executive Committee and Board of Directors for ongoing review and improvement.

Details, please refer to Section 1: Driving Business Sustainability (Page 47-92), Section 2: Corporate Governance (Page 116-147), more information is also available at www.harn.co.th under the "CG / Sustainability" section.

2.2 Financial Support to Subsidiaries

Short-term loans

As of December 31, 2024, HARN provided a short-term loan to Aiyaraharn Co., Ltd., a 65%-owned subsidiary in Thailand, in the form of 16 promissory notes totaling Baht 3.55 million. These promissory notes have a 6-month maturity and bear an annual interest rate of 6.8675% – 7.1175%, referenced from the MLR rates of four major commercial banks. The repayment is scheduled between January and June 2025.

In HARN's separate financial statements, the company has fully recognized the expected credit loss allowance for the short-term loan.

Long-term loans

On March 12, 2020, HARN entered into a loan agreement with Harn Vietnam Co., Ltd., a 100%-owned subsidiary in Vietnam, providing a loan of USD 200,000 at an annual interest rate of 6.15%, with a one-year repayment term. Upon maturity on March 11, 2021, HARN extended the loan agreement for an additional five years, setting a new maturity date of March 11, 2026, and adjusting the interest rate to 5.85% per year.

Consent to utilize a joint bank guarantee

Furthermore, HARN has allowed its subsidiary, Aiyaraharn Company Limited (in which HARN holds a 65% stake), to utilize bank guarantee letters and a credit limit from HARN as collateral for business purposes, up to a maximum limit of Baht 5 million.

2.3 Policy and Term of Trade Credit

HARN has credit management criteria in order to achieve appropriate risk management of HARN. Management policy concerning new customers is set starting from the customer selection process, credit analysis, debt collection and constant revision of loan provided to former customers.

3. Important Financial Information

The financial position and operating results presented include the performance based on the financial statements for the years ended December 31, 2024, and 2023, which have been audited by a certified public accountant. The details are as follows:

Year	Name	License No.	Auditing Company
2024	Mr. Jadesada Hungsapruet	3759	Karin Audit Co., Ltd.
2017 - 2023	Mr. Thanawut Piboonsawat	6699	Dharmniti Auditing Co., Ltd.

1) Impact of Changes in Accounting Policies

In 2024, there were no material impacts on the financial statements resulting from changes in accounting policies.

2) Audit Report Summary

The financial statements for the year 2024 were audited by Mr. Jetesada Hungsapruet, a Certified Public Accountant (CPA) No. 3759, from Karin Audit Co., Ltd., an SEC-approved auditor. In the Independent Auditor's Report dated February 27, 2025, the auditor expressed an opinion that the consolidated and separate financial statements of HARN present fairly, in all material respects, the financial position as of December 31, 2024, the comprehensive income statement, statement of changes in shareholders' equity, and cash flow statement for the year then ended, along with the notes to the financial statements, including significant accounting policies, in accordance with financial reporting standards.

The auditor's report identified Key Audit Matters (KAMs) relating to revenue recognition from sales and services have indicated that in 2024, HARN has earned revenues from important business units of 5 product groups which are Fire Protection Products and Projects, Sanitary and Air-conditioning Products, Refrigeration Products, Digital Printing Products and Internet of Things Products. Each product group has different sale terms and conditions and price setting, including income from services according to the contract of fire extinguishing system installation project. Based on estimation of compliance with obligations according to the contract, this has effect on the income in which the Company's group recognized throughout a certain period. The Company has to recognize income according to the progress made in compliance with the obligations that must be completed, in which the auditor has responded to the risk by having formed an understanding and testing of the operation procedure and internal control relating to income recognition, revision of the design and compliance with the internal control regarding the said matter, auditing of the contents of terms and conditions of sales and services contract that occurred during the year and during the date near the end of accounting period, examination of credit notes issued by HARN after the end of the year, comparative analysis of statements and testing of details related to sales and services revenues.

Additionally, HARN has conducted an impairment test on the goodwill arising from the acquisition and entire business transfer of Chillmatch Co., Ltd. and its subsidiary. This impairment test is significant to the audit, as the amount involved is material to the financial statements. The impairment testing process carried out by management is complex and requires judgment, particularly in making assumptions regarding estimated future cash inflows and outflows expected from the continued operations of the cash-generating unit, as well as determining an appropriate discount rate. These assumptions are subject to change based on future economic conditions and market circumstances. HARN has fully disclosed its accounting policies and key assumptions in the notes to the financial statements. The auditor has addressed the associated risks by assessing the reasonableness of the assumptions and methodologies used by management in estimating future cash flows. This includes verifying supporting evidence reflecting management's best estimates, particularly in forecasting revenue growth, gross profit, and operating profit for the business segment, as well as ensuring the appropriateness of the discount rate applied to future cash flows. Additionally, the auditor has tested the calculation of the expected recoverable amount and evaluated the adequacy of disclosures regarding the key assumptions that are most sensitive and have the most significant impact on determining the recoverable value of goodwill.

Other Matters as Presented in the Auditor's Report :

The consolidated and separate financial statements of the Company and its subsidiaries for the year ended December 31, 2023, presented as comparative information, were audited by another auditor, who expressed an unqualified opinion in the report dated February 28, 2024.

estimates, particularly in forecasting revenue growth, gross profit, and operating profit for the business segment, as well as ensuring the appropriateness of the discount rate applied to future cash flows. Additionally, the auditor has tested the calculation of the expected recoverable amount and evaluated the adequacy of disclosures regarding the key assumptions that are most sensitive and have the most significant impact on determining the recoverable value of goodwill.

3.1 Statement of Financial Position

STATEMENT OF FINANCIAL POSITION	CONSOLIDATED FINANCIAL STATEMENTS					
	AS OF DECEMBER 31,					
	2024		2023		2022	
	Million Baht	%	Million Baht	%	Million Baht	%
Assets						
Current assets						
Cash and cash equivalents	293.47	16.31	340.19	19.39	202.86	11.38
Trade and other current receivables	321.36	17.86	286.83	16.35	256.98	14.41
Current contract assets	17.24	0.96	23.19	1.32	13.15	0.74
Inventories	323.14	17.95	316.10	18.02	431.09	24.18
Other current financial assets	115.64	6.43	50.42	2.87	96.72	5.42
Current tax assets	0.05	0.00	0.08	0.00	-	-
Other current assets	0.60	0.03	0.24	0.01	0.73	0.04
Total current assets	1,071.50	59.54	1,017.05	57.98	1,001.53	56.17
Non - current assets						
Trade and other non-current receivables	2.76	0.15	11.00	0.63	16.98	0.95
Investment property	165.80	9.21	162.85	9.28	153.35	8.60
Property, plant and equipment	100.61	5.59	105.90	6.04	124.56	6.99
Right - of - use assets	86.93	4.83	64.11	3.66	83.24	4.67
Goodwill	315.97	17.56	334.67	19.08	334.67	18.77
Customer relationship	-	-	-	-	12.62	0.71
Intangible assets	7.69	0.43	11.51	0.66	11.82	0.66
Deferred tax assets	19.00	1.06	17.31	0.99	15.18	0.85
Other non - current assets	29.49	1.64	29.61	1.69	29.15	1.63
Total non - current assets	728.25	40.46	736.96	42.02	781.57	43.83
Total assets	1,799.75	100.00	1,754.01	100.00	1,783.10	100.00
Liabilities and Shareholders' equity						
Current liabilities						
Trade and other current payables	229.02	12.73	212.15	12.10	270.51	15.17
Current portion of lease liabilities	8.95	0.50	10.44	0.60	9.23	0.52
Short - term borrowings from related persons or parties	0.62	0.03	0.45	0.03	0.50	0.03
Corporate income tax payable	15.52	0.86	13.08	0.75	13.41	0.75
Other current provisions	1.76	0.10	1.73	0.10	2.31	0.13
Other current liabilities	1.12	0.06	1.91	0.11	2.68	0.15
Total current liabilities	256.99	14.28	239.76	13.67	298.64	16.75
Non - current liabilities						
Lease liabilities	99.55	5.53	70.06	3.99	78.35	4.39
Non - current provisions for employee benefit	36.91	2.05	34.04	1.94	30.76	1.73
Other non - current liabilities	28.30	1.57	26.97	1.54	26.73	1.50
Total non - current liabilities	164.76	9.15	131.07	7.47	135.84	7.62
Total liabilities	421.75	23.43	370.83	21.14	434.48	24.37
Shareholders' equity						
Share capital						
Authorized share capital						
584,500,000 ordinary shares of Baht 0.50 each	292.25	16.24	292.25	16.66	292.25	16.39
Issued and paid-up share capital						
584,500,000 ordinary shares of Baht 0.50 each	292.25	16.24	292.25	16.66	292.25	16.39
Share premium on ordinary shares	776.42	43.14	776.42	44.27	776.42	43.54
Surplus on share-based payment transaction	1.33	0.07	4.99	0.28	6.04	0.34
Retained earnings						
Appropriated for legal reserve	29.23	1.62	29.23	1.67	29.22	1.64
Unappropriated	280.66	15.59	280.74	16.01	244.04	13.69
Total other components of shareholders' equity	(0.57)	(0.03)	(0.21)	(0.01)	0.02	0.00
Shareholders' equity of the parent company	1,379.32	76.64	1,383.42	78.87	1,347.99	75.60
Non - controlling interests	(1.32)	(0.07)	(0.24)	(0.01)	0.63	0.04
Total shareholders' equity	1,378.00	76.57	1,383.18	78.86	1,348.62	75.63
Total liabilities and shareholders' equity	1,799.75	100.00	1,754.01	100.00	1,783.10	100.00

3.2 Statement of Comprehensive Income

STATEMENTS OF TOTAL COMPREHENSIVE INCOME	CONSOLIDATED FINANCIAL STATEMENTS					
	FOR THE YEAR ENDED DECEMBER 31,					
	2024		2023		2022	
	Million Baht	%	Million Baht	%	Million Baht	%
Revenues from sales and services	1,239.05	100.00	1,299.62	100.00	1,219.66	100.00
Cost of sales and services	(891.98)	(71.99)	(908.61)	(69.91)	(873.26)	(71.60)
Gross profit	347.07	28.01	391.01	30.09	346.40	28.40
Other income	32.45	2.62	26.61	2.05	22.63	1.86
Distribution cost	(114.90)	(9.27)	(118.28)	(9.10)	(113.16)	(9.28)
Administrative expenses	(130.81)	(10.56)	(151.63)	(11.67)	(136.01)	(11.15)
Profit from operating activities	133.81	10.80	147.71	11.37	119.86	9.83
Financial costs	(2.76)	(0.22)	(2.92)	(0.22)	(2.30)	(0.19)
Expected credit loss	(0.97)	(0.08)	(2.76)	(0.21)	(5.81)	(0.48)
Loss from impairment of goodwill	(18.70)	(1.51)	-	-	-	-
Profit (loss) before income tax expense	111.37	8.99	142.03	10.93	111.75	9.16
Tax expense (income)	(24.86)	(2.01)	(28.85)	(2.22)	(22.90)	(1.88)
Profit for the year	86.52	6.80	113.17	8.53	88.85	7.15
Other comprehensive income (expense) for the year						
Components of other comprehensive income that will be reclassified to profit or loss:						
Exchange differences on translating financial statement	(0.36)	(0.03)	(0.23)	(0.02)	0.06	-
Components of other comprehensive income that will not be reclassified to profit or loss:						
Gains on re-measurements of defined benefit plans, net of tax	-	-	(1.37)	(0.11)	-	-
Total comprehensive income (expense) for the year	86.16	6.78	111.57	8.41	88.91	7.16
Profit (loss) attributable to owners of parent	87.60	6.89	114.04	8.60	88.78	7.15
Total comprehensive income (expense) attributable to owners of parent	87.24	6.86	112.44	8.48	88.84	7.15
Basic earnings per share - profit attributable to owners of the parent	0.15		0.20		0.15	
Weighted average number of common shares (Share)	584,500,000		584,500,000		584,500,000	

3.3 Statement of Cash Flows

STATEMENT OF CASH FLOWS	CONSOLIDATED FINANCIAL STATEMENTS		
	FOR THE YEAR ENDED DECEMBER 31,		
	2024	2023	2022
	Million Baht	Million Baht	Million Baht
CASH FLOWS FROM OPERATING ACTIVITIES			
Profit (loss) before income tax expense	111.37	142.03	111.75
Adjusted to reconcile profit (loss) before income tax expense to net cash provided (paid)			
Expected credit losses (reversal)	(1.01)	(3.55)	1.42
Loss from impairment of goodwill	18.70	-	-
Depreciation and amortization	28.52	29.17	31.26
Amortization of customer relationship	-	12.62	13.85
Loss on devaluation of inventories (reversal)	3.79	(7.76)	5.75
(Profit) Loss on disposals of equipment	1.09	0.20	0.08
Unrealized (gain) loss on exchange rate	0.47	0.14	(0.14)
Unrealized (gain) loss on revaluation of other current financial assets	(0.02)	12.33	1.50
Interest income	(3.56)	(1.04)	(0.22)
Dividend income	(3.69)	(3.25)	(2.53)
Other current provisions	0.03	(0.58)	0.21
Employee's benefit expenses	3.47	2.71	2.80
Employee Joint Investment Program expenses	2.20	3.60	4.56
Finance cost	2.76	2.92	2.29
Profit from operations before changes in assets and operating liabilities	164.11	189.54	172.58
Assets from operating (increase) decrease			
Trade and other current receivables	(24.63)	(19.69)	(10.44)
Current contract assets	5.51	(10.34)	(2.95)
Inventories	(14.27)	135.25	(109.12)
Other current assets	(0.37)	0.26	0.65
Other non-current assets	0.20	(0.17)	(0.61)
Liabilities from operating increase (decrease)			
Trade and other current payables	16.70	(59.04)	69.10
Other current liabilities	(0.78)	(0.76)	1.27
Other non-current liabilities	1.33	0.25	0.66
Net cash provided by (used in) operating	147.80	235.29	121.14
Paid to provisions for employee benefits	(0.60)	(1.15)	-
Paid to employee joint investment program expenses	(5.86)	(5.49)	(4.92)
Income tax paid	(24.17)	(31.05)	(24.24)
Net cash provided by (used in) operating activities	117.18	197.61	91.98
CASH FLOWS FROM INVESTING ACTIVITIES			
Cash paid to provide short-term loans to related companies	(64.44)	(15.84)	(58.57)
Cash paid to purchase investments in other current financial assets	-	50.00	-
Cash receipts from redemption of other current financial assets	-	-	(0.06)
Cash paid to purchase equipment	(4.40)	(7.99)	(6.70)
Cash received from disposal of equipment	0.15	0.62	0.90
Cash paid to purchase intangible assets	(1.35)	(3.47)	(0.52)
Interest received	2.60	0.86	0.17
Dividend received	3.69	3.25	2.53
Net cash provided by (used in) investing activities	(63.75)	27.42	(62.25)
CASH FLOWS FROM FINANCING ACTIVITIES			
Cash paid for repayment of borrowings from related companies and related persons	-	(0.75)	(0.60)
Cash received from borrowings from related companies and related persons	0.17	0.70	0.60
Cash paid from lease liabilities	(9.62)	(9.34)	(9.62)
Interest expense	(2.74)	(2.11)	(1.74)
Dividend expense	(87.61)	(75.99)	(58.45)
Net cash provided by (used in) financing activities	(99.81)	(87.48)	(69.81)
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	(46.38)	137.55	(40.08)
Cash and cash equivalents at beginning of year	340.19	202.86	242.83
Effect of translation adjustment on foreign currency financial statements	(0.34)	(0.22)	0.11
CASH AND CASH EQUIVALENTS END OF YEAR	293.47	340.19	202.86

3.4 Financial Ratios

KEY FINANCIAL INFORMATIONS	UNIT	CONSOLIDATED FINANCIAL STATEMENTS		
		2024	2023	2022
FINANCIAL POSITION				
Total Assets	MB.	1,799.75	1,754.01	1,783.10
Total Liabilities	MB.	421.75	370.83	434.48
Equity Attributable to Parent Company	MB.	1,379.32	1,383.42	1,347.99
OPERATING RESULTS				
Sales and Services Revenues	MB.	1,239.04	1,299.62	1,219.66
Total Revenues	MB.	1,271.50	1,326.23	1,242.29
Costs of Sales and Services	MB.	891.98	908.61	873.26
Gross Profit	MB.	347.06	391.01	346.40
Net Profit Attributable to Owners of Parent	MB.	87.60	114.04	88.78
Total Comprehensive Income Attributable to Owners of Parent	MB.	87.24	112.44	88.84
FINANCIAL RATIOS				
Return on Equity ^{2/}	%	6.34	8.35	6.66
Return on Assets ^{3/}	%	6.42	8.20	6.58
Gross Profit Margin	%	28.01	30.09	28.40
Net Profit Margin ^{1/}	%	6.80	8.53	7.15
Debt to Equity Ratio	Times	0.31	0.27	0.32
Total Assets Turnover Ratio	Times	0.72	0.75	0.72
PER SHARE DATA				
Par value	Baht	0.50	0.50	0.50
Book Value	Baht	2.36	2.37	2.31
Dividend per share ^{4/}	Baht	0.12	0.15	0.13
Basic earnings per share - profit attributable to owners of the pa	Baht	0.15	0.20	0.15

Note : Referring to consolidated financial statement of Harn Engineering Solutions Pcl.

1/ Net profit used in calculation

2/ Net profit attributable to owners of parent used in calculation

3/ Earnings before interest and finance costs used in calculation

4/ Not confirmed until the approved by the 2025 Annual General Meeting of Shareholders

General Information and Other Important Information

1. General Information



References



Securities Registrar

The Stock Exchange of Thailand Building
93 Ratchadaphisek Road, Dindaeng, Dindaeng,
Bangkok 10400 Thailand
Phone. (02) 009-9999, Fax. (02) 009-9991
Website: <http://www.set.or.th/tsd>



Auditor



Karin Audit Co., Ltd.

72 CAT Telecom Tower, Floor 24, Charoen Krung Road,
Bangrak, Bangkok. 10500 Thailand
Tel. (662) 105-4661 Fax. (662) 026-3760
E-mail: audit@karinaudit.co.th
Website: www.karinaudit.co.th

2. Other Important Information

-None-

3. Legal Disputes

As of December 31, 2024, HARN and Subsidiaries, does not have the legal disputes that could have negative impact assets or operations on HARN, i.e. does not impact of more than 5% of the equity as of that date.

Section 2 Corporate Governance



Corporate Governance Policy and Corporate Governance Milestones

1. Overview on Corporate Governance Policy and Guidelines

HARN has a committed to be a leading provider of sustainable total of Fire Protection System, Refrigeration System, Digital Printing System, and biological 3D printing system, including provide development IoT Products and Solutions that meet customer needs to improve quality of life, society, and environment. Conducting an honest, transparent, and accountable business, sets its business on corporate governance principles and a code of conduct, recognized as basic requirements for efficient business operations and key foundation for building confidence from all stakeholders, to raise competitiveness, and to promote sustainable growth and can adapt to the changes of various environmental factors.

The Board of Directors (The Board) developed a Corporate Governance Policy, as well as code of conduct in business of all directors, executives, and employees, adhered to this as its guideline been practicing since 2013 has published through website, www.harn.co.th, which was reviewed related principles and practices regularly to improve the standard of operations to comply with Good Corporate Governance Principles (CG) of Securities and Exchange Commission (SEC) and Stock Exchange of Thailand (SET).

HARN has defined that corporate governance is part of the vision, mission, and values of the organization. The goal is to be a company with sustainable business of continuous growth, promotes the development of innovation and technology along with creating business cooperation based on corporate governance, transparency and sustainability.

2. Corporate Governance Policy Principles

To illustrate the commitment that adheres to as an operating framework application of such policy and code of conduct to their jobs. The Board's policy on Corporate Governance of HARN is as follows:



Responsibility

Have a sense of responsibility for performing duties with sufficient determination, competence and efficiency.

Responsibility

Treatment all groups of stakeholders equitable with fairness

Accountability

Take accountability for your own decisions and actions, and those of others who are in their responsibility to be able to clarify and explain that decision.

Accountability

Have a vision to creation value to the organization in the long term.

Transparency

There is transparency in operations that can be verified, and disclose information transparently to relevant parties

1. The Board of Directors, Executives and all employees must perform their duties with determination, commitment and responsibility to the best of their ability for the benefits of the HARN and to uphold the 5 international standard principle of corporate governance (REACT) with understanding to conduct business, and confidence, thus resulting in a corporate culture, as well as to executing their duties under applicable laws, regulations, and requirements strictly.

2. The Board of the Directors has a significant role together with the Executives to set the visions, strategies policies and important plans, including establishing the management structures that relates fairly between the Board of Directors, the Executives and the shareholders and to plan the management guidelines and the appropriate business operations including making sure that the accounting system, the financial report and the accounting audit are reliable.
3. The Board of Directors and the Executives must be the leaders in terms of ethics and be an example for working with honesty, fairness, transparently and accountable.
4. The Board of Directors, the Executives and all employees must uphold fairness by treating all stakeholders equally, including keeping watch, control and prevent anyway decisions or actions that may have conflict of interests with relating issues.
5. The Board of Directors must operate with the efficient anti-corruption system including reporting regularly to ensure that all directors, executives and employees is aware and emphasizes include follows the anti-corruption policies strictly.
6. Compliance with the corporate governance policy of HARN is considered an important key performance index in evaluating the business management of the Board of Directors and the Executives and to assess the performance of employees.

The Board acknowledged the outcomes of CG implementation in 2024, approve embraced the revision to the Charter, and sustainable development policy to ensure suitability for HARN business context, include review Corporate Governance Policies, Code of Conduct, Risk Management Policies, and Anti-Corruption Measures manual its indeed remained completely up-to-date, suitable, and consistent with various criteria.

HARN announced the approved policy on the Intranet on April 1, 2024 requires all directors, management, and employees to acknowledge and observe all policies in the course of their works, and disclosed on website, www.harn.co.th both Thai and English are for investor and stakeholders to use or use for reference.

3. Policy and Guidelines and Performance for the Board and Chief Executive Office

3.1 Policy and Guidelines and Performance for the Board

The Board of Director shall comprise the person who has knowledge, expertise, and experience considered beneficial to HARN. They shall devote their time to their duties and endeavor to perform them well to oversee HARN operations, including the appointment of Board-Committees to responsible for the specific affairs assigned, and Company Secretary, to manage meetings and compliance with laws and regulations. The policy and guidelines and performance report for the Board are as follows:

3.1.1 Nomination and Criteria of the Board and Independent Directors

1) Nomination Criteria of the Board and Independent Directors

HARN define Criteria and process for the Board members nomination in compliance with relevant laws and regulations the Public Company Limited Act, and the securities and exchange law, as well as other relevant notifications, stipulations and/or regulations, as described in CG Policy, that directors must hold qualifications that comply with laws and regulations, considering experience, knowledge, and skills that benefit the business. The criteria, in addition, opened to the diversity of gender, race, ethnicity, nationality, or country of origin. Also, values independence of the Directors, their conflict of interest, and their directors' diversity of expertise and has developed a Board Skill Matrix aligned with Nomination and Remuneration Policy to assist in the selection process. Include to create a wide range of expertise in line with strategic directions. Also searched and selected qualified Directors through the Thai Institute of Directors' list of professional directors (IOD) or other agencies provide that HARN deems appropriate.

HARN specifies the composition for appointing independent directors not less than one-third of all directors. and there are at least 3 independent directors. In case of any director and/ or independent director vacating office before the end of the office term, the Board may appoint a new director with the required qualifications as a replacement. The replacing shall hold office only for the remaining term of office of the independent director whom he has replaced. **Detail in section 2, topic: governance structure, "Item 2.1 Composition of the Board", page 149 and "Item 2.2 The Current Board of Directors", page 151**

2) Nomination Criteria of the Board

1. Allowing minority shareholders to propose qualified names according to the law as per qualifications set by HARN in order to be a candidate of the Board, by announcing invitations on website www.harn.co.th at least 90 days in advance of the shareholders' meeting. HARN set ratio of minimum shares to be qualified prior to the announcement and must have a minimum of 5% voting shares of HARN. However, nominations must include history of education and sufficient experience to helpfully decision.
2. The nomination and Remuneration Committee review rules and method of recruiting to the board prior to the end of term of office. If submit the former Board as a candidate, performance of that individual must be reviewed once again. However, the Nomination and Remuneration Committee, may appointed consultant to assist in the selection of directors.
3. The Nomination and Remuneration Committee selects and proposes to the Board for consideration of the names of qualified candidates prior to the Shareholders' approval in the AGM. After the Board's endorsement, the list of qualified candidates is proposed to the AGM, individually. In this process each director and/or independent directors must receive more than half of the total number of votes of Shareholders attending the AGM and having the right to vote.

4. The shareholders' meeting shall elect the directors in accordance with the following criteria and procedure:

- The shareholders' voting right of one share equals one votes, provided separate ballot for each of the Director, the majority votes of the shareholders who attend the meeting and have the right to vote.
- The shareholders right shall cast all the votes he has to elect one or several directors. In case of electing several directors, each shareholder may not divide his votes and allocate them to all such candidates in portions.

Furthermore, HARN, provided an opportunity for shareholders to propose nominate Director Candidates, in which publicized on SET Link of SET's electronic system and website, www.harn.co.th, from October 9 to December 31, 2023. When the deadline, none of the shareholders has proposed nominate Director Candidate to be elected as HARN's Director. The Company Secretary has been reported in the Board meeting.

In 2024, the Nomination and Remuneration Committee, reappointed former 3 persons who completed their terms at the 2024 AGM to another term, namely Mr. Prasert Deejongkit and Dr. Teerachai Pornsinsirirak, as Independent Director, and Mr. Wirat Sukchai, as Directors. HARN no advisor has been appointed of the Nomination and Remuneration Committee. The said directors qualified, knowledge, abilities and experience in the business. It will helpful in setting direction and in line with HARN's business strategy.

3) Nomination Criteria the Chairman of the Board

The Board shall elect one of the Board members as Chairman of the Board to supervise and control meetings of the Board and meetings of the shareholders of HARN to ensure efficiency and compliance with relevant rules and regulations and to meet the meeting objectives.

To segregate policy-making duties from those of day-to-day management and to enable directors to look after and assess performance effectively, HARN has required that the Chairman of the Board and the Chief Executive Officer are always two persons. This is because the Chairman needs to define policy and oversee management's performance, guide, and assist it, but not to take part in or interfere with day-to-day management, which is the duty of the Chief Executive Officer under the authority delegated by the Board.

Board Meeting No. 1/2023 of February 24, 2023 the 2023 Annual General Meeting held on April 24, 2023, Mr. Mr. Pichet Sithi-Amnuai was appointed as an Independent Director and Chairman of the Board. Effective from April 24, 2023, which in accordance Corporate Governance guidelines. The current Chairman is an independent director. He exercises high-level leadership and ensures that directors do not fall under the influence of management by encouraging them to exercise their voting rights and strictly comply with the CG code. Does not repeat a position of Chief Executive Officer which is Mr. Thammanoon Tripetchr. He has no business relationship or bloodline with the CEO. Therefore, the position is suitable and balanced.

4) Qualifications the Directors

The Board must be a leader, have vision, able to monitor and system promote business operations to law and ethics with corporate governance. Control management to ensure the effectiveness of operations, achieving targets and adding value for shareholders, and other stakeholders to align with HARN's business strategy, as qualifications follow:

1. Must not be over 80 years of age, which they may be re-elected for another year on year, taking into knowledge necessary for business. However, must be approved by the Board of Director meeting.
2. The Board must be duly qualified, without the prohibitions stated in the Public Limited Company Act and the securities and exchange law, Including not having characteristics indicating lack of suitability as specified in the notification of the Securities and Exchange Commission, must whose name be listed as directors of a company issuing securities according to the Notification of the Capital Market Supervisory.
3. Independent directors must command independence as required by SET's Notification on the qualifications and scope of work of the Audit Committee.

5) Qualifications the independent directors

The Board, approved the definition of the independence of directors, with in line the criteria set by the Securities and Exchange Commission (SEC) and the Stock Exchange of Thailand (SET) as follows;

1. Holding not more than 1% of the total shares with voting rights of HARN^{1/}, which shall be inclusive of the shares held by any related person thereof. ("Person related" shall mean the person under Section 258 of the Securities and Exchange Act);
2. Neither being nor having been an executive director, an employee, a staff member, an adviser who receives a regular salary, or a controlling person of HARN^{1/} unless the foregoing status has ended for no less than 2 years;
3. Not being a person related by blood or registration under law of other directors, major shareholder, controlling person or person to be nominated as an executive or a controlling person of HARN^{1/} or its subsidiary company;
4. Neither holding nor having held a business relationship with HARN^{1/}, in a manner which may interfere with his/her independent judgment; and neither being nor having been a substantial shareholder or a controlling person of any person having a business relationship with HARN^{1/}, unless the foregoing relationship has ended for no less than 2 years;
5. Neither being nor having been an auditor of HARN^{1/}, and not being a substantial shareholder, controlling person or partner

4. Must never been sentenced to imprisonment, except for violations of the law by negligence or a petty offence and never have been expelled, dismissed, or removed from a position because of malfeasance.
5. Must not be a political official, except for holding a directorial position under a provision of law and not hold any position in a political party or be an official of political party
6. Have knowledge and experience be beneficial to the business, honesty, integrity, and ethics and perform duties for the fullest.
7. Representing of shareholders as a whole not representing any group.
8. Limit of 5 listed companies on SET where directors can each serve, without exception.
9. Prohibited conducting business or become a partnership or being director, executive, authorized in other juristic with same business, which the benefit of oneself or another person, unless the Board meeting to the resolution of appoint.

of an audit firm which employs auditors of HARN^{1/}, unless the foregoing relationship has ended for no less than 2 years;

6. Neither being nor having been any professional service provider including legal adviser or financial adviser who receives an annual service fee exceeding Baht 2 million from HARN^{1/}, and not being a substantial shareholder, controlling person or partner of the professional service provider, unless the foregoing relationship has ended for no less than 2 years;
7. Not being a director who has been appointed as a representative of a director of HARN, major shareholder, or shareholder related to the major shareholder;
8. Not undertaking any business the nature of which is the same as that of HARN or subsidiary company and which, in any material respect, is competitive with the business of HARN or subsidiary company or not being a substantial partner in the partnership, a director who is involved in management, an employee, a staff member, an adviser who receives a regular salary, or a shareholder holding more than 1% of the total shares with voting rights of a company undertaking any business the nature of which is the same as that of HARN or subsidiary;
9. Not having any characteristics that prohibit the expression of independent opinion towards HARN's business undertakings.

Note : ^{1/} Including company principal, subsidiary, associated, major shareholder, or controlling person of HARN.

6) Independence the Board

The Board shall consider, express opinions on, and vote for activities under their authority. If a decision is made under pressure from work, family, or any conflict of interest, it may be made in bias to benefit the directors in question, their family, or other contacts. The independence of the Board must be emphasized in order to protect the shareholders and HARN's benefit. Therefore, any director who is not entirely independent shall not make decisions. At a given meeting in 2024, those with conflicts of interest with HARN must inform the meeting to and abstain from voting on each such matter.

Independent Directors shall be independent from major shareholders and executives. They shall also have adequate access to financial-related and business information in order to provide a free opinion to protect the best interest of minor shareholders, acting with care and honesty. In addition, being an Independent Director set a policy for independent directors to hold office continuously for no more than 9 years from the date of appointment or from the date HARN is listed on the stock

exchange without exception. In 2024, none of the independent directors have been on the position for longer than 9 years. 4 are independent directors out of the total of 8 directors is more than one-third of all directors, which 1 independent directors serve 4 consecutive years namely; Mr. Prasert Deejongkit and 2 independent directors serve 3 consecutive years namely; Dr. Teerachai Pornsinsirak and Mrs. Valeeratn Chuerboonchai, and 1 independent director serve 2 consecutive years namely; Mr. Pichet Sithi-Amnuai. In this regard, independent directors meet the standards of the Securities and Exchange Commission (SEC) and the Thai Stock Exchange. (SET) and does not violate or conflict, with other relevant laws, free to express opinions.

In this regard, the independent directors shall examine and certify their qualifications and independence at least once a year, also required to disclose independence on office-holding by independent directors of HARN, in the Annual Disclosure Statement / Annual Report (Form 56-1 One Report).

3.1.2 Appointment and Dismissal of Directors and Independent Director

1. The Board consists of least 5 directors are appointed at shareholders' meeting. In addition, the Board must consist of a minimum of 3 Independent Directors of all Directors and as Audit Committee, which at least half of the directors must reside in the Kingdom and the directors' executive not more half of the directors, by non-Executive Director must of at least 1 director in knowledge in main business and accounting. All directors must have qualifications as specified by law and the Articles of Association.

However, as of December 31, 2024, the Board had 4 independent directors, 2 female directors, and all of them resided in Thailand. 2 non-executive directors have professional knowledge, and experience main business, namely Dr. Teerachai Pornsinsirak and Mrs. Sirima Iamsakulrat, and 4 directors are experts in accounting, namely Mr. Pichet Sithi-Amnuai, Mr. Prasert Deejongkit, Mrs. Sirima Iamsakulrat and Mrs. Valeeratn Chuerboonchai

2. The shareholders' meetings are to appoint qualified directors whom the Nomination and Remuneration Committee has elected and proposed to the Board.

3. At the General Meeting of Shareholders, one in third of the directors or if the number is not a multiple of three, then the number nearest to one-third - will retire from directorship. The directors retiring in the first and second year after the after was listed are company registration to be drawn by lots. For

subsequent years, those with the longest terms are to retire. Committees that retire from the position, may be elected as a committee once again with unlimited rights.

However, the Board Stipulates a policy that Independent Directors may be in position not for more than 9 consecutive years, counting from the day of the appointment and counting from the day of HARN Listed on the stock exchange.

4. Any director who wishes to resign from directorship must tender his or her resignation to HARN. Such resignation will take effect from the date the resignation letter reaches HARN.

5. In case a director's seat is vacated for reasons other than term completion, the Board may elect a qualified person and without the prohibitions stipulated by HARN's Articles of Association to fill the vacancy at the next Board meeting unless the remaining term of the vacated director is less than two months. The acting director must secure at least three-quarters of the votes of the remaining directors. The personal can remain in position remain in the position of director for the remaining term of the predecessor.

6. For voting to remove any director from the directorship before the completion of his or her term, at least two in third of the vote of eligible shareholders present at the meeting is required as well as at least half of the total number of shares represented by the eligible shareholders present at the meeting.

3.1.3 Serving as Directors in Other Companies of Directors

The Board set a policy to limit the number of listed companies in the Stock Exchange of Thailand. That each Director able to take which does not exceed 5 companies no exception, to ensure that the Board dedicate sufficient time for the operation. Including, The Board are prohibited to become a partner or a director in a competing enterprise or business related to HARN's that may cause conflicts of interest. Details are in

accordance with the policy and guidelines of the Board of Directors, disclosed in the corporate governance and code of conduct policy and principles with a full version on website: www.harn.co.th

In 2024, there is no **directors to take of office for more than 5 companies, as follow; (details in Section 4, Attachment 1, page 231-237)**

Name		Position	Positions in other listed companies
Mr. Pichet	Sithi-Amnuai	Independent Director	- none -
Mr. Prasert	Deejongkit	Independent Director	1 company
Dr. Teerachai	Pornsinsirak	Independent Director	1 company
Mrs. Valeeratn	Chuerboonchai	Independent Director	- none -
Mrs. Sirima	Iamsakulrat	Directors	- none -
Dr. Jain	Charnnarong	Directors	- none -
Mr. Thammanoon	Tripetchr	Directors, Chief Executive Officer and Chief Marketing Officer	- none -
Mr. Wirat	Sukchai	Directors and Chief Marketing Officer	- none -

3.1.4 Orientation of New Directors

HARN requires an orientation for newly appointed directors every time. New directors will receive a handbook, documents and useful information, including policies and practices of good corporate governance.

For new directors, arranges an orientation session facilitated by Chief Executive Office with knowledge about the business and business direction as well as related laws and regulations and other information required for performing the director's duties, and hand over the Director's Manual to the new directors, along with a visit of the business, introducing business overview. The company secretary as the information prepared, including: Therefore, in 2024 **no** new directors were appointed. However, HARN improvement the director's handbook to be current to accorders with of good corporate governance.

- Part 1 Structure of the board, executive and company secretary
- Part 2 Group structure, major shareholder structure
- Part 3 Company information and nature of business
- Part 4 Charter of the board of directors and board-committees
- Part 5 Schedule of management approval authority
- Part 6 Remuneration of the board of directors and board-committees
- Part 7 Meeting and Training Courses of the Board of Directors
- Part 8 Policy and principles of corporate governance and business ethics
- Part 9 Role of directors under general law
- Part 10 Certificate memorandum and HARN's articles of association
- Part 11 Consolidated and separate financial statements
- Part 12 Annual Registration Statement/ Annual report (From 56-1 One Report)

3.1.5 Director development

The Board encourages all directors to keep on learning as support for their improved performance. HARN directors underwent training with Thai Institute of Directors Association (IOD) and other leading entities and institutes. The Nomination

and Remuneration Committee consider training curricula related and to foster their work knowledge to the Board application to HARN's businesses for sustainable growth. Detail the Board trainings in 2024, as follow:

1) Training course of the Thai Institute of Directors Association (IOD) for the Board

Currently, all directors have attended training courses related to IOD performance, accounting of 100%.

Name		Courses										
		DAP	DCP	SFE	FSD	RCP	ACEP	ACP	AACP	HRP	BNCP	BCG
Mr. Pichet	Sithi-Amnuai	184/2021	64/2005	2/2008		55/2023	2/2012	10/2005				
Mr. Prasert	Deejongkit								53/2024		14/2022	
Dr. Teerachai	Pornsinsirak	SET/2012	211/2015					50/2023				
Mrs. Valeeratn	Chuerboonchai	SET/2012	205/2015		28/2015		14/2015	49/2023			14/2022	
Mrs. Sirima	Iamsakulrat		211/2015	24/2015							5/2018	
Mr. Jain	Charnnarong	SET/2012	173/2013	23/2015						8/2014	14/2022	2/2024
Mr. Wirat	Sukchai	116/2015	204/2015	24/2015		36/2015	14/2015			12/2017		
Mr. Thammanoon	Tripetchr		211/2015	24/2015	28/2015					31/2022		

2) Training courses at other leading institutions the Board in 2024

Name of the Board	Courses
Mr. Pichet Sithi-Amnuai	None
Mr. Prasert Deejongkit	<ul style="list-style-type: none"> Advanced Audit Committee Program (AACP), class 53/2024
Dr. Teerachai Pornsinsirak	<ul style="list-style-type: none"> Building a Digital Business Strategy Director Briefing 1/2024: ESG Integration for Sustainable Business Success Leaders Exchange: Soar beyond with Cloud, through AI-powered Transformation Director Forum I Engaging Board in ESG: The Path to Effective Sustainability
Mrs. Valeeratn Chuerboonchai	<ul style="list-style-type: none"> Director Forum I Engaging Board in ESG: The Path to Effective Sustainability
Mrs. Sirima Iamsakulrat	None
Mr. Jain Charnnarong	<ul style="list-style-type: none"> The Board's Roles in Climate Governance (BCG), class 2/2024
Mr. Wirat Sukchai	<ul style="list-style-type: none"> The mai CFO 2024: Growth & AI Chapter IR In Action4 Create Everlasting Company: Sustainability, Succession, and Strategy
Mr. Thammanoon Tripetchr	<ul style="list-style-type: none"> Intro Generative AI

3.1.6 Board and Board-Committees Self-Assessment

HARN arranges for performance assessment of the Board and Board-Committee on an annual basis according to the good practices of the Thai Stock Exchange, serve as a framework for reviewing and reviewing structures, qualifications, meetings, roles, and responsibilities. The responsibility of the board of

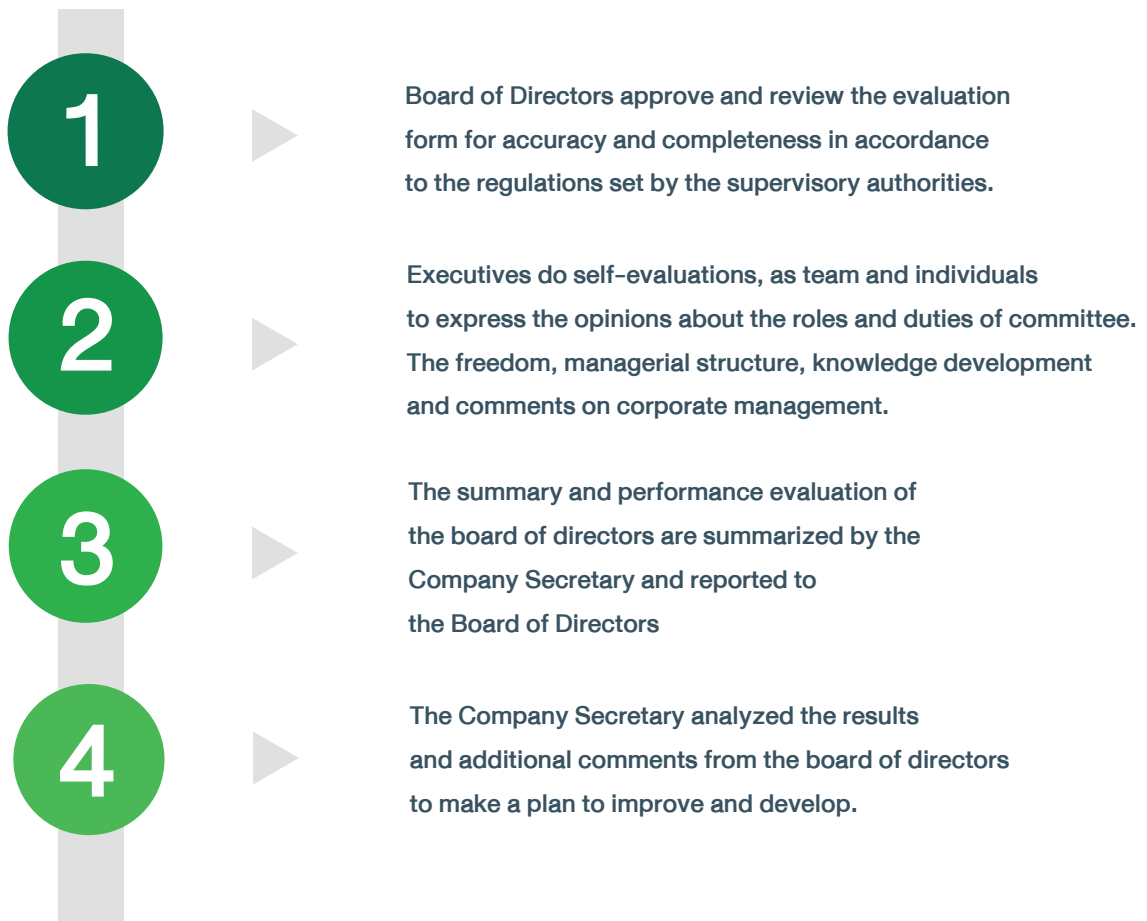
directors and more effective performance development. The assessment is divided into two types:

- (1) Whole Board and Board-Committee Assessment
- (2) Individual Board and Board-Committee Assessment

1) Process of Self-Assessment the Whole Board and Individual

The Board Meeting No. 5/2024 of October 7, 2024, approved the 2024 Board's performance assessment form, which was reviewed and improved to have diverse the roles, duties and responsibilities covered according the Board Charter. The assessment forms were sent to each individual director for

assessment and returned to the Secretary Company for analysis, then, raised the assessment results together with comments to the Board for acknowledgment. Recommendations from the assessment shall be used to identify guidelines to develop and enhance performance efficiency.



2) Criteria of Self-Assessment the Whole Board and Individual

Assessment Criteria	Measurement Criteria
(1) Structure and qualifications	Level 0 - Need significant improvement
(2) Meetings	Level 1 - Partially meet expectations
(3) Roles, duties and responsibilities	Level 2 - Meet expectations
(4) Other	Level 3 - Exceed expectations
	Level 4 - Exemplary best practices
	Calculated as a percentage from the full score in each topic: more 90% is Excellent, 80-89% is Good, 70-79% is Relatively Good, 60-69% is Fair, below 60% Need improvement



3) Results of Self-Assessment the Whole Board and Individual

Assessment	Assessment Results			
	Whole	Level	Individual	Level
Board of Director	92.42%	Excellent	92.43%	Excellent
Audit Committee	94.86%	Excellent	94.07%	Excellent
Nomination & Remuneration Committee	93.04%	Excellent	91.11%	Excellent
Executive Committee	86.57%	Good	84.81%	Good
Risk management Committee	91.55%	Excellent	86.58%	Good

The Board has provided recommendations to enhance the effectiveness of its duties, ensuring they contribute positively to HARN's business operations. Additionally, the Board collectively reviews the evaluation results to further improve its performance.

HARN also establishes an annual development plan for directors to support their continuous growth. However, the Board has not yet engaged an external consultant to assist in setting evaluation frameworks or providing recommendations on board performance assessments.

3.1.7 Remuneration the Board and Board-Committee

HARN fairly and sensibly specifies the remuneration of directors. The remuneration consideration criteria are related to the responsibilities and performance of the board of directors, overall economic circumstances while making comparisons with other companies in the same industry to come up with a comparable and motivating. The Nomination and Remuneration Committee set director's annual remuneration to the Board for agreed before presenting the AGM for approval.

The 2024 Remuneration of the Board and Board-Committee, following the comparison with companies of a similar size in the same industry and taking the business circumstances into consideration, it was found that the criterion structure and remuneration for the Board were still suitable. So, the remuneration of the same rate as that of 2023 was proposed, **without bonus and no other benefits offered** same as last year. The remuneration already received approval from the 2024 AGM as follow:

Compensation Components

1. Monthly remuneration: Director / Audit Committee / Risk Management Committee / Nomination and Remuneration Committee		
- Chairman of the Board	30,000	Baht/Month
- Board-Committees	25,000	Baht/Month
- Directors / Independent Director	20,000	Baht/Month
- Directors (2 working day/week)	80,000	Baht/Month
2. Meeting allowances: The Board of Director / Audit Committee (Only directors attending the meeting)		
- Chairman	20,000	Baht/Month
- Director	15,000	Baht/Month
3. Meeting allowances: Risk Management Committee / Nomination and Remuneration Committee (Only directors attending the meeting)		
- Chairman	15,000	Baht/Month
- Director	10,000	Baht/Month
4. Bonuses	None	
5. Other Rights and Benefits	None	

Note : Principles of compensation for the Board of Directors and Board Committees are as follows:

- The Nomination and Remuneration Committee is the person who determines and establishes the principles or policies "Remuneration for Directors" and propose to the Board of Directors for approval to propose to the Annual General Meeting of Shareholders which must comply with HARN's Articles of Association, Chapter 4, regarding the Board of Directors, including various factors related as follows:
 - Duties and responsibilities of each director
 - To be appropriate when compared to other public companies that has the similar operating results and business operations.
 - To be fair and transparent to create incentives to maintain qualified directors as needed
 - To be appropriate for the ability to get paid the compensation from HARN
- The Nomination and Remuneration Committee is summaries the annual remuneration and compensation which must not exceed the amount approved by the shareholders' meeting from the previous year and propose to the Board of Directors for approval to report to the shareholders' meeting to acknowledge the amount of money actually paid by considering the following factors:
 - Company performance previous year
 - Determine the appropriate time to pay
 - Details and conditions of payment such as annual remuneration for all directors who remain in office in the event that any director has recently held the position and has not yet completed a service year, annual remuneration will be paid in proportion referring to time appointment since joined.
- Board and Committee members entitled to receipt of Directors' remuneration must not be HARN's employees.
- Board member who also serve in another committee shall receive only one remuneration that pay the highest rate.

Summary the remuneration all Directors in 2024

The remuneration directors in 2024 for period 12 months from 1 January to 31 December 2024 total Baht 3,300,000, **without bonus and no other benefits offered**, comprises monthly remuneration Baht 2,400,000 and meeting allowances Baht 900,000 accordance with the resolution of the 2024 AGM follow:

Name	Position	Total monthly remuneration	Total meeting allowances	Total remuneration
Mr. Pichet Sithi-Amnuai	Chairman of the Board	360,000	120,000	480,000
Mr. Prasert Deejongkit	Chairman of the Board-Committee	300,000	180,000	480,000
Dr. Teerachai Pornsinsirirak	Chairman of the Board-Committee	300,000	210,000	510,000
Mrs. Valeeratn Chuerboonchai	Chairperson of the Board-Committee	300,000	190,000	490,000
Mrs. Sirima Iamsakulrat	Director	240,000	90,000	330,000
Dr. Jain Charnnarong	Director	900,000	110,000	1,010,000
Mr. Thammanoon Tripetchr	Director (executives)	-	-	-
Mr. Wirat Sukchai	Director (executives)	-	-	-
Total		2,400,000	900,000	3,300,000

Name	Position	2024					2023				
		Monthly Remuneration	Meeting allowances				Monthly Remuneration	Meeting allowances			
			Board of Director	Audit Committee	Nomination and Remuneration Committee	Risk Management Committee		Board of Director	Audit Committee	Nomination and Remuneration Committee	Risk Management Committee
1. Mr. Pichet Sithi-Amnuai	Independent Director / Chairman of the Board	360,000	120,000	-	-	-	247,000	80,000	-	-	-
2. Mr. Prasert Deejongkit	Independent Director / Member of the Audit Committee / Chairman of the Nomination and Remuneration Committee	300,000	90,000	60,000	30,000	-	300,000	90,000	75,000	30,000	-
3. Dr. Teerachai Pornsinsirirak	Independent Director / Chairman of the Risk Management Committee / Member of the Audit Committee	300,000	90,000	60,000	-	60,000	300,000	90,000	60,000	-	60,000
4. Mrs. Valeeratn Chuerboonchai	Independent Director / Chairperson of the Audit Committee / Member of the Nomination and Remuneration Committee	300,000	90,000	80,000	20,000	-	281,000	90,000	95,000	20,000	-
5. Mrs. Sirima Iamsakulrat	Director	240,000	90,000	-	-	-	240,000	90,000	-	-	-
6. Dr. Jain Charnnarong	Director / Member of the Executive Committee / Member of the Nomination and Remuneration Committee	900,000	90,000	-	20,000	-	860,000	90,000	-	20,000	-
7. Mr. Wirat Sukchai ^{1/}	Director / Chairman of the Executive Committee / Member of the Risk Management Committee	-	-	-	-	-	-	-	-	-	-
8. Mr. Thammanoon Tripetchr ^{1/}	Director / Member of the Risk Management Committee / Member of the Executive Committee	-	-	-	-	-	-	-	-	-	-
Total		2,400,000	570,000	200,000	70,000	60,000	2,342,000	570,000	250,000	70,000	60,000

Note : 1/ Executive of a company and receives a regular salary

3.1.8 Meeting attendance the Board

Each year, the Board meetings are scheduled in advance so that the Board can make themselves available to efficiently attend the meeting follow:

1. The Boards and Board-committees determine yearly meeting schedules in advance by November of every year so that the Committees can arrange and be able to attend the meetings. At least 6 meetings must be taken place and may arrange an additional meeting 1 meeting prior to the Annual General Meeting. Special occasions of meeting may be taken place as seen necessary. However, to pursuit business as usual, in each month, The Executive Committees decisions in accordance whom delegated by the Board of Directors and report the approved topics to the Board.
2. The Company Secretary sends to each director meeting notices, agenda with complete details and rationale, and supplementary documents with enough essential details for decision-making at least 5 business days in advance ahead of each meeting to give them time to study these. Directors consider the agenda through an application to “Google Meet” the process of agenda delivery and the paperwork involved, thus speeding up directors’ work while efficiently providing them with adequate details for decision-making.
3. The Board set a policy that requires no less than one-two (1/2) of the current Board members in attendance to make a quorum. In voting, the minimum quorum of directors is no less than two-thirds (2/3) of all attending directors. However, if the quorum does not comply with this guideline, the discretion of the Chairman will be sought.
4. Chairman of the Board serves as the Chairman of the meeting to proceed with the meeting and allocate sufficient time for each agenda item, encouraging all Directors to openly discusses and express their opinions. Top executives are invited to attend Board meetings to report useful information and allow the Board to see the attitude and practice of top executives, which will be useful for the consider of succession plans.
5. For each agenda item, the Company Secretary has the duty to prepare the minutes, by the Board-certified minutes, signature of the Chairman of written are filed at head-office 4th floor Rama 9 road, for perusal by the directors and related parties.

The Board’s is that for a given agenda item, if any director has potential conflicting interests, who will not attend the meeting and abstain voting on such agenda item. Where the votes cast in descending order are tied, the chairman of the meeting shall have a casting vote. In case the directors disagree with a resolution, they may request the Company Secretary to record the points of their disagreement in the meeting minutes or submit a letter to the Board Chairman to express their disagreement.

In 2024, a total of 6 Board meetings were held in a Hybrid format (both Physical Meeting and E-Meeting), 1 strategic plan meeting included, were also held 2 nonexecutive directors meeting without executives on July 24, 2024 and November 13, 2024, to allow non-executive directors and independent directors to exchange views freely. The chairman of the board of directors conveyed the opinions of the meeting to the management for further deliberation.

Meeting Attendance the Board of Directors, Board-Committees, and Shareholders' Meeting in 2024

In 2024, the whole committee attended the meeting an average of 100%, details as follow:

Name	Position	Board of Director (6 meetings)	Audit Committee (4 meetings)	Executive Committee (12 meetings)	Nomination and Remuneration Committee (2 meetings)	Risk Management Committee (4 meetings)	AGM (1 times)
		Hybrid both Physical Meeting and e-Meeting formats					
1. Mr. Pichet Sithi-Amnuai	Independent Director/ Chairman of the Board	6/6 (100%)					1/1 (100%)
2. Mr. Prasert Deejongkit	Independent Director /Member of the Audit Committee /Chairman of the Nomination and Remuneration Committee	6/6 (100%)	4/4 (100%)		2/2 (100%)		1/1 (100%)
3. Dr. Teerachai Pornsinsirak	Independent Director / Chairman of the Risk Management Committee / Member of the Audit Committee	6/6 (100%)	4/4 (100%)			4/4 (100%)	1/1 (100%)
4. Mrs. Valeeratn Chuerboonchai	Independent Director /Chairperson of the Audit Committee / Member of the Nomination and Remuneration Committee	6/6 (100%)	4/4 (100%)		2/2 (100%)		1/1 (100%)
5. Mrs. Sirima Iamsakulrat	Director	6/6 (100%)					1/1 (100%)
6. Dr. Jain Charnnarong	Director / Member of the Executive Committee / Member of the Nomination and Remuneration Committee	6/6 (100%)		12/12 (100%)	2/2 (100%)		1/1 (100%)
7. Mr. Wirat Sukchai	Director /Chairman of the Executive Committee/ Member of the Risk Management Committee	6/6 (100%)		12/12 (100%)		3/4 (75%)	1/1 (100%)
8. Mr. Thammanoon Tripetchr	Director / Member of the Risk Management Committee / Member of the Executive Committee / Chief Executive Officer	6/6 (100%)		12/12 (100%)		4/4 (100%)	1/1 (100%)
9. Mr. Rattanaphan Mukhariwattananon	Member of the Executive Committee / Member of the Risk Management Committee			12/12 (100%)		4/4 (100%)	1/1 (100%)
10. Mr. Wisit Wachiralappaitoon	Member of the Executive Committee / Member of the Risk Management Committee			12/12 (100%)		4/4 (100%)	1/1 (100%)
11. Mrs. Varinkan Teraumranon	Member of the Executive Committee / Member of the Risk Management Committee			12/12 (100%)		4/4 (100%)	1/1 (100%)
12. Mr. Suchat Suwatnodom	Member of the Risk Management Committee					4/4 (100%)	1/1 (100%)
13. Mr. Kittiphong Kittimethawenun	Member of the Risk Management Committee					2/4 (50%)	1/1 (100%)
14. Mr. Vachiravit Akaraseranee	Member of the Risk Management Committee					4/4 (100%)	1/1 (100%)
15. Mr. Sukit Litikorn	Member of the Risk Management Committee					4/4 (100%)	N/A
16. Mr. Withoon Thamee	Member of the Risk Management Committee					2/4 (50%)	1/1 (100%)
17. Mr. Prapas Rakpanya	Member of the Risk Management Committee					4/4 (100%)	1/1 (100%)
18. Miss Warangkana Jongnui	Member of the Risk Management Committee					3/4 (75%)	1/1 (100%)

Note : N/A means not attend and Directors who Appoint during the Year 2024, and/or adhere to the necessary tasks planned in advance with prior notice to the company

3.1.9 Governance of Subsidiaries

HARN determine policies to govern subsidiaries by setting way of conduct guidelines, internal control, disclosure of financial performance, transactions with connected persons, acquisition or disposition of property, other important, capital increase, capital reduction, and dissolution of subsidiaries, so that their work procedures in conformity according to the law and relevant regulations as a governance tool for companies in which HARN holds shares. All are required to practice and drive toward the same standard across HARN through HARN's representative(s) assigned as directors. This way, HARN commands unity in action, leading to synergy, enhanced capability and strength in competition to in turn lead to joint growth in a transparent and sustainable way.

Below is the scope of executives, which consists of governance principles:

1. Major joint venture is defined as has ratio of the voting shares between 20-50% and invest large amount of sum. In necessary circumstances, the Board must arrange Shareholder's' agreement or other agreement to clarify authority of management and decision, to use for financial statement of HARN according to the standards and timeline
2. Rules, Regulations and Policy, including directives which form part of the governance designed to drive linkages between HARN's policy governance and its successful implementation driven toward a uniform standard throughout by HARN's representatives assigned to serve in these subsidiaries as directors.
3. Steering for management by defining objectives and goals, strategies, and policies, and allocating key resources for objective and goal achievement, including monitoring, assessing, and ensuring performance reporting. Must report implementation updates to the Board.
4. HARN's Quality Management Division is responsible for monitoring and reporting on the effectiveness of internal controls within subsidiaries to the Chief Executive Officer and Chief Operating Officer, in accordance with the established plan.

The Board of Directors, which supervises the subsidiaries as part of the operation, have a resolution to appoint a representative to take the position of director in Aiyaraharn Company Limited ("Subsidiary"). To act in pushing for good corporate governance policies and practices, code of conduct, risk management and anti-corruption measures HARN's are of the same standard, along with setting annual goals and indicators and require monthly meetings between representatives and executives of subsidiaries, reports are submitted to the Board of Directors at every board meeting.

HARN has operations to promote compliance with policies and guidelines for supervising subsidiaries. In 2024, a meeting was held between representatives and management of subsidiaries in order to consider financial status, performance and other important matters which have been already reported to the Board of Directors for acknowledgment. In summary, the Subsidiary has an appropriate and careful internal control process for its business operations. No misconduct that violates the conflict-of-interest prevention policy.

3.2 Policy and Guidelines and Performance the Chief Executive Officer

The Board of Directors has appointed the Nomination and Remuneration Committee to establish policies for the recruitment and compensation of the Chief Executive Officer, as well as succession planning for top executives, particularly the Chief Executive Officer position. This ensures that HARN has a structured process for identifying and developing a Chief Executive Officer with the necessary knowledge, skills, experience, and attributes to drive the organization toward its goals in alignment with corporate policies and governance principles.

3.2.1 Nomination Criteria the Chief Executive Officer

1) Nomination the Chief Executive Officer

The Nomination and Remuneration Committee selects candidates for the Chief Executive Officer position from both internal and external sources, based on a non-discriminatory approach that values gender diversity. The selection process considers candidates' knowledge, skills, and specialized expertise essential for business operations and strategic execution, ensuring the organization progresses toward its goals. Candidates must also meet legal eligibility requirements. The recruitment process aligns with the company's CEO selection policy, and the committee nominates qualified candidates for the Board of Directors' approval and appointment as Chief Executive Officer.

2) Qualifications the Chief Executive Officer

The candidate must possess strong business management expertise and relevant experience in fields related to the company's

operations, such as fire protection systems, air conditioning systems, sanitary systems, refrigeration systems, digital printing systems, and IoT systems. They should demonstrate exceptional leadership qualities, proven experience in leading organizations, and recognition within relevant industries. The individual must uphold integrity, have a broad strategic vision, and excel in communication and fostering alignment within the organization. Additionally, the candidate without legal prohibitions and must not have any conflicts of interest with HARN. They are prohibited from being a partner or director in any business that competes with or is related to HARN in a manner that may create conflicts of interest. If holding an executive position in another company, it must comply with relevant laws and regulations governing HARN's business operations, except for directorships in nonprofit charitable organizations.

3.2.2 Assessment the Chief Executive Officer

The Board arranges an annual evaluation of the Chief Executive Officer's performance, has set criteria, process and summary of performance evaluation of the Chief Executive Officer year 2024 as follow:

1) Evaluation Criteria

The performance evaluation of the Chief Executive Officer is based on 2 key performance indicator (KPI) categories, with adjustments to the weighting of each KPI as appropriate, as follows:

Section 1 - Key Performance Indicators (KPI) (70% Weighting): this section performance evaluation based on annual objectives and strategic business goals in both the short and long term, covering financial, social, and environmental aspects. These key performance indicators are aligned with the perspectives of the Balanced Scorecard framework. The assessment consists of 8 criteria: Corporate Governance Rating (CGR Score), EBITDA Profitability Ratio, Efficiency in Maintaining ISO Standards, Market Share, Customer and Employee Satisfaction, Legal Compliance, Inventory Management, Development or Expansion of New Product Markets.

Section 2 - Appraisal Indicator (API) (30% Weighting): this section evaluation by the non-executive committee, with evaluation from performance consistent with the strategy, vision, mission and values, according to guidelines of the Stock Exchange of Thailand in 8 criteria: Strategy Formulation, Strategic Execution Alignment with Key ESG Goals for Sustainable Business Operations, Financial Planning and Performance, Relationship with the Board, External Relations, Management and Relations with Personnel, Leadership, Personal Attributes. There are 5 levels of evaluation criteria: 5 excellent, 4 very good, 3 good, 2 fair, and 1 improvement.

Additionally, feedback is provided on key strengths that should be maintained and areas for further improvement in the following year for the Chief Executive Officer. This aims to enhance and continuously improve overall operational efficiency.

2) Evaluation Process

The Nomination and Remuneration Committee reviewed the annual performance appraisal form of the Chief Executive Officer, and presented to the Board of Directors for approval in accordance with the specified criteria includes both financial and non-financial goals. The non-executive committee is required to conduct independent performance appraisals. HARN's secretary was assigned to summarize and analyze the results of performance evaluation for consider by the Nomination and Remuneration Committee to providing additional opinions to develop plans and appropriate compensation adjustments to the Chief Executive Officer before presenting to the Board of Directors for further approval.

The Chief Executive Officer Performance evaluation results in 2024 are fair, equivalent to 79.20%, which The Nomination and Remuneration Committee communicated to the Chief Executive Officer for improvement of work efficiency, according to the complete established goals and strategy.

3.2.3 Remuneration the Chief Executive Officer

The remuneration of the Chief Executive Officer complies with the policies and guidelines the CEO's remuneration set by the Nomination and Remuneration Committee and the Board. The consider remuneration structure and two types of performance evaluation criteria, namely, key performance indicators (KPI) and evaluation indicators (API), according to the annual objectives and strategic business goals in both the short and long term, covering financial, social, and environmental aspects aligned with the perspectives of the Balanced Scorecard framework. Then submit them to the board meeting for approval.

For the year 2024, based on the structure and relevant criteria, the annual compensation and performance bonus for the 2023 fiscal year have been proposed. The Board considers the proposal to be reasonable and appropriate, and has been approved by the Board at Meeting No. 1/2024. **Detail in section 2, topic: governance structure, "Item 4.2 Remuneration of Chief Executive Officer and Top Executive's", page 160-161**

3.2.4 Succession Plan the Chief Executive Officer

The Board must ensure that HARN has an appropriate nomination process for key management positions at all levels, particularly the Chief Executive Officer position. Chief Executive Officer this will be selected through a nomination process that will consider both internal and external.

However, HARN has taken steps to develop its executives to lay down a succession plan for personnel when the time comes for assuming higher positions that become vacant. **Detail in section 2, topic: governance structure, "Item 4.1.2 Succession Plan", page 159**

3.2.5 Serving as Directors in Other Companies of Executives

The Board also established a policy to prohibit the Chief Executive Officer and top executives from taking a directorship position at other companies outside the Group. In case the Chief Executive Officer and top executives of HARN have to hold such directorship position in other companies, a prior written approval from the Executives Committee is required, this must not conflict with laws and rules related to the operation of HARN as well, and prohibited to become a partner or a director in a competing enterprise or business related to HARN's that may cause conflicts of interest. **Details disclosed in the corporate governance and code of conduct policy and principles with a full version on website: www.harn.co.th**

In 2024, the Chief Executive Officer none taking a directorship position at other companies outside the Group. However, in 2023, the Executive Committee approved the Chief Marketing Officer of the Refrigeration Business Unit, to serving as directors in other companies outside the group. This not conflict with laws and rules related to the operation of HARN, not engaged in business that competes with or is related to HARN business that may cause conflicts of interest. which has been approved by the Company's Board of Directors. **Profile details in Section 4, Attachment 1, page 237**

4. Policy and Guidelines and Performance Related to Shareholders and Stakeholders

HARN operates a fair business with awareness of impacts on stakeholders while treating all groups of stakeholders equally. Guidelines for treating each group of stakeholders are made and available in the CG policies and principles, which is accessible on website, www.harn.co.th for study and downloading.

4.1 Shareholders' Rights

The Board aloes the protection and respect of shareholders' rights, both as major shareholders minority shareholders or institutional investors thus provides opportunities for shareholders to exercise their fundamental rights as abide by law, such as to attend the shareholders' meeting, to express opinions, and to make decision on important issues, including approval of significant transactions having impact on business direction. HARN schedules an Annual General Meeting (AGM) within 4 months of the annual closing date of its accounting books. For urgent matters that affect or

involve shareholders' interests or involve conditions, regulations, or laws that require shareholders' approval, however, it can call an extraordinary meeting of the shareholders (EGM).

However, HARN prepare to the shareholders an invitation notice indicating the venue, date, time, agenda items, supporting information thoroughly and sufficient for the rights of the shareholders, as well as the opinion of the Board on each agenda item indicated in the invitation notice and key supporting information for decision-making.

4.1.1 The 2024 Annual General Meeting

The Board of meeting no. 1/2024 on February 28, 2024, decided to call AGM on Monday, April 29, 2024 at 14.00 hrs. format of physical, HALL 31-32 floor 3rd, Harn Engineering Solutions Public Company, 559 Soi Soonvijai 4, Rama 9 Rd. Bangkok Sub-District, Huaykwang District, Bangkok 10310. Its decision, meeting date, and meeting agenda were disclosed in detail ahead of time by announcing on SET's website to notify shareholders.

In the AGM, HARN was organized in accordance with the AGM Checklist, prepared by the Thai Investors Association (TIA), Thai Listed Companies Association (TLCA), and Securities and Exchange Commission (SEC). In 2024, HARN received a full score of 100 points for the 7th consecutive year, reflecting its continual commitment in organizing its AGMs with highest Corporate Governance standards. Such practices include:

1. Disclose the invitation and documents for the AGM on the website, www.harn.co.th, and publish an announcement on SET's website, its disclosed ahead of 31 days before the meeting date on March 29, 2024.
2. Thailand Securities Depository Co., Ltd. (TSD), its securities registrar, to mail the invitation, accompanying documents, supplementary information for decision-making, opinions of the Board, the annual report 2023 (QR Code), meeting documents, and proxy forms B. with complete instruction for shareholders more than 14 days before the meeting date. HARN the meeting notices were sent of 24 days before the meeting date on April 5, 2024.
3. The invitation meeting was announced 3 days before the meeting, each for 3 consecutive days, between 19, 22 and 23 April 2024, to allow shareholders enough time to prepare themselves for the meeting.

4.1.2 On the AGM Date

On the meeting, the Chairman of the Board assigned The Company Secretary as that would conduct the meeting, introduced the directors, executives, the external auditor, and the legal advisers who served as a party, then elaborated on the voting and ballot counting for individual agenda items under HARN's Articles of Association as well as voting procedures for each item. Once the information had been provided on each item, gave a chance for all attendees to comment or provide recommendations and questions adequate time through the provided microphone, which the Chairman and executives answered all questions clearly and precisely, treating all questions with due respect. For the election of directors, individual votes were required.

The meeting ensured that the meeting proceeded by the order of the agenda and did not add any item without notifying shareholders in advance. At the 2024 AGM, the order of the agenda was not changed, and there was no request to consider any other matter.

At every meeting, the minutes must be completely and accurately recorded with the vote tally on each applicable agenda item. As a rule, a shareholders' meeting lasts 2 hours.

The 2024 AGM began at 2 p.m., with registration beginning at 12:00 p.m. At the meeting's opening, a total of 143 shareholders and proxies registered, of whom 31 were shareholders and 112 were shareholders attended by proxy, representing a total of 407,744,997 shares, or 69.7596% of the total, which exceeded 25 shareholders and were more than one-third of all subscribed shares of 584,500,000. Below is a description and meeting attendants:

1. All 8 HARN directors attended the meeting. The Chairman of the Board, the Chairman of the Board-Committees, Chief Executive Officer, and Chief Financial Officer together provided supporting information on stage. Chief Marketing Officer, Chief Operating Officer, Director of Various Departments were attended at the front rows to provide information for relevant questions.
2. Auditors from Dharmniti Auditing Co., Ltd are Mr. Thanawut Piboonsawat and Miss. Duangkaew Sriwongthai
3. Legal advisers from Bangkok Low Office and Associates Co., Ltd. (witnesses in charge of the examination of voting disputes throughout the meeting): Mr. Naves Narattharugsa

4.1.3 Practical Guidelines for Reporting Conflicts of Interest

As specified in HARN the Corporate Governance Policy and Principles, the directors and top executives must prepare reports on conflicts of interest, consisting of annual reporting forms and a new interim reporting format in case of changes. At a given meeting, those with vested interests or conflicts of interest with must inform the meeting to excuse themselves and abstain from voting on each such matter.

4.1.4 Disclosure of Shareholders' Meeting Outcomes

The 2024 AGM, HARN submitted a summary of AGM resolutions to SET and SEC on the evening of the meeting date April 29, 2024. It also submitted the minutes of the AGM, each agenda clearly separated, the number of directors in attendance, questions raised by shareholders, and answers from directors, together with the voting tallies of each agenda item to SET and SEC within 14 days of the meeting. The minutes of meeting were published on website, www.harn.co.th on May 10, 2024.

4.2 Equitable Treatment of Shareholders

HARN treats all shareholders fairly despite their different shareholding proportions. Shareholders' fundamental rights are conserved restriction and regardless of their gender, age, race, nationality, religion, belief, social status, physical impairment, or political inclination. Include Directors with vested interests on any agenda item must excuse themselves from the meeting on that item. In addition, HARN information on the shareholders meeting was announced ahead of the meeting in Thai and English. All shareholders have equal rights to take part in HARN's activities.

4.2.1 Proposing Additional Meeting Agenda Items and Nominating Directors

The 2024 AGM, HARN rights promotes of shareholders to fundamental rights, in which the provides opportunities for shareholders to propose agenda items for the AGM and to propose and nominate Director Candidates in advance, posted such criteria on its website and an announcement on SET's website and www.harn.co.th, from October 9 to December 31, 2023. However, this attracted **no** recommendation of such

agenda items and nomination of directors, and the company secretary duly informed the Board meeting on the matter. In addition, informed shareholders to submit questions in advance for the 2024 AGM via 3 channels, mail, email, facsimile until April 22, 2024 and an announcement on www.harn.co.th. In the 2024 AGM no shareholders who sent questions in advance through the aforementioned channels.

4.2.2 Facilitating Shareholders at the Meeting

HARN did its best to facilitate all shareholders, where the safety and health of attendees was crucial under related measures, as follows:

1. Disclose HARN information around the meeting area and provided staff officers to welcome and answer questions of them
2. Provided sufficient drink water to the shareholders at outside area of meeting room
3. Provided staff officers to welcome and take care of them, photocopying services and verified accuracy documents.
4. Provided stamp tax in case the shareholders delegate a person to attend the meeting on their behalf
5. On the meeting day, registration opened 2 hours early and was extended until the period before the last meeting agenda without losing their rights. A barcode system facilitated registration and voting.
6. Prepare quality assessment of the AGM through QR Code to use the data to develop meetings with transparency and beneficial to the shareholders.
7. To maintain the rights of those who could not attend the 2024 AGM, HARN provides opportunities for shareholders they could appoint proxies to any independent director any one as proxy on behalf of shareholders namely; Mrs. Valeeratn Chuerboonchai, and Dr. Teerachai Pornsinsirirak, on proxy form B. which sent along with the invitation notice and discloses on its website, www.harn.co.th. Shareholders may make further inquiries about this by phone, website and email of company secretary.

4.3 Roles Toward Stakeholders

HARN accounts for all stakeholders' rights and interests by establishing guidelines for addressing the needs of each group in and outside the corporation, as well as its own responsibility for society and the environment. Stakeholders fall into 7 groups with a different mission targeted for each group in response to their different needs:

1) Employee

HARN attention to employee's well-being by promoting a corporate culture and providing fair compensation while observing human rights principles based on fairness and equality, which have been basing treatment for employees and stakeholders on human rights principles, under the HARN's Human Resource Management Policy. Employs personnel under terms and conditions that comply with legal requirements. Follows a fair and non-discriminatory process in determining wages, ensuring impartiality and equitable compensation. It provides a safe working environment, promotes occupational

health and well-being, and offers appropriate skills training.

Additionally, a welfare committee has been established to allow employees to propose beneficial welfare initiatives. While strictly observing labor laws and other related regulations.

In 2024, no complaint about human rights was lodged in 2024.

Detail in section 1, topic: driving business for sustainability, "Item 5.2 Social performance plan", page 77-81, and section 2, topic: governance structure, "Item 5. Information of the employees", page 161-164

2) Customer

HARN is committed to conducting business under the policy of managing and developing responsibility towards customers. Realizing the importance of safe, quality and environmentally friendly products, meet customers' standards, includes innovation for product development to better respond to customers' demand. In addition to quality products, HARN values communication with customers and maintaining good sustainable relationship, with has various channels for receive customers' opinions, including the customer visits, seminars, satisfaction surveys, LINE Official, phone, e-Mail and website, www.harn.co.th etc.

HARN is well aware of privacy and strives to protect customers' personal data and comply with the Personal Data Protection Act B.E. 2562 by announcing privacy notice for customers and all stakeholders on website, www.harn.co.th., as well as a customer satisfaction survey is held yearly, for the 2024 received an average score of as high as 94.14%.

In 2024, no complaints from customers regarding the protection of their personal data and no complaints from customers regarding the safety and environmental aspects of product use.

Detail in section 1, topic: driving business for sustainability, "Item 2.2 Stakeholder Analysis from the Business Value Chain", page 54 and "Item 3.2.5. Customer/Consumers Responsibility Management and Development", page 64-66

3) Trade Partners and/or Creditors

3.1) Trade Partners

HARN places great importance on treating its business partners as key strategic allies. Therefore, procurement and purchasing procedures have been established to ensure fairness, equality, and transparency for all partners. The selection process is conducted with impartiality, based on clear evaluation criteria regarding qualifications and capabilities.

All partners are required to comply strictly with established standards concerning cost, product quality, marketing plans, production capacity, inventory management, and delivery processes. Additionally, they must adhere to the Code of Conduct for Business Partners, as well as safety standards mandated by law and consumer protection regulations.

Additionally, HARN has incorporated Green Procurement practices as part of its environmental policy, targets a 25% increase in the procurement of eco-friendly products as a percentage of total revenue by 2040.

3.2) Creditors

HARN treats its trade creditors equitably, with responsibility, transparency, and fairness, ensuring mutually fair returns. Strictly adheres to payment deadlines to maintain its credibility with creditors and complies fully with agreed-upon contracts and conditions, particularly guarantee terms.

Additionally, HARN consistently provides creditors with accurate and transparent financial information as per agreed terms. In cases where is unable to maintain its financial position or meet contractual obligations for any reason that may lead to a breach of contract, HARN will promptly inform creditors to seek fair and timely resolutions together.

However, due to HARN's capital structure, which does not involve borrowing from financial institutions, there are no interest expenses arising from either short-term or long-term loans.

4) Competitors

HARN treats all business competitors equally under laws concerning trade competition and within the extent of liberalized international competition. HARN adheres to fair competition and does not commit the following practices: seeking competitors' confidential information, defaming competitors using slander, entering into any agreement with competitors or any party that may lead to reduction or limitation of competition. In 2024, HARN not any advantage by seeking competitors' confidential

To encourage trade partners and/or creditors conduct guidelines may be more in line with the sustainable business covering environmental issues, HARN has reviewed its policies and guidelines on promoting enhance the potential of partners and/or creditors subject to risk management processes and requirements according compliance its anti-corruption measures handbook.

1. Facilitates training and study visits for executives and employees with business partners and/or creditors, both domestically and internationally to enhances knowledge and experience, pass it on to colleagues within their respective departments and across other teams through internal training.
2. Hosting business partners and/or creditors for company visits and executive meetings, both at HARN's offices and via video conferencing. This fosters sustainable relationships and mutual trust.
3. Promotes the development of contractor partners by providing knowledge and training to improve their understanding and efficiency in installation work to ensures they can maximize the benefits of HARN's products effectively.
4. Cultivates a culture of innovation within the organization, driving the development of new innovations that contribute to business sustainability. This includes product and service design, research, and collaboration with business partners.

In 2024, there were **no** disputes, violations of labor laws, human rights, consumer rights, employment regulations, fair competition, or environmental laws. Additionally, there were **no** protests or labor strikes of any kind. **Detail in section 1, topic: driving business for sustainability, "Item 2.2 Stakeholder Analysis from the Business Value Chain", page 55**

information through dishonest or improper means, and do **not** defaming competitors using slander that led to reduction or limitation of trade competition. Resulting in **No** legal case between competitors. **Detail in section 1, topic: driving business for sustainability, "Item 2.2 Stakeholder Analysis from the Business Value Chain", page 55 and "Item 3.2.2 Promote fair competition", page 63**

5) Investor

The Board of HARN protects shareholders and encourages them to exercise their rights while treating them equally, be they may major or minor shareholders or institutional investors. Remains committed to being an organization that the economic growth sustainable and improving the quality of life, develop innovation and technology in all sectors, consider account the three aspects are Environmental, Social and Governance to be assure that HARN will be a company that operating returns business, sustainable growth.

HARN still holds an annual general meeting of shareholders in April each year, providing shareholders with the opportunity to

propose agenda items and nominate qualified candidates for election as directors. Including, shareholders are allowed to submit questions in advance of the meeting. To ensure transparency in the voting and vote-counting process, an independent legal advisor is appointed to oversee the vote counting.

Also, held various activities as channels to meet with shareholders, investors, and analysts. **Detail in section 1, topic: driving business for sustainability, “Item 2.2 Stakeholder Analysis from the Business Value Chain”, page 55 and section 2, topic: governance structure, “Item 6.3. Head of Investor Relations and contact”, page 166**

6) Public sector

HARN supports the government policies which adhere to economic development along with social, community, and environmental development, towards a low carbon society, announcing goals becoming carbon neutrality by the year 2040 and emission Net Zero by the year 2050. In addition, HARN’s business operations comply with laws, rules, regulations, announcements, and government orders that bind to such business operations, and tracks such changes of government policies and new legislations for the timely management and compliance with the laws among employees and operators at all levels. **Detail in section 1, topic: driving business for sustainability, “Item 2.2 Stakeholder Analysis from the Business Value Chain”, page 55**

7) Community, Society and Environment

HARN has established an environmental policy focused on minimizing the impact of climate change and preserving ecosystems. Also committed to reducing risks and mitigating the effects of its business operations on communities while fostering strong relationships and enhancing the quality of life for both nearby and remote communities. This is carried out within the framework of corporate social and environmental responsibility. HARN operates its business with transparency and strict adherence to ethical principles. **Detail in section 1, topic: driving business for sustainability, “Item 1.1 Sustainability Management Policy (Environment, Social)”, page 47-48 and “Item 5.3 Community & Social Performance”, page 88-92**

4.4 Disclosure of Information and Transparency

Disclosure of information is a key index of operating transparency, a crucial factor for confidence among investors and stakeholders. HARN values in compliance with various regulations disclosure of financial and general information to stakeholders. Including, organizes press opportunity day, interviews by executives for the media on various issues that is in the public interest regularly. In addition, promotes awareness among directors, executives and employees of the importance of information disclosure and transparent operations, and creates appropriate avenues for complaints while providing fair treatment to whistleblowers and those complained against as follows:

Financial and Non-financial Reports

1. Disseminated its information of HARN to shareholders, investors in Thai and English through the channel and media of the Stock Exchange of Thailand and on the website www.harn.co.th. Its information is also compiled in the Annual Disclosure Statement / the Annual Report (Form 56-1 One Report)
2. Disclose information to investors and stakeholders on key matters that affects the price of HARN and decision making of investors and stakeholders, shall be accurate, complete, timely, reliable, transparent.
3. Disclose financial information will be considered thoroughly with the stated aspects at minimum:
 - The result of the assessment is sufficient for internal control.
 - Independent Auditor’s Report, internal control recommendations and other recommendations (if any).
 - Comments of the Audit Committees.
 - Relevant to main objectives, goals, strategies and policies of HARN.

4. Disclose on Corporate Governance Policies and Principles, code of conduct, risk management policy, sustainability management policy, environment-occupational-health and safety policy, report results of implementation in compliance with such policies including also non-compliance cases together with reasons (if any) and climate change action report in the Form 56-1 One Report and on its website www.harn.co.th.
5. Prepares management discussion and analysis (MD&A) to support its disclosure of its quarterly financial statements when changes of Net Income or Net Profit is higher than 20% in the same quarter of last year so that investors access information on changes to HARN's financial status and operating performance in each quarter.
6. Discloses in the annual audit fee and other service fees for the auditor. Which has been approved by the annual general meeting of shareholders.
7. Discloses information on the roles and duties of the Board and Board-Committees, number of meetings and number of meetings attended by each director in the previous year, as well as opinions in relation to performance of duties and directorship training and development for directors, in the Form 56-1 One Report.
8. Discloses remuneration policy of directors and top executives of HARN, that reflects their duties and responsibilities, including types or nature of the remuneration, also remuneration for any directorship on the director of subsidiaries (if any) in Form 56-1 One Report.
9. Disclosure of the information concern one of the directors in particular, that director should be aware of and able to reveal identity to ensure complete and proper compliance

5. Corporate Governance Policy and Guideline Compliance Control

5.1 Prevent the Use of Insider Information

HARN has defined policy and guidelines in according Corporate Governance Policies to ensure director, executives and employees on best practices on the use of inside information and guarding of confidential information, in its good Corporate Governance Policies and Principles. Employees HARN they must guard inside information or confidential information not yet publicly available and must not share with other parties inside information learned during the course of their duties or use it to seek profit in a fraudulent way, or to cause damage to HARN's interests.

In addition, HARN has a policy for the Board and Executives including employees who are in a position to access to inside information to refrain from insider trading of HARN stocks within 30 days prior to the disclosure of quarterly and yearly financial statements to the public and until the period of 24 hours since disclosure to the public. Other than that, trading it normally, and requiring all directors and the first 4 top-ranking executives, including their spouses and children under the legal age, if trading HARN stock must report such trading to the Company Secretary at least 1 day in advance. And must report any changes in their HARN share ownership to report electronic the SEC under Article 59 of the Securities and Exchange Act B.E. 2535 (1992) and its amendments within three days of the date of trading, disposal, or receipt of such shares. HARN defines a policy of disclosing or reporting the trading, disposal, or receipt of such shares, changes in share ownership of the

directors and the first 4 top-ranking executives to the quarterly Board meeting, contained in advance as a regular agenda item.

The company secretary will notify and a campaign against the use of insider information via e-mail to those involved to acknew them of the trading prohibition period and forbidding them to disclose such information to external parties or unrelated parties on a regular basis, so as to prevent insider trading. Including providing organizes online learning media in HARN Academy system about the prevention of the use of inside information and prevention of conflicts of interest to educate directors, executives and all employees, operation follow:

1. The company secretary has prepared a schedule to notify prohibition period trading of securities year 2024 in advance notify by email to directors, executives including employees who are in a position to have access to inside information be aware, details are as; (1) fiscal year 2023, between January 27 to March 1, 2024, (2) financial statement Q1/2024 between April 12 to May 15, 2024, (3) financial statement Q2/2024 between July 13 to August 16, 2024 (4) financial statement Q3/2024 between October 12 to November 15, 2024, including their spouses and children under legal age, prohibition trading HARN stock within 30 days prior to the disclosure of quarterly and yearly financial statements to the public and until the period of 24 hours since disclosure to the public. Other than that, trading it normally.

2. Define all directors and the first 4 top-ranking executives to trade securities they must report such trading to the Company Secretary at least 1 day in advance. Must report any changes in their HARN share ownership to report electronic through the SEC under Article 59 within 3 days of the date of trading of such shares, in which the company secretary reports trading to the board of directors acknowledged every quarter.
- Year 2024, directors and the first 4 top-ranking executives has practices in accordance to policies and regulation strictly. There **no were** purchases, sales, or transfers of HARN securities. Also, learning and also passed and online knowledge test of prevent the use of inside information in HARN Academy representing 100%, and all directors and the first 4 top-ranking executives, including employees who are in a position to access to inside information **have been no** violations related to the insider trading involving undisclosed information

Shareholding information the Board, including related parties and persons with relationship as of December 31, 2024

No	Names of directors	No. of shares held	% of total shares	note
1	Mr. Pichet Sithi-Amnuai ^{1/}	-	-	(No shareholding)
2.	Mr. Prasert Deejongkit ^{1/}	-	-	(No shareholding)
3.	Dr. Teerachai Pornsinsirak ^{1/}	-	-	(No shareholding)
4.	Mrs. Valeeratn Chuerboonchai ^{1/}	5,671,700	0.970	-
5.	Mrs. Sirima Iamsakulrat	81,884,151	14.009	-
6.	Mr.Jain Charnnarong	68,953,030	11.797	-
7.	Mr.Wirat Sukchai Group			
	7.1 Mr. Wirat Sukchai	89,657,617	15.339	-
	7.2 Mrs. Nopparat Sukchai (spouse)	13,000,000	2.224	-
8.	Mr. Thammanoon Tripetchr	23,786,313	4.070	-
Total		282,952,811	48.409	

Note : 1/ Independent director

- No HARN share was held by directors' mother, spouses and children under legal age except those of No. 7 which no stock trading during the year 2024

Shareholding information Executives, including related parties and persons with relationship as of December 31, 2024

No	Names of executives	No. of shares held	% of total shares	note
1	Mr.Rattanaphan Mukhariwattananon Group			-
	1.1 Mr. Rattanaphan Mukhariwattananon	4,713,586	0.806	
	1.2 Mrs. Rabeab Mukhariwattananon	10,000	0.002	
2.	Mr. Wisit Wachiralappaitoon	1,054,229	0.180	-
3.	Mrs. Varinkan Teraumranon	1,766,966	0.302	-

Note : - No HARN share was held by executives' mother, spouses and children under legal age except those of No.1 which no stock trading during the year 2024

Report summarizing change in shareholding HARN proportion of the Board compare as of 2023 and 2024

No	Names of directors		number of shares At Date		Increase (Decrease)	Note
			December 31, 2024	December 31, 2023		
1	Mr. Pichet	Sithi-Amnuai ^{1/}	None	None	No Change	(No shareholding)
2.	Mr. Prasert	Deejongkit ^{1/}	None	None	No Change	(No shareholding)
3.	Dr. Teerachai	Pornsinsirak ^{1/}	None	None	No Change	(No shareholding)
4.	Mrs. Valeeratn	Chuerboonchai ^{1/}	5,671,700	5,671,700	No Change	-
5.	Mrs. Sirima	Iamsakulrat	81,884,151	81,884,151	No Change	-
6.	Mr. Jain	Charnnarong	68,953,030	68,953,030	No Change	-
7.	Mr. Wirat	Sukchai	89,657,617	89,006,630	650,987	-
8.	Mr. Thammanoon	Tripetchr	23,786,313	23,260,187	526,126	-

Note : 1/ Independent director

- No HARN share was held by directors' mother, spouses and children under legal age except those of No. 7 which no stock trading during the year 2024

Report summarizing change in shareholding HARN proportion of the Board compare as of 2023 and 2024

No	Names of executives		number of shares At Date		Increase (Decrease)	Note
			December 31, 2024	December 31, 2023		
1	Mr. Rattanaphan	Mukhariwattananon	4,713,586	4,479,062	234,524	-
2.	Mr. Wisit	Wachiralappaitoon	1,054,229	816,045	238,184	-
3.	Mrs. Varinkan	Teraumranon	1,766,966	1,512,912	254,054	-

Note : - No HARN share was held by executives' mother, spouses and children under legal age except those of No.1 which no stock trading during the year 2024

5.2 Prevention of Conflict of Interest

HARN requires information disclosure to prevent conflicts of interest and illegal, improper activities. Under the Board's policy, business decisions made aligning our practices with good governance principles. The Board of Directors has established policies and guidelines for conflicts of interest with under Corporate Governance, and Code of Conduct for the directors, executives and employees follow on the principle that any decision it must be done for the best interest of HARN only and it is the duty of directors, executives and employees at all levels to avoid financial involvement and/or relationships with other third parties. This will result in HARN losing interest or creating a conflict of loyalty or interest or hindering its effective operations. Those Director, Executives and Employee person with interests or related businesses which may require HARN's review and decisions must report their relationships and connection with potential conflicts of interest. Including is to disallow such connected directors and related executives from participating in the decision making and having no authority to approve for and involvement in such transactions, operation follow:

- HARN has required all directors and the first 4 top-ranking executives (as defined by the Securities and Exchange Commission (SEC)) must be disclose stakeholder and conflict of interest reports when taking office for the first time. They also have to report any changes on their conflicts of interest regularly, and within February for every year, as the foundation for supervising everyone's stakeholders. These include the disclosure of any suspected items of conflict of HARN's interests or any approvals. In such cases, there should be no principles, conditions, or special issues contrary to normal terms. Thus, this is considered as HARN's internal control process. In the meantime, the Audit Committee is required to oversee and resolve such conflicts of interest. Company Secretary retain this information to investigate and monitor conflicts of interest. In 2024, there were no transactions with conflicts of interests among the directors and the first 4 top-ranking executives, as well as related individuals.

2. The Board define at every board meeting, the Chairman or Company Secretary, reminds directors to conform to the policy on conflicts of interest on all agenda items, which requires those with vested interests to declare themselves to the meeting to abstain from voting or any opinions, and record it in the meeting minutes.
3. The Audit Committee reviews related transactions and those with potential conflicts of interest that could undermine HARN's businesses to ensure conformance to the law and SET's criteria. All of which must be reported to the board for approval.

In 2024, directors and the first 4 top-ranking executives all has submitted the report of the report of vested interest and the report conflicts of interest and signed the 100% confirmation compliance with HARN's corporate governance principles and code of conduct. In addition, learned and passed the online knowledge test on preventing conflicts of interest through HARN Academy system 100% complete. Directors and the first 4 top-ranking executives, no misconduct that violates the conflict-of-interest prevention policy.

5.3 Right of Shareholders

HARN has defined guidelines on the rights of shareholders and equitable and fair treatment, the good corporate governance policy has been established and participation support guidelines, communication with shareholders, shareholders' rights and equitable treatment of shareholders for directors, executives, and employees to comply with under Corporate Governance, and Code of Conduct

5.4 Anti-Corruption Policy and Guideline

5.4.1 Prevention Policy Relating to Anti-Corruption Matters

HARN define establishes and enforces through all the organization an explicit "Anti-Corruption Policy" comprising of definitions, responsibilities, implementations, and measures within Anti-Corruption Measures Handbook. The Board approved on May 10, 2018 which is an ISO 9001:2015 certified document. The Board, executives, employees, subsidiaries, joint ventures, other companies that control and agents (if any), are strictly required to acknowledge and comply with this policy.

Define Anti-Corruption Policy an explicit, all the Board, executives, employees, subsidiaries, joint ventures, and other entities that may have a control over including agents (if any), prohibited or commit or accept any kind of corruption at all means. For direct and indirect benefits to personal and relevant parties neither one is a receiver or a giver or an offer of bribe both monetary and non-monetary to the government or private, and partners that HARN exercise business, it has continuous operations and development as follows:

1. Announced the intention as member Thai Private Sector Collective Action Against Corruption (CAC) since March 21, 2017, with a certified for member CAC on quarte 3/2018 and certified for CAC recertification first time on quarte 3/2018,

and certified for CAC recertification second time on quarte 2/2024. Demonstrate its firm intention in anti-corruption. HARN is committed to good governance, code of conduct in business that are responsible for the community, society, and environment, including all stakeholders in the entire supply chain.

2. Since 2018, has begun enforcing Anti-Corruption Policies as part in Anti-Corruption Measures Handbook. Defining as part of the way of Corporate Governance and Code of Conduct so that may observe the same standards and management approaches.
3. Anti-Corruption Policy forbids HARN's director, executives and employees to carry out or participate in corrupt practices as well as all forms of bribery offer or acceptance direct and indirect. They must seriously observe the Anti-Corruption Policy, which covers various processes, including donation to charities, human resources administration, supply procurement, and internal control, etc.

5.4.2 Guidelines for Overseeing the Compliance with Anti-Corruption Practices

To be in accordance with the latest anti-corruption policy HARN adopted, provides guidelines for overseeing the compliance, as follows:

1. Assign directors management and staff to assess the compliance with corporate governance policies, code of conduct, risk management policies, anti-corruption measures policies, and personal data protection policies every year.
2. Follow up to regularly review and improve the anti-corruption policy every year in order to ensure that HARN's operations comply with changes in business, regulations and relevant legal requirements. Presented to the Audit Committee and reported to the Board of Directors.
3. Establish a risk assessment related to anti-corruption, enhance operational mechanisms, prevent fraudulent activities, and improve organizational efficiency. Promote transparent, fair, and accountable business operations to build trust among stakeholders.
4. Assign the Quality System Management Department to inspect and monitor the implementation of anti-corruption policy measures by various departments through internal quality audits and report to the Chief Operating Officer, Chief Financial Officer, and the management review meeting every month by presenting to the Risk Management Committee. It must be reported to Board of Directors on a quarterly basis.
5. If from information from the audit or complaints found by the investigation there is reasonable evidence to believe that there are transactions or actions that may have a significant impact on the financial status and HARN's performance, including any breach of the law, the code of conduct in business, guidelines for corruption prevention, or questions about financial report or internal control system, the Audit Committee will report to the Board of Directors in order to take corrective action within the period the Audit Committee deems appropriate. An investigation will be conducted without disclosing the whistleblower's name in order to protect the potential impact on the whistleblowers of the complaint or allegation.

5.4.3 Communication, Training, and Task Highlights

In order to strictly guide the behavior of directors, executives and all employees, including subsidiaries, joint ventures, other companies controlled by the company, including business representatives (if applicable) and other relevant external, require communication and training. The anti-corruption actions are as follows:

1. Communicate the anti-corruption policy and measures, as well as relevant laws and regulations, to the Board of Directors, executives, and employees of HARN, including its subsidiaries, affiliated companies, and other entities under HARN's control. Also, to business partners, stakeholders, and the general public through various communication channels such as email, website, HARN Intranet, digital signage, and LINE Official. The raise awareness of the impacts, implementation guidelines, and preventive controls against corruption, while emphasizing the consequences of such misconduct.
2. Continuously provide training and knowledge assessments for the Board of Directors, executives, and employees to ensure a thorough understanding of anti-corruption measures and associated penalties through the E-Learning platform, HARN Academy, and is mandatory on an annual basis. Additionally, this topic is included as part of the orientation program for all new employees, who must complete the training before commencing their duties.

5.4.4 Oversight and Monitoring of Performance

To demonstrate commitment to countering corruption, as a listed company, it is the company's responsibility to foster confidence among shareholders and stakeholders, define has oversight and monitoring of performance, as follow:

1. The Board ensures that HARN efficient system for anti-corruption to ensure that executives recognize and values anti-corruption and cultivates it as a corporate culture
2. The Audit Committee supervises internal control, financial reporting, and other procedures concerning anti-corruption measures, including steers conformance, reviews applicable measures and internal control to ensure that the measures are adequate and effective. The reviews risk assessment and provides recommendations to the Board on suggested practices.
3. The Audit Committee annually defines and reviews the Anti-Corruption Policy, provides recommendations and guidelines, monitors, and assesses performance relate. Including support for risk assessments and periodic reviews of anti-corruption measures at the operational level to ensure adequacy and effectiveness, with the results reported to the Board of Directors on a quarterly basis.
4. Top Executives establish annually risk assessment for business processes that may lead to corrupt practices, review the suitability of processes, measures, and lead by example as well as communicating it to all employees and related parties.
5. Developed Risk & Control Self-Assessment for all units to apply as guidelines for assessing corruption risks in their respective business processes and for defining suitable internal control processes.

6. The Quality Management Division inspect and monitors the use operational on process the Anti-Corruption measures and monthly report on compliance outcomes to the Chief Operating Officer, Chief Financial Officer and the management meeting.
7. Internal Audit reviews items of potential the likelihood of corruption, and corporate efficiency for managing risks arising from corporate corruption and those at the operating level. Also reports to the Audit Committee and top executives

when encountering items or actions that could undermine performance outcomes, including corruption.

The Boards review policies suitability and Anti-corruption Measures on March 27, 2024, remains consistent and suitable for changes of the business environment, rules, regulations, and the provision of laws. Details are published on the website: www.harn.co.th

5.4 Whistleblowing Policy and Guideline and Monitoring

HARN has established a whistleblowing and complaint mechanism that covers the process of receiving complaints, fact-finding investigations, and conclusion. Includes measures to protect whistleblowers, relevant parties, or stakeholders who are affected or at risk of being affected by business operations or the conduct of HARN’s directors, executives, and employees, regarding addresses violations of code of conduct in business, breaches of the law, and any actions that may indicate fraud or corruption.

5.5.1 Implementation Measures Whistleblowing

The Board has established measures, scopes, procedures, and channels for whistleblowing and complaints of all for from all stakeholder groups of HARN as follows:

1) Measures and Scope

HARN’s employees should not ignore actions in potential conflicts with anti-corruption measures, including any actions that violate or fail to comply with laws, corporate governance policies and principles, code of conduct in business, or HARN’s policies, rules, and regulations particularly those that suggest fraud or misconduct for unlawful personal or third-party gain are subject to this framework.

Such actions include corruption, embezzlement, fraud, and other unethical practices. Additionally, this encompasses situations where employees face unfair treatment in the workplace or instances where weaknesses in HARN’s internal controls are observed, raising concerns about potential fraud, corruption, or harm to HARN’s interests.

2) Channels and Methods of Anti-Corruption Whistleblowing

Must explicitly spell out “confidential” to the Chairman of the Audit Committee which is an Independent Committee, through these channels.

Chairman of the Audit Committee



Harn Engineering Solutions Public Company Limited
559 Soi Soonvijai 4, Rama 9 Road,
Bangkapi, Huaykwang, Bangkok 10310



chairac@harn.co.th



<https://www.harn.co.th/corporate-governance/corruption-report/>

3) Channels for Advice

Employees or others whom has inquiries and seek for advice on anti-corruption policy may contact through these channels.

Chief Financial Officer



Harn Engineering Solutions Public Company Limited
559 Soi Soonvijai 4, Rama 9 Road,
Bangkapi, Huaykwang, Bangkok 10310



02-318-9744 ext. 4004



wisit.w@harn.co.th

4) Channels Contact to HARN

Stakeholders can provide feedback, suggestions, complaints, and report any non-compliance with laws, code of conduct, organizational regulations, and other matters unrelated to corruption through the following channels:

Company Secretary



wasukan.b@harn.co.th



(02) 318-9744 ext. 4011

Investor Relations



wirat.s@harn.co.th



(02) 318-9744 ext. 5001

Mail



Harn Engineering Solutions Public Company Limited,
559 Soi Soonvijai 4, Rama 9 Road, Bangkok, Huaykwang, Bangkok 10310

HARN's employees can complain and express opinions through a variety of channels such as through a comment box, LINE Official account, or direct notification via e-mail to the Human Resources Department. All employees are obligated to acknowledge the available complaint channels since their orientation as new employees.

5.5.2 Actions when Receiving Whistleblowing and Confidentiality

1. Once the chairman of the Audit Committee receives a clue, or the company secretary or investor relations or any other channels receive clues and complaints from the stakeholders of HARN, a preliminary consideration will be made regarding the category of which the matter of the complaint received falls into. The cases will be collected to present to the sub-committees related. Except for complaints and anti-corruption whistleblowing directly sent to the chairman of the Audit Committee, the chairman of the Audit Committee will personally open those letters.
2. Employee complaints or suggestions, HARN has a process for dealing with such by considering whether the employee's complaint is a matter that may be an offense and at what level in order to determine the penalties for the action with fairness and accuracy.
3. HARN has established a suitable and fair process for punishing violators of anti-corruption measures. Any violation of this policy, direct or indirect, calls for disciplinary review under HARN's regulations, consisting of fact-finding, investigation, punishment, and appeal. They could also lead to punishment by law. Employees must therefore master and strictly conform to the Anti-Corruption Policy in every step of their work.

The Board of Directors has assigned the Audit Committee, comprising entirely independent directors, to serve as the central body for receiving reports and whistleblower disclosures, monitoring reported cases, protecting and ensuring fairness for complainants and whistleblowers related to internal fraud and corruption. The Audit Committee is also responsible for reporting investigation results and disciplinary actions to the Board of Directors.

The Audit Committee has authorized the Chief Executive Officer or an appropriate designee to establish an investigative committee responsible for collecting, screening, and reviewing complaints or whistleblower reports, assessing the sufficiency of evidence, and conducting investigations to establish the facts within 30 days. If additional evidence is required, the process must be completed within 60 days. A summary report of the investigation findings must be submitted to the Chief Executive Officer, who will present it to the Audit Committee for further action. The Audit Committee will then report the findings and measures taken to the Board on a quarterly basis.

5.5.3 Protection Measures Whistleblowers

In order to protect the rights and confidentiality of whistleblowers or those who cooperate to provide with good intention, HARN will take the following actions:

1. Required that not disclose names, addresses or any other information that can identify the complainant or the whistleblower and keep the information of the complainant and whistleblower confidential in an appropriate and fair manner. Only those responsible for the investigation of complaints will have access to such information.
2. Required that human resources administration process echoes its commitment to anti-corruption measures. Although refusal to take part in corruption may deprive HARN of business opportunities, its policy is not to demote, punish, or harm those that do so.

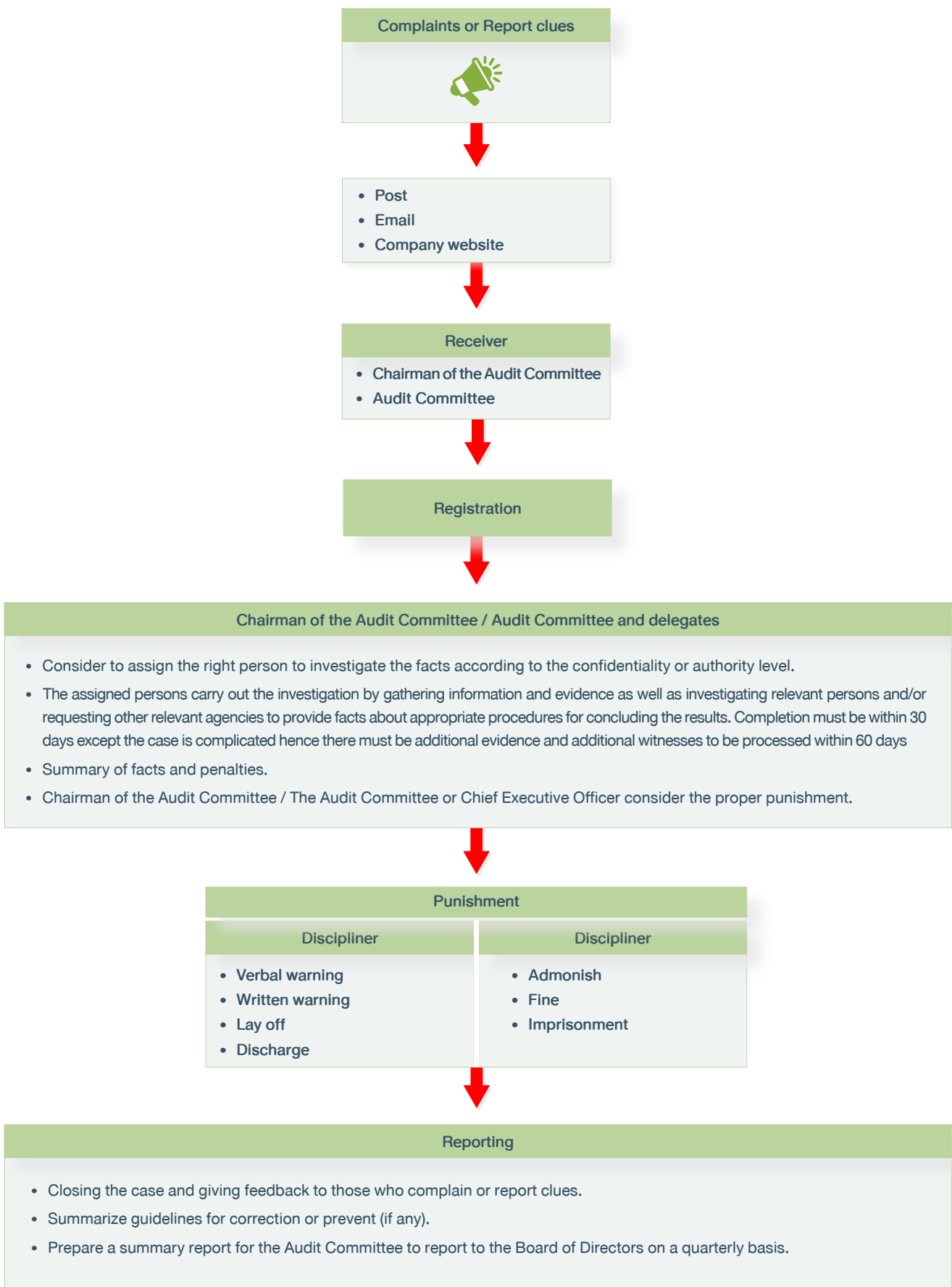
3. The person receiving information from performing duties related to complaints have a duty to maintain information, complaints, clues and documentary evidence of the complainant and whistleblower confidential. No information is to be disclosed to any other person who does not have a relevant duty unless it is a disclosure in accordance with the duty required by laws. If there is an intentional violation involving the disclosure of confidential information, HARN will impose disciplinary action in accordance with its regulations and/or take legal action as deemed appropriate.

In 2024, HARN received **no** complaints or whistleblower reports regarding fraud or corruption. Additionally, there were **no** violations related to corporate governance, code of conduct in business, or compliance with applicable laws, regulations, and policies. However, it communicates acknowledged to all Board, Executives and Employees to the Good Corporate Governance, Code of Conduct and Anti-Corruption Measures to prevent complaints/whistleblowing of such issues.

Complaint and whistleblowing statistics

	Reporting	Reporting	Closing complaints
1. Code of Conduct	None	-	-
2. Anit-Corruption	None	-	-
3. Conflict of interest	None	-	-
4. Use insider information	None	-	-
5. Compliance	None	-	-
6. Environment, Health and Safety	None	-	-
7. Society, Community	None	-	-

Diagrammed of the process of receiving complaints or report clues, investigation, punishment and reporting



6. Code of Conduct

HARN has established a Code of Conduct based on international standards, guided by the principles of ethics, integrity, fairness, and equality for all stakeholders, while also considering social and environmental responsibilities. Serves as a framework for good business practices, ensuring that directors, executives, and employees adhere to ethical conduct. Additionally, places strong emphasis on anti-corruption measures, committing to the prevention of all forms of fraud and corruption.

The Board, executives must be leaders and comply with during the course of business and in their duties with ethics, integrity, fairness and equality. The maintain HARN's image as an organization of sustainable growth. Furthermore, supervisors are responsible for the monitoring and promotion of Code of Conduct compliance among their subordinates. Violators of the code are subject to disciplinary action. In 2024, HARN there **were no** violations related to corporate governance, code of conduct in business.

The Board reviewing of Code of Conduct in the Board Meeting no. 2/2024 on March 27, 2024 indeed remained completely up-to-date, suitable, and consistent with various criteria. Details are published on the website: www.harn.co.th

The main contents of the Code of Conduct are as follows:

1. Compliance with relevant laws and regulations
2. Conduct
3. Perform duties with responsibility, honesty, diligence and discipline
4. Confidentiality of company confidential information
5. Maintaining company assets
6. Exercise of social and political rights
7. Treat stakeholders fairly
8. Respect universal human rights
9. Compliance with applicable laws, rules, regulations and regulations and respect for culture customs and traditions of each locality
10. Confidentiality and use of inside information
11. Marketing communications
12. Intellectual Property
13. Use of information and communication technology
14. Anti-Corruption

7. Performance of Corporate Governance Policy

7.1 Review CG Policy, Guidelines and System

The Board to oversee, monitor, and promote the business in compliance with the policy and guidelines for HARN. March 27, 2024, the Board acknowledged the outcomes of CG implementation, which embraced the revision of the CG policy, principles, and guidelines of HARN. To ensure suitability for HARN business context, the compared and adapted practices to the criteria, announcements the SEC and SET, and other entities, as follow:

1. Improving the Charter of the Board, to ensure fulfill responsibilities is appropriate.

2. Improving the Sustainable Development policies to in line with HARN's main strategic plan, namely economic, environmental, social, and corporate governance, and based on SEC and SET principles of good corporate governance, sustainably driving the organization, these principles are now more focused and valued.
3. The Corporate Governance Policies and Principles, Code of Conduct, Anti-Corruption Measures, and Risk Management Policy, indeed remained completely up-to-date, suitable, and consistent with various criteria.

7.2 Performance under CG Code

HARN complies with its corporate governance policies and principles, Code of Conduct, Anti-Corruption Measures Manual, Risk Management Policy, and Personal Data Protection Policy (PDPA). Continuously communicates and reinforces these guidelines to directors, executives, and employees. The performance in 2024 are as follows:

1. Delivered HARN's Corporate Governance Policy and Code of Conduct to 100% of newly appointed directors. Emphasized compliance with corporate governance and code of conduct in business, such as insider trading, conflicts of interest, and stakeholder engagement, during Board of Directors meetings.
2. Conducted risk assessments covering business operations, legal compliance, financial management, internal controls, IT security, occupational and safety, environmental protection, corporate reputation, and fraud prevention. Reported risk control measures to the Risk Management Committee, Audit Committee, and Board of Directors quarterly. In 2024, no violations related to business ethics, fraud, insider trading, or conflicts of interest were found among HARN's directors, executives, or employees.
3. Integrated corporate governance, business ethics, and anti-corruption awareness into the onboarding program for new employees. 100% of the 50 new employees in 2024 completed the required training and knowledge assessment.
4. Provided ongoing communications on corporate governance, business ethics, anti-corruption, insider trading prevention, conflict of interest management, risk management, cybersecurity threats, and personal data protection to all directors, executives, and employees. Utilized multiple

communication channels, including emails, Digital Signage, Intranet, and LINE Official, ensuring 100% coverage.

5. Conducted online training and testing on corporate governance, business ethics, anti-corruption, insider trading prevention, conflict of interest prevention, and risk management. Achieved 100% completion for all 8 board members and 5 senior executives. 238 employees participated, with a 99.16% completion rate.

Additionally, in 2024, HARN disclosed all material events within regulatory deadlines, ensuring that the trading of HARN securities in the stock market remained liquid, fair, and orderly. As a result, no significant errors or material issues impacted HARN or its shareholders.

Furthermore, in 2024, HARN, its Board, and executives were not subject to any fines, legal accusations, civil proceedings, or any misconduct related to corruption, ethics, or violations of corporate governance standards. No breaches of relevant laws and regulations enforced by regulatory authorities such as the SEC, the SET, or the National Anti-Corruption Commission (NACC) were recorded.

Additionally, HARN fully complied with regulations, **does not** violate or fail to comply with the rules regarding share repurchases, nor does it hinder mutual communication among shareholders or withhold disclosure of shareholder agreements, **nor does** it violate or fail to comply with the rules regarding related party transactions or asset transactions.

Moreover, no independent directors, non-executive directors, or audit committee members resigned due to corporate governance issues. HARN continues to uphold its positive reputation, ensuring that no actions are taken that could harm its credibility or negatively impact the HARN's standing.

7.3 Other Implementation under CG Code

As a result of its commitment to various initiatives, in 2024, HARN received a 5-star "Excellent" corporate governance rating for the 6th consecutive year. Achieved a perfect score of 100 in the assessment of its annual general meeting quality for the 7th consecutive year. Furthermore, was awarded an "A" rating for sustainability, reflecting its dedication to sustainable operations with a strong focus on environmental responsibility, social accountability, and continuous adherence to good corporate governance principles.



5-star "Excellent"
corporate governance rating for the 6th
consecutive year.



Perfect score of 100
assessment of the AGM quality for the
7th consecutive year.



"A" rating in the sustainability
assessment

The Board reviewed Corporate Governance Policies and Principles, complied with CG Code 8 items year 2017 principles and adapt to HARN's business context, but may did not cover the criteria under the CGR in 5 items, which can be explained follow.

1) Voting to elect directors by cumulative voting

HARN's articles of associations require that directors be elected by majority votes and that each shareholder shall have the number of votes as the shares held. In addition, HARN has defined methods to protect the rights of shareholders, including the rights of minor shareholders to propose meeting agenda and nominate directors.

2) Sustainability Report

At present, disclosed information related to compliance with laws, ethics, anti-corruption policy, treatment of employees and stakeholders Including fair treatment and respect for human rights including social and environmental responsibility only the importance that affects the main business and report on in policies of Corporate Governance and Driving Business for Sustainability in the Form 56-1 One Report.

3) Independent directors should consist not less than half of the total Board

At present, the proportion of independent directors is 4 persons from 8 person. The proportion of independent directors is 50% which the products that HARN distributes are various and need to have knowledge in products, markets, competitive conditions and customers' needs.

4) Consider appointing the Corporate Governance Committee

Delegating the Chief Operating Officer to oversee and present to the Board of Directors for acknowledgment of the implementation at least once a year. In 2024, reviewing of Corporate Governance in the Board Meeting no. 2/2024 on March 27, 2024. However, not any violation of good corporate governance, code of conduct and compliance with relevant laws, rules and regulations, has safety and legal management standards.

5) Consider appointing the Corporate Sustainable Committee

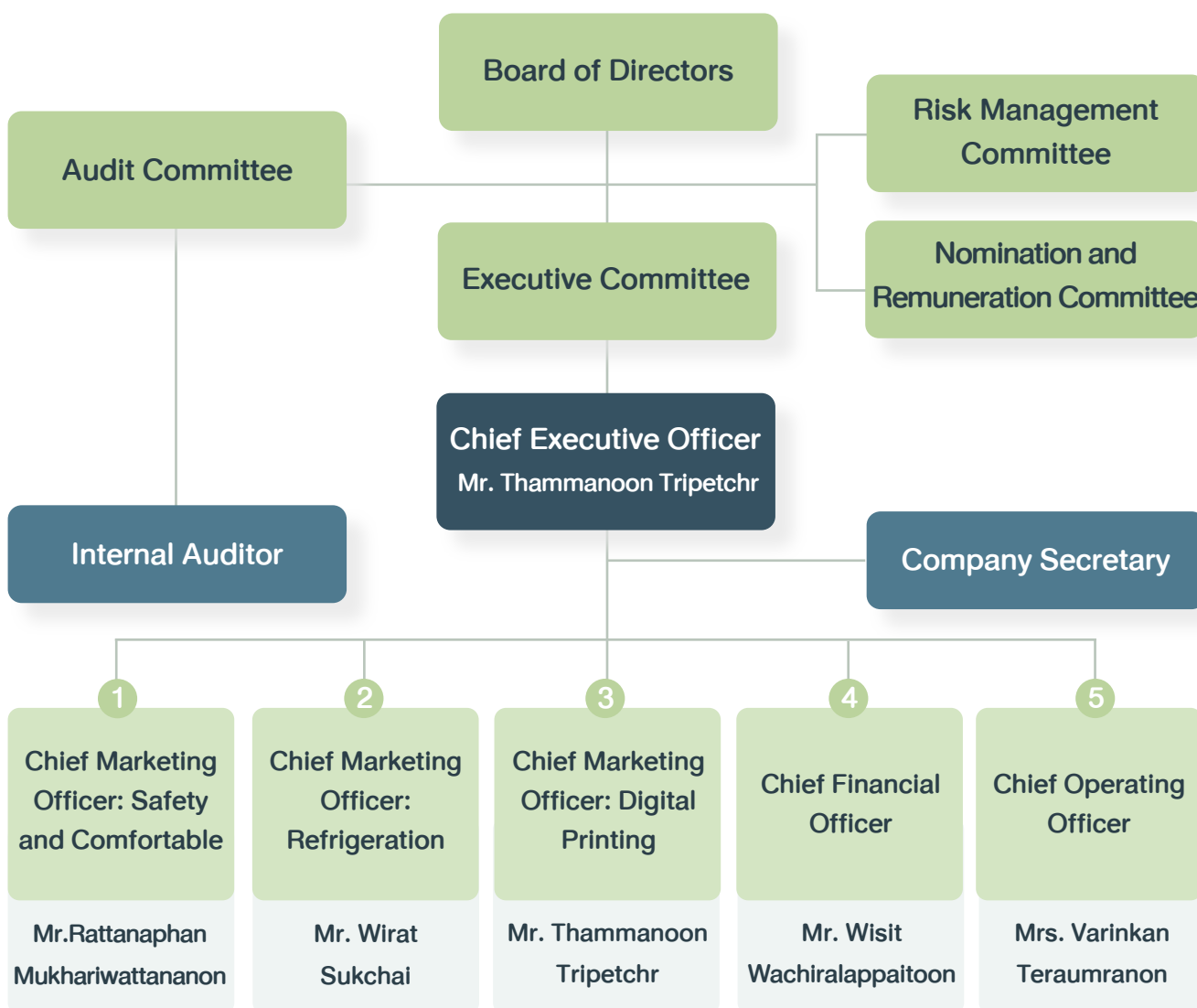
In 2024, HARN established a Sustainability Task Force to define strategic directions and drive initiatives in Environmental, Social, and Governance (ESG) to achieve sustainability goals. Also promotes awareness, engagement, and the integration of sustainability consciousness among all stakeholders of HARN. The Board is informed of the task force's progress at least once a year. In the Board of Directors' meeting no. 2/2024 on March 27, 2024. HARN set strategic plans and goals for sustainable business operations, with balance in the environment, society, and governance towards the goals of becoming carbon neutrality by the year 2040 and emission Net Zero by the year 2050.

Governance Structure and Key Information of the Board, Board-Committees, Executives, Employees and Others

1. Governance Structure

Harn Engineering Solutions Public Company Limited’s management structure or “HANR” as of December 31, 2024, comprises of the Board of Directors and 4 Board-Committees supporting matters: the Audit Committee, Nominating and Remuneration Committee, Executive Committee, and Risk Management Committee. Composed of qualified individuals under Section 68 of the Public Companies Act B.E. 2535 (1992) (as amended) and the Securities and Exchange Act B.E. 2535 (1992) (as amended). The Chief Executive Officer is the top executive of HARN.

Organization Chart of Harn Engineering Solutions Public Company Limited



Note : Executives no. 1 - 5 is Company executives according to the Notification of the Securities and Exchange

2. Board of Directors

2.1 Composition of the Board

Under of HARN articles of association, the Board consists of:

- Least 5 directors.
- At least half of the directors must reside in the Kingdom.
- Must consists of Independent Directors of at least one-third of all Directors and the number must be at least 3 directors.
- The Independent Directors must as Audit Committee the number must be at least 3 directors.
- Non-Executive Director must of at least 1director in knowledge engineering in main business and at lest 1 director must in knowledge of accounting.
- Must consists of Executive not more half of all Directors

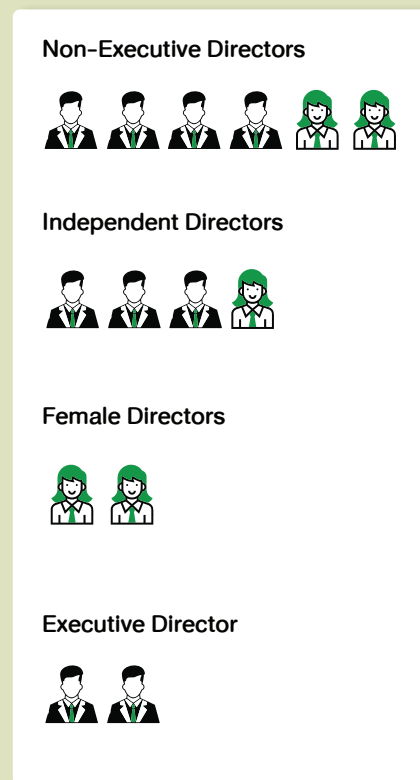
According to the certification of the Ministry of Commerce at December 31, 2024 the HARN Board consisted:

- 6 non-executive directors at 75% of the entire Board
- 4 independent directors at 50% of the entire Board, which exceeds the legal limit
- 2 female directors at 25% of the entire Boar
- 2 executive director at 25% of the entire Board. Including 1 Chief Executive Officer and 1 Chief Marketing Officer
- Non-independent directors meet the fair proportion of controlling shareholders' investment.
- Board Expertise at December 31, 2024, Each Board, reviewed expertise in according Board Skill Matrix. In summary, the Board has the diversity of gender, age, education background, experience, expertise in specialized beneficial matters.

Professional knowledge of the Board of Directors



Board of Directors



Board of Directors		Knowledge, Expertise and Experience							
		Core Business	Strategy, Marketing and Competition	Accounting and Finance	Technology and IT	Legal related to business	Risk Management	Human Resources	Responsibility and Sustainable Development
1.	Mr. Pichet Sithi-Amnuai Independent Director Chairman of the Board		●	●	●	●	●		●
2.	Mr. Prasert Deejongkit Independent Director Member of the Audit Committee Chairman of the Nomination and Remuneration Committee			●		●		●	●
3.	Dr. Teerachai Pomsinsirik Independent Director Chairman of the Risk Management Committee/ Member of the Audit Committee	●	●		●		●	●	●
4.	Mrs. Valeeratn Chuerboonchai Independent Director Chairperson of the Audit Committee/ Member of the Nomination and Remuneration Committee			●				●	
5.	Mr. Wirat Sukchai Directors Chairman of the Executive Committee/ Member of the Risk Management Committee / Chief Marketing Officer	●	●				●		
6.	Mr. Thammanoon Tripetchr Directors/ Member of the Executive Committee/ Member of the Risk Management Committee/ Chief Executive Officer/ Chief Marketing Officer	●	●	●	●		●	●	●
7.	Dr. Jain Charnnarong Directors Member of the Executive Committee/ Member of the Nomination and Remuneration Committee				●				
8.	Mrs. Sirima Iamsakulrat Directors	●		●			●		●

2.2 The Current Board of Directors

The Board of Directors as of December 31, 2024, there are 8 members. Consisted of: 4 Directors and 4 Independent Directors. All independent Director is able to express opinions freely according to the relevant laws and must have qualifications that completely fulfill the requirements stipulated by the Notification of the Capital Market Supervisory Board No. Thor.Jor. 28/2551 regarding application for and Approval of Offer for Sale of Newly Issued Shares (and the amendments). **Profile details in Section 4, Attachment 1, page 231-237**

Name		Position	Appointed Date
1. Mr. Pichet Sithi-Amnuai		Independent Director (Non-Executive)	April 24, 2023
		Chairman of the Board	April 24, 2023
2. Mr. Prasert Deejongkit		กรรมการอิสระ (ไม่เป็นผู้บริหาร)	April 23, 2021
		กรรมการตรวจสอบ	April 23, 2021
		ประธานกรรมการสรรหาและพิจารณาค่าตอบแทน	May 15, 2022
3. Dr. Teerachai Pornsinsirirak		Independent Director (Non-Executive)	April 25, 2022
		Member of the Audit Committee	May 15, 2022
		Chairman of the Nomination and Remuneration Committee	April 25, 2023
4. Mrs. Valeeratn Chuerboonchai		Independent Director (Non-Executive)	May 15, 2022
		Chairperson of the Audit Committee	April 25, 2023
		Member of the Nomination and Remuneration Committee	May 15, 2022
5. Mr. Wirat Sukchai		Director (Executive)	September 5, 2012 ^{1/}
		Chairman of the Executive Committee	March 1, 2018
		Member of the Risk Management Committee	May 15, 2022
		Chief Marketing Officer	March 1, 2022
6. Mr. Thammanoon Tripetchr		Director (Executive)	November 1, 2016
		Member of the Risk Management Committee	November 11, 2016
		Member of the Executive Committee	December 1, 2016
		Chief Executive Officer	March 1, 2022
7. Dr. Jain Charnarong		Director (Non-Executive)	April 5, 2017
		Member of the Executive Committee	March 1, 2017
		Member of the Nomination and Remuneration Committee	May 15, 2022
8. Mrs. Sirima Iamsakulrat		Director (Non-Executive)	September 5, 2012 ^{1/}

With Miss. Wasukan Boonmee is the Company Secretary

Note: 1/ HARN was listed on the Stock Exchange of Thailand in 2014, causing the directors to continuously hold positions

2.3 Authorized Director to Sign and Bind for HARN

According to HARN's Articles of Association, The Board Two (2) authorized directors shall sign to represent HARN, which the Shareholder's Meeting or the Board Meeting has the power to determine the list of authorized directors sign to represent HARN. Through the Board of Directors Meeting No. 1/2021 on February 25, 2021, the Board has approved directors having authority to sign on behalf of HARN, namely Mr. Wirat Sukchai, Mr. Thammanoon Tripetchr, Mrs. Sirima Iamsakulrat and Mr. Jain Charnnarong any 2 of the 4 representative directors jointly sign.

2.4 Roles, Duties and Responsibilities of the Board

The board shall act professionally on behalf of the shareholders with high responsibility and accountability in order to steer HARN in the right directions, define framework of strategies according to vision and mission, to ensure that business is operated under code of conduct complies with laws and regulations, make decisions on important matters with care and loyalty, and monitor to the communication of short and long-term strategies into practice at the operational level. Also, protect the benefits of all stakeholders. Therefore, the Board

must perform their duties independently from management, for overseeing management's operations and results, managing risks and determining remuneration.

Currently, Mr. Pichet Sithi-Amnuai is the Chairman of the Board, and Mr. Thammanoon Tripetchr is the Chief Executive Officer of HARN is a different person, has clearly separate roles and responsibilities of the Board and the Executives, in line with the Corporate Governance Policy and Code of Conduct.

2.4.1 Roles, Duties of the Chairman of the Board

1. The chairman is independent from the management and not the position of Chief Executive Officer, and has not been involved in routine management with clear segregation of roles between the Chairman and the executives, to balance the power in the administration.
2. Calls for the Board meeting according to the articles of association or in case of emergency by delivered to Directors at least 5 business days in advance of the Board meeting date. In urgent cases, the Chairman of the Board is the head of the meeting and in the Annual General Meeting including determines agenda of the meeting with the Chief Executive Officer.
3. Ensures the efficiency of each meeting by allocating enough time for the executives to present information, encouraging and allowing directors' queries and expression of free views, controlling the issues under discussion, and summarizing the meeting's resolutions. The Chairman shall also promote constructive relations among directors as well as between the Board and the executives.
4. Encouraging the Board's conformance to authorities, responsibilities, law and corporate governance principles, code of conduct. The Chairman shall also advocate directors' efforts for promoting a corporate culture of ethics, and good corporate governance, including identifying themselves, refraining from voting, and leaving the meeting in case of having conflicts of interest in any agenda.
5. Control and oversee the Board and Board-Committee to perform on duty efficiency and achieve the stated objectives.
6. Having power deciding cast vote, in case the votes of both parties are equal.

2.4.2 Roles, Duties of the Board

1. Define HARN's vision, policies, code of conduct, strategies, directions, annual budget, management structure and major plans and consider potential risks so as to ensure that management can effectively drive plans into practice. HARN is running its businesses with transparency responsibility to stakeholders, society and environment.
2. Assess the performance of the Chief Executive Officer (CEO) and decide suitable remuneration, to induce short-term and long term motivation.
3. Oversee an accounting systems, financial reporting and auditing, as well as the efficient and effective internal control and internal audit systems. Define comprehensive risk management, have a mechanism for complaints and providing protection for complainants' guidelines, as well as ensure an efficient risk management system or process and follow up every quarterly.
4. Oversee and supervise issues regarding related-party transactions and manage potential conflicts of interest and reports to the Board on a regular.

5. Oversee that appropriate are reviewed and communicated Corporate Governance Policies and Principles and Code of Conduct at least once a year.
6. Oversee to have a Policies and Anti-corruption Measures to comply with the requirements of the law related, including communicate to the Board, management, employees and related third parties, and promote it as a culture.
7. Monitor and supervise the performance of the management with the specified policies, plans and budget in an efficient manner, and ensure that HARN's business management is in line with the corporate governance policy.
8. Approval for long-term investment, loans or other as appropriate.
9. Approve employee development and executive succession plan, and oversee procedures there is an effective.
10. Approve and/or give opinion on related transactions, acquisition or disposition of assets, investment and any other of HARN and subsidiaries with the laws, notifications, requirements, rules and regulations, unless it is prescribed by law to seek approval from the shareholders' meeting.
11. Authorized to appoint the Chief Executive Officer and Board-Committees who has been nominated under the nomination process and procedures under relevant laws and regulations, including assign duties and responsibilities.

In case the Board's assignment of the Chief Executive Officer, Managing Director or any other person to perform duty on behalf, must the scope of power and duties of the authorized person clearly specified and shall be clearly recorded minutes as a resolution of the Board meeting, However, the authority and duties stated above must no any conflict of interest with HARN or subsidiary, unless the approval of such transactions is in line with the policy and criteria duly approved by the Board
12. Appoint the Company Secretary who has appropriate experience and qualifications in the roles and responsibilities specified in the Securities and Exchange Act.

3. Information on Board-Committees

The appointment of Director as Member of the Board-Committees, the Nomination and Remuneration Committee considers qualified Director as a Member of the Board-Committee to fill vacancies. This must be done in accordance with the Board-Committees' Charters. The names of selected Directors are to be proposed to the Board for consideration and approval.

However, the Board appointed of the 4 Board-Committees supporting matters: the Audit Committee, Nominating and Remuneration Committee, Executive Committee, and Risk Management Committee which clearly defining duties and responsibilities, to consider specific issues, scrutinize and propose the Board for consideration.

3.1 The Audit Committee

Each quarter the Audit Committee, together with the Chief Financial Officer which as audit committee secretary and the external auditor (Karin Audit Co. Ltd.), reviews financial reports. The Board is accountable for HARN's and consolidated subsidiary financial statements as well as other financial information presented in the annual report. The financial reports are prepared under generally accepted accounting principles and are audited and certified by Mr. Jadesada Hungsapruuek, C.P.A. No. 3759, of Karin Audit Co. Ltd. Material information, financial and non-financial, is accurately, completely and consistently disclosed.

The Board approved the appointment of the Audit Committee on September 5, 2012, which appointed from independent director of HARN's with the qualifications specified by SEC laws and SET must consist of at least 3 directors and at least 1 of whom must be adequately qualified and experienced in reviewing the credibility of financial statements. As of December 31, 2024, composed of three independent directors all members of the Audit Committee have sufficient knowledge and experience to review the credibility of the financial statements according to applicable laws, opinions are freely expressed as follows:

Name		Position
1. Mrs. Valeeratn	Chuerboonchai	Chairperson of the Audit Committee (Independent Director, who has accounting knowledge)
2. Mr. Prasert	Deejongkit	Member of the Audit Committee (Independent Director)
3. Dr. Teerachai	Pornsinsirirak	Member of the Audit Committee (Independent Director)

With Mr. Wisit Wachiralarpaitoon, Chief Financial Officer as secretary of the Audit Committee.

3.1.1 Duties and Responsibilities of the Audit Committee

1. Review financial reporting to ensure its accuracy and adequacy.
2. Review the efficiency and effectiveness of internal control, risk management and internal audit processes and consider on the appointment, transfer and dismissal of the internal audit and review annual audit plan, fees and personnel.
3. Review compliance with laws, SET requirements, SEC and law relevant to HARN's businesses.
4. Review for compliance with the self-assessment and documents to anti-corruption measures.
5. Review and opinions on transactions to cause fraud that may affect operations, to comply with anti-corruption measures to the Board's for acknowledgment.
6. Oversee complaints, whistleblowing and investigate fact, report to the Board's for punishment or solve the problem according to the anti-corruption policy
7. Consider select, nominate and dismissal of an independent of the external auditor of HARN's and offer the fees, as well as review financial reporting process to ensure accuracy and credibility, including a meeting with the external auditor in the absence of management at least once a year.
8. Review connected transactions or transactions of potential conflicts of interest under SET's laws and requirements.
9. Disclose a report on its annual performance and the fees of the auditor in the annual report of HARN.
10. Perform other tasks as required by the law or as assigned by the Board within the committee's scope of duties and responsibilities.
11. Prepare a charter that is compatible with scope of work and responsibilities. The charter must be approved by the Board and revised at least once a year.
12. Report internal audit performance to the Board for acknowledgment.

In 2024, the committee held 4 meetings and duly reported its findings to the Board. In addition, it participated in quarterly audits along with the external auditor and the Chief Financial Officer. Disclosed its annual performance in the Report of the Audit Committee.

3.2 Nomination and Remuneration Committee

The Board approved the appointment of the Nomination and Remuneration Committee on December 17, 2018, by appointing 3 directors, which are fully qualified in accordance charter. As of December 31, 2024, it consisted of 2 Independent Director and 1 Non-Executive Director: as follow:

Name	Position
1. Mr. Prasert Deejongkit	Chairman of the Nomination and Remuneration Committee (Independent Director)
2. Mrs. Valeeratn Chuerboonchai	Member of the Nomination and Remuneration Committee (Independent Director)
3. Dr. Jain Charnnarong	Member of the Nomination and Remuneration Committee

Mrs. Varinkan Teraumranon, Chief Operating Officer as secretary of the Nomination and Remuneration Committee.

3.2.1 Duties and Responsibilities of the Nomination and Remuneration Committee

1) Nomination

- 1) Review qualification of the Board and Board-Committees consideration due regard for the composition: knowledge, expertise, experience, talents are independent according to the established criteria.
- 2) Consider qualification of Chief Executive Officer as suitable for HARN's business management, compatible with business strategies, due regard for the composition: education, experience, knowledge, expertise and into consideration important business environment.
- 3) 3. Select, set process and criteria for nominating directors in accordance with the structure set in 1 and 2 in compliance with HARN's Board Skill Matrix to ensure transparency.
- 4) Propose directors for Board-Committees duties with due regard for the committees' compositions, qualifications, expertise, and competencies, including Chief Executive Officer. Then propose the Board to consider when their vacancy.
- 5) Oversee the orientation and provide documents useful for the performance of duties to the newly appointed directors.
- 6) Prepare and review with HARN's top executive succession plans to enable continued business.
- 7) Opportunity for minority shareholders to propose names of persons to be nominated as directors.
- 8) Review a charter at least once a year, assess its own performance outcomes and report the findings to the Board for acknowledgment, disclose its own performance in the annual report, perform other tasks as assigned by the Board.

2) Remuneration

1. Define policy and define the criteria for remuneration to be appropriate with the duties and responsibilities and propose fair, sensible remuneration at monetary and other benefits for the Board and Board-Committees' for the Board's and the shareholders' approval
2. Define criteria for assessing performance outcomes and remuneration for the Chief Executive Officer to the Board's for approval.
3. Review the Nomination and Remuneration Committees charter at least once a year.
4. Assess its own performance outcomes and report the findings to the Board for acknowledgment, disclose its own performance in the annual report, perform other tasks as assigned by the Board.

In 2024, the committee held 2 meetings, with all committee members at the time in attendance, the Nominating and Remuneration Committee disclosed its annual performance in the Report of the Nominating and Remuneration Committee.

3.3 Executive Committee

The Board approved the appointment of the Executive Committee, appoint among directors and/or top executives, who are competent in business management and prepare policy, business plan, budget, management structure, and check and follow up performance to the policy by the Board.

As of December 31, 2024, it consisted of 6 the Director and top Executive, as 1 Non-Executive Director, 5 Top Executive as follow:

Name	ตำแหน่ง
1. Mr. Wirat Sukchai	Chairman of the Executive Committee (Top Executive)
2. Dr. Jain Charnnarong	Member of the Executive Committee (Director)
3. Mr. Thammanoon Tripetchr	Member of the Executive Committee (Top Executive)
4. Mr. Rattanaphan Mukhariwattananon	Member of the Executive Committee (Top Executive)
5. Mr. Wisit Wachiralappaitoon	Member of the Executive Committee (Top Executive)
6. Mrs. Varinkan Teraumranon	Member of the Executive Committee and Secretary (Top Executive)

3.3.1 Duties and Responsibilities of the Executive Committee

The Executive Committee scrutinize and prepare policy, business plan, budget, management structure, and various management, to be in with the economic conditions, propose the Board for approve, as follow:

1. Propose policies, strategies, targets, operation plan, annual budget, establishment of a new business/ dissolution/ merger/ transfer of business, joint venture (with participation in management), prepare financial plan, organizational structure, as well as consider and scrutinize the proposals of the executive, to the Board's for approval.
2. Oversee the HARN's business and follow up operation to comply with the policies, targets and budget tasks as assigned by the Board and regularly report the performance to the Board in meeting.
3. Approve significant investment in budget tasks as assigned by the Board.
4. Approve off-budget investment an amount not more Baht 10 million, to the Board's for approval.
5. Approve loans, acquisition of credit lines of HARN an amount not more Baht 10 million and total amount not more Baht 30 million, in case of must the HARN's assets are used as collateral, to the Board's for approval.
6. Propose payment an interim dividend or annual dividend for the Board's and the shareholders' approval.
7. Assign the power of attorney or delegate specific tasks to other persons, provided that the action complies with the document on the power of attorney or rules, regulations, or directives of the Board or HARN, or both.
8. Perform other tasks as assigned by the Board.

The authority and duties of the Executive Committee stated above are invalid for any conflict of interest with HARN in any form resulting from the Executive Committee exercise of the authority. In 2024, no action taken is beyond the scope of such.

In 2024, the Executive Committee held 12 meetings, with all committee members at the time in attendance, and the disclosed its annual performance in the Report of the Executive Committee.

3.4 Risk Management Committee

The Board approved the appointment of the Risk Management Committee on November 11, 2016, by appointing directors and top executive, prepare risk management policy of business and oversee process, to appropriately reduce the impact of variable factor on the HARN's.

As of December 31, 2024, it consisted of 13 the Independent Director, Chief Executive Officer, Chief Marketing Officer, Chief Financial Officer, Chief Operating Officer and Director each Department: as follow:

Name	Position
1. Dr. Teerachai Pornsinsirak	Chairman of the Risk Management Committee (Independent Director)
2. Mr. Thammanoon Tripetchr	Member of the Risk Management Committee (Chief Executive Officer)
3. Mr. Wirat Sukchai	Member of the Risk Management Committee (Chief Marketing Officer)
4. Mr. Rattanaphan Mukhariwattananon	Member of the Risk Management Committee (Chief Marketing Officer)
5. Mr. Wisit Wachiralappaitoon	Member of the Risk Management Committee (Chief Financial Officer)
6. Mr. Prapas Rukpanya	Member of the Risk Management Committee (Strategy and Marketing Director)
7. Miss.Warangkana Jongnui	Member of the Risk Management Committee (Sales Director)
8. Mr. Suchat Suwatnodom	Member of the Risk Management Committee (Sales Director Petrochemical)
9. Mr. Kittiphong Kittimethawenun	Member of the Risk Management Committee (Sales Director)
10. Mr. Vachiravit Akaraseranee	Member of the Risk Management Committee (Project Sales Director)
11. Mr. Sukit Litikorn	Member of the Risk Management Committee (Engineering Support Director)
12. Mr. Withoon Thamee	Member of the Risk Management Committee (Sales Director)
13. Mrs. Varinkan Teraumranon	Member of the Risk Management Committee and Secretary (Chief Operating Officer)

3.4.1 Duties and Responsibilities of the Risk Management Committee

- Define and review the risk management policy and guidelines of HARN, in both operational risks and the risk anti-corruption policy, to the Board's for acknowledgment.
- Define risk management strategies in line with the risk management policy to assess, monitor and control to be at appropriate.
- Oversee the implementation of the risk management policy tasks as assigned by the Board.
- Define risk measurement criteria and acceptable risk limit.
- Define measures to manage risks in alignment with the prevailing circumstances.
- Review adequacy of the risk management system and compliance in line with the defined policy.
- Report to the Board on a quarterly, implement and risk status, as well as changes and improvement actions in line with the defined policy and strategy.
- Oversee a risk management working group as necessary.
- Support working group in respect of personnel, budget and other resources required, in line with the defined scope.
- Support risk management, as well as promote the development internal risk management culture.
- Review and report risk management outcomes to the Board at least once year and disclosed in annual report. For factors or events with potential significant impacts on HARN or stakeholders, the Board must be notified immediately.

In 2024, the Risk Management Committee held 4 meetings, with all committee members at the time in attendance, and the disclosed its annual performance in the Report of the Risk Management Committee.

4. Information of the Top Executives

4.1 Top Executives Team Members

As of December 31, 2024, there are 5 Top Executives members: as follow: (HARN's organizational chart reported under 7.1 Governance Structure). **Profile details in Section 4, Attachment 1, page 236-238**

This regard, the top executives of HARN is the persons who are defined under the Securities and Exchange Act., who have the top position at the management level from the four lists following by the Chief Executive Officer level.

Name		Position
1. Mr. Thammanoon	Tripetchr	Chief Executive Officer And Chief Marketing Officer: Digital Printing System
2. Mr. Wirat	Sukchai	Chief Marketing Officer: Refrigeration System
3. Mr. Rattanaphan	Mukhariwattananon	Chief Marketing Officer: Safety and Comfortable
4. Mr. Wisit	Wachiralappaitoon	Chief Financial Officer
5. Mrs. Varinkan	Teraumranon	Chief Operating Officer

4.1.1 Roles, Duties of the Chief Executive Officer

The Chief Executive Officer is authorized and responsible for managing the Board-assigned and HARN's overall business, which must be strictly and prudently managed with integrity under the Board-approved plans or budget in the best interests of HARN and its shareholders: as follow:

1. Leader in define short and long-term business strategies, policies and plans.
2. Oversee the overall operating results to strategic and policy.
3. Support the Board and Board-Committees to corporate governance act as targeted.
4. Oversee employee development projects in line with growth of HARN, as well as maintain corporate image.
5. Monitor, inspect, control and reporting performance outcomes on plan to the Board every quarterly.
6. Ensuring implementation of the Board-approved policies, plans, and budget.
7. Hiring, appointing, removing, transferring, promote, suspend from work, dismissing, unishing, set the salary or others compensation, increase salary or wages and bonuses on rules.
8. Issue, amend, add, improve or revoke orders, rules, memorandum and work regulations procedure to ensure compliance with the policy and maintain work discipline within the HARN.
9. Perform other tasks as assigned by the Board.
10. Assign the power of attorney or delegate specific tasks to other persons, provided that the action complies with the document on the power of attorney or rules, regulations, or directives of the Board or HARN, or both.

4.1.2 Succession Plan

The Board of Directors oversees the establishment of a succession plan and the development plan for top executives, particularly the Chief Executive Officer (CEO) position. A Nomination and Remuneration Committee has been appointed to set policies for top executive succession and CEO recruitment, ensuring business continuity and preparing personnel for key roles. The criteria and procedures for recruitment are as follows:

- The Nomination and Remuneration Committee sets policies for the recruitment of the CEO and policies for the succession plan for the CEO, Chief Marketing Officer (CMO), Chief Financial Officer, (CFO) and Chief Operating Officer (COO). The committee sets that the policies are reviewed and jointly plan the succession of top executive positions particularly for the CEO position, are developed at least once a year in accordance with clear and transparent recruitment criteria and procedures.
- The criteria and qualifications for the person who will succeed the CEO position appropriate knowledge, ability and experience; Have leadership ability, a broad vision, and the ability to communicate clearly and effectively. The individual should be capable of fostering collaboration toward a shared direction, it shall not be of a nature prohibited by law.
- The succession process must include the creation of a recruitment and development plan at least two years in advance to address potential emergencies, resignations, or retirements of top executives and the CEO.
- The CEO and the COO jointly oversee the training and development of potential successors by providing specialized assignments and necessary skill-building activities. This is

done to prepare future leaders for succession to key positions.

- The CEO and COO are responsible for reporting the top executive succession plan and the progress of individual development plans for eligible executives to the Nomination and Remuneration Committee once a year, and whenever there are significant changes.
- The Nomination and Remuneration Committee is responsible for nominating qualified candidates to the Board of Directors for the appointment of the CEO. Additionally, the committee reports on the progress and summarizes the results of the top executive succession plan to the Board of Directors at least once a year, and whenever there are significant changes.

Additionally, HARN emphasizes the development and career path planning, providing opportunities and supporting the advancement of employees within the organization. This ensures the recruitment of personnel with adequate knowledge, skills, and experience, fostering career growth through the management of high-potential employees. HARN develops diverse development plans for both groups and individuals, as well as succession plans for key positions. These initiatives aim to ensure the organization's continuity and to prepare for the retirement of employees, ensuring that the organization can operate smoothly in the future.

In 2024, there were **no** additional appointments of the Chief Executive Officer (CEO) or top executives. Progress and results regarding the succession plan were reported to the Board of Directors a total of six times. The process included selecting, assessing potential, developing knowledge, enhancing necessary skills, and assigning tasks to individual executives to prepare them for succession to top executive positions.

4.1.3 Development the Top Executives

The Board has a policy to promote and facilitate the training of top executives are also required to enhance their knowledge, capability and skills in terms operation, and other courses that are beneficial to their operations. The details of the courses attended in 2024 are as follows:

Name		Courses
Mr. Thammanoon	Tripetchr	<ul style="list-style-type: none"> Intro Generative AI
Mr. Wirat	Sukchai	<ul style="list-style-type: none"> The mai CFO 2024: Growth & AI Chapter IR In Action 4 Create Everlasting Company: Sustainability, Succession, and Strategy
Mr.Rattanaphan	Mukhariwattananon	<ul style="list-style-type: none"> Scenario Planning for sustainability Leadership MP Manual Edition - V2
Mr. Wisit	Wachiralappaitoon	<ul style="list-style-type: none"> All TFRS 2024 editions, Class 2/67 (Sub-course 302) MP Manual Edition - V2 Insight in SET: Understanding the Growth and Sustainability of Capital Markets, No. 3/2024 (SET) Tax and Accounting Due Diligence for M&A Accounting and tax updates for 2024
Mrs. Varinkan	Teraumranon	<ul style="list-style-type: none"> Including labor law issues Safety, Occupational Health and Working Environment Committee Serve as an internal auditor according to ISO 9001:2015 Intro Generative AI

4.2 Remuneration of Chief Executive Officer and Top Executive's

This regard, the top executives of HARN is the persons who are defined under the Securities and Exchange Act., who have the top position at the management level from the four lists following by the Chief Executive Officer level.

The Board has designated the Nomination and Remuneration Committee. Determines the compensation of the Chief Executive Officer. The criteria are in accordance with the recruitment and compensation policy for the Chief Executive Officer. And the remuneration of other top executives who have the position level following by the Chief Executive Officer level, it complies with the policies and guidelines set by the Chief Executive Officer that is linked to HARN's performance by defining key performance indicators and setting KPI goals about annual objective-based performance and results of short-term and long-term strategic objectives. In terms of finance, society, and the environment, according to the Balanced Scorecard, these indicators cover the following items: performance, sales growth, market shares, marketing expansion into foreign markets, employee satisfaction, continuous development of work systems, and business management processes toward excellence, increased competitiveness, and long-term business operations to lead to sustainable success under transparency. Relevant risks are also evaluated, including its vision, goal, and strategy,

as well as its shareholders continued added-value generation.

In addition, we aim to keep compensation competitive in the relevant business sectors in order to ensure that HARN can attract and retain skilled employees to work and continue production for HARN.

Top executives remuneration as expenses represents the benefits paid to HARN and its subsidiaries are Chief Executive, Officer Chief Marketing Officer, Chief Operating Officer, Chief Financial Officer include remuneration in both monetary include in benefits according other forms to the regals of HARN as well as the director of each department, consists; Salary, Bonuses, EJP and Other benefit (provident fund, life and health insurance, scholarships) etc., Except incentives based on performance. This regard, HARN's Top Executives means a person designated under the Securities and Exchange Act (SEC). Is the first four executive positions after the Chief Executive Officer. The remuneration paid to executives: as follows:

In 2024, HARN payment of remuneration for Mr. Thammanoon Tripetchr Chief Executive Officer, including Top Executives of HARN, designated under SEC, namely the first four executive positions after Chief Executive Officer, and Top Executives of subsidiaries as follows:

Remuneration	2024		2023		2022	
	Number (person)	Amount (Baht)	Number (person)	Amount (Baht)	Number (person)	Amount (Baht)
Salary, Bonuses and Other such as social security contributions and Employee Share Accrual Program (EJIP)	7	23,301,852	7	22,792,645	7	19,889,051
Provident fund contributions	7	778,085	7	748,525	7	686,084
Total	7	24,079,937	7	23,541,170	7	20,575,135

Note: Remuneration Top Executives to consolidated financial statement of HARN

Additional information on the Top Executive no violation of the law within the past 10 years regarding:

- 1) Being sentenced for criminal charges except for violations of traffic laws, petty charges, or similar charges.
- 2) Being sentenced to bankruptcy or having assets controlled.
- 3) Serving as an executive or an authority in a company or partnership sentenced to bankruptcy or whose assets are controlled.

5. Information of the Employees

5.1 Total Employees

HARN has policy which focuses on equity, no limitation or discrimination on gender, race, religion, and culture, stresses the development of human resources management systems compatible with technological advancement. It not only promotes both competence among its employees, but also encourage them to actively take part in public service on its

development into a sustainable corporate to elevate competitiveness and respond to internal changes of a corporation. As of December 31, 2024, HARN had 248 employees and its subsidiaries had 5 employees, with 5 employees of Aiyaraharn Co., Ltd. and no employees of Harn Vietnam Co., Ltd., as follows:




Department	Employees (persons)		
	2024	2023	2024
Top Executives	5	5	5
Executives	3	0	0
Project Sales	38	36	31
Fire Protection, Air Conditioning & Sanitary System Sales	26	24	31
Project Petrochemical Sales	5	4	5
Refrigeration System Sales	15	15	14
Engineering Support	8	9	9
Digital Printing System Sales	29	23	24
Service	30	31	32
Special Product Sales	9	12	13
Operating	44	41	45
Financial	36	40	37
Total	248	240	246
Subsidiaries	5	5	5

Employees	Number of employees by age (persons)					
	Number of female employees			Number of male employees		
	2024	2023	2022	2024	2023	2022
Younger than 30 years old	34	27	56	41	42	79
30-50 years old	61	62	34	92	89	58
Over 50 years old	8	8	7	12	12	12
Total of employees	103	97	97	145	143	149

Employees	Number of employees by position (persons)					
	Number of female employees			Number of male employees		
	2024	2023	2022	2024	2023	2022
Operation level	86	83	85	116	117	123
Executive level	16	13	11	25	22	22
Top Executives	1	1	1	4	4	4
Total of employees	103	97	97	145	143	149

5.2 Performance evaluation

HARN create an accurate understanding about fair performance evaluation, promoted the participation of supervisors and workers to define the goals and Key Performance Indicators (KPIs) altogether which led to the cooperation and promotes relationship between supervisors and their subordinates. To promote career advancement, it was arranged to conduct the performance appraisal a 2 year, dividing the results into 3 parts as follows:

 <p>Key Performance Indicator (KPI)</p> <p>The task performance score supporting the main objectives of HAR</p>	 <p>Appraisal Performance Individual (API)</p> <p>Evaluate the work behavior consistent with the ability according to HARN's position, culture and values</p>	 <p>Attendance Indicator (ATI)</p> <p>Working time statistics</p>
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In 2024, all employees were evaluated as 100%, the evaluation results will be analyzed to determine the annual compensation of employees, and determine a plan employee potential and abilities to be ready drive business according to the strategic for sustainability in social dimension, by communicating with employees, find common development methods between supervisors and employees. **Detail in Section 1, Topic: driving business for sustainability, Item 5.2.3 strengthen and employee's development, page 78-82**

5.3 Remuneration for Employees of HARN

(Excluding CEO and Top Executives designated under SEC)

Remuneration	2024			2023			2022		
	Number (person)	Amount (Baht)	%	Number (person)	Amount (Baht)	%	Number (person)	Amount (Baht)	%
Salary, Bonuses and Other such as social security contributions and EJP									
• Female	103	68,176,750	40%	96	60,922,570	38%	96	54,412,830	37%
• Male	145	101,974,350	60%	139	100,219,001	62%	145	95,300,890	63%
total	248	170,151,100	100%	235	161,141,571	100%	241	149,713,720	100%

HARN has the fair remuneration policies of employees can be competitive in the market, including creating stability in the career opportunity for fair career in line with the strategic direction both the short and long-term. Drive performance to meet planned objectives, which will receive remuneration in both monetary, including salary, bonus, overtime, brokerage fee, incentive, EJP and other benefits according to the regals of HARN and with the law.

5.4 Provident Fund

In 2024, HARN had 225 executives and employees who are members and had not resigned the Provident Fund from its total 248 employees as 90.73%, paid to the Provident Fund Baht 4,976,433 and managed by an authorized UOB Asset Management (Thailand) Co., Ltd. which disclosed related information in compliance with the Investment Governance Code to be compliant with the provisions of Provident Fund Act B.E. 2542 (1999) with employee savings rate to go up in line with the increasing years of service of the respective employee.

Remuneration	Unit	2024	2023	2022
Total number of employees	Person	248	240	246
Number of employees who are members the provident fund	Person	225	233	238
Proportion of employees joining the provident fund	%	90.73%	97.08%	96.75%
Amount paid by the company to the provident fund	Baht	4,976,433	4,762,463	4,566,559

Moreover, HARN also opportunity the employees to select or change their investment policy as considered proper for them no more than 4 times a year, including changing in the contribution rate, with acceptable risk level, to encourage employees to have financial planning after retirement.

5.5 Other Remunerations

HARN has instituted employee welfare and remuneration programs apart from salary, bonus, overtime, commission, incentives, EJIP and provident fund contributions for management and all employees. This is to keep up with economic conditions, the cost of living, and other standards peer companies' as well as HARN's performance.

1. Annual staff health check, Group life and health insurance is taken out to insure the employees, with coverage amount varied to job position and level of risk associated with nature of job performance.
2. The Employee Joint Investment Program (EJIP). The period of May 1, 2020 to April 30, 2025, with a total duration of 5 years for employees and director on the voluntary basis and own HARN, which will be regarded as savings for the employees' long-term financial security.

3. Physical and mental care, such as medical expenses for illness and dental care, staff visit baskets, allowance for the funeral/cremation of a death in the employee's family, including vaccination at a special price.
4. Support of learning and development, such as trainings, seminars both inside and outside the organization, as well as trainings abroad or scholarships for both bachelor and master's degrees, including language skills.

Moreover, HARN also promotes and support employees to have good compensation and welfare in various things, such as uniforms to facilitate and ensure safety according to the nature of work or provide assistance such as travel expenses, fuel, phone, allowances, marital benefits, and child benefits. The first housing welfare etc.

6. Other Information's

6.1 Company Secretary

The board appoints a Company Secretary, to take responsibilities in providing advices to the Board regarding the applicable laws, regulations and good corporate governance principles for HARN which the Board must know and practice, responsible for arranging board meetings and the shareholder's meetings to ensure that they are organized in a transparent way and in compliance with applicable laws and regulation's, including a monitor and coordinate to ensure that the Board and shareholders' resolutions are fully complied, including to keep HARN's important documents as required by the laws, including directors' registration, Board meeting notices and minutes, annual reports; issue shareholders' meeting notices and minutes; and keep reports on vested interests reported by directors or management.

To comply with the CG principles of listed companies under the category of directors' responsibility and the terms of the

Securities and Exchange Act B.E. 2535 (1992) (and the amendments). The Board meeting held 4/2021 resolved to appoint of Miss Wasukan Boonmee as Company Secretary since August 11, 2021.

HARN has set qualifications of Company Secretary as regards age, education, communication skills, interpersonal skills, capability in coordinating with internal and external parties etc. In the case that the Company Secretary vacates office or is unable to perform duty, the Board shall appoint the new Company Secretary within 90 days from the date on which the existing Company Secretary vacates office or can no longer perform duty, and during the lapse of which, the Board shall assign any one of the directors to perform Company Secretary duty as per the Securities and Exchange Act B.E. 2535 (1992) (and the amendments). **Profile details in Section 4, Attachment 1, page 239**

6.2 The person supervising accounting

The Chief Financial Officer, is assigned by position to be responsible for the highest responsibility in finance and accounting. Mr. Wisit Wachiralappaitoon has been holding the position since March 16, 2016.

The Account Manager, is assigned by position to be responsible for supervising accounting. Miss Ananya Proyngoen has been holding the position since December 1, 2016 is directly in charge of accounting management, she is a qualified as an

accountant under the criteria set by the Department of Business Development.

However, the person taking the highest responsibility in finance and accounting and the person supervising accounting of HARN, is a qualified as an under the criteria set by the SEC and SET, consists; qualifications, education, experience, and undergone at least 6 hours of continuous accounting knowledge development training per year. **Profile details in Attachment 1, page 238-239**

Course summary Orientation and Refresh

Course ^{1/}	the person taking the highest responsibility in finance and accounting (CFO)	the person supervising accounting ^{3/}
Orientation 12 hour	✓	✓
Accounting knowledge (Refresh) 6 hours per year ^{2/}	✓	✓

Note : 1/ The hours for Orientation and Refresh training is as specified by the SEC.

2/ Refresher course that is consistent and beneficial to HARN

3/ The person supervising accounting is an accountant who has the qualifications and conditions of being an accountant in accordance with the rules prescribed in the Notification of the Department of Business Development.

CPD hours of the highest responsible person in accounting and finance (CFO) for 2024

Year	Training Institute	Number of CPD hours			
		Account	Ethics	Other	Account
2024	Accounting and Taxation Update 2024	3	0	3	6
2024	Tax and Accounting Due Diligence for M&A, Class 1/67	3	0	3	6
2024	SMP Manual Edition - Volume 2	5	1	0	6
2024	ALL TFRS 2024 Issue 2/67 (Sub-course 302)	3	0	0	3
2024	ESG bonds: issuing sustainable development bonds	0	0	2	0
2024	SET Insight: Understanding the Growth and Sustainability of Capital Markets, no. 3/2024	0	0	12	0
2024	Improvements to the rules for major transactions (MT) and related party transactions (RPT) of the company.	0	0	2	0
2024	Cybersecurity & Risk Management for CFOs	0	0	2	0
Total Number CPD hours		14	1	25	39

Number of CPD hours of the accounting supervisor for 2024

Year	Training Institute	Number of CPD hours			
		Account	Ethics	Other	Total
2024	The Development of Accounting Systems in the Digital Age, class 1/67	4:30	0	1:30	6
2024	Code of Conduct for Accounting Professionals	0	1	0	1
2024	Problems and errors in preparing financial statements over the past year, and analyzing the issues from the notes to the financial statements.	3	0	0	3
2024	The content checked by the tax department from the financial statements and notes to the financial statements	0	0	3	3
2024	Architectural Accounting	6	0	0	6
2024	Professional financial statements	6	0	0	6
2024	Prepare consolidated financial statements (basic)	6:30	0	0	6:30
2024	Basic Financial Statement Analysis	6	0	0	6
2024	Chief Financial Officer Professional Development Plan No. 3/2024, with the theme of "Tax Governance"	0	0	2	2
2024	Chief Financial Officer Professional Development Plan No. 4/2567, with the theme of "ESG related accounting standards"	0	0	2	2
2024	Chief Financial Officer Professional Development Plan No. 5/2567, with the theme of "ESG Bonds: Issuance of Sustainable Debt Securities"	0	0	2	2
Total Number CPD hours		32	1	10:30	43:30

6.3 Head of Investor Relations and contact

The Chief Executive Officer, is assigned by position to be Investor Relations. Mr. Wirat Sukchai has been holding the position since November 13, 2014, and can be contacted at Investor Relations, HARN, Tel. 0-2318-9744 ext. 5001 Email: wirat.s@harn.co.th or website: www.harn.co.th, **Profile details in Section 4, Attachment 1, page 236**

The role to facilitating effective communication with the shareholders and investors, including institutional shareholders, minor shareholders, analysts, and relevant regulatory authorities to ensure that information disclosed are correct, reliable, and adequate information in a fair, transparent, and comprehensive matter such as corporate strategy and direction, company information, quarterly financial information.

In 2024, HARN executives met with shareholders and investors

on various occasions, detailed below:

- **met and shared information**

Physical 4 times, Online 2 times

- **SET's Opportunity Day**

Online 4 times, March 13, 2024, May 29, 2024, August 28, 2024 and November 27, 2024

- **Information provided via telephone** 2 times

Apart disclosure of information according to the rules and channels of The Stock Exchange of Thailand (SET), Annual Disclosure Statement / the Annual Report (Form 56-1 One Report). HARN disclosed modernize information in both Thai and/or English via website www.harn.co.th and Facebook: Harn Engineering Solution Pcl.

6.4 Audit Fee

HARN and its subsidiaries paid a total of Baht 1,446,014.26 in audit fees to the Karin Audit Co., Ltd., and auditing of the subsidiary in Vietnam, in year 2024. It's the audit fees of HARN paid of Baht 1,300,000 and of the subsidiaries paid of Baht 146,014.26. In addition. Additionally, HARN has paid non-audit

fees to the auditor, apart from audit service fees. These include expenses such as inventory destruction observation fees, work paper review fees, allowances, overtime pay, travel expenses, and telephone charges, totaling Baht 196,331, which were charged based on actual service costs.

Internal Control and Connected Transaction

1. Internal Control

HARN realizes the importance of the internal control system under the framework of The Committee of Sponsoring Organizations of Treadway Commission (COSO) to attain the aspects of the corporate risk management and internal control both efficient and effective structure design and process, credibility of financial and other reports, and full compliance with laws and regulations prescribed by the Stock Exchange of Thailand (SET) and the Securities and Exchange Commission (SEC). The Board of Directors assigns the Audit Committee to review results of internal control assessment, while the internal auditors, which is an external service provider (Outsource), take charge of monitoring and reviewing the adequacy of internal control system on a

quarterly basis, with Mr. Wisit Wachiralappaitoon, Chief Financial Officer who is the Secretary of the Audit Committee responsible for coordinating within the company.

In 2024, the Board examined the assessment internal control according the Securities and Exchange Commission, Thailand (SEC)'s form and risk management to plan on a quarterly, and is prepared by the internal audit and subsequently reviewed by the Audit Committee, and concluded that HARN's internal control and risk management system was indeed adequate and suitable for its business operations to accomplish the objectives the development of operations and working systems to support the five aspects of internal control system under COSO, are as follows:

1.1 Control Environment

HARN commands a sound overall control environment that is adequate for business efficiency and effectiveness under the principles of good corporate governance and code of conduct. Its executives have promoted a corporate culture focusing on integrity and ethics as a role model with the following implementations:

1. Defining written policies under the good corporate governance, code of conducts and anti-corruption, to provide a framework for the performance of various. For the Board of Directors, executives and employees to adhere to as a practical guideline resulting in HARN has undergone the annual assessment of Corporate Governance Report of Thai Listed Companies (CGR) by Thai Institute of Director Association (IOD) for the 6th consecutive year, scored top marks at excellent level.
2. Requiring the Board and the first 4 top-ranking executives within February annually reporting their conflicts of interest and stresses its code on giving and accepting gifts, assets, or other benefits so as to remind executives and employees to comply with the defined principles and practices. Importantly, has been compliance audit made for Personal Data Protection Act, which will come into effect since June 1, 2022.
3. Raise awareness and understanding on code of conduct among executives and employees through internal training courses, employee orientation, communicate corporate governance and public relations through e-mail channels, intranet, digital signage และ LINE official account. Also, the information about good corporate governance and code of conduct has been published on website www.harn.co.th to encourage related parties, such as business partners, joint ventures and company representatives, to acknowledge business ethics. In 2024, knowledge and testing through the electronic system on HARN Academy were provided to directors, executives and employees in order to realize and acknowledge their roles and responsibilities of ethics and code of conduct.
4. The Board of Directors is independent from the executives, has roles duties and responsibilities involve the review and endorsement of major strategies and policies, including objectives, financial targets, risks, plans, and budgets. The Board also exercises supervision that the management to ensure legal compliance, policies and strategic plans efficient and effective.
5. Devised human resource development plan that enhances employees' competency in a systematic, duly embracing aspects of personnel attraction, development, and retention, with a succession plan of key positions readily prepared. Also values the process of fair performance management that reflects the ability to perform against Key Performance Indicators (KPIs). Including a long-term strategy was identified for personnel recruitment to support of the prevailing business needs.

1.2 Risk Assessment

HARN values risk management and incorporates it into the entire organization to drive the business towards both short-term and long-term goals with confidence, there are the Risk Management Committee (RMC) appointed by the Board of Directors, consisting of independent director and executives supervising of risk management for the organizational, functional, and operational levels, including and Subsidiaries, to ensure that such management is efficient suitable and ensure corporate objective achievement. The results of which shall be reported to the Board on a quarterly basis.

To this end, HARN devised the risk management plan embracing risk assessment, analysis, and review in line with its strategic and business plans to pursue objectives and goals. The plan

takes into emerging risk factors, account corruption probability as well as external and internal factors that may influence both current and future business. Moreover, Risk Appetites Framework and Key Risk Indicators (KRIs) are defined to facilitate performance monitoring and reporting of each unit against the defined goals.

In addition, in 2024 although the COVID-19 has improved, HARN continue to assess the risks and impacts so that timely response can be made. Regarding cyber security, risk was assessed and a business continuity plan was drawn. Each year, process owners are to assess prevailing parameters affecting internal control and further develop an improvement plan or enhances control to ensure alignment and up-to-datedness.

1.3 Control Measures

Efficient and effective control activities help HARN mitigate risks risk appetite. The key control measures are as follows:

1. Internal control policies, including work procedures, manuals, and work instruction, and administration authorization define fund limits and approval authority hierarchy, including budgets, personnel administration, material purchase and procurement, contract, finance and accounting, and amortization.
2. Internal control measures with due regard for sound control principles, including segregation of duties, approval, review, and document filing, ensure efficient and effective conduct, credible reports and compliance with applicable laws and regulations. In 2024, HARN follow up the implementation of control plans under a given timeframe to monitor the adequacy and suitability of internal control.
3. Control measures for regularly monitoring transactions involving of the Board and executives, provide guidelines for informing the intention to purchase and/or sale of HARN securities, both their own purchase or sale and related persons, to the Company Secretary at least one working day before the actual transaction and the reported change of HARN security holding to SEC within three working days.
4. Preventive measures of the ongoing COVID-19 pandemic, which has prompted to make work standards, to cover potential risks and repercussions along with has defined cost management measures to support its performance outcomes affected by economic volatility and the COVID-19 pandemic.
5. The development of technology-related control activities helps clearly define IT policy are IT development policies and plans, which has cybersecurity framework by Information Communication and Technology Department (ICT) to define the direction and policy and efficiently drive digital management, and improving data centers to enhance continuity to operational efficiency thus accommodating future growth. Also staged the annual business continuity drill for cyber-attacks, designed to handle cyber-threats, and emergencies.
6. The steer HARN management in the same directions through joint deliberation and decision-making on critical matters and regular monitoring subsidiaries' businesses. Has appointing a representative as directors of subsidiaries. HARN has regularly participated in setting policy, acknowledging information, and monitoring performance outcomes against KPIs.

1.4 Information & Communication

HARN values information and communication technology systems that systematically support business execution, operation, management, and financial reports to accommodate the Board and executives' decision making. And to support efficient and effective internal control, with has defined information and communication technology policy and plan appropriately.

In 2024, In order to ensure appropriate internal communication for employees to receive prompt, complete, and accurate. HARN has defining efficient guidelines for managing contents and practical communication channels. To this, has clearly define responsible parties for each internal communication channel, including the intranet, e-mail, line official and digital signage as well as key communication channel to properly accommodate the Board's decision making, whith meeting

documents as sent to the Board at least 5 business days prior to the meeting date.

As for external communication, HARN provides accurate and adequate business updates through website and Facebook. Moreover, opportunity meeting to announce operating results was arranged online to allow stakeholders to access key information more conveniently and timely, which benefits their decision making on investment. HARN has defined complaint-filing and whistleblowing measures in writing, which include complaint handling, fact investigation, conclusion, clear identification of complaint-filing channels, and whistleblowers and related parties' protection. This is to enable employees and third parties to report or provide related information on unlawful acts, fraud, or pursuit of illegal benefits.

1.5 Monitoring Activities

It is HARN executives' duty and responsibility to supervise and audit internal work systems to ensure efficiency and conformance to policies, requirements, and work regulations under the concise internal control system. HARN equally values the management of Security, Safety, Occupational Health and Environment, which includes energy management and social responsibility and to reviwed their operation as required. This will prevent and minimize losses concerning safety and occupational health of employees.

HARN, on an annual basis, monitors results of internal control, both elaborate, at the corporate and operational level, executives conduct an assessment using the SEC's internal

control adequacy assessment forms. Should any change in tasks or work processes take place during the year, the Management Section is to duly update work procedures and control measures. In addition, also internal control to each month monitoring of any non-compliance, with a report submitted to process owners and the management meeting on a regular basis, to ensure that all parties realize the importance of compliance with business processes and internal control mechanisms. At the same time, the Internal Audit formulates annual audit plans based on key risks, changes or increase in work processes or systems, and requirement from executives and the Audit Committee to verify the adequacy and suitability of each activity.

2. Connected Transactions

2.1 Related party transaction approval measure or process

The Board meeting no. 3/2014 on May 15, 2014 resolved to establish a policy and process for approving related party transactions between HARN and individuals who have or may have conflict of interest on or beneficial interest in the transaction, such as the major shareholders, directors, executives, persons with controlling power, connected persons, or related persons, etc. HARN will comply with the securities and exchange law, provisions or notifications or stipulations of the Office of the Securities and Exchange Commission, Capital Market Supervisory Board, and the Stock Exchange of Thailand regarding such matters, as well as the regulations regarding disclosure of information on related party transactions according to the Thai Accounting Standards and Thai Financial Reporting Standards set forth by the Federation of Accounting Professions under

the Royal Patronage of His Majesty the King. In this regard, persons with conflict of interest or beneficial interest in the transactions shall not be entitled to take part in consideration of or to vote on the transactions.

In case prescribed by law to seek approval of such transactions from the Boards' or the shareholders' meeting, HARN will designate the Audit Committee to attend the meeting to consider and give opinion on the necessity and reasonableness of the transactions.

Making of the related party transactions that are under general commercial conditions and transactions that are not under general commercial conditions shall be subject to the following criteria:

2.1.1 Related party transactions with general commercial conditions

Related party transactions with general commercial conditions done between HARN and persons that have or may have conflict of interest or beneficial interest, at present or in the future, HARN has set a scope for doing such transactions, which has been reviewed and endorsed by the Audit Committee and approved in principle by the Board. When any of such transactions is to be made, approval may be sought only from the management, subject to the conditions that such transaction shall carry commercial conditions similar to those under which a person of ordinary common sense would do with a general counterparty under the same situation, having the bargaining power without any influence from the status of being directors, executives or persons otherwise on an arm's length basis, and being commercial transaction to be done in general by HARN for business operation, or commercial transaction generally done by HARN in the same business to support its own normal business, with fair prices and conditions, and would not result

in the transfer of benefits, including the following commercial conditions:

1. Prices and conditions offered or offered by HARN to persons in general
2. Prices and conditions offered by related persons to persons in general
3. Prices and conditions proven by HARN that companies of similar nature of business would offer to persons in general

However, when there is any transaction made on an arm's length basis as stated above, the management will make decision thereon. After an approval is given, a report on such related party transaction will be prepared and reported to the Board for information. In case that the Audit Committee and the Board find out that such transaction has not been undertaken in compliance with the policy in place, they may jointly discuss to find a solution.

2.1.2 Related party transactions with non-general commercial conditions or other transactions

For related party transaction with non-general commercial conditions or other transactions made between HARN and the persons that have or may have conflict of interest or beneficial interest, at present or in the future, HARN shall present to the Audit Committee to weigh the necessity and reasonableness in making the transaction as well as fairness of the price and conditions by comparing with a third party or the market price, before presenting to the Board and/or the shareholders' meeting, as the case may be, for approval. In case that the Audit Committee does not have the specialized knowledge on such transaction, HARN will engage an independent expert

or HARN's auditor to provide an opinion on such related party transaction to support the consideration and decision of the meeting of the Audit Committee, the Board, and/or the shareholders' meeting, as the case may be. Those who have conflict of interest or beneficial interest in such transaction shall not be entitled to take part in consideration of or to vote on the transaction.

HARN will disclose the related party transactions in the Notes to Financial Statements audited by the auditor. **Detail in section 3, Topic: Notes to the Financial Statements, page 187-230**

2.2 Connected Transactions between HARN and Individuals and Company with Potential Conflicts

As at 31 December 2024 accounting period, HARN conducted significant business transactions with its subsidiaries and related companies with common shareholders and/or Directors. Connected transactions with other entities which may result in conflicts of interest are based on market or contractual prices and the prices agreed in previous contracts if there are no reference market prices. Details of the relationships with these companies and conducted transactions are as follows:

Individuals / Company	Type	Relationship (As of December 31, 2024)
1. Harn Vietnam Co., Ltd. in Vietnam ("Harn Vietnam")	Distribution of printing equipment	Subsidiary, 100% owned by HARN
2. Aiyaraharn Co. Ltd., ("Aiyaraharn")	Production, purchase, sale, hiring, installation, service provider, and development of "IOT Products and Solutions"	Subsidiary, 65% owned by HARN. 2.1 HARN's shareholder: as follow; 2.1.1 Mr. Jain Charnnarong (younger brother of Mrs. Sirima lamsakulrat), holding 11.79% of HARN, and holding 0.00005% of Aiyaraharn 2.2 HARN's Director: as follow; 2.2.1 Mr. Jain Charnnarong
3. Harn Engineering Co. Ltd., ("Harn Engineering")	Assets for rent, such as office space and warehouses	3.1 HARN's shareholder: as follow; 3.1.1 Mrs. Sirima lamsakulrat, holding 14.01% of HARN, and holding 33.32% of Harn Engineering 3.1.2 Mr. Jain Charnnarong (younger brother of Mrs. Sirima lamsakulrat), holding 11.79% of HARN, and holding 33.32% of Harn Engineering 3.1.3 Miss Nopporn Charnnarong (younger sister of Mrs. Sirima lamsakulrat), holding 4.50% of HARN, and holding 33.32% of Harn Engineering 3.2 HARN's Director: as follow; 3.2.1 Mrs. Sirima lamsakulrat 3.2.2 Mr. Jain Charnnarong
4. Phraboriban Co., Ltd. ("Phraboriban")	Assets for rent, such as warehouses	4.1 HARN's shareholder: as follow; 4.1.1 Mrs. Sirima lamsakulrat, holding 14.01% of HARN, and holding 99.99% of Phraboriban 4.1.2 Mr. Jain Charnnarong (younger brother of Mrs. Sirima lamsakulrat), holding 11.79% of HARN, and holding 0.001% of Phraboriban 4.2 HARN's Director: as follow; 4.2.1 Mrs. Sirima lamsakulrat 4.2.2 Mr. Jain Charnnarong
5. Mr. Jain Charnnarong	-	Mr. Jain Charnnarong is the younger brother of Mrs. Sirima lamsakulrat, and as the Director holding 11.79% of HARN
6. Jainnopsiri Co., Ltd. ("Jainnopsiri")	Investment, development, and management of real estate and land and buildings, including trading and auction	6.1 HARN's shareholder: as follow; 6.1.1 Mrs. Sirima lamsakulrat, holding 14.01% of HARN, and holding 50% of Jainnopsiri 6.1.2 Mr. Jain Charnnarong (younger brother of Mrs. Sirima lamsakulrat), holding 11.79% of HARN, and holding 50% of Jainnopsiri 6.2 HARN's Director: as follow; 6.2.1 Mrs. Sirima lamsakulrat 6.2.2 Mr. Jain Charnnarong
7. Thawiphasura Co, Ltd. ("Thawiphasura")	Investment, development, and management of real estate and land and buildings, including trading and auction	7.1 HARN's shareholder: as follow; 7.1.1 Mrs. Sirima lamsakulrat, holding 14.01% of HARN, and holding 50% of Thawiphasura 7.1.2 Mr. Jain Charnnarong (younger brother of Mrs. Sirima lamsakulrat), holding 11.79% of HARN, and holding 40.99% of Thawiphasura 7.2 HARN's Director: as follow; 7.2.1 Mrs. Sirima lamsakulrat 7.2.2 Mr. Jain Charnnarong
8. Phumitharin Co., Ltd. ("Phumitharin")	Operate a restaurant and beverage business	8.1 Mrs. Valeeratn Chuerboonchai, holding 0.97% of HARN, and none holding of Phumitharin 8.2 HARN's Director as Mrs. Valeeratn Chuerboonchai
9. Aiyarafun Co., Ltd. ("Aiyarafun")	Service provider for software design and development, information technology, and computers	Aiyaraharn Co., Ltd., director has is Mr. Prasertsak Detchudom.

2.3 Sensibility of Connected Transactions

For years 2024, HARN and Subsidiaries engaged in key business transactions with subsidiaries with related parties. The transaction is necessary and reasonable as it is a normal business operation to support HARN's normal business. All related party transactions are based on market prices wherever available or in fair price comparable to transactions with other third parties. For transactions of employee benefit receivables, the price is referred to the employee benefit valuation by the actuary, when accepting employee transfers based on continuous years of service. The connected transactions the aforementioned, The Audit Committee considered, the opinion is needed and reasonable with fair price as well as being beneficial to HARN, as follow:

Connected transactions between HARN and Subsidiaries with individuals and Company with potential conflicts in 2024

Potential Conflicts	Type	Year 2024 (Unit : Baht)	Needed and Sensibility of Connected Transactions
1. Harn Vietnam Co., Ltd., ("Subsidiary")	1.1 Salse products	567,340	List of products related to printing equipment and the sales price set according to the sales policy
	1.2 Connected Loantransactions		<u>Loans</u> On March 12, 2020, HARN entered into a short-term loan agreement with Harn Vietnam in the amount of USD 200,000, and interest is charged at the rate of 6.15% per annum, with a one-year repayment. Later, on March 11, 2021, at the expiration of the agreement, HARN changed the condition of the loan term to the subsidiary for a period of 5 years. The agreement expires on March 11, 2026, with an interest rate of 5.85% per annum.
	- Long-term loans to related parties	6,765,920	
	- Accrued interest income	319,898	
	- Interest income	410,450	
2. Aiyaraharn Co. Ltd., ("Subsidiary")	2.1 Purchases products		HARN purchases goods from Aiyaraharn with an initial advance payment of 40%, while the remaining amount is recorded as trade payables pending payment. The transaction price is determined based on sales policy. This item appears in the consolidated financial statements.
	- Purchases products	788,425	
	- Deposit paid	161,504	
	- Trade payables	84,386	
	2.2 Connected Loan transactions		<u>Loans</u> As of December 31, 2024, HARN provided Aiyarahan with a 6-month promissory note short-term loan at an interest rate of 6.8676% - 7.1175% (based on MLR rates of four major commercial banks)
	- Short-term to related parties	3,550,000	
	- Accrued interest income	59,883	
	- Interest income	169,191	
	2.3 HARN for renting an office		<u>Office Building Rental and Service Contract</u> HARN agreed to rent the space on the 2nd floor, Room 211 of the office building no. 559 Soi Soonvijai 4, Rama 9 Road, Bangkapi Subdistrict, Huaykwang District, Bangkok, with a total area of 52 square meters, at the rental rate of Baht 15,600 and a service fee of Baht 10,400 per month. The rental period is from November 22, 2020, to October 31, 2022. On the contract date, the lessee paid the security deposits for the rental and service contract in the amounts of Baht 46, 800 and Baht 31,200, and the contract be renewed for 2 years from November 1, 2022 to October 31, 2024, the rate same as the original agreement. When the contract ends were renewed for another 3 years from November 1, 2024 to October 31, 2027. The rental rate has been adjusted to Baht 17,160, and the service fee is set at 11,440. Additionally, the contract security deposit and service agreement fee have been increased by Baht 4,680 and Baht 3,120, respectively.
	- Lease office income	190,320	
	- Office service income	126,880	
	- Utilities income	48,600	
	- Rental security deposit	51,480	
- Service security deposit	34,320		
- Accrued utilities income	3,401		
2.4 HARN provides HR and accounting services in accordance with financial reporting standards		<u>Service Contract</u> HARN agreed to provide staffing services, preparing salary and employee welfare, submitting documents according to the regulations of the Social Security Office, contacting government agencies related to personnel work, and preparing accounting records and financial statements in accordance with the financial reporting standards and the relevant provisions of the Revenue Code, including filing tax returns, VAT, withholding tax, and corporate income tax. These services are charged at 25,000 baht per month.	
- Service income	300,000		
3. Phraboriban Co., Ltd. ("Phraboriban")	HARN rented a warehouse form Phraboriban		<u>Warehouse Building Lease Agreement</u> HARN agreed to pay the rent for the warehouse space for use as a place for goods storage, assembly, and maintenance of printers and equipment. The total area is 356.38 square meters with the rental rate of Baht 64,080 per month, for the period from November 1, 2020 to October 31, 2023. The security deposit
	- Security deposit for building rental	150,000	
	- Interest expense	3,400,751	

Potential Conflicts	Type	Year 2024 (Unit : Baht)	Needed and Sensibility of Connected Transactions
	- Accrued building-related expenses	9,372	<p>under the contract was placed of Baht 150,000. Later, the lease agreement was extended from November 1, 2023 to April 30, 2024, the returned some of the space, remaining an area equal to 305.55 square meters, rent is Baht 60,895. And renewed for another 3 years from May 1, 2024 to April 30,2027,and the lessee the right to renew for an additional 3 years</p> <p>HARN is responsible for property insurance.</p> <p>Pricing: The market price by the rental rate is comparable to the rental price of nearby areas.</p> <p>Trend of Future Transaction: It is the transaction to be continued and in line with the office building lease agreement.</p> <p>The Audit Committee's Opinion: Such transaction is the rental of warehouse building space, which is necessary for HARN's business, and the rental rate is reasonable as the rental is comparable to the rental price of nearby areas.</p>
4. Jainnopsiri Co., Ltd. ("Jainnopsiri")	<p>4.1 Jainnopsiri assigns Aiyaraharn to implement the building office cooling control system.</p> <p>4.2 HARN rented an office from Jainnopsiri</p> <ul style="list-style-type: none"> - Rental deposit - Lease liabilities - Building-related expenses 	<p>231,066</p> <p>2,000,000</p> <p>104,479,786</p> <p>684,743</p>	<p>Aiyaraharn generates revenue from the installation of the building office cooling control system. This related transaction is reflected in the consolidated financial statements.</p> <p>Office Building Rental Contract</p> <p>HARN agreed to lease and pay the rent for the office building no. 559 Soi Soonvijai 4, Rama 9 Road, Bangkapi Subdistrict, Huaykwang District, Bangkok, with a total Net Leasable Area of 6,579.43 square meters at the rental rate of Baht 195.93 per square meter per month or equal to 857,220 baht per month. The rent term under the lease contract started from January 1, 2021 to December 31, 2023 (3 years), and renew the short-term lease agreement with a monthly rent of Baht 942,942 until April 30, 2024. And renewed for another 3 years from May 1, 2024 to April 30, 2027 and the Lessor promise the right to renew the lease agreement for another 7- year</p> <p>The said price is the rental rate close to the market price of renting office spaces with similar nature in nearby areas, which have a rental price of about Baht 500-550 per square meter per month. The security deposit for renting the building under this contract was placed of Baht 2,000,000. HARN is responsible for paying land and building taxes and maintaining buildings. and get property insurance.</p> <p>Pricing: The market price by the rental rate is comparable to the rental prices of nearby areas.</p> <p>Trend of Future Transaction: It is the transaction to be continued and in line with the building lease contract.</p> <p>The Audit Committee's Opinion: Such transaction is the space rental of the office building. The transaction is necessary to operate HARN's business and to serve as the location of HARN's office. The rental rate is also reasonable and comparable to the rental prices of the space in nearby areas.</p>
	<p>4.3 HARN office space for lease</p> <ul style="list-style-type: none"> - Office service income 	<p>89,100</p>	<p>Office Space Lease Agreement</p> <p>HARN has rented the office space at the office building no. 559 Soi Soonvijai 4, Rama 9 Road, Bangkapi Subdistrict, Huaykwang District, Bangkok, with a total area of 13.5 square meters at the rental rate of Baht 550 per square meter per month or equal to Baht 6,750 per month. The lease term starts from May 1, 2021, onwards.</p> <p>The said price is the rental rate close to the market price of the rental of office space of similar office buildings in nearby areas.</p>
5. Thawiphasura Co, Ltd. ("Thawiphasura")	<p>5.1 Accrued utilities income</p> <p>5.2 Electricity revenue</p> <p>5.3 Water revenue</p>	<p>3,998</p> <p>35,888</p> <p>13,800</p>	<p>HARN charges Thawipasura for electricity and water usage in warehouse areas owned of Thawipasura at a rate is Baht 7.5 per unit and Baht 20 per unit respectively (excluding value-added tax), which may increase based on increase future electricity costs.</p>
6. Phumitharin Co., Ltd.	6.1 Revenue from sale	2,800	HARN sale products of Fire suppression and projects system business.

Potential Conflicts	Type	Year 2024 (Unit : Baht)	Needed and Sensibility of Connected Transactions
7. Aiyarafun Co., Ltd. ("Aiyarafun")	7.1 Interest expenses	7,521	Aiyaraharn Company Limited (a subsidiary of HARN) has taken on a short-term loan in the form of promissory notes from Aiyarafun Co., Ltd., valid for 3 months, of Baht 250,000, with interest at the rate of 3% (referring to the interest rate of commercial banks, MRR-3% per annum). The loan is an unsecured loan. <u>These items related to short-term loans are reflected in the consolidated financial statements.</u>
	7.2 Accrued interest	11,610	
	7.3 Short-term loans	250,000	
8. Mr. Sathit Wanitchaikit	8.1 Interest expenses	6,859	Aiyarahan (subsidiary of HARN) borrowed short-term a loan from Mr. Satit Wanichaikij in the form of a promissory note, with a term of 1 year Baht 200,000 is charged interest at a rate of 2%, and in 2024 borrowed a loan more Baht 170,000 is charged interest at a rate of 2%. The loans are unsecured loans. <u>These items related to short-term loans are reflected in the consolidated financial statements.</u>
	8.2 Accrued interest	7,396	
	8.3 Short-term loans	370,000	

2.4 Opinion of Independent Director

The Independent Directors agreed with the Board of Directors.

2.5 Policy Relating to Future Connected Transactions

Future connected transactions between HARN and connected companies will be conducted as part of the normal course of business as before i.e., rent of office building space and warehouse building, including the right of employee benefit receivables benefit as before, no special favors and no transfer of benefits between HARN and subsidiaries. For the pricing policy between HARN and connected companies, the price of products or feedstock purchased will be set in agreement and or linked to market prices. The Audit Committee shall review and give opinions on the related party transactions with general commercial conditions or in support of the normal business on a quarterly basis.

To enter into connected transactions in future, the Board shall comply with the securities and exchange law, provisions or notifications or stipulations of the Capital Market Supervisory Board and the Stock Exchange of Thailand, and abide by the regulations regarding disclosure of related party transaction information of HARN or subsidiaries in accordance with the Thai Accounting Standards and Thai Financial Reporting Standards by the Federation of Accounting Professions under the Royal Patronage of His Majesty the King.

2.6 Appraisal Price for Connected Transactions

The criteria used for the determination of the lease agreement above are market comparable and cost methods, respectively, reference the asset appraisal report no.1 the appraised value of the warehouse building lease rent is Baht 200 per square meters and the office building lease rent is Baht 500 per square meters, was done by CPM Capital Company Limited on January 23, 2024, No. A66GEN2662, and the asset appraisal report no.2 the appraised value of the warehouse building lease rent is Baht 200 per square meters and the office building lease rent

is Baht 550 per square meters, was done by Bangkok Property Appraisal Company Limited on February 2, 2024 No. BKK-B-67-002, and January 30, 2024 no. BKK-B-67-003, both of these companies that assesses the value of assets in the capital market and has been approved by the Securities and Exchange Commission, according to the Notification of the Securities and Exchange Commission No. SorChor. 24/2555 regarding approval of asset valuation companies and major appraiser for capital market transactions.

ส่วนที่ 3

งบการเงิน และรายงานทางการเงิน



Section 3 Financial Reports and Financial Statements

The Board is responsible for the financial report of Harn Engineering Solutions Public Company Limited (“HARN”) (previously known as Fire Victor Public Company Limited) and Subsidiary including financial information prepared in accordance with The Thai Accounting Standards and Thai Financial Reporting Standards under Accounting Act, B.E. 2543 (2000) and accounting interpretations and practices enforced by the Federation of Accounting Professions under the Royal Patronage of His Majesty the King, and pursuant to the regulations of the Securities and Exchange Commission (SEC) regarding preparation and presentation of financial report under the Securities and Exchange Act, taking into consideration appropriate and consistent accounting policies and accordance Financial Reporting Standards, as well as careful judgments and reasonable reporting in the preparation of the financial report, including adequate disclosure of important information in the Notes to Financial Statements according to the Report of Independent Auditor, for transparent use by shareholders and investors at large.

The Board has established and maintained good corporate governance and an effective risk management and internal control systems to reasonably ensure that the accounting information is correctly, completely and timely recorded, and

adequate to sustain HARN assets and prevent fraud and material act of irregularities.

The Board has appointed an Audit Committee comprising Independent Directors to oversee and review the reliability of the accuracy financial reports and the adequacy of internal control, risk management and internal audit to ensure effectiveness. The Audit Committee opinions on these issues. **Details in Section 4, Attachment 6 performance report of the board-committees, “Item 6.1 report of the audit committee”, page 253**

The Board is of the opinion that the HARN’s overall internal control system is satisfactory and can reasonably ensure that the financial statements of Harn Engineering Solutions Public Company Limited and Subsidiary for the year for the year ended December 31, 2024 exhibit its financial position, operating results and cash flows accurately and appropriately in material aspects in accordance with the Thai Financial Reporting Standards, and the audit of which has been performed by the Independent Auditor according to the auditing standards with opinion given unconditionally to the financial statements in the Report of Independent Auditor presented in this Annual Registration Statement / Annual Report 2024 (Form 56-1 One Report).

Mr. Pichet Sithi-Amnual
Chairman of the Board

Mr. Thammanoon Tripetchr
Chief Executive Officer

Independent Auditor's Report

To The Shareholders of Harn Engineering Solutions Public Company Limited

Opinion

I have audited the consolidated financial statements of Harn Engineering Solutions Public Company Limited and its subsidiaries (“the Group”), and the separate financial statement of Harn Engineering Solutions Public Company Limited (“the Company”) which comprise the consolidated and separate statements of financial position as at December 31, 2024, the consolidated and separate statements of total comprehensive income, changes in shareholders’ equity and cash flows for the year then ended, and notes to the consolidated financial statements and notes to the separate financial statements, including a summary of significant accounting policies.

In my opinion, the consolidated and separate financial statements referred the consolidated and separate statements of financial position of Harn Engineering Solutions Public Company Limited and its subsidiaries as at December 31, 2024, and their financial performance and cash flows for the year then ended in accordance with Thai Financial Reporting Standards.

Basis for Opinion

I conducted my audit in accordance with Thai Standards on Auditing. My responsibilities under those standards are further described in the Auditor’s responsibilities for the audit of the consolidated and separate financial statements in my report.

I am independent of the Group and the Company in accordance with the Code of Ethics for Professional Accountants including Independence Standards issued by the Federation of Accounting Professions (“Code of Ethics for Professional Accountants”) as relevant to my audit of the financial statements, and I have fulfilled my other ethical responsibilities in accordance with the Code of Ethics for Professional Accountants. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my opinion.

Key Audit Matters

Key audit matters are those matters that, in our professional judgment, were of most significance in my audit of the consolidated financial statements and separate financial statements of the current period. These matters were addressed in the context of my audit of the consolidated financial statements and separate financial statements as a whole, and in forming my opinion thereon, and I do not provide a separate opinion on these matters.

Key audit matter and how audit procedures respond to this matter are described below.

1.Revenue from sales and service

The Group and the Company had revenue from sales and service derived from five main business segments which are fire protection and projects, sanitary and air-conditioning systems, cold storage devices digital printing system and building-IoT solutions, for the year ended December 31, 2024 amounting to Baht 1,239.04 million and Baht 1,231.26 million, respectively, which have different terms and pricing conditions. The estimate of a performance obligation under the project agreement has an effect on the revenue that the Group and the Company recognized over time, which it has to recognize by the measuring progress towards complete satisfaction of a performance obligation as at December 31, 2024. I have identified that accuracy and completeness of revenue recognition from sales and service carries significant risk and requires special attention in the audit. The Group and the Company had disclosed its accounting policy of revenue from sales and service recognition and detail of revenue from sales and service in the notes to the financial statement No. 4.16 and 25, respectively.

My audit approach on such matter includes understanding the revenue recognition process and internal control related to the revenue recognition, reviewing the design and implementation of the internal control procedures for such matter, performing the operating effectiveness testing over the internal control procedures around revenue recognition process, and performing substantive testing which consists of examining terms and conditions of the sales and services agreements and examining the related supporting documents of those revenues, examining the supporting documents for the revenue from sales and services transactions that occurred during the year and near the end of the accounting period, examining credit notes issued after the end of the accounting period, and performing analytical review and test of detail relating to the revenue from sales and services.

2. Goodwill

The Group and the Company had goodwill of Baht 315.97 million and Baht 315.97 million or 17.56% and 17.56% of total assets as at December 31, 2024, respectively, which is the goodwill arising from the acquisition and transfer of the entire business, which is the cold storage devices segment and digital printing system segment. The Group and the Company have to test goodwill for impairment annually in accordance with the Thai Financial Reporting Standards. The test of impairment is significant to the audit as the amount has materiality to the financial statements. In addition, the procedure of impairment testing by the management is complex and requires using considerable judgment as well as relying on assumptions, especially the estimates of future cash flows to be received and paid that are expected to generate from the continuing operation of the cash generating unit, and the use of appropriate discount rate in order to discount future cash flow which can change according to the economic conditions and market conditions in the future. The Group and the Company have disclosed goodwill in the notes to the financial statements No. 4.10 which describes the accounting policies and No.15 which describes the amount and key assumptions that may affect the impairment in the future.

In my audit approach, I have considered the reasonableness of the assumptions and methods used by the management in calculating the estimates of future cash flows to be received and paid that are expected to be generated by auditing the supporting evidence which presents the best estimate of the management, especially on the revenue forecast and gross profit and profit from operation of the business segments of the Company, the use of appropriate discount rate to discount future cash flow, as well as testing the calculation of the recovery amount. In addition, I have paid attention on the adequacy of the information disclosure relating to the assumptions which are most sensitive that may affect the testing result of impairment and has significant effect on the measurement of recovery amount of goodwill.

Other Matter

The consolidated and separate financial statements of Harn Engineering Solutions Public Company Limited and its subsidiaries for the year ended December 31, 2023, presented for comparative purpose, were audited by another auditor who expressed an unqualified opinion on those statements on February 28, 2024.

Other Information

Management is responsible for the other information. The other information comprises the information included in the annual report but does not include the financial statements and my auditor's report thereon. The annual report is expected to be made available to me after the date of this auditor's report.

My opinion on the financial statements does not cover the other information and I will not express any form of assurance conclusion thereon.

In connection with my audit of the financial statements, my responsibility is to read the other information identified above when it becomes available and, in doing so, consider whether the other information is materially inconsistent with the financial statements or my knowledge obtained in the audit, or otherwise appears to be materially misstated.

When I read the annual report, if I conclude that there is a material misstatement therein, I am required to communicate the matter to those charged with governance in order for those charged with governance to correct the misstatement.

Responsibilities of Management and Those Charged with Governance for the Consolidated and Separate, Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements and separate financial statements in accordance with Thai Financial Reporting Standards, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements and separate financial statements, management is responsible for assessing the Group's and the Company's ability to continue as a going concern, disclosing, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Group and the Company or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Group's and the Company's financial reporting process.

Auditor's Responsibilities for the Audit of the Consolidated and Separate, Financial Statements

My objectives are to obtain reasonable assurance about whether the consolidated financial statements and separate financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes my opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Thai Standards on Auditing will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements and separate financial statements.

As part of an audit in accordance with Thai Standards on Auditing, I exercise professional judgment and maintain professional skepticism throughout the audit. I also:

- Identify and assess the risks of material misstatement of the consolidated financial statements and separate financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's and the Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's and the Company's ability to continue as a going concern. If I conclude that a material uncertainty exists, I am required to draw attention in my auditor's report to the related disclosures in the consolidated financial statements and separate financial statements or, if such disclosures are inadequate, to modify my opinion. My conclusions are based on the audit evidence obtained up to the date of my auditor's report. However, future events or conditions may cause the Group and the Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements and separate financial statements, including the disclosures, and whether the consolidated financial statements and separate financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. I am responsible for the direction, supervision and performance of the group audit. I remain solely responsible for my audit opinion.

I communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that I identify during my audit.

I also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on my independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, I determine those matters that were of most significance in the audit of the consolidated financial statements and separate financial statements of the current period and are therefore the key audit matters. I describe these matters in my auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, I determine that a matter should not be communicated in my report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

I am responsible for the audit resulting in this independent auditor's report.



Mr. Jadesada Hungsapruerk
Certified Public Accountant Registration No. 3759
Karin Audit Company Limited,
Bangkok
February 27, 2025

Financial Statements

HARN ENGINEERING SOLUTIONS PUBLIC COMPANY LIMITED AND ITS SUBSIDIARIES

STATEMENT OF FINANCIAL POSITION

AS AT DECEMBER 31, 2024

(Unit : Thousand Baht)

	Not	Consolidated financial statements		Separate financial statements	
		December 31, 2024	December 31, 2023	December 31, 2024	December 31, 2023
Assets					
Current assets					
Cash and cash equivalents	6	293,471	340,190	286,610	334,819
Trade and other current receivables	7	321,355	286,826	321,260	286,791
Current contract assets	8	17,238	23,196	17,238	22,735
Short - term loans to related parties	5	-	-	-	1,000
Inventories	9	323,139	316,103	322,026	315,165
Other current financial assets	10	115,644	50,418	115,644	50,418
Current tax assets		45	80	-	-
Other current assets		604	237	508	204
Total current assets		1,071,496	1,017,050	1,063,286	1,011,132
Non - current assets					
Investment in subsidiaries	11	-	-	2,357	2,357
Trade and other non-current receivables	7	2,760	11,003	2,760	11,003
Long-term loans to related parties	5	-	-	6,766	6,812
Investment property	12	165,802	162,846	165,802	162,846
Property, plant and equipment	13	100,605	105,898	100,500	105,784
Right - of - use assets	14	86,930	64,109	86,930	64,109
Goodwill	15	315,971	334,672	315,971	334,672
Intangible assets	16	7,688	11,511	7,688	11,511
Deferred tax assets	17	19,002	17,309	18,633	17,118
Other non - current assets		29,494	29,616	29,085	29,240
Total non - current assets		728,252	736,964	736,492	745,452
Total assets		1,799,748	1,754,014	1,799,778	1,756,584

HARN ENGINEERING SOLUTIONS PUBLIC COMPANY LIMITED AND ITS SUBSIDIARIES

STATEMENT OF FINANCIAL POSITION (CONT.)

AS AT DECEMBER 31, 2024

(Unit : Thousand Baht)

	Not	Consolidated financial statements		Separate financial statements	
		December 31, 2024	December 31, 2023	December 31, 2024	December 31, 2023
Liabilities and Shareholders' equity					
Current liabilities					
Trade and other current payables	18	229,018	212,150	227,518	211,346
Current portion of lease liabilities	19	8,952	10,443	8,952	10,443
Short - term borrowings from related persons or parties	5	620	450	-	-
Corporate income tax payable		15,515	13,083	15,496	13,083
Other current provisions		1,756	1,728	1,662	1,573
Other current liabilities		1,128	1,907	1,117	1,908
Total current liabilities		256,989	239,761	254,745	238,353
Non - current liabilities					
Lease liabilities	19	99,546	70,061	99,546	70,061
Non - current provisions for employee benefit	20	36,906	34,036	36,449	33,700
Other non - current liabilities		28,304	26,975	28,304	26,975
Total non - current liabilities		164,756	131,072	164,299	130,736
Total liabilities		421,745	370,833	419,044	369,089
Shareholders' equity					
Share capital					
Authorized share capital					
584,500,000 ordinary shares of Baht 0.50 each		292,250	292,250	292,250	292,250
Issued and paid-up share capital					
584,500,000 ordinary shares of Baht 0.50 each		292,250	292,250	292,250	292,250
Share premium on ordinary shares		776,417	776,417	776,417	776,417
Surplus on share-based payment transaction	21	1,341	5,000	1,341	5,000
Retained earnings					
Appropriated for legal reserve	22	29,225	29,225	29,225	29,225
Unappropriated		280,661	280,738	281,501	284,603
Total other components of shareholders' equity		(572)	(213)	-	-
Shareholders' equity of the parent company		1,379,322	1,383,417	1,380,734	1,387,495
Non - controlling interests		(1,319)	(236)	-	-
Total shareholders' equity		1,378,003	1,383,181	1,380,734	1,387,495
Total liabilities and shareholders' equity		1,799,748	1,754,014	1,799,778	1,756,584

HARN ENGINEERING SOLUTIONS PUBLIC COMPANY LIMITED AND ITS SUBSIDIARIES
STATEMENTS OF TOTAL COMPREHENSIVE INCOME
FOR THE YEAR ENDED DECEMBER 31, 2024

	Note	(Unit : Thousand Baht)			
		Consolidated financial		Separate financial	
		2024	2023	2024	2023
Revenues					
Revenues from sales		1,071,585	1,135,583	1,065,123	1,129,147
Services revenue		167,458	164,038	166,133	162,023
Other income		32,455	26,606	33,420	27,432
Total revenues		<u>1,271,498</u>	<u>1,326,227</u>	<u>1,264,676</u>	<u>1,318,602</u>
Expenses					
Cost of sales		750,931	770,126	746,950	765,704
Cost of services		141,053	138,481	140,340	137,105
Distribution cost		114,901	118,284	113,161	116,452
Administrative expenses		130,812	151,634	129,108	150,103
Total expenses		<u>1,137,697</u>	<u>1,178,525</u>	<u>1,129,559</u>	<u>1,169,364</u>
Profit (loss) from operating activities		<u>133,801</u>	<u>147,702</u>	<u>135,117</u>	<u>149,238</u>
Financial costs		2,758	2,918	2,744	2,907
Expected loss (gain) from reversal of credit loss		968	2,758	4,080	2,424
Loss from impairment of goodwill	15	18,701	-	18,701	-
Profit (loss) before income tax expense		<u>111,374</u>	<u>142,026</u>	<u>109,592</u>	<u>143,907</u>
Tax expense (income)	17.2	24,859	28,853	25,019	28,790
Profit (loss) for the year		<u>86,515</u>	<u>113,173</u>	<u>84,573</u>	<u>115,117</u>
Other comprehensive income (expense) for the year					
Components of other comprehensive income that will be reclassified to profit or loss:					
Exchange differences on translating financial statement		(359)	(235)	-	-
		<u>(359)</u>	<u>(235)</u>	<u>-</u>	<u>-</u>
Components of other comprehensive income that will not be reclassified to profit or loss:					
Gains on re-measurements of defined benefit plans, net of tax		-	(1,369)	-	(1,369)
		<u>-</u>	<u>(1,369)</u>	<u>-</u>	<u>(1,369)</u>
Other comprehensive income (expense) for the year, net of tax		<u>(359)</u>	<u>(1,604)</u>	<u>-</u>	<u>(1,369)</u>
Total comprehensive income (expense) for the year		<u>86,156</u>	<u>111,569</u>	<u>84,573</u>	<u>113,748</u>
Profit (loss) attributable to					
Owners of parent		87,598	114,041	84,573	115,117
Non – controlling interests		(1,083)	(868)	-	-
		<u>86,515</u>	<u>113,173</u>	<u>84,573</u>	<u>115,117</u>
Total comprehensive income (expense) attributable to					
Owners of parent		87,239	112,437	84,573	113,748
Non - controlling interests		(1,083)	(868)	-	-
		<u>86,156</u>	<u>111,569</u>	<u>84,573</u>	<u>113,748</u>
Basic earnings (loss) per share					
Profit attributable to owners of the parent	27	0.15	0.20	0.14	0.20
Weighted average number of common shares (Thousand Share)		<u>584,500</u>	<u>584,500</u>	<u>584,500</u>	<u>584,500</u>

HARN ENGINEERING SOLUTIONS PUBLIC COMPANY LIMITED AND ITS SUBSIDIARIES
STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY
FOR THE YEAR ENDED DECEMBER 31, 2024

(Unit : Thousand Baht)

		Consolidated financial statements										
		Equity attributable to owners of the parent					Other components of shareholders' equity					
		Other surpluses (deficits)		Retained earnings (loss)			Exchange differences on translating financial statements		Profit and loss from actuarial estimates		Non-controlling interest	Total
		Share premium	Share-based payment transaction	Appropriated legal reserve	Unappropriated legal reserve	Unappropriated financial statements	differences on translating financial statements	from actuarial estimates	to owners of the company	of the company	interest	Total
Note	Issued and paid share capital	776,417	6,028	29,225	244,051	22	-	-	1,347,993	632	1,348,625	
	Balance as at January 1, 2023	292,250	776,417	6,028	29,225	244,051	22	-	1,347,993	632	1,348,625	
	Changes in shareholders' equity for the year 2023 :											
	Dividend	-	-	-	-	(75,985)	-	-	(75,985)	-	(75,985)	
	Employee joint investment program expenses	-	-	-	-	-	-	-	4,463	-	4,463	
	Treasury shares	-	-	-	-	-	-	-	(5,491)	-	(5,491)	
	Total comprehensive income for the year	-	-	-	-	114,041	(235)	(1,369)	112,437	(868)	111,569	
	Total comprehensive income (expense) for the year	-	-	-	-	114,041	(235)	(1,369)	112,437	(868)	111,569	
	Transferred to accumulated profits (losses)	-	-	-	-	(1,369)	-	1,369	-	-	-	
	Balance as at December 31, 2023	292,250	776,417	5,000	29,225	280,738	(213)	-	1,383,417	(236)	1,383,181	
	Changes in shareholders' equity for the year 2024 :											
	Dividend	-	-	-	-	(87,675)	-	-	(87,675)	-	(87,675)	
	Employee joint investment program expenses	-	-	-	-	-	-	-	2,196	-	2,196	
	Treasury shares	-	-	-	-	-	-	-	(5,855)	-	(5,855)	
	Total comprehensive income (expense) for the year	-	-	-	-	87,598	(359)	-	87,239	(1,083)	86,156	
	Balance as at December 31, 2024	292,250	776,417	1,341	29,225	280,661	(572)	-	1,379,322	(1,319)	1,378,003	

HARN ENGINEERING SOLUTIONS PUBLIC COMPANY LIMITED AND ITS SUBSIDIARIES
STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY
FOR THE YEAR ENDED DECEMBER 31, 2024

(Unit : Thousand Baht)

	Separate financial statements										
	Note	Issued and paid share capital	Share premium	Surplus on			Retained earnings		Other components of shareholders' equity		Total
				Share – based payment transaction	Appropriated legal reserve	Unappropriated	Profit and loss from actuarial estimates	shareholders' equity	shareholders' equity		
Balance as at January 1, 2023		292,250	776,417	6,028	29,225	246,840	-	-	-	1,350,760	
Changes in shareholders' equity for the year 2023 :											
Dividend	23	-	-	-	-	(75,985)	-	-	-	(75,985)	
Employee joint investment program expenses	21	-	-	4,463	-	-	-	-	-	4,463	
Treasury shares	21	-	-	(5,491)	-	-	-	-	-	(5,491)	
Total comprehensive income for the year		-	-	-	-	115,117	-	(1,369)	-	113,748	
Total comprehensive income (expense) for the period		-	-	-	-	(1,369)	-	1,369	-	-	
Transferred to accumulated profits (losses)		-	-	-	-	284,603	-	-	-	284,603	
Balance as at December 31, 2023		292,250	776,417	5,000	29,225	284,603	-	-	-	1,387,495	
Changes in shareholders' equity for the year 2024 :											
Dividend	23	-	-	-	-	(87,675)	-	-	-	(87,675)	
Employee joint investment program expenses	21	-	-	2,196	-	-	-	-	-	2,196	
Treasury shares	21	-	-	(5,855)	-	-	-	-	-	(5,855)	
Total comprehensive income (expense) for the period		-	-	-	-	84,573	-	-	-	84,573	
Balance as at December 31, 2024		292,250	776,417	1,341	29,225	281,501	-	-	-	1,380,734	

HARN ENGINEERING SOLUTIONS PUBLIC COMPANY LIMITED AND ITS SUBSIDIARIES

STATEMENT OF CASH FLOWS

FOR THE YEAR ENDED DECEMBER 31, 2024

(Unit : Thousand Baht)

	Note	Consolidated financial		Separate financial	
		2024	2023	2024	2023
CASH FLOWS FROM OPERATING ACTIVITIES					
Profit (loss) before income tax expense		111,374	142,026	109,592	143,907
Adjusted to reconcile profit (loss) before income tax expense to net cash provided (paid)					
Expected credit losses (reversal)		(1,008)	(3,545)	2,105	(3,876)
Loss from impairment of goodwill		18,701	-	18,701	-
Depreciation and amortization		28,520	29,168	28,481	29,126
Amortization of customer relationship		-	12,623	-	12,623
Loss on devaluation of inventories (reversal)		3,788	(7,759)	3,685	(7,094)
(Profit) Loss on disposals of equipment		1,086	201	1,086	184
Unrealized (gain) loss on exchange rate		471	142	521	208
Unrealized (gain) loss on revaluation of other current financial assets		(21)	12,328	(21)	12,328
Interest income		(3,561)	(1,040)	(4,134)	(1,446)
Dividend income		(3,694)	(3,247)	(3,694)	(3,247)
Other current provisions		27	(582)	88	(686)
Employee's benefit expenses		3,471	2,706	3,349	2,617
Employee Joint Investment Program expenses		2,196	3,603	2,196	3,603
Finance cost		2,758	2,918	2,744	2,907
Profit from operations before changes in assets and operating liabilities		164,108	189,542	164,699	191,154
Assets from operating (increase) decrease					
Trade and other current receivables		(24,628)	(19,690)	(24,549)	(19,929)
Current contract assets		5,511	(10,344)	5,513	(11,817)
Inventories		(14,266)	135,250	(13,996)	133,984
Other current assets		(367)	256	(304)	238
Other non-current assets		199	(170)	154	(248)
Liabilities from operating increase (decrease)					
Trade and other current payables		16,695	(59,036)	16,034	(56,101)
Other current liabilities		(779)	(763)	(789)	(763)
Other non-current liabilities		1,329	249	1,329	249
Net cash provided by (used in) operating		147,802	235,294	148,091	236,767
Paid to provisions for employee benefits		(600)	(1,147)	(600)	(1,147)
Paid to employee joint investment program expenses		(5,855)	(5,491)	(5,855)	(5,491)
Income tax paid		(24,165)	(31,049)	(24,122)	(30,968)
Net cash provided by (used in) operating activities		117,182	197,607	117,514	199,161

HARN ENGINEERING SOLUTIONS PUBLIC COMPANY LIMITED AND ITS SUBSIDIARIES

STATEMENT OF CASH FLOWS (CONT.)
FOR THE YEAR ENDED DECEMBER 31, 2024

(Unit : Thousand Baht)

	Note	Consolidated financial		Separate financial	
		2024	2023	2024	2023
CASH FLOWS FROM INVESTING ACTIVITIES					
Cash paid to provide short-term loans to related companies		-	-	(2,550)	(1,000)
Cash paid to purchase investments in other current financial assets		(64,443)	(15,838)	(64,443)	(15,838)
Cash receipts from redemption of other current financial assets		-	50,000	-	50,000
Cash paid to purchase equipment		(4,404)	(7,994)	(4,375)	(7,963)
Cash received from disposal of equipment		154	616	154	597
Cash paid to purchase intangible assets		(1,346)	(3,466)	(1,346)	(3,466)
Interest received		2,595	858	3,124	1,254
Divident received		3,694	3,247	3,694	3,247
Net cash provided by (used in) investing activities		(63,750)	27,423	(65,742)	26,831
CASH FLOWS FROM FINANCING ACTIVITIES					
Cash paid for repayment of borrowings from related companies and related persons		-	(750)	-	-
Cash received from borrowings from related companies and related persons		170	700	-	-
Cash paid from lease liabilities		(9,624)	(9,337)	(9,624)	(9,337)
Interest expense		(2,744)	(2,111)	(2,744)	(2,047)
Divident expense		(87,613)	(75,985)	(87,613)	(75,985)
Net cash provided by (used in) financing activities		(99,811)	(87,483)	(99,981)	(87,369)
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS					
		(46,379)	137,547	(48,209)	138,623
Cash and cash equivalents at beginning of year	6	340,190	202,861	334,819	196,196
Effect of translation adjustment on foreign currency financial statements		(340)	(218)	-	-
CASH AND CASH EQUIVALENTS END OF YEAR	6	293,471	340,190	286,610	334,819
Addition cash flow disclosures :					
Non-cash transaction					
Liabilities incurred from acquisition of equipment and intangible assets					
Liabilities incurred from acquisition of equipment and intangible assets - beginning of year					
		672	515	672	515
Inventories transferred to equipment		(3,450)	(2,260)	(3,450)	(2,260)
<u>Add</u> Purchases of equipment and intangible assets		8,802	13,876	8,773	13,846
<u>Less</u> Cash payments		(5,750)	(11,459)	(5,721)	(11,429)
Liabilities incurred from acquisition of fixed assets and intangible assets - ending of year		274	672	274	672
Right-of-use asset transferred to investment property		-	11,606	-	11,606

Notes to the Financial Statements

HARN ENGINEERING SOLUTIONS PUBLIC COMPANY LIMITED AND ITS SUBSIDIARIES

DECEMBER 31, 2024

1. GENERAL INFORMATION

Harn Engineering Solutions Public Company Limited (“the Company”) was registered as a juristic person incorporated in Thailand according to the Civil and Commercial Code on May 9, 2001, and was transformed into a Public Limited Company on May 22, 2014, The registered office at 559 Soi Soonvijai 4, Rama 9 Road, Bangkapi, Huaykwang, Bangkok.

The principal business is involved in wholesaling, retailing, and repairing, renting, leasing and installation services of fire protection system and fire suppression agent including equipment and fire extinguishing chemicals, trading cold storage devices, trading, repairing and renting of printing equipment. And subsidiaries operate the main business related to the selling of printing equipment and provide Smart Building Business Solution or Smart Building.

2. BASIS FOR THE PREPARATION OF FINANCIAL STATEMENTS

2.1 Statement of compliance

The financial statements are prepared in accordance with Thai Financial Reporting Standards (“TFRS”) including related interpretations and guidelines promulgated by the Federation of Accounting Professions (FAP); applicable rules and regulations of the Thai Securities and Exchange Commission. The financial statements issued for Thai reporting purposes are prepared in the Thai language. This English translation of the financial statements has been prepared for the convenience of readers not conversant with the Thai language.

2.2 Basis of measurement

The financial statements have been prepared on the historical cost basis (except where otherwise disclosed in the accounting policies).

2.3 Functional and presentation currency

The financial statements are prepared and presented in Thai Baht. All financial information presented in Thai Baht has been rounded to the nearest thousand or million unless otherwise stated.

2.4 Significant accounting judgment and estimates

The preparation of financial statements in conformity with TFRS at times requires management to make subjective judgments and estimates regarding matters that are inherently uncertain. These judgments and estimates affect reported amounts and disclosures and actual results could differ.

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized with the different method immediately.

2.5 Basis for the preparation of consolidated financial statements

a) The consolidated financial statements have included the financial statements of Harn Engineering Solutions Public Company Limited (“the Company”) and its subsidiaries (“the Subsidiaries”) (collectively as “the Group”) as follows;

Company name	Type of business	Country of establishment	Percentage of shareholding	
			2024	2023
			%	%
Harn Vietnam Co., Ltd.	Printing equipment	Vietnam	100	100
Aiyaraharn Co., Ltd.	Building-Solutions	Thailand	65	65

- b) The Company is deemed to have control over an investee or subsidiary if it has rights, or is exposed, to variable returns from its involvement with the investee, and it has the ability to direct the activities that affect the amount of its returns.
- c) The financial statements of the subsidiaries are included in the consolidated financial statements from the date that control commences until the date that control ceases.
- d) The financial statements of the subsidiaries are prepared using the same significant accounting policies as the Company.
- e) Material balances and transactions between the Group have been eliminated from the consolidated financial statements.
- f) Non-controlling interests represent the portion of profit or loss and net assets of the subsidiaries that are not held by the Company. They are presented separately in consolidated profit or loss and shareholders' equity in the consolidated statement of financial position.

2.6 The Company prepared separate financial statements by presenting investments in subsidiaries under the cost method.

3. SIGNIFICANT ACCOUNTING POLICIES

3.1 Financial reporting standards that became effective in the current year

During the year, the Group has adopted the revised financial reporting standards and interpretations which are effective for fiscal years beginning on or after January 1, 2024. These financial reporting standards were aimed at alignment with the corresponding International Financial Reporting Standards with most of the changes directed towards clarifying accounting treatment and providing accounting guidance for users of the standards.

The adoption of these financial reporting standards does not have any significant impact on the Group's financial statements.

3.2 Financial reporting standards that became effective for fiscal years beginning on or after January 1, 2025

The Federation of Accounting Professions issued a number of revised financial reporting standards, which are effective for fiscal years beginning on or after January 1, 2025. These financial reporting standards were aimed at alignment with the corresponding International Financial Reporting Standards with most of the changes directed towards clarifying accounting treatment and, for some standards, providing temporary reliefs or temporary exemptions for users.

The adoption of these financial reporting standards does not have any significant impact on the Group's financial statements.

4. SIGNIFICANT ACCOUNTING POLICIES

4.1 Business combinations

The Group apply the acquisition method for all business combinations except for the business combination under common control.

The Group' control is achieved when the Company (1) has power over the investee (2) is exposed, or has rights, to variable returns from its involvement with the investee and (3) has the ability to exercise power over the investee causing an impact on the amount of return of the investor; When conditions or situations indicate that One of the above controls has changed. The Company will reconsider its control over the controlled entity.

Goodwill is measured as the fair value of the consideration transferred including the recognized amount of any non-controlling interest in the acquiree, less the net recognized amount (fair value) of the identifiable assets acquired and liabilities assumed, all measured as of the acquisition date. Consideration transferred includes the fair values of the assets transferred, liabilities incurred by the Group to the previous owners of the acquiree, and equity interests issued by the Group. Consideration transferred also includes the fair value of any contingent consideration and share-based payment awards of the acquiree that are replaced mandatorily in the business combination.

Contingent liability of the acquiree is assumed in a business combination only if such a liability represents a present obligation and arises from a past event, and its fair value can be measured reliably.

The Group measure any non-controlling interest at its proportionate interest in the identifiable net assets of the acquiree.

Transaction costs that the Group incur in connection with a business combination, such as legal fees, and other professional and consulting fees are expensed as incurred.

4.2 Foreign currencies

Transactions in foreign currencies are translated to Thai Baht at the foreign exchange rates ruling at the dates of the transactions.

Monetary assets and liabilities denominated in foreign currencies at the reporting date are translated to Thai Baht at the foreign exchange rates ruling at that date. Foreign exchange differences arising on translation are recognized as profit or loss in statement of profit or loss and other comprehensive income.

Non-monetary assets and liabilities measured at cost in foreign currencies are translated to Thai Baht using the foreign exchange rates ruling at the dates of the transactions.

4.3 Financial instruments

4.3.1 Classification and measurement of financial assets

Financial assets are classified, at initial recognition, as to be subsequently measured at amortized cost, fair value through other comprehensive income, or fair value through profit or loss. The classification of financial assets at initial recognition is driven by the Group's business model for managing the financial assets and the contractual cash flows characteristics of the financial assets.

Equity instruments can be classified and cannot be changed by two types of measurement which are measuring fair value through profit or loss or measuring fair value through other comprehensive income that without recycling to profit or loss.

The initial recognition of financial assets that are not measured at fair value through profit or loss with fair value plus or deduct transaction cost directly related to the acquisition or issuance. Financial assets that are measured at fair value through profit or loss, transaction costs are recognized as expense in profit or loss.

Subsequent measurement of debt instruments by 3 methods depends on the classification of debt instruments.

- 1) Financial assets measured at amortized cost when financial assets are held to receive cash flow under the agreement and condition of the agreement of the financial assets that generate cash flow to pay the principal and interest from the principal balance on the specified date only. Such financial assets have to be calculated using the effective rate and are subject to impairment assessment. Profit or loss arising from derecognized, modified or impaired will be recognized in profit or loss.
- 2) Financial assets measured at fair value through other comprehensive income when financial assets are held to receive cash flow under the agreement and to sell financial assets and the agreement condition of financial assets generating cash flow that only pays the principal and interest from the principal balance on the specified date. The change of value of financial assets is recognized through other comprehensive income except loss on impairment and interest income and gain and loss on exchange rate are recognized as profit or loss upon recognized of financial assets. Earning or deficit previously recognized in other comprehensive income has to be reclassified into profit or loss. Such financial asset has to be calculated using the effective interest rate same as financial assets measured at amortized cost.
- 3) Financial assets measured at fair value through profit or loss when financial assets that do not meet the criteria for amortized cost or financial assets measured at fair value through other comprehensive income will be presented in the statement of financial position at fair value by recognizing the net change of fair value in profit or loss.

Subsequent valuation of equity instruments must present equity instruments using the fair value and record profit/loss from change in fair value through profit or loss or other comprehensive income depending on equity instruments classification.

4.3.2 Classification and valuation of financial liabilities

The Group are recognized initially of financial liabilities at fair value net of transaction costs and classified as financial liabilities as financial liabilities subsequently measured at amortized cost using the effective rate. The amortized cost is calculated taking into account fees or costs that are an integral part of the effective rate. Amortization by the effective rate is presented as part of financial costs in profit or loss.

4.3.3 Derecognition of financial instruments

Financial assets will be derecognized from the account when the right to receive cash flow of such asset has ended or when the right to receive cash flow of the assets is transferred including upon the transfer of all risk and consideration of that asset or transfer of internal control in that asset although there is no transfer or maintaining of nearly all risk and consideration of such asset.

Financial liabilities will be derecognized from the account when the obligation of such liabilities has been complied, the obligation is cancelled or the obligation has ended. In case existing financial liabilities are changed to new liabilities from one single lender with considerably different requirements or there is a significant amendment in the requirements of existing liabilities, these are considered as recognition old liabilities and recognizing new liabilities by recognizing the difference of such carrying value under profit or loss.

4.3.4 Impairment of financial assets

Expected credit loss for financial assets measured at amortized cost or debt instrument financial asset measured at fair value through other comprehensive income and assets arising from credit facility obligation and financial guarantee agreement are assessed without having to wait for the credit event to occur first. The Group use the general approach in considering the allowance for loss on impairment. For trade receivables, the Group apply a simplified approach in calculating ECLs. The Group recognize a loss based on lifetime ECLs at each reporting date. It is based on its historical credit loss experience and adjusted for forward-looking factors specific to the debtors and the economic environment.

4.3.5 Offset of financial instruments

Financial assets and liabilities will be offset and presented at net balance in the statement of financial position in the case legally enforced in offsetting the recognized amount. The Company and its subsidiaries intend to pay the net balance or intends to receive assets and settle payment of liabilities at the same time.

4.3.6 Derivatives and hedging activities

Derivatives are initially recognized at fair value on the date a derivative contract is entered into and are subsequently remeasured to their fair value at the end of each reporting period. The accounting for subsequent changes in fair value depends on whether the derivative is designated as a hedging instrument in hedge accounting, and if so, the nature of the item being hedged. The Group designate certain derivatives as either:

- Hedges of the fair value of recognised assets or liabilities or unrecognized firm commitments (fair value hedges); or
- Hedges of a particular risk associated with the cash flows of recognized assets and liabilities and highly probable forecast transactions (cash flow hedges).

Derivatives that are not applied hedge accounting is classified as an asset or liability when the remaining maturity of the hedged item is more than 12 months; it is classified as a current asset or liability when the remaining maturity of the hedged item is less than 12 months.

Certain derivative instruments do not qualify for hedge accounting. Changes in the fair value of any derivative instrument that does not qualify for hedge accounting are recognized immediately in profit or loss and are included in other gains (losses).

4.3.7 Derivative financial instruments

Derivative financial instruments are used to manage exposure to foreign exchange, interest rate and product price risks arising from operational, financing and investment activities.

The Group entered into forward foreign exchange contracts in asset and liability management activities to control exposure to fluctuations in foreign exchange rates.

Gains and losses on forward foreign exchange contracts designated as hedges of existing assets and liabilities without using hedge accounting are recognized as income or expense in the statement of profit or loss.

Amounts to be paid and received are offset in the statement of financial position and included in assets or liabilities category in the statement of financial position.

The Group have no policy to speculate in or engage in the trading of any derivative financial instruments.

4.4 Cash and cash equivalents

Cash and cash equivalents are cash on hand, cash at banks and bank deposits with a maturity date less than 3 months excluded deposits at bank used as collateral and short-term investments with high liquidity.

4.5 Trade and other current receivables / current contract assets

Trade and other current receivables / current contract assets are recognized initially at the amount of consideration that is unconditional unless they contain significant financing components, when they are recognized at its present value.

Trade and other current receivables / current contract assets are stated at the amount expected to be collectible, The Group apply the TFRS 9 simplified approach to measuring expected credit losses which uses a simplified approach, which requires expected lifetime losses to be recognised from initial recognition of the receivables. To measure the expected credit losses, trade receivables have been grouped based on the days past due. The expected loss rates are based on the payment profiles and the corresponding historical credit losses which are adjusted to reflect the current and forward-looking information on macroeconomic factors affecting the ability of the customers to settle the receivables.

The Group have identified the GDP, the unemployment rate and the consumer price index of the countries in which it sells its goods and services to be the most relevant factors, and accordingly adjusts the historical loss rates based on expected changes in these factors. The impairment losses are recognised in profit or loss within administrative expenses.

4.6 Inventories

Inventories are valued at the lower of cost or net realizable value.

Cost of inventories is calculated by weighted average method which comprises all costs of purchases, costs of conversion and other costs incurred in bringing the inventories to their present location and condition. In the case of manufactured inventories, cost includes an appropriate share of overhead based on normal operating capacity.

Net realizable value is the estimated selling price in the ordinary course of business less the costs to make the sale.

An allowance is made for all deteriorated, damaged, obsolete and slow-moving inventories.

4.7 Investments in subsidiaries

Subsidiaries is a company in which the Company has the power to control the financial and operating policies generally accompanying a shareholding of more than one-half of the voting rights.

Investment in subsidiaries is stated at cost net from allowance on impairment (if any). Loss on impairment of investment will be recognized as loss in the statement of comprehensive income.

4.8 Investment property

Investment property is stated at cost less accumulated depreciation and allowance on impairment (if any).

Depreciation is charged as an expense to the statement of profit or loss and other comprehensive income on a straight-line basis over the estimated useful lives of each property. The estimated useful lives are as follows:

	<u>Years</u>
Factory building	40
Building improvements	5-10
Tool and equipment	5

Depreciation is included in determining income and no depreciation is provided for construction in progress.

4.9 Property, plant and equipment

Recognition and measurement

Land is stated at cost, plant and equipment are stated at cost less accumulated depreciation and allowance on decline in value (if any).

Cost includes expenditure that is directly attributable to the acquisition of the asset. The cost of self-constructed assets includes the cost of materials and direct labor, any other costs directly attributable to bringing the assets to a working condition for their intended use as part of that property plant and equipment.

When parts of an item of plant and equipment have different useful lives, they are accounted for as separate items (major components) of equipment.

Gains or losses on disposal of an item of property plant and equipment are determined by comparing the proceeds from disposal with the carrying amount of property plant and equipment, and are recognized net within other income or other expense in the statement of profit or loss and other comprehensive income.

Subsequent costs

The cost of replacing a part of an item of property plant and equipment are recognized in the carrying amount of the item if it is probable that the future economic benefits embodied within the part will flow to the Group, and its cost can be measured reliably. The carrying amount of the replaced part is derecognized. The costs of the day-to-day servicing of equipment are recognized as an expense in statement of profit or loss and other comprehensive income as incurred.

Depreciation

Depreciation is calculated based on the depreciable amount of plant and equipment, which are the cost of an asset, or other amount substituted for cost, less its residual value.

Depreciation is charged as an expense to the statement of profit or loss and other comprehensive income on a straight-line basis over the estimated useful lives of each property. The estimated useful lives are as follows:

	<u>Years</u>
Factory building	40
Building improvements	5-20
Tool and equipment	2-7
Furniture and office equipment	2-5
Vehicles	5 - 7
Assets for rental and demonstration	5

Depreciation is included in determining income and no depreciation is provided for construction in progress.

Depreciation methods, useful lives and residual values are reviewed at each financial year-end and adjusted if appropriate.

4.10 Goodwill

Goodwill that arises upon the acquisition of subsidiaries is included in intangible assets. The measurement of goodwill at initial recognition is described. Subsequent to the initial recognition, goodwill is measured at cost less impairment loss. The Group assess an impairment of goodwill annually, without consideration of indication that such goodwill may be impaired.

4.11 Intangible asset

Other intangible assets

Other intangible asset, which are acquired by the Group and have finite useful lives, are stated at cost less accumulated amortization and allowance for impairment (if any).

Amortization

Amortization is recognized as an expense in the statement of profit or loss and other comprehensive income on a straight-line basis over the estimated useful lives of intangible asset, other than goodwill, from the date that they are available for use as follows:

	<u>Years</u>
Computer software	5 - 10
Customer relationship	7

Amortization methods, useful lives and residual values are reviewed at each financial year-end and adjusted if appropriate.

4.12 Impairment of assets

The carrying amounts of the Group's assets are reviewed at each the reporting period date to determine whether there is any indication of impairment. If any such indication exists, the asset's recoverable amount is estimated. For goodwill and customer relationship, the recoverable amount is estimated each year at the same time.

An impairment loss is recognized whenever the carrying amount of an asset or its cash-generating unit exceeds its recoverable amount. The impairment loss is recognized as expense in the statements of profit or loss and other comprehensive income unless it reverses a previous revaluation credited to equity and subsequently occurs impairment, in which case it is charged to statement of other comprehensive income.

Calculation of recoverable amount

The recoverable amount is the greater of the assets' fair value less cost to sell or value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. For an asset that does not generate cash inflows largely independent of those from other assets, the recoverable amount is determined for the cash-generating unit to which the asset belongs.

Reversals of impairment

An impairment loss in respect of financial assets is reversed if subsequent increase in recoverable amount and the recoverable amount can be related objectively to an event after the impairment loss was recognized as an expense in the statement of profit or loss and other comprehensive income.

An impairment loss in respect of goodwill is not reversed. Impairment losses recognized in prior periods in respect of other non-financial assets are assessed at each reporting date for any indications that the loss has decreased or no longer exists. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortization, as if no impairment loss had been recognized.

4.13 Share - based payment

The fair value of the shares as at grant date to the management and employees is recognized as employee expense along with the increase in shareholder's equity throughout the period that employee is able to access the rights without restriction. The amount recognized is expense to be adjusted to reflect the rights to purchase shares under the term of service that is not the term of equity market.

4.14 Leases

At inception of a contract, the Group assess whether the contract is, or contains, a lease. A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

The Group assess the lease term for the non-cancellable period as stipulated in lease contract or the remaining period of active leases at the date of initial application together with any period covered by an option to extend the lease if it is reasonably certain to be exercised or any periods covered by an option to terminate the lease if it is reasonably certain not to be exercise by considering the effect of changes in technology and/or the other circumstance relating to the extension of the lease term.

Right - of - use assets - as a lessee

Right-of-use assets are recognized at the commencement date of the lease. Right-of-use assets are stated at cost, less any accumulated depreciation and impairment losses (if any), and adjusted for any remeasurement of lease liabilities (if any). The cost of right-of-use assets includes the amount of lease liabilities recognized, initial direct costs incurred, and lease payments made at or before the commencement date, less any lease incentives received.

The cost of right-of-use assets also includes an estimate of costs to be incurred by the lessee in dismantling and removing the underlying asset, restoring the site on which it is located or restoring the underlying asset to the condition required by the terms and conditions of the lease.

Right-of-use assets are calculated by reference to their costs on a straight-line basis over the shorter of the lease term and the estimated useful lives for each of right-of-use assets.

Lease liabilities

At the commencement date of the lease, lease liabilities are stated at the present value of lease payments to be made over the lease term. The lease payments include fixed payments (including in-substance fixed payments) less any lease incentives receivable (if any) and amount expected to be paid under residual value guarantees. The lease payments also include the exercise price of a purchase option reasonably certain to be exercised by the Group and payments of penalties for terminating the lease, if the lease term reflects Group exercising the option to terminate.

In calculating the present value of lease payments, the Group use its incremental borrowing rate, which is determined by referring to the government bond yield adjusted with risk premium depending on the lease term, at the lease commencement date if the interest rate implicit in the lease is not readily determinable. After the commencement date, the amount of lease liabilities is increased to reflect the accretion of the interest and reduced for the lease payments made. In addition, the carrying amount of lease liabilities is remeasured if there is a modification, a change in the lease term, a change in the lease payments or a change in the assessment of an option to purchase the underlying asset.

Short-term leases and leases of low-value assets

The Group apply the short-term lease recognition exemption to its short-term leases (those leases that have a lease term of 12 months or less from the commencement date and not contain a purchase option). It also applies the lease of low-value assets recognition exemption to leases that are considered of low value. Lease payments on short-term and leases of low-value assets are recognized as expense in profit and loss on a straight-line basis over the lease term.

4.15 Employee benefits

Short-term benefits

The Group recognize salaries, wages, bonus and social security contribution as expenses when incurred.

Post-employment benefits - defined contribution plan

The Company operates a provident fund that is a defined contribution plan. The assets of which are held in a separate trust fund. The provident fund is funded by payments from employees and the Company. Contributions to the provident fund and obligations under the contribution plan are charged as an expense to the statement of comprehensive income in the period to which they relate.

Post-employment benefits - defined benefit plan

The employee benefits liabilities for severance payment as the labor law is recognized as an expense over the employee's service period. It is calculated by estimating the amount of future benefit earned by employees in return for service provided to the Group in the current and future periods, with such benefit being discounted to determine the present value. The reference point for setting the discount rate is the yield rate of government bonds as at the reporting date. The calculation is performed by actuarial technique using the Projected Unit Credit Method. When the employee benefits are improved, the portion of the increased benefit relating to past service by employees is recognized in the statement of profit or loss and other comprehensive income on a straight-line basis over the average period until the benefits become vested.

When the actuarial assumptions are changed, the Group recognizes all actuarial gains (losses) immediately in other comprehensive income.

4.16 Revenues

Revenue from sale of goods

Revenue from sale of goods is recognized at the point in time when control of the asset is transferred to the customer, generally on delivery of the goods. Revenue is measured at the amount of the consideration received or receivable, excluding value added tax, of goods supplied after deducting returns and discounts. For sale with warranties to assure that the goods comply with agree-upon specifications, the Company recognized the warranty as provisions, contingent liabilities and contingent assets. The service-type warranties provided customers with a service in addition to the assurance that the product complies with agree-upon specifications is recognized as revenue over the period in which the service is provided.

Revenue from services

Revenue from project services is recognized over time in accordance with the measuring progress towards complete satisfaction of a performance obligation, based on the costs incurred to the satisfaction of a performance obligation relative to the total expected costs to the satisfaction of that performance obligation. In some circumstances.

The Group may not be able to reasonably measure the outcome of a performance obligation, but the Group expect to recover the costs incurred in satisfying the performance obligation. In those circumstances, the Group shall recognize revenue only to the extent of costs incurred until such time that it can reasonably measure the outcome of the performance obligation.

Revenue from providing maintenance service is recognized over time when services have been rendered considering the straight-line method over the term of the contracts.

Revenue from other service is recognized when services have been rendered.

The recognized revenue which is not yet due per the contracts has been presented as "Accrued service income/Unbilled receivables" in the statement of financial position, which is classified as trade receivables when the Company has right to receive without condition such as upon completion of services and acceptance by the customer.

Revenue from rental

Revenue from rental is recognized over time on a straight-line method over the term of the contracts.

Deferred revenue

The obligation to transfer goods or service to a customer for which the Group have received consideration or an amount of consideration is due from the customer is presented as “Deferred revenue” in the statement of financial position, which is classified as other payables under trade and other current payable. Deferred revenue will be recognized as revenue when the Company completely perform the obligation stated in the contract.

Interest income and other income

Interest income is recognized in the statements of profit or loss and other comprehensive income on an accrual basis, based on the effective rate method. Other income is recognized on an accrual basis.

4.17 Expenses

Expenses are recognized in the statement of profit or loss and other comprehensive income on an accrual basis.

4.18 Borrowing costs

Finance costs comprise interest expense on borrowings and contingent consideration.

Borrowing costs that are not directly attributable to the acquisition, construction or production of a qualifying asset are recognized in statement of profit or loss and other comprehensive income using the effective interest method.

4.19 Income tax

Income tax expense for the year comprises current and deferred tax.

Current and deferred tax are recognized as income or expense in the statements of profit or loss and other comprehensive income except to the extent that they relate to a business combination, or items recognized directly in shareholders' equity or in other comprehensive income.

Current tax is the expected tax payable or receivable on the taxable income or loss for the year, using tax rates enacted and any adjustment to tax payable in respect of previous years.

Deferred tax is recognized in respect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. Deferred tax is not recognized for the following temporary differences: the initial recognition of goodwill; the initial recognition of assets or liabilities in a transaction in the consolidated financial statement that is not a business combination and that affects neither accounting nor taxable profit or loss; and differences relating to investments in subsidiaries and jointly controlled entities to the extent that it is probable that they will not reverse in the foreseeable future.

Deferred tax is measured at the tax rates that are expected to be applied to the temporary differences when they reverse, using tax rates enacted or substantively enacted at the reporting date.

In determining the amount of current and deferred tax, the Company takes into account the impact of uncertain tax positions and whether additional taxes and interest may be due. The Group believe that its accruals for tax liabilities are adequate for all open tax years based on its assessment of many factors, including interpretations of tax law and prior experience. This assessment relies on estimates and assumptions and may involve a series of judgements about future events. New information may become available that causes the Group to change its judgement regarding the adequacy of existing tax liabilities; such changes to tax liabilities will impact tax expense in the period that such a determination is made.

Deferred tax assets and liabilities are offset if there is a legally enforceable right to offset current tax assets and liabilities, and they relate to income taxes levied by the same tax authority on the same taxable entity, or on different tax entities, but they intend to settle current tax liabilities and assets on a net basis or their tax assets and liabilities will be realized simultaneously.

A deferred tax asset is recognized to the extent that it is probable that future taxable profits will be available against which the temporary differences can be utilized. Deferred tax assets are reviewed at the end of reporting period date and reduced to the extent that it is no longer probable that the related tax benefit will be realized.

4.20 Basic earnings per share

The calculations of basic earnings per share for the year were based on the profit for the year attributable to equity holders divided by the weighted average number of ordinary shares held by outsiders outstanding during the year. The calculations of diluted earnings per share for the year were based on the weighted average number of ordinary shares on the assumption that all dilutive potential ordinary shares have been converted to ordinary shares.

4.21 Fair value measurements

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date, regardless of whether that price is directly observable or estimated using another valuation technique. In estimating the fair value of an asset or a liability, the Group take into account the characteristics of the asset or liability if market participants would take those characteristics into account when pricing the asset or liability at the measurement date. Fair value for measurement and/or disclosure purposes in the financial statements is determined on such a basis.

In addition, fair value measurements are categorized into Level 1, 2 or 3 based on the degree to which the inputs to the fair value measurements are observable and the significance of the inputs to the fair value measurement in its entirety, which are described as follows:

Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that the entity can access at the measurement date.

Level 2 inputs are inputs, other than quoted prices included within Level 1, which are observable for the asset or liability, either directly or indirectly.

Level 3 inputs are unobservable inputs for the asset or liability.

4.22 Use of management's critical judgements in applying accounting policies

Use of management's critical judgements an applying accounting policy

The preparation of financial statements in conformity with generally accepted accounting principles requires the Group are management to exercise judgments in order to determine the accounting policies, estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the end of reporting period and the reported amounts of revenue and expense during the reporting period. Although these estimates are based on management's reasonable consideration of current events, actual results may differ from these estimates.

Critical judgments in applying accounting policies are as follows:

Impairment

The Group shall assess the assets balance at the statement of financial position whether there is any indication that an asset may be impaired. If any such indication exists, the Group shall estimate the recoverable amount of the asset.

Allowance for expected credit losses

In determining an allowance for expected credit losses, the management needs to make judgement and estimates the expected credit loss based on the payment profiles and the corresponding historical credit losses which are adjusted to reflect the current and forward-looking information on macroeconomic factors affecting the ability of the customers to settle the receivables such as GDP, the unemployment rate and the consumer price index.

Allowance for declining in value of inventory

The determination of allowance for declining in the value of inventory, requires management to make judgements and estimates of the loss expected to occur. The allowance for decline in net realizable value is estimated based on the selling price expected in the ordinary course of business less selling expense. The provision for obsolete slow-moving and deteriorated inventory, is estimated based on the approximate useful life of each type of inventory. The allowance for diminution in value of inventory as determined is compared with the original balance in the books of account and the increase or decrease in the allowance for diminution in value of inventory will be recognized as cost of sales and service in profit or loss.

Estimated construction project costs

The Group estimates costs of construction projects based on details of the construction work, taking into account the volume and value of construction materials to be used in the project, labor costs and other miscellaneous costs to be incurred to completion of service, taking into account the direction of the movement in these costs. Estimates are reviewed regularly or whenever actual costs differ significantly from the figures used in the original estimates.

Provision for losses on project services contract

Management applies judgement in estimating the loss they expect to be realized on each installation, based on estimates of anticipated costs that take into account the progress of the project and actual costs incurred to date, together with fluctuations in costs of installation materials, labor and the current situation.

Provision for penalty from delay delivery

The Group have provision incurred from delay delivery. The management applies judgement in estimating the penalty based on contract rate and the period of delay project work. The Group have recorded provision for penalty from delayed delivery in the financial statements. However, actual results could differ from the estimates.

Determining the lease term of contracts with renewal and termination options

The Group determine the lease term as the non-cancellable term of the lease, together with any period covered by an option to extend the lease if it is reasonably certain to be exercised, or any periods covered by an option to terminate the lease, if it is reasonably certain not to be exercised. The management is required to use judgment in evaluating whether it is reasonably certain whether or not to exercise the option to renew or terminate the lease, considering all relevant factors that create an economic incentive to exercise either the renewal or termination. After the commencement date, the Group reassess the lease term if there is a significant event or change in circumstances that is within its control and affects its ability to exercise or not to exercise the option to renew or to terminate.

Investment property and Depreciation

In determining depreciation of investment property, the management is required to make estimates of the useful lives and residual values of the investment property and to review the useful lives and residual values when there are any changes.

In addition, the management is required to review investment property for impairment on a periodical basis and record the impairment loss when it is determined that the recoverable amount is lower than the carrying amount. This requires judgement regarding forecast of future revenues and expenses relating to the assets subject to the review.

In determining the fair value disclosure of investment property, the management used the income approach supported by current and previous valuations by an independent appraiser.

Property, plant and equipment and right-of-use assets/Depreciation

In determining depreciation of plant and equipment and right-of-use assets, the management is required to make estimates of the useful lives and residual values of the plant and equipment and to review the estimated useful lives and residual values when there are any changes.

In addition, the management is required to review property, plant and equipment and right-of-use assets, for impairment on a periodical basis and record the impairment loss when it is determined that the recoverable amount is lower than the carrying amount. This requires judgement regarding forecast of future revenues and expenses relating to the assets subject to the review.

Intangible assets

In recording the initial recognition and measurement of intangible assets as at the acquired date and subsequent impairment testing, the management is required to make estimates of cash flows to be generated by the asset or the cash generating units and to choose a suitable discount rate in order to calculate the present value of those cash flows.

Employee benefit obligations

The present value of the employee benefit obligations depends on a number of factors that are determined on an actuarial basis using a number of assumptions, including the discount rate. Any changes in these assumptions will have an impact on the carrying amount of such obligations.

The Group determines the appropriate discount rate at the end of each year. This is the interest rate that should be used to determine the present value of estimated future cash outflows expected to be required to settle the employee benefit obligations. In determining the appropriate discount rate, the Group are considering the market yield of government bonds that are denominated in the currency in which the benefits will be paid, and that have terms to maturity approximating the terms of the related obligations. Additional information is disclosed in Note 20.

Deferred tax assets

Deferred tax assets are recognized for deductible temporary differences and unused tax losses to the extent that it is probable that taxable profit will be available against which the temporary differences and losses can be utilized. Significant management judgement is required to determine the amount of deferred tax assets that can be recognized, based upon the likely timing and level of estimated future taxable profits.

Estimating the incremental borrowing rate

The Group cannot readily determine the interest rate implicit of the lease. Therefore, the market rate of the Group are used to discount lease liabilities. The incremental borrowing rate is the rate of interest that the Group would have to pay for necessary borrowing to acquire the assets, or assets with close value to right-of-use assets in similar economic environment, borrowing period and borrowing security.

Important sources of information regarding estimation uncertainty.

Fair value measurements and valuation processes

In estimating the fair value of an asset or liability, the Company and its subsidiaries use market-observable data to the extent it is available. Where Level 1 inputs are not available, The Group engage qualified external values to perform the valuation to establish the appropriate valuation techniques and inputs to the model.

Information about valuation techniques and inputs used in determining the fair value of various assets and liabilities are disclosed in Note 29.

5. RELATED PARTY TRANSACTIONS

The Group has significant business transactions with related parties and companies as summarized below. These transactions are business transactions in accordance with commercial terms and criteria as agreed between the Group of companies and related persons and companies, which are in accordance with the normal course of business, as follows:

Company/Person name	Country/ Nationality	Related	Relationship
Harn Vietnam Co., Ltd.	Vietnam	Subsidiary	Major shareholder
Aiyaraharn Co., Ltd.	Thailand	Subsidiary	Major shareholder
Harn Engineering Co., Ltd.	Thailand	Related company	Directorships and/or common shareholders
Phraboriban Co., Ltd.	Thailand	Related company	Directorships and/or common shareholders
Tawipasura Co., Ltd.	Thailand	Related company	Directorships and/or common shareholders
Nutrix Plc.	Thailand	Related company	Directorships and/or common shareholders
Phumtharin co., Ltd.	Thailand	Related company	Directorships and/or common shareholders
Jannopsiri Co., Ltd.	Thailand	Related company	Directorships and/or common shareholders
Aiyarafun Co., Ltd.	Thailand	Related company	Directorships and/or common shareholders of subsidiary
Mr. Jain Charnnarong	Thai	Related person	Shareholder and close member of the director's family
Mrs. Sirima Iamsakulrat	Thai	Related person	Shareholder and close member of the director's family
Mr. Prasertsak Detudom	Thai	Related person	Directorships and/or common shareholders
Mr. Sathit Wanitchakit	Thai	Related person	Directorships and/or common shareholders
Key management personnel	Thai	Related person	Authorized person and responsible in management

Basis of measurement for intercompany revenues and expenses

	Pricing Policy
Sale of goods	Market price
Purchase of goods	Market price
Purchase and sale of equipment and intangible asset	Contractually agreed prices
Installation expenses	Market price
Other income	Contractually agreed prices
Rental and service expenses	Contractually agreed prices
Compensation to management	As approved by director and / or shareholder
Interest income	Contract price
Interest expenses	Contract price

Significant agreements with related parties. The Group entered into office building rental agreement as follows:

	As at December 31, 2024		
	Lessor	Period	Rate per month (Baht)
Office rental agreement	Related company	10 years	942,942
	Related company	3 years	60,895
	As at December 31, 2023		
	Lessor	Period	Rate per month (Baht)
Office rental agreement	Related company	9 years	857,220
	Related company	3 years	60,895

Transactions with related parties and related persons are presented in the statements of comprehensive income for the years ended December 31, 2024 and 2023 are as follows:

	(Unit : Thousand Baht)			
	Consolidated financial statements		Separate financial statements	
	2024	2023	2024	2023
Revenues from sales				
Subsidiaries	-	-	567	-
Related companies	3	6	3	6
Services Revenue				
Related companies	-	20	-	-
Other income				
Subsidiaries	-	-	1,245	1,067
Related companies	139	128	139	128
	<u>139</u>	<u>128</u>	<u>1,384</u>	<u>1,195</u>
Office building expenses				
Related company	694	598	694	598
Interest Expense				
Related companies	8	11	-	-
Related person	7	1	-	-
	<u>15</u>	<u>12</u>	<u>-</u>	<u>-</u>
Expenses related to right - of-use assets				
Related companies	13,680	12,956	13,680	12,956

Compensation for directors and key executives

Executive compensation is a benefit paid to a company's executives. Consisting of monetary compensation including: Salary and related benefits including benefits in other forms. In this regard, the company's executives refer to persons specified in accordance with the law on securities and exchange. The executive compensation for the year ended

December 31, 2024 and 2023 are as follows:

	(Unit : Thousand Baht)			
	Consolidated financial statements		Separate financial statements	
	2024	2023	2024	2023
Director	3,300	3,292	3,300	3,292
Key management personnel				
Short – term benefits	22,365	22,191	20,805	20,685
Long – term benefits	1,715	1,350	1,623	1,341
Total	<u>27,380</u>	<u>26,833</u>	<u>25,728</u>	<u>25,318</u>

Balances with the related parties as at December 31, 2024 and 2023 consisted of:

	(Unit : Thousand Baht)			
	Consolidated financial statements		Separate financial statements	
	December 31, 2024	December 31, 2023	December 31, 2024	December 31, 2023
Trade and other current receivables				
Subsidiaries	-	-	544	352
Allowance for expected credit losses	-	-	(225)	-
Related companies	4	1,375	4	1,375
	<u>4</u>	<u>1,375</u>	<u>323</u>	<u>1,727</u>

(Unit : Thousand Baht)

	Consolidated financial statements		Separate financial statements	
	December 31, 2024	December 31, 2023	December 31, 2024	December 31, 2023
	Building rental security deposit			
Related companies	2,150	2,150	2,150	2,150
Short-term loans				
Subsidiaries*	-	-	3,550	1,000
Allowance for expected credit losses	-	-	(3,550)	-
	-	-	-	1,000
Long-term loans				
Subsidiaries**	-	-	6,766	6,812

Short-term loans

* Movements of short-term loans to related company for the years ended December 31, 2024 are as follows:

(Unit : Thousand Baht)

	Separate financial statements				
	As at January 1, 2024	During the year		Allowance for expected credit losses	As at December 31, 2024
		Increase	Decrease		
Subsidiaries					
Principle	1,000	2,550	-	(3,550)	-

As of December 31, 2024 and 2023, short-term loans from promissory notes 16 and 5 promissory notes, respectively, with a maturity of 6 months, accruing interest at the rate of 6.8675 - 7.1175% (based on MLR interest rates of 4 major commercial banks) which are due for repayment between January and June 2025.

Long-term loans

**Movements of long-term loans to subsidiary for the years ended December 31, 2024 and 2023 are as follows:

(Unit : Thousand Baht)

	Separate financial statements				
	As at January 1, 2024	During the year		Exchange differences on translating financial statement	As at December 31, 2024
		Increase	Decrease		
Subsidiaries					
Principle	6,812	-	-	(46)	6,766

As of December 31, 2024 and 2023, a long-term loans amount of USD 200,000 and the interest rate has been charged at 5.85% per annum, is due on March 11, 2026.

(Unit : Thousand Baht)

	Consolidated financial statements		Separate financial statements	
	December 31, 2024	December 31, 2023	December 31, 2024	December 31, 2023
	Trade and other current payables			
Subsidiary	-	-	170	78
Related companies	12	791	-	599
Related person	7	1	-	-
	19	792	170	677

	(Unit : Thousand Baht)			
	Consolidated financial statements		Separate financial statements	
	December 31, 2024	December 31, 2023	December 31, 2024	December 31, 2023
Lease liabilities				
Related companies	107,881	80,056	107,881	80,056
Short - term borrowings**				
Related companies	250	250	-	-
Related person	370	200	-	-
	<u>620</u>	<u>450</u>	<u>-</u>	<u>-</u>

Short - term borrowings

***Movements of short - term borrowings to related companies for the years ended December 31, 2024 was as follows:

	(Unit : Thousand Baht)			
	Separate financial statements			As at December 31, 2024
	As at January 1, 2024	Increase	Decrease	
Related companies	250	-	-	250
Related person	200	170	-	370
	<u>450</u>	<u>170</u>	<u>-</u>	<u>620</u>

As of December 31, 2024 and 2023, short - term borrowings are promissory notes from related companies with a term of 3 months, accruing interest at the rate of 3 percent per annum (referring to the interest rate of commercial banks, MRR-3 percent per annum), and are due for repayment. On March 8, 2025, the said loan was an unsecured borrowing, and promissory notes from related persons. The interest rate is 2% per annum and the repayment date are from February 23, 2025 to December 24, 2025, respectively. The borrowings is an unsecured loan.

6. CASH AND CASH EQUIVALENT

As of December 31, 2024 and 2023, consisting of:

	(Unit : Thousand Baht)			
	Consolidated financial statements		Separate financial statements	
	December 31, 2024	December 31, 2023	December 31, 2024	December 31, 2023
Cash on hand	60	80	30	50
Deposit at bank – saving	269,079	311,947	262,248	306,606
Deposit at bank – current	24,233	28,163	24,233	28,163
In-transit deposits	99	-	99	-
Total cash and cash equivalents	<u>293,471</u>	<u>340,190</u>	<u>286,610</u>	<u>334,819</u>

Deposit at bank – saving bears interest at floating interest rates which are set by banks.

7. TRADE AND OTHER CURRENT RECEIVABLES

As of December 31, 2024 and 2023, consisting of:

	(Unit : Thousand Baht)			
	Consolidated financial statements		Separate financial statements	
	December 31, 2024	December 31, 2023	December 31, 2024	December 31, 2023
Trade receivables				
Trade receivables	298,724	265,802	298,534	265,802
Less Allowance for expected credit losses	(8,524)	(10,123)	(8,521)	(10,123)
Net	<u>290,200</u>	<u>255,679</u>	<u>290,013</u>	<u>255,679</u>

(Unit : Thousand Baht)

	Consolidated financial statements		Separate financial statements	
	December 31, 2024	December 31, 2023	December 31, 2024	December 31, 2023
Other current receivables				
Other receivables - subsidiaries	-	-	544	352
Other receivables - related companies	4	1,375	4	1,375
Other receivables	1,930	5,860	1,929	5,839
Accrued retentions	12,409	7,575	12,037	7,202
Deposit	406	1,847	406	1,854
Prepaid expenses	5,445	4,112	5,361	4,078
Accrued income	1,322	2,162	1,322	2,163
Total other current receivables	21,516	22,931	21,603	22,863
<u>Less</u> Allowance for expected credit losses	(267)	(115)	(262)	(82)
Net	21,249	22,816	21,341	22,781
Lease receivables				
<u>Lease</u> receivables - printing devices	12,670	19,345	12,670	19,345
<u>Less</u> Allowance for expected credit losses	(4)	(11)	(4)	(11)
	12,666	19,334	12,666	19,334
<u>Less</u> Due between over 1 year	(2,760)	(11,003)	(2,760)	(11,003)
Net	9,906	8,331	9,906	8,331
Total trade and other current receivables - net	321,355	286,826	321,260	286,791

Trade receivables are classified by aging as follows:

(Unit : Thousand Baht)

	Consolidated financial statements		Separate financial statements	
	December 31,2024	December 31,2023	December 31,2024	December 31,2023
Current	181,457	148,809	181,457	148,809
Overdue				
Less than 3 months	91,812	90,266	91,622	90,266
Over 3 months up to 6 months	14,111	14,949	14,111	14,949
Over 6 months up to 12 months	6,254	4,918	6,254	4,918
Over 12 months	5,090	6,860	5,090	6,860
Total	298,724	265,802	298,934	265,802
<u>Less</u> Allowance for expected credit losses	(8,524)	(10,123)	(8,521)	(10,123)
Trade receivables net	290,200	255,679	290,013	255,679

The minimum lease payments and present value of minimum lease payments which receivable will be paid under the lease agreements are as follows:

(Unit : Thousand Baht)

	Consolidated financial statements / Separate financial statements			
	December 31, 2024		December 31, 2023	
	Minimum lease payments	Present value of minimum lease payments	Minimum lease payments	Present value of minimum lease payments
Collection period				
Within 1 year	14,301	9,903	14,897	8,331
Over 1 year but less than 5 years	3,980	2,763	15,940	11,003
	18,281	12,666	30,837	19,334
<u>Less</u> Deferred financial interest	(5,615)	-	(11,503)	-
	12,666	12,666	19,334	19,334

Movements of allowance for expected credit losses for the years ended December 31, 2024 and 2023 are as follows:

(Unit : Thousand Baht)

	Consolidated financial statements		Separate financial statements	
	2024	2023	2024	2023
Balance as at January 1,	10,249	14,097	10,216	14,097
Increase (Reversal) during the year	(1,454)	(3,848)	(1,429)	(3,881)
Balance as at December 31,	8,795	10,249	8,787	10,216

8. CURRENT CONTRACT ASSETS

As of December 31, 2024 and 2023, consisting of:

(Unit : Thousand Baht)

	Consolidated financial statements		Separate financial statements	
	December 31, 2024	December 31, 2023	December 31, 2024	December 31, 2023
Current contract assets	18,061	23,573	17,291	22,805
<u>Less</u> Allowance for expected credit losses	(823)	(377)	(53)	(70)
Current contract assets net	17,238	23,196	17,238	22,735

Movements of allowance for expected credit losses of current contract assets for the year ended December 31, 2024 and 2023 are as follows:

(Unit : Thousand Baht)

	Consolidated financial statements		Separate financial statements	
	2024	2023	2024	2023
Balance as at January 1,	377	74	70	68
Increase (Reversal) during the year	446	303	(17)	2
Balance as at December 31,	823	377	53	70

Current contract assets are recognized from the revenue of fire protection system installation services in office buildings, residential buildings, factory buildings, power plants, and petrochemical industrial plants. The duration of the operations ranges from 6 months to 3 years, based on the progress of the work according to the contract. For invoicing to collect service fees as per the agreement or contract, most fire protection system installation contracts require an advance deposit before starting the work. The remaining amount is gradually invoiced in installments according to the progress of the work. However, issuing billing installments may depend on the customer's work acceptance process and milestone requirements, such as upon completion of the installation of the pump and firewater pipes or upon completion of the installation and testing of the automatic fire protection system.

9. INVENTORIES

As of December 31, 2024 and 2023, consisting of:

(Unit : Thousand Baht)

	Consolidated financial statements		Separate financial statements	
	December 31, 2024	December 31, 2023	December 31, 2024	December 31, 2023
Finished goods	314,031	314,020	313,252	312,807
Goods in transit	44,283	34,023	44,114	34,014
Work in process	552	-	-	-
	358,866	348,043	357,366	346,821
<u>Less</u> Allowance for loss on devaluation of inventories	(35,727)	(31,940)	(35,340)	(31,656)
Total	323,139	316,103	322,026	315,165

Movements of allowances for obsolete of inventories for the year ended December 31, 2024 and 2023 are as follows:

	(Unit : Thousand Baht)			
	Consolidated financial statements		Separate financial statements	
	2024	2023	2024	2023
Balance as at January 1,	31,940	39,707	31,656	38,750
Increase (reversal) during the year	3,794	(7,767)	3,684	(7,094)
Exchange differences on translating financial statement	(7)	-	-	-
Balance as at December 31,	<u>35,727</u>	<u>31,940</u>	<u>35,340</u>	<u>31,656</u>

Allowance for the value of inventories is shown in cost of goods sold. in the income statement.

10. OTHER CURRENT FINANCIAL ASSETS

As of December 31, 2024 and 2023, consisting of:

	(Unit : Thousand Baht)	
	Consolidated / Separate financial statements	
	December 31, 2024	December 31, 2023
Investments in securities (mutual funds) are measured at fair value through profit or loss	55,170	50,418
Investments in securities (bonds) are measured at fair value through profit or loss.	37,878	-
Fixed deposit	22,596	-
Total	<u>115,644</u>	<u>50,418</u>

Movements of other current financial assets are consisted of:

	(Unit : Thousand Baht)	
	Consolidated financial statements / Separate financial statements	
	December 31, 2024	December 31, 2023
Net book value as at January 1, 2024		50,418
Purchased additionally during the year		64,443
Disposal during the year		-
Changes in the fair value of investments		783
Net book value as at December 31, 2024		<u>115,644</u>

The fair value of securities investments (mutual funds) is quoted in an active market for the same asset, which is Level 1.

11. INVESTMENT IN SUBSIDIARIES

Investments in subsidiaries in the entity's separate financial statements, which are presented using the cost method, as at December 31, 2024 and 2023 are as follows:

Subsidiaries	Paid-up capital	(Unit : Thousand Baht)					
		Percentage of shareholding (%)		Cost method		Dividend income	
		2024	2023	2024	2023	2024	2023
Harn Vietnam Co., Ltd.	Vietnamese Dong 800 million	100	100	1,057	1,057	-	-
Aiyaraharn Co., Ltd.	Baht 2 million	65	65	1,300	1,300	-	-
Net				<u>2,357</u>	<u>2,357</u>	<u>-</u>	<u>-</u>

12. INVESTMENT PROPERTY

Movements for the years ended December 31, 2024 and 2023 are as follows:

(Unit : Thousand Baht)

	Consolidated financial statements / Separate financial statements			
	Balance	Transactions during the year		Balance
	December 31, 2023	Additions	Decrease	December 31, 2024
			Transfer	
			in/out	
<u>Cost</u>				
Land	135,287	-	-	135,287
Factory building	33,858	-	5,009	38,867
Building improvements	1,010	-	-	1,010
Tool and equipment	350	-	-	350
Total	170,505	-	5,009	175,514
<u>Accumulated depreciation</u>				
Factory building	(6,806)	(484)	(1,462)	(8,752)
Building improvements	(503)	(107)	-	(610)
Tool and equipment	(350)	-	-	(350)
Total	(7,659)	(591)	(1,462)	(9,712)
Investment property-net	162,846			165,802

(Unit : Thousand Baht)

	Consolidated financial statements / Separate financial statements			
	Balance	Transactions during the year		Balance
	December 31, 2022	Additions	Decrease	December 31, 2023
			Transfer in/out	
<u>Cost</u>				
Land	135,287	-	-	135,287
Factory building	19,350	-	14,508	33,858
Building improvements	1,010	-	-	1,010
Tool and equipment	350	-	-	350
Total	155,997	-	14,508	170,505
<u>Accumulated depreciation</u>				
Factory building	(1,969)	(1,935)	(2,902)	(6,806)
Building improvements	(396)	(107)	-	(503)
Tool and equipment	(285)	(65)	-	(350)
Total	(2,650)	(2,107)	(2,902)	(7,659)
Investment property-net	153,347			162,846

(Unit : Thousand Baht)

	Consolidate financial statements		Separate financial statements	
	2024	2023	2024	2023
Depreciation for the year				
Administrative expenses	2,053	2,107	2,053	2,107

During the year 2023, the Company changed the purpose of holding the right-of-use assets under certain office building lease agreements from originally for operations to for operating leases. The Company therefore transferred the right-of-use assets under the building lease agreement to investment real estate at a cost of Baht 14.51 million and during 2024 there was a change in the building lease agreement. Therefore, the Company transferred the right of use assets under the building lease agreement to additional investment property at a cost of Baht 5.01 million.

The Company was appraised by the independent appraisers by applying the market price approach for land and the replacement cost approach for building and its construction in the valuation in according to the report, had its fair value in the amount of Baht 169.58 million. According to the report dated December 8, 2023 and January 17, 2024. Moreover, The Company conducts appraisal by evaluating discounted cash flow model for the right-of-use assets, thus the fair value is Baht 28.22 million.

The Group has investment property rental income for the years ending December 31, 2024 and 2023 in the amount of Baht 7.60 million and Baht 6.91 million, respectively (only the company, the amount is Baht 7.97 million and Baht 7.26 million, respectively) and recognize as operating expenses amounting to Baht 2.76 million and Baht 2.55 million, respectively (for the Company amounting to Baht 2.71 million and Baht 2.60 million, respectively) that were recognized in the statement of comprehensive income.

13. PROPERTY, PLANT AND EQUIPMENT

Movements for the years ended December 31, 2024 and 2023 are as follows:

	(Unit : Thousand Baht)						
	Consolidated financial statements						
	Balance as at December 31, 2023	Transactions during the year			Transfer classified transactions	Exchange difference on translating financial statements	Balance as at December 31, 2024
Increase		Decrease	Transfer in/out				
Cost							
Land	37,359	-	-	-	-	-	37,359
Buildings and structures	36,326	-	-	-	-	-	36,326
Tool and equipment	9,741	356	(49)	-	-	-	10,048
Furniture and office equipment	48,610	1,642	(778)	4,285	-	-	53,759
Vehicles	18,635	704	(1,350)	-	-	-	17,989
Assets for rent and demonstration	30,242	3,512	(2,958)	87	-	-	30,883
Assets in progress	3,059	1,780	-	(4,372)	-	-	467
Total	183,972	7,994	(5,135)	-	-	-	186,831
Accumulated depreciation							
Building and structures	(4,605)	(908)	-	-	-	-	(5,513)
Tool and equipment	(6,881)	(1,163)	41	-	-	-	(8,003)
Furniture and office equipment	(30,493)	(6,737)	466	-	-	-	(36,764)
Vehicles	(11,026)	(1,340)	1,250	-	-	-	(11,116)
Assets for rental and demonstration	(25,069)	(2,609)	2,848	-	-	-	(24,830)
Total	(78,074)	(12,757)	4,605	-	-	-	(86,226)
Property, plant and equipment-net	105,898						100,605

(Unit : Thousand Baht)

Consolidated financial statements							
Transactions during the year							
	Balance as at December 31, 2022	Increase	Decrease	Transfer in/out	Transfer classified transactions	Exchange difference on translating financial statements	Balance as at December 31, 2023
<u>Cost</u>							
Land	37,359	-	-	-	-	-	37,359
Buildings and structures	36,326	-	-	-	-	-	36,326
Tool and equipment	9,978	355	(592)	-	-	-	9,741
Furniture and office equipment	50,447	1,325	(4,175)	1,018	-	(5)	48,610
Vehicles	21,698	2,912	(5,975)	-	-	-	18,635
Assets for rent and demonstration	51,262	2,009	(4,052)	(18,977)	-	-	30,242
Assets in progress	617	3,460	-	(1,018)	-	-	3,059
Total	207,687	10,061	(14,794)	(18,977)	-	(5)	183,972
<u>Accumulated depreciation</u>							
Building and structures	(3,697)	(908)	-	-	-	-	(4,605)
Tool and equipment	(6,081)	(1,348)	547	-	1	-	(6,881)
Furniture and office equipment	(28,146)	(6,470)	4,118	-	(1)	6	(30,493)
Vehicles	(15,158)	(1,167)	5,299	-	-	-	(11,026)
Assets for rental and demonstration	(30,049)	(3,253)	4,014	4,219	-	-	(25,069)
Total	(83,131)	(13,146)	13,978	4,219	-	6	(78,074)
Property, plant and equipment-net	124,556						105,898

(Unit : Thousand Baht)

Separate financial statements					
Transactions during the year					
	Balance as at December 31, 2023	Increase	Decrease	Transfer in/out	Balance as at December 31, 2024
<u>Cost</u>					
Land	37,359	-	-	-	37,359
Buildings and structures	36,326	-	-	-	36,326
Tool and equipment	9,741	355	(49)	-	10,047
Furniture and office equipment	48,419	1,614	(778)	4,285	53,540
Vehicles	18,635	704	(1,350)	-	17,989
Assets for rent and demonstration	30,242	3,512	(2,958)	87	30,883
Assets in progress	3,059	1,780	-	(4,372)	467
Total	183,781	7,965	(5,135)	-	186,611
<u>Accumulated depreciation</u>					
Building and structures	(4,605)	(908)	-	-	(5,513)
Tool and equipment	(6,881)	(1,163)	41	-	(8,003)
Furniture and office equipment	(30,416)	(6,699)	466	-	(36,649)
Vehicles	(11,026)	(1,340)	1,250	-	(11,116)
Assets for rental and demonstration	(25,069)	(2,609)	2,848	-	(24,830)
Total	(77,997)	(12,719)	4,605	-	(86,111)
Property, plant and equipment-net	105,784				100,500

(Unit : Thousand Baht)

	Separate financial statements				Balance as at December 31, 2023
	Balance as at December 31, 2022	Transactions during the year		Transfer in/out	
		Increase	Decrease		
<u>Cost</u>					
Land	37,359	-	-	-	37,359
Buildings and structures	36,326	-	-	-	36,326
Tool and equipment	9,978	355	(592)	-	9,741
Furniture and office equipment	50,210	1,295	(4,104)	1,018	48,419
Vehicles	21,698	2,912	(5,975)	-	18,635
Assets for rent and demonstration	51,262	2,010	(4,053)	(18,977)	30,242
Assets in progress	617	3,460	-	(1,018)	3,059
Total	207,450	10,032	(14,724)	(18,977)	183,781
<u>Accumulated depreciation</u>					
Building and structures	(3,697)	(908)	-	-	(4,605)
Tool and equipment	(6,080)	(1,348)	547	-	(6,881)
Furniture and office equipment	(28,070)	(6,428)	4,082	-	(30,416)
Vehicles	(15,158)	(1,167)	5,299	-	(11,026)
Assets for rental and demonstration	(30,049)	(3,253)	4,014	4,219	(25,069)
Total	(83,054)	(13,104)	13,942	4,219	(78,997)
Property, plant and equipment-net	124,396				105,784

(Unit : Thousand Baht)

	Consolidate financial statements		Separate financial statements	
	2024	2023	2024	2023
Depreciation for the years				
- Cost of rendering of services	3,699	3,541	3,698	3,541
- Distribution cost and administrative expenses	9,058	9,605	9,021	9,563
	12,757	13,146	12,719	13,104

14. RIGHT-OF-USE ASSETS

Movements for the years ended December 31, 2024 and 2023 are as follows:

(Unit : Thousand Baht)

	Consolidated financial statements / Separate financial statements				Balance as at December 31, 2024
	Balance as at December 31, 2023	Transactions during the year		Transfer in/(out)	
		Increase	(Decrease)		
<u>At cost</u>					
Building	92,314	37,143	-	(5,009)	124,448
Equipment	1,200	475	(542)	-	1,133
Total	93,514	37,618	(542)	(5,009)	125,581
<u>Less Accumulated depreciation</u>					
Building	(28,615)	(10,953)	-	1,462	(38,106)
Equipment	(790)	(297)	542	-	(545)
Total	(29,405)	(11,250)	542	1,462	(38,651)
Right-of-use assets - net	64,109				86,930

(Unit : Thousand Baht)

	Consolidated financial statements / Separate financial statements				
	Balance as at December 31, 2022	Transactions during the year			Balance as at December 31, 2023
		Increase	Transfer in/(out)	Classification	
<u>At cost</u>					
Building	104,557	2,265	(14,508)	-	92,314
Equipment	1,200	-	-	-	1,200
Total	105,757	2,265	(14,508)	-	93,514
<u>Less Accumulated depreciation</u>					
Building	(21,314)	(9,492)	2,902	(711)	(28,615)
Equipment	(1,201)	(300)	-	711	(790)
Total	(22,515)	(9,792)	2,902	-	(29,405)
Right-of-use assets - net	83,242				64,109

The Group lease several assets including office building which lease term 10 years, warehouse which lease term 3 years and equipment of which lease term 4 years.

15. GOODWILL

As at December 31, 2024 and 2023, consisting of:

	(Unit : Thousand Baht)	
	Consolidated financial statements / Separate financial statements	
	December 31, 2024	December 31, 2023
Goodwill	334,672	334,672
<u>Less Allowance for impairment of goodwill</u>	(18,701)	-
Total	315,971	334,672

On November 29, 2016, Chillmatch Co., Ltd. and Q II S Co., Ltd. were transferred their entire business into the Company by issuing capital increase shares for Baht 675.36 million to exchange for the identifiable net assets of both companies for Baht 340.69 million, resulting in a goodwill of Baht 334.67 million.

Impairment testing of cash-generating assets with goodwill

For the purposes of impairment testing, goodwill is allocated to a cash-generating unit or group of cash-generating units, which shall be the smallest level within the entity used in assessing goodwill, for the purposes of internal management of the entity as follows:

	(Unit : Thousand Baht)	
	Consolidated financial statements / Separate financial statements	
	December 31, 2024	December 31, 2023
Cash-generating assets unit 1 - Refrigeration system	181,365	200,066
Cash-generating assets unit 2 - Digital printing system	134,606	134,606
Total	315,971	334,672

During the year ended December 31, 2023 the Company's management has tested for impairment of goodwill by preparing forecasted financial information in assessing the value of the Refrigeration System and Digital Printing System. In assessing the Value in Use, the present value of future free cash flow or DCF expected to be received in each year from the financial forecast 5 years (from January 1, 2024 to December 31, 2028) with discounted rate obtained from the calculation of the weighted average cost of capital: WACC of the business unit.

Later, during the year ended December 31, 2024 the Company's management has tested for impairment of goodwill by preparing forecasted financial information in assessing the value of the Refrigeration System and Digital Printing System. In assessing the Value in Use, the present value of future free cash flow or DCF expected to be received in each year from the financial forecast 5 years (from January 1, 2025 to December 31, 2029) with discounted rate obtained from the calculation of the weighted average cost of capital: WACC of the business unit. Management believes that no impairment of goodwill has occurred for the Digital Printing System business unit, but the impairment of the Cooling System business unit occurred as of December 31, 2024, in the number of Baht 18.70 million.

The key assumptions used in estimating the value in use are as follows:

Key assumption	Value		Approach used to determine the value
	2024	2023	
Discount rate	5.81% (Weighted Average Cost of Capital: WACC)	4.01% (Weighted Average Cost of Capital: WACC)	The discount rate which is a pre-tax rate that reflects the specific risk of the particular business unit
Terminal Value Growth Rate	0%	0%	Appropriate estimated rate

16. INTANGIBLE ASSET

Movements for the years ended December 31, 2024 and 2023 are as follows:

(Unit : Thousand Baht)

	Consolidated financial statements / Separate financial statements				
	Balance as at December 31, 2023	Transactions during the year			Balance as at December 31, 2024
		Increase	Decrease	Transfer In / out	
<u>Cost</u>					
Software licenses	45,873	808	(1,455)	-	45,226
Total	45,873	808	(1,455)	-	45,226
<u>Accumulated amortization</u>					
Software licenses	(34,362)	(3,921)	745	-	(37,538)
Total	(34,362)	(3,921)	745	-	(37,538)
Intangible asset-net	11,511				7,688

(Unit : Thousand Baht)

	Consolidated financial statements / Separate financial statements				
	Balance as at December 31, 2022	Transactions during the year			Balance as at December 31, 2023
		Increase	Decrease	Transfer In / out	
<u>Cost</u>					
Software licenses	42,260	3,816	(203)	-	45,873
Total	42,260	3,816	(203)	-	45,873
<u>Accumulated amortization</u>					
Software licenses	(30,441)	(4,124)	203	-	(34,362)
Total	(30,441)	(4,124)	203	-	(34,362)
Intangible asset-net	11,819				11,511

	(Unit : Thousand Baht)			
	Consolidated financial statements		Separate financial statements	
	2024	2023	2024	2023
Depreciation for the years				
- cost of rendering of services	183	161	183	161
- Distribution cost and administrative expenses	3,738	3,963	3,738	3,963
Total	3,921	4,124	3,921	4,124

17. INCOME TAX

17.1 Deferred tax assets and liabilities as of December 31, 2024 and 2023 consist of:

	(Unit : Thousand Baht)			
	Consolidated financial statements		Separate financial statements	
	December 31, 2024	December 31, 2023	December 31, 2024	December 31, 2023
Deferred tax assets	19,007	17,362	18,638	17,171
Deferred tax liabilities	(5)	(53)	(5)	(53)
Deferred tax assets (liabilities)	19,002	17,309	18,633	17,118

Movements of deferred tax assets (liabilities) that occurred during the year are as follows:

	(Unit : Thousand Baht)				
	Consolidated financial statements				
	Income (expenses) during the year			Exchange difference on translating financial statements	Balance as at December 31, 2024
Balance as at December 31, 2023	In profit or loss	In other comprehensive income			
Deferred tax assets:					
Allowance for expected credit losses	2,125	(202)	-	-	1,923
Allowance for devaluation of inventories	6,388	760	-	(2)	7,146
Allowance for impairment of investment	49	756	-	-	805
Lease agreements	1,248	325	-	-	1,573
Provisions for employee benefit	6,533	848	-	-	7,381
Derivatives liabilities	19	(244)	-	-	(225)
Equipment disposal	-	136	-	-	136
Employee joint investment program expenses	1,000	(732)	-	-	268
Total	17,362	1,647	-	(2)	19,007
Deferred tax liabilities:					
Unrealized gain (loss) on measuring investments	(14)	19	-	-	5
Finance lease assets	(39)	29	-	-	(10)
Total	(53)	48	-	-	(5)
Deferred tax assets (liabilities) - net	17,309				19,002
Deferred tax income (expenses) - net		1,695	-	(2)	

(Unit : Thousand Baht)

	Consolidated financial statements				
	Income (expenses) during the year				
	Balance as at December 31, 2022	In profit or loss	In other comprehensive income	Exchange difference on translating financial statements	Balance as at December 31, 2023
Deferred tax assets:					
Allowance for expected credit losses	2,919	(794)	-	-	2,125
Allowance for devaluation of inventories	7,941	(1,547)	-	(6)	6,388
Allowance for impairment of investment	49	-	-	-	49
Lease agreements	867	381	-	-	1,248
Provisions for employee benefit	5,804	387	342	-	6,533
Derivatives liabilities	355	(336)	-	-	19
Unearned revenue	26	(25)	-	(1)	-
Employee joint investment program expenses	1,206	(206)	-	-	1,000
Total	19,167	(2,140)	342	(7)	17,362
Deferred tax liabilities:					
Unrealized gain (loss) on measuring investments	(218)	204	-	-	(14)
Customer relationship (from fair value adjustment of business combination)	(2,525)	2,525	-	-	-
Depreciation of equipment	(127)	127	-	-	-
Finance lease assets	(1,114)	1,075	-	-	(39)
Total	(3,984)	3,931	-	-	(53)
Deferred tax assets (liabilities) - net	15,183				17,309
Deferred tax income (expenses) - net		1,791	342	(7)	

(Unit : Thousand Baht)

	Separate financial statements			
	Income (expenses) during the year			
	Balance as at December 31, 2023	In profit or loss	In other comprehensive income	Balance as at December 31, 2024
Deferred tax assets:				
Allowance for expected credit losses	2,058	(334)	-	1,724
Allowance for devaluation of inventories	6,331	737	-	7,068
Allowance for impairment of investment	49	755	-	804
Lease agreements	1,248	325	-	1,573
Provisions for employee benefit	6,466	824	-	7,290
Derivatives liabilities	19	(244)	-	(225)
Equipment disposal	-	136	-	136
Employee joint investment program expenses	1,000	(732)	-	268
Total	17,171	1,467	-	18,638
Deferred tax liabilities:				
Unrealized gain (loss) on measuring investments	(14)	19	-	5
Finance lease assets	(39)	29	-	(10)
Total	(53)	48	-	(5)
Deferred tax assets (liabilities) - net	17,118			18,633
Deferred tax income (expenses) - net		1,515	-	

	(Unit : Thousand Baht)			
	Separate financial statements			
	Income (expenses) during the year			
	Balance as at December 31, 2022	In profit or loss	In other comprehensive income	Balance as at December 31, 2023
Deferred tax assets:				
Allowance for expected credit losses	2,918	(860)	-	2,058
Allowance for devaluation of inventories	7,750	(1,419)	-	6,331
Allowance for impairment of investment	49	-	-	49
Lease agreements	867	381	-	1,248
Provisions for employee benefit	5,754	370	342	6,466
Derivatives liabilities	355	(336)	-	19
Employee joint investment program expenses	1,206	(206)	-	1,000
Total	<u>18,899</u>	<u>(2,070)</u>	<u>342</u>	<u>17,171</u>
Deferred tax liabilities:				
Unrealized gain (loss) on measuring investments	(218)	204	-	(14)
Customer relationship (from fair value adjustment of business combination)	(2,525)	2,525	-	-
Depreciation of equipment	(121)	121	-	-
Finance lease assets	(1,114)	1,075	-	(39)
Total	<u>(3,978)</u>	<u>3,925</u>	<u>-</u>	<u>(53)</u>
Deferred tax assets (liabilities) - net	<u>14,921</u>			<u>17,118</u>
Deferred tax income (expenses) - net		<u>1,855</u>	<u>342</u>	

17.2 Income tax recognized in profit or loss

Income tax expenses for the years ended December 31, 2024 and 2023 as follows:

	(Unit : Thousand Baht)			
	Consolidated financial statements		Separate financial statements	
	2024	2023	2024	2023
Income tax expense shown in profit or loss :				
Current tax expense:				
Tax expense (income) for the year	26,554	30,643	26,534	30,644
Deferred tax				
Deferred tax expenses (income) from arising temporary differences and reversing temporary differences.	(1,695)	(1,790)	(1,515)	(1,854)
Total	<u>24,859</u>	<u>28,853</u>	<u>25,019</u>	<u>28,790</u>
Income taxes related to components of other comprehensive income:				
Deferred tax expense (income) related to gain (loss) from remeasurement of employee benefits.	-	(342)	-	(342)
	<u>24,859</u>	<u>28,511</u>	<u>25,019</u>	<u>28,448</u>

The reconciliation between the income tax expense amount and the product of accounting profit multiplied by the applicable tax rate is as follows:

	(Unit : Thousand Baht)			
	Consolidated financial statements		Separate financial statements	
	For the years ended December 31,			
	2024	2023	2024	2023
Accounting profit (loss) for the year	111,374	142,026	109,592	143,907
The applicable tax rate (%)	20%	20%	20%	20%
Tax expenses (income) is calculated according to the applicable tax rate.	22,275	28,405	21,918	28,781
Reconciliation items:				
Tax implications of expenses that are not deductible in calculation of taxable profits				
- Expenses that are not allowed to be treated as expenses in calculating taxable profits	3,381	289	3,570	228
Expenses that are considered taxable expenses have increased	(469)	(219)	(469)	(219)
Other	(328)	378	-	-
Total reconciliation items	2,584	448	3,101	9
Total tax expenses (income)	24,859	28,853	25,019	28,790

The reconciliation between the average effective tax rate and the final applied tax rate is as follows:

	Consolidated financial statements			
	2024		2023	
	Tax amount (Thousand baht)	Tax rate %	Tax amount (Thousand baht)	Tax rate %
Accounting profit before income tax expenses for the year	111,374		142,026	
Income tax expense according to the applicable tax rate.	22,275	20.00	28,405	20.00
Reconciliation items	2,584	2.32	448	0.32
Income tax expense based on the average effective tax rate.	24,859	22.32	28,853	20.32

	Separate financial statements			
	2024		2023	
	Tax amount (Thousand baht)	Tax rate %	Tax amount (Thousand baht)	Tax rate %
Accounting profit before income tax expenses for the year	109,592		143,907	
Income tax expense according to the applicable tax rate.	21,918	20.00	28,781	20.00
Reconciliation items	3,101	2.83	9	0.01
Income tax expense based on the average effective tax rate.	25,019	22.83	28,790	20.01

18. TRADE AND OTHER CURRENT PAYABLES

As of December 31, 2024 and 2023, consisting of:

	(Unit : Thousand Baht)			
	Consolidated financial statements		Separate financial statements	
	December 31, 2024	December 31, 2023	December 31, 2024	December 31, 2023
Trade payables - subsidiaries	-	-	84	-
Trade payables - other companies	136,206	106,507	135,669	105,997
Total trade payables	136,206	106,507	135,753	105,997
Other current payables				
Accrued commission expenses	15,507	15,637	15,507	15,637
Accrued bonus	15,524	16,690	15,416	16,690
Advance from customers for goods and services	31,598	30,036	30,874	29,868
Other accrued expenses	8,331	8,505	8,202	8,375
Other accrued expenses - related parties	19	5	-	-
Account payable - Revenue department	5,661	5,508	5,508	5,483
Other deposit	252	1,800	252	1,800
Other deposit - subsidiaries	-	-	86	78
Other payables - related parties	-	599	-	599
Other	15,920	26,863	15,920	26,819
Total	92,812	105,643	91,765	105,349
Total trade and other current payables	229,018	212,150	227,518	211,346

19. LEASE LIABILITIES

The movement of lease liabilities for the years ended December 31, 2024 and 2023 are as follows:

	(Unit : Thousand Baht)	
	Consolidated financial statements / Separate financial statements	
	2024	2023
Balance as at January 1,	80,504	87,577
Addition	37,618	2,264
Increase from interest	2,744	2,047
Payments	(12,368)	(11,384)
Decrease from contract cancellation	-	-
Balance as at December 31,	108,498	80,504
<u>Less</u> current portion	(8,952)	(10,443)
Lease liabilities - net of current portion	99,546	70,061

The Group has obligations to be paid minimum rental under lease as follows:

	(Unit : Thousand Baht)	
	Consolidated financial statements / Separate financial statements	
	2024	2023
within 1 year	12,296	12,368
More than 1 year but not more than 5 years	52,219	49,377
More than 5 years	61,423	26,138
	125,938	87,883
<u>Less</u> future interest expense on the lease contract.	(17,440)	(7,379)
Present value of lease liabilities	108,498	80,504

Expenses for the years ended December 31, 2024 and 2023 related to leases recognized in profit or loss are as follows:

	(Unit : Thousand Baht)			
	Consolidated financial statements		Separate financial statements	
	2024	2023	2024	2023
Depreciation of right-of-use assets	9,788	9,792	9,788	9,792
Interest expense on lease liabilities	2,744	2,047	2,744	2,047
Leases of low-value assets	144	163	123	135
Total	12,676	12,002	12,655	11,974

For the year ended December 31, 2024 and 2023, the Group had rental income from investment property in the amount of Baht 12.51 million and Baht 11.54 million respectively (for the Company's amounting to Baht 12.49 million and Baht 11.52 million, respectively) and also had non-cash additions to right-of-use assets and lease liabilities of Baht 37.62 million and Baht 2.26 million, respectively (for the Company's amounting to Baht 37.62 million and Baht 2.26 million, respectively).

20. NON-CURRENT PROVISIONS FOR EMPLOYEE BENEFIT

Movements of non-current provisions for employee benefit for the years ended December 31, 2024 and 2023 were as follows:

	(Unit : Thousand Baht)			
	Consolidated financial statements		Separate financial statements	
	December 31, 2024	December 31, 2023	December 31, 2024	December 31, 2023
Beginning balance defined benefit obligations	34,036	30,765	33,700	30,518
Current service costs and interest	3,470	2,706	3,349	2,617
Loss from estimation according to principles actuarial science	-	1,711	-	1,711
Benefits paid by the plan	(600)	(1,146)	(600)	(1,146)
Ending balance defined benefit obligations	36,906	34,036	36,449	33,700

Expenses recognized in the statement of comprehensive income for the years ended December 31, 2024 and 2023 are as follows:

	(Unit : Thousand Baht)			
	Consolidated financial statements		Separate financial statements	
	2024	2023	2024	2023
Current service costs				
Cost of sales	425	346	386	319
Distribution cost	710	733	710	733
Administrative expenses	1,300	973	1,218	911
Interest on obligation	1,035	654	1,035	654
	3,470	2,706	3,349	2,617

(Gain) loss from estimation according to principles actuarial science

	(Unit : Thousand Baht)			
	Consolidated financial statements		Separate financial statements	
	2024	2023	2024	2023
Actuarial (gain) loss arising from				
Changes in demographic assumptions	-	517	-	517
Changes in financial assumptions	-	(2,041)	-	(2,041)
Experience adjustments	-	3,235	-	3,235
Total	-	1,711	-	1,711

Important assumptions in the actuarial estimates used in calculating employee benefit liabilities are as follows:

	Consolidated financial statements		Separate financial statements	
	December 31, 2024	December 31, 2023	December 31, 2024	December 31, 2023
Discount rate	2.99 - 3.19	2.99 - 3.19	2.99 - 3.19	2.99 - 3.19
Salary increase rate	4.00	4.00	4.00	4.00
Employee turnover rate	4.78 - 22.92	4.78 - 22.92	4.78 - 22.92	4.78 - 22.92
Mortality rate	105.00% of Thai Mortality Ordinary Table 2017	105.00% of Thai Mortality Ordinary Table 2017	105.00% of Thai Mortality Ordinary Table 2017	105.00% of Thai Mortality Ordinary Table 2017

Assumptions regarding future mortality rates are based on publicly available statistical data and mortality tables.

The results of sensitivity analysis for significant assumptions that affect the present value of the employee benefit obligations as at December 31, 2024 and 2023 are summarized below:

(Unit : Thousand Baht)

	Consolidated financial statements		Separate financial statements	
	December 31, 2024	December 31, 2023	December 31, 2024	December 31, 2023
Discount rate				
Discount rate – reduced 1 %	2,915	2,914	2,915	2,914
Discount rate – increased 1 %	(2,498)	(2,499)	(2,498)	(2,499)
Salary increase rate				
Discount rate – reduced 1 %	(2,380)	(2,120)	(2,380)	(2,120)
Discount rate – increased 1 %	2,741	2,434	2,741	2,434
Turnover rate				
Discount rate – reduced 20% of the main assumptions	3,749	3,285	3,749	3,285
Discount rate – increased 20% of the main assumptions	(3,165)	(2,788)	(3,165)	(2,788)

The above sensitivity analysis may not reflect actual changes in employee benefit obligations. This is because it is difficult to make changes to assumptions that occur separately from other assumptions that may be related.

Maturity analysis of future benefit amounts before discounting as of December 31, 2024 and 2023 is as follows:

(Unit : Thousand Baht)

	Consolidated financial statements		Separate financial statements	
	December 31, 2024	December 31, 2023	December 31, 2024	December 31, 2023
Within 1 year	11,060	1,206	11,060	1,206
More than 1 year, not more than 5 years	9,313	18,334	9,313	18,334
More than 5 years	71,006	71,839	71,006	71,839
	91,379	91,379	91,379	91,379

21. THE EMPLOYEE JOINT INVESTMENT PROGRAM

On May 22, 2015, the Securities and Exchange Commission approved the Employee Joint Investment Program (EJIP). The details of the program are as follows;

The period of EJIP	May 1, 2020 to April 30, 2025, with a total duration of 5 years.
Eligible employees under EJIP	The employees have over one year wrought experience o employees at director on the voluntary basis.
EJIP arrangement	The Company will make deduction from the payroll of eligible employees who voluntarily join the EJIP, at the rate 5% o each month and director at the rate 5-30% of each month. The Company will contribute 100% of the amount contributed by EJIP participants on a monthly basis.
EJIP buying schedule	Monthly basis.
Conditions for holding the securities	During the 1st year - 2st year, cannot sell any shares After the 2nd year, can sell 25% of accumulated shares After the 3rd year, can sell 50% of accumulated shares After the 4th year, can sell 75% of accumulated shares After the 5th year, can sell all shares
EJIP program manager	Philip Securities (Thailand) Public Company Limited

Movements of the employee joint investment program for the years ended December 31, 2024 and 2023 were as follows:

	(Unit : Thousand Baht)					
	Consolidated financial statements / Separate financial statements					
	2024			2023		
	Surplus on share-based payment transactions	(Less) Treasure shares	Net	Surplus on share-based payment transactions	(Less) Treasure shares	Net
Beginning balance	14,840	(9,840)	5,000	15,439	(9,411)	6,028
Movements of the year						
- Employees joint investment program expenses	2,196	-	2,196	4,463	-	4,463
- Employees joint investment program expenses paid	-	(5,855)	(5,855)	-	(5,491)	(5,491)
- Transfer shares to employees	(7,837)	7,837	-	(4,758)	4,758	-
- Employees leave the investment program	(252)	252	-	(304)	304	-
Ending balance	<u>8,947</u>	<u>(7,606)</u>	<u>1,341</u>	<u>14,840</u>	<u>(9,840)</u>	<u>5,000</u>

The statements of comprehensive income for the years ended December 31, 2024 and 2023 are as follows:

	(Unit : Thousand Baht)	
	Consolidated financial statements / Separate financial statements	
	2024	2023
Cost of services	325	543
Distribution cost	615	1,034
Administrative expenses	1,256	2,026
Interest from interest rate changes	-	860
	<u>2,196</u>	<u>4,463</u>

22. LEGAL RESERVE

According to the Public Companies Act B.E. 2535, under provision of section 116, the Company is required to set aside a statutory reserve of at least 5 percent of its net profit after deducting accumulated deficit brought forward (if any) until the reserve reaches 10 percent of the registered share capital. The statutory reserve could not be used for dividend payment.

23. DIVIDEND PAYMENT

Dividends declared for the year ended December 31, 2024 and 2023 consisted of:

<u>Dividend</u>	<u>Approved by</u>	<u>Dividends Announced (Thousand Baht)</u>	<u>Dividend per share (Baht)</u>	<u>Dividend Date</u>
<u>For the year 2024</u>				
Dividends for 2023	Annual General Meeting of Shareholders On April 29, 2024	87,675	0.15	May 17, 2024
<u>For the year 2023</u>				
Dividends for 2022	Annual General Meeting of Shareholders On April 24, 2023	75,985	0.13	May 19, 2023

24. PROVIDENT FUND

The Company and its employees jointly registered a provident fund scheme under the Provident Fund Act B.E. 2530. The Fund is contributed to by both the employees and the Company. The Fund is managed by an asset management company. This Fund is registered under the conditions of Ministry of Finance and the Fund is managed by the approved fund manager.

For the years ended December 31, 2024 and 2023, the Group paid contributions to provident fund and recognized as expenses amounting to Baht 4.92 million and Baht 4.76 million, respectively (The Company's amounting to Baht 4.92 million and Baht 4.76 million, respectively).

25. OPERATING SEGMENT

Segment information is presented in respect of the business segments. The primary format in segment information report is based on the management and internal reporting structure.

The accounting policy for operating segments is in accordance with the accounting policy described in Note 4.

The Company and its subsidiaries comprise the following main business segments:

- Segment 1 Fire Protection Products and Project
- Segment 2 Sanitary and Air-Conditioning System
- Segment 3 Refrigeration System
- Segment 4 Digital Printing System
- Segment 5 Building-IoT Solutions

Operating segments are classified by business type in the statements of total comprehensive income for the years ended December 31, 2024 and 2023 are as follows:

(Unit : Thousand Baht)

	Consolidated financial statements														
	2024					2023					Total	Elimination of inter-segment	Total		
	Segment 1	Segment 2	Segment 3	Segment 4	Segment 5	Segment 1	Segment 2	Segment 3	Segment 4	Segment 5					
Statement of total comprehensive income															
Revenues from sales	464,814	64,690	219,136	322,932	778	(765)	1,071,585	518,567	59,883	247,315	309,658	160	-	1,135,583	
Revenues from services	131,181	-	-	34,932	1,368	(23)	167,458	125,266	-	-	36,889	1,883	-	164,038	
Cost of sales	(330,833)	(49,354)	(180,700)	(189,991)	(554)	501	(750,931)	(363,542)	(44,123)	(184,641)	(177,623)	(197)	-	(770,126)	
Cost of services	(105,295)	-	-	(35,045)	(713)	-	(141,053)	(105,161)	-	-	(32,201)	(1,119)	-	(138,481)	
Gross profit	159,867	15,336	38,436	132,828	879	(287)	347,059	175,130	15,760	62,674	136,723	727	-	391,014	
Other income							32,455							26,606	
Distribution cost							(114,901)							(118,284)	
Administrative expenses							(130,812)							(151,634)	
Profit from operating activities							133,801							147,702	
Finance cost							(2,758)							(2,918)	
Expected gain (loss) from reversal of credit loss							(968)							(2,758)	
Loss from impairment of goodwill							(18,701)							-	
Tax expense							(24,859)							(28,853)	
Net profit for the year							86,515							113,173	
Other comprehensive income (expense) for the year							(359)							(1,604)	
Total comprehensive income for the year							86,156							111,569	

Operating segment by business in the statement of financial position as at December 31, 2024 and 2023 were as follows:

	Consolidated financial statements													
	2024					2023					Total	Elimination of inter-segment		
	Segment 1	Segment 2	Segment 3	Segment 4	Segment 5	Segment 1	Segment 2	Segment 3	Segment 4	Segment 5				
Assets for reportable segments														
Trade receivables	178,756	20,993	49,089	49,696	274	(85)	298,723	153,615	17,440	49,441	45,306	-	-	265,802
Inventories	170,589	5,851	77,364	68,732	890	(287)	323,139	161,552	7,806	77,452	69,005	288	-	316,103
Goodwill	-	-	181,365	134,606	-	-	315,971	-	-	200,066	134,606	-	-	334,672
Total assets for reportable segments	349,345	26,844	307,818	253,034	1,164	(372)	937,833	315,167	25,246	326,959	248,917	288	-	916,577
Assets under common use														
- Investment property							165,802							162,846
- Property, plant and equipment							100,605							105,898
- Right-of-use assets							86,930							64,109
- Intangible assets							7,688							11,511
- Others							500,890							493,073
Total Asset							1,799,748							1,754,014
Total liabilities							421,745							370,833

(Unit : Thousand Baht)

Information about the geographic area

	(Unit : Thousand Baht)	
	Consolidated financial statements	
	For the year ended December 31,	
	2024	2023
<u>Revenue from the operating segments</u>		
Thailand	1,232,594	1,293,213
Abroad	6,449	6,408
Total	<u>1,239,043</u>	<u>1,299,621</u>

Information about major customers

During the years ended December 31, 2024 and 2023, the Company had no revenue from sales and service income from any single external customer that accounted for 10 percent or more of total revenue.

26. EXPENSE BY NATURE

Expenses by nature of the significant expenses were as follows:

	(Unit : Thousand Baht)			
	Consolidated financial statements		Separate financial statements	
	2024	2023	2024	2023
Purchases of finished goods	765,516	634,029	761,922	630,338
Other changes in finished goods and work in process	(7,035)	129,743	(6,861)	129,150
Employee expenses	198,415	200,848	197,710	197,620
Office rental and service expenses	545	610	491	583
Depreciation and amortization	28,520	41,791	28,481	41,749
Others	175,185	174,262	170,596	172,348

27. BASIC EARNINGS (LOSS) PER SHARE

Basic earnings (loss) per share is calculated by dividing the profit for the years by the weighted average number of ordinary shares in issue during the years. Are as follows:

	Consolidated financial statements		Separate financial statements	
	For the years ended December 31,			
	2024	2023	2024	2023
Profit (loss) for the years of parent company	87,598	114,041	84,573	115,117
Weighted average number of ordinary shares (Basic)	584,500	584,500	584,500	584,500
Earnings (Loss) per share (basic) (Baht : Share)	<u>0.15</u>	<u>0.20</u>	<u>0.14</u>	<u>0.20</u>

28. COMMITMENTS AND CONTINGENT LIABILITIES

28.1 Guarantees

The Group has letters of guarantee issued by banks and other companies on behalf of the Company and its subsidiaries. which relates to certain operational obligations in the normal course of business of the Company remaining as follows:

	(Unit : Million Baht)			
	Consolidated financial statements		Separate financial statements	
	December 31, 2024	December 31, 2023	December 31, 2024	December 31, 2023
Warranty for products and work according to contract for system installation work	27.02	27.13	27.02	27.13

28.2 Credit lines from financial institutions as at December 31, 2024 and 2023 as follows:

	Consolidated financial statements/ Separate financial statements			
	Credit limit (Million Baht)		Based on interest rate (Percentage per year)	
	December 31, 2024	December 31, 2023	December 31, 2024	December 31, 2023
Overdraft	9	9	MOR, MOR-0.50	MOR, MOR- 0.50
Letter of Credit/Trust Receipt letter of guarantee	120	120	MLR-1, MMR	MLR-1, MMR
Foreign currency forward contracts	74	74	1.00-2.00%	1.00-1.25%
Foreign currency forward contracts	410	410	-	-
Total	<u>613</u>	<u>613</u>		
Foreign currency forward contracts (Millions of US Dollars)	<u>7</u>	<u>7</u>		

28.3 Commitments regarding the purchase of goods and service:

The Group have commitments regarding the purchase of goods and services according to memorandum of understanding and contracts for the purchase of goods and services with various companies. The prices and various trading conditions are as specified in the said memorandum and contract. and has an average period of not more than 12 months as follows:

	Consolidated financial statements		Separate financial statements	
	December 31, 2024	December 31, 2023	December 31, 2024	December 31, 2023
Baht	39,779,638	23,549,633	39,779,638	23,549,633
Foreign currency				
United States Dollar	1,652,706	2,004,795	1,652,706	2,004,795
Euro	1,031,769	1,330,620	1,031,769	1,330,620
Pound Sterling	503,140	504,082	503,140	488,620
Yen	4,500,000	699,300	4,500,000	699,300
Vietnamese Dong		12,000,000		
	-	-	-	-

28.4 Capital expenditure commitments

As at December 31, 2024, the Company has capital expenditure obligations in the number of Baht 0.05 million.

29. FAIR VALUE MEASUREMENT

The Company and its subsidiaries uses the market approach to measure its assets and liabilities that are required to be measured at fair value by relevant TFRS, except that the cost approach or income approach is used when there is no active market or when a quoted market price is not available.

29.1 Fair value hierarchy

In applying the above-mentioned valuation techniques, the Company and its subsidiaries endeavors to use relevant observable inputs as much as possible. TFRS 13 Fair Value Measurement establishes a fair value hierarchy categorizing such inputs into three levels as follows:

Level 1 - Use of quoted market prices in an observable active market for such assets or liabilities

Level 2 - Use of other observable inputs for such assets or liabilities, whether directly or indirectly

Level 3 - Use of unobservable inputs such as estimates of future cash flows.

As at December 31, 2024 and 2023, the Group had the following financial assets and liabilities that were measured at fair value on which the fair value hierarchy is classified as follows :

(Unit : Thousand Baht)

	Consolidated financial statements/ Separate financial statements							
	Level 1		Level 2		Level 3		Total	
	2024	2023	2024	2023	2024	2023	2024	2023
Financial assets (liabilities) measured at fair value								
Investments in								
securities	48,773	44,010	6,397	6,408	-	-	55,170	50,418
Foreign currency								
forward contracts	(1,904)	(1,017)	-	-	-	-	(1,904)	(1,017)

During the year, there were no transfers within the fair value hierarchy.

Fair valuation techniques and inputs to Level 2 fair valuation

The fair value of investments in investment units that are not listed on the Stock Exchange of Thailand is determined by using the net asset value per unit as announced by the fund managers.

The fair value of derivatives has been determined by using a discounted future cash flow model and a valuation model technique. Most of the inputs used for the valuation are observable in the relevant market, such as spot rates of foreign currencies, forward rate of the respective currencies, and interest rate yield curves.

Certain financial assets and financial liabilities is measured at fair value

The following table gives information about how the fair values of these financial assets and financial liabilities are measured at fair value on fair value hierarchy as at December 31, 2024 and 2023.

(Unit : Thousand Baht)

	Consolidated financial statements/ Separate financial statements			
	Fair value as at December 31,		Fair value Hierarchy	Valuation techniques and key inputs for fair value measurement
	2024	2023		
Financial assets (liabilities)				
1 Foreign currency forward contracts	(1,904)	(1,017)	Level 2	Discounted cash flow The estimated future cash flows is from foreign currency exchange rates (from observable forward exchange rates at the end of the reporting period) and contract forward rates, discounted at a rate that reflects the credit risk of various counterparties.

These financial assets and financial liabilities are presented as a part of other current assets and other current liabilities in the statement of financial position.

Valuation technique for financial instruments not measured at fair value of the Company and its subsidiaries are as follows:

Cash and cash equivalents, trade and other current receivables, current portion of financial lease receivable had carrying values approximate their fair values due to the relatively short-term maturity of these financial instruments.

Trade and other current payables, short-term provisions and other current liabilities - the carrying amounts stated in the reporting date of these financial liabilities approximate their fair values because of the short-term period to maturity of these financial instruments.

30. FINANCIAL INSTRUMENTS

30.1 Financial risk management policies

The Group are exposed to normal business risks from changes in interest rates and currency exchange rates and from non-performance of contractual obligations by counterparties. The Group do not hold or use derivative financial instruments for speculative or trading purposes.

Risk management is integral to the whole business of the Group. The Company and its subsidiaries have a system of controls in place to create an acceptable balance between the cost of risks occurring and the cost of managing the risks. The management continually monitors the Group are risk management process to ensure that an appropriate balance between risk and control is achieved.

30.2 Capital management

The Board of Directors' policy is to maintain a strong capital base so as to maintain investor, creditor and market confidence and to sustain future development of the business. The Board monitors the return on capital, which the Group define as result from operating activities divided by total shareholders' equity, and also monitors the level of dividends to ordinary shareholders.

30.3 Foreign currency risk

The Group are exposed to foreign currency risk relating to purchases which are denominated in foreign currencies. The Group primarily utilize forward foreign exchange contracts with maturities of less than one year to hedge such financial assets and liabilities denominated in foreign currencies. The forward foreign exchange contracts entered into at the reporting date also relate to anticipated purchases, denominated in foreign currencies, for the subsequent period.

As at December 31, 2024 and 2023, the Company and its subsidiaries have financial liabilities in foreign currencies as follows;

	Foreign Currencies			
	Consolidated financial statements		Separate financial statements	
	2024	2023	2024	2023
Not hedged				
United States Dollar	851,830	20,632	843,433	20,632
Euro	67,730	328,808	67,730	328,808
Pound Sterling	167,074	75,276	167,074	75,276
Yen	45,850	1,284,300	45,850	1,284,300

30.4 Derivatives

Derivatives are forward foreign exchange contracts used for economic hedging purposes and not as speculative investments. However, derivatives do not meet the hedge accounting criteria, therefore they are classified as 'held for trading' for accounting purposes and are accounted for at fair value through profit or loss. They are presented as current assets or liabilities to the extent they are expected to be realized within 12 months after the end of the reporting period.

As at December 31, 2024 and 2023, the Company had gain (loss) from changes in fair value of derivatives in the number of Baht (1.90) million and Baht (1.02) million, respectively.

30.5 Gain (loss) from exchange rates

For the years ended December 31, 2024 and 2023, the aggregate net foreign exchange gains (losses) recognized in profit or loss are as follow:

(Unit : Thousand Baht)

	Consolidated financial statements		Separate financial statements	
	2024	2023	2024	2023
Unrealized gain (loss) on exchange rates	(475)	(142)	(521)	(208)
Gain (loss) on exchange rates				
- Sales	3,740	3,114	3,770	3,132
Total net gain (loss) on exchange rate recognized in profit before income tax	3,265	2,972	3,249	2,924

30.6 Credit risk

Credit risk is the potential financial loss resulting from the failure of a customer or a counterparty to settle its financial and contractual obligations to the Company as and when they fall due.

Management has a credit policy in place and the exposure to credit risk is monitored on an ongoing basis. Credit evaluations are performed on all customers requiring credit over a certain amount. At the reporting date, there were no significant concentrations of credit risk. The maximum exposure to credit risk is represented by the carrying amount of each financial asset in the statement of financial position. However, due to the large number of parties comprising the Company and its subsidiaries are customer base, management does not anticipate material losses from its debt collection.

30.7 Liquidity risk

The Company and its subsidiaries monitor its liquidity risk and maintains a level of cash and cash equivalents deemed adequate by management to finance the Company's and its subsidiaries's operations and to mitigate the effects of fluctuations in cash flows.

30.8 Classification and measurement of financial asset and financial liabilities

(Unit : Thousand Baht)

	Consolidated financial statements					
	As at December 31, 2024			As at December 31, 2023		
	FVPL	Amortized cost	Total	FVPL	Amortized cost	Total
Financial assets						
Cash and cash equivalents	-	293,471	293,471	-	340,190	340,190
Trade and other current receivables	-	321,355	321,355	-	286,826	286,826
Current contract assets	-	17,238	17,238	-	23,196	23,196
Other non-current financial assets	115,644	-	115,644	50,418	-	50,418
Trade and other non-current receivables	-	2,760	2,760	-	11,003	11,003
Other non-current assets	-	29,494	29,494	-	29,616	29,616
	<u>115,644</u>	<u>664,318</u>	<u>779,962</u>	<u>50,418</u>	<u>690,831</u>	<u>741,249</u>
Financial liabilities						
Trade and other current payables	-	229,018	229,018	-	212,150	212,150
Current portion for lease liabilities	-	8,952	8,952	-	10,443	10,443
Short-term loan from related party	-	620	620	-	450	450
Lease liabilities	-	99,546	99,546	-	70,061	70,061
Other non-current liabilities	-	28,304	28,304	-	26,975	26,975
	-	<u>366,440</u>	<u>366,440</u>	-	<u>320,079</u>	<u>320,079</u>

(Unit : Thousand Baht)

	Separate financial statements					
	2024			2023		
	Amortized		Total	Amortized		Total
	FVPL	cost		FVPL	cost	
Financial assets						
Cash and cash equivalents	-	286,610	286,610	-	334,819	334,819
Trade and other current receivables	-	321,260	321,260	-	286,791	286,791
Current contract assets	-	17,238	17,238	-	22,735	22,735
Short-term loans to related company	-	-	-	-	1,000	1,000
Other current financial assets	115,644	-	115,644	50,418	-	50,418
Trade and other non-current receivables	-	2,760	2,760	-	11,003	11,003
Other non-current assets	-	29,085	29,085	-	29,240	29,240
	<u>115,644</u>	<u>656,953</u>	<u>772,597</u>	<u>50,418</u>	<u>685,588</u>	<u>736,006</u>
Financial liabilities						
Trade and other current payables	-	227,518	227,518	-	211,346	211,346
Current portion for lease liabilities	-	8,952	8,952	-	10,443	10,443
Lease liabilities	-	99,546	99,546	-	70,061	70,061
Other non-current liabilities	-	28,304	28,304	-	26,975	26,975
	<u>-</u>	<u>364,320</u>	<u>364,320</u>	<u>-</u>	<u>318,825</u>	<u>318,825</u>

31. RECONCILIATION OF LIABILITIES ARISING FROM FINANCING ACTIVITIES

Changes in the liabilities arising from financing activities for the years ended December 31, 2024 and 2023 are as follows:

(Unit : Thousand Baht)

	Consolidated financial statements / Separate financial statements			
	Balance as at January 1, 2024	Cash flows Increase (decrease)*	Non-cash transaction	
			Increase	Balance as at December 31, 2024
	Lease liabilities	80,504	(12,368)	40,362
Total	<u>80,504</u>	<u>(12,368)</u>	<u>40,362</u>	<u>108,498</u>

(Unit : Thousand Baht)

	Consolidated financial statements / Separate financial statements			
	Balance as at January 1, 2023	Cash flows Increase (decrease)*	Non-cash transaction	
			Increase	Balance as at December 31, 2023
	Lease liabilities	87,577	(11,384)	4,311
Total	<u>87,577</u>	<u>(11,384)</u>	<u>4,311</u>	<u>80,504</u>

* Financing cash flows included net proceed and repayment cash transactions in the statements of cash flows.

32. CAPITAL MANAGEMENT

The objective of managing the equity capital of the group of companies is to maintain the ability to operate continuously, generate returns for the shareholders of the group, and benefit other stakeholders. Management has formulated various strategies to support the group's business operations to enhance efficiency, improve financial performance, and strengthen the financial position. This includes establishing dividend payment policies and managing capital to maintain an appropriate capital structure and financing costs.

33. EVENT AFTER THE REPORTING PERIOD

33.1 On February 13, 2025, the Company registered the establishment of a subsidiary company (According to the company's board of directors' Meeting No. 6/2024 on November 13, 2024), in which the Company holds 100% of the shares with a registered capital of Baht 3 million. The subsidiary's primary business will involve the trade of medical devices; production, manufacturing, assembly, or fabrication of medical devices; repackaging or bundling of medical devices; modification, transformation, or adaptation of medical devices; sterilization of medical devices; as well as the production and sale of synthetic rubber, prosthetics, and related raw materials or products and the subsidiary was officially registered on February 13, 2025.

33.2 According to the company's board of directors' Meeting No. 1/2025 on February 27, 2025. The Board of Directors resolved to approve the payment of a dividend at the rate of Baht 0.12 per share for 584,500,000 issued and paid-up shares, totaling Baht 70.14 million, which will be presented to the next general shareholders' meeting for consideration and approval of the dividend.

33.3 According to the company's board of directors' Meeting No. 1/2025 on February 27, 2025. The Board of Directors resolved to approve the employee Joint Investment Program (EJIP) No. 3, the project period is from May 1, 2025 to December 31, 2029, the Company will appoint Phillip Securities (Thailand) Public Company Limited as the representative to operate the EJIP project.

34. RECLASSIFICATION

Certain amounts in the 2023 financial statements have been reclassified to conform to the current year's classification but with no effect to previously reported net income or shareholder's equity.

35. APPROVAL OF FINANCIAL STATEMENTS

These financial statements were authorized for issue by the Board of Directors of the Company on February 27, 2025.

Section 4

Attachment 1

Details of Directors, Executives, Controllers and Company Secretary

1.1 Bord of Director and Authorized

As of December 31, 2024



Mr. Pichet Sithi-Amnuai

Independent Director (Non-Executive)
Chairman of the Board



Mr. Prasert Deejongkit

Independent Director (Non-Executive)
Chairman of the Nomination and Remuneration
Committee Member of the Audit Committee



Teerachai Pornsinsirak

Independent Director (Non-Executive)/
Chairman of the Risk Management Committee/
Member of the Audit Committee



Mrs. Valeeratn Chuerboonchai

Independent Director (Non-Executive)/
Chairperson of the Audit Committee/ Member of
the Nomination and Remuneration Committee



Mrs. Sirima Iamsakulrat

Directors (Non-Executive)/
Authorized Director



Jain Charnnarong

Directors (Non-Executive) / Member of the
Executive Committee / Member of the Nomination
and Remuneration Committee/ Authorized Director



Mr. Wirat Sukchai

Directors (Executive)/ Chairman of the Executive
Committee/ Member of the Risk Management
Committee and Authorized Director



Mr. Thammanoon Tripetchr

Directors (Executive) / Member of the Executive
Committee / Member of the Risk Management
Committee and Authorized Director

References information disclosed on HARN website, be in the links below, shall be deemed to be part of Form 56-1 One Report.
<https://www.harn.co.th/en/about/board-of-directors/>

1.2 Executives, Person taking the highest responsibility in finance and accounting, Supervisors' accounting and Company Secretary

As of December 31, 2024



Mr. Thammanoon Tripetchr

Chief Executive Officer /
Chief Marketing Officer: Digital Printing System



Mr. Wirat Sukchai

Chief Marketing Officer:
Refrigeration System /
Investor Relations



**Mr. Rattanaphan
Mukhariwattananon**

Chief Marketing Officer:
Safety and Comfortable



Mr. Wisit Wachiralappaitoon

Chief Financial Officer /
The person taking the highest
responsibility in finance and
accounting



Mrs. Varinkan Teraumranon

Chief Operating officer



Miss Ananya Proyngoen

Accounting Manager
and Supervising Accounting



Miss Wasukan Boonmee

Company Secretary

References information disclosed on HARN website, be in the links below,
shall be deemed to be part of Form 56-1 One Report
<https://www.harn.co.th/en/about/management-team/>
<https://www.harn.co.th/en/investor-relations/shareholders-information/information/>

Mr. Pichet Sithi-Amnuai

Independent Director (Non-Executive)

Chairman of the Board

Age 59 Yrs.

Shareholding:

None

(As at December 31, 2024)

Appointment:

April 24, 2023

Education:

- M.Ed. (Early Childhood Education), Chulalongkorn University
- M.B.A. University of Texas at Austin, USA
- B.E. (Industrial Engineering), Chulalongkorn University

Training Participation:

Training Program of Thai Institute of Directors Association (IOD):

- Role of the Chairman Program (RCP) Class 55/2023
- Corporate Governance for Capital Market Intermediaries (CGI) Class 0/2014
- Anti – Corruption for Executive Program (ACEP) Class 2/2012
- TLCA Executive Development Program (EDP) Class 4
- Monitoring Fraud Risk Management (MFM) Class 1/2009
- Successful Formulation & Execution the Strategy (SFE) Class 2/2008
- Monitoring the Internal Audit Function (MIA) Class 1/2007
- Monitoring the System of Internal Control and Risk Management (MIR) Class 1/2007
- Role of the Compensation Committee (RCC) Class 1/2006
- Audit Committee Program (ACP) Class 10/2005
- Director Certification Program (DCP) Class 64/2005

Other Training:

- Transformational Executive Network for Exponential Growth (TenX 2022)
- Business Revolution and Innovation Network (BRAIN 02/2018)
- Thailand Energy Academy (TEA 09/2017)
- TLCA Leadership Development Program (LDP)
- Capital Market Academy Leadership Program (CMA 11/2010)

Board Skill Matrix (as December 31, 2024):

Strategy, Marketing and Competition/ Accounting and Finance/ Technology and IT/ Legal related to business/ Risk Management/ Responsibility and Sustainable Development

Work Experience (5-years past experiences):

2023 - Present	Chairman of the Board, Harn Engineering Solutions Plc.
2022 - Present	Director, Thailand Futures Exchange Plc.
2021 - Present	Vice Chairman and Director, the Stock Exchange of Thailand (SET)
2021 - Present	Director, TSFC Securities Plc.
2019 - Present	President of the Association, Association of Thai Securities Companies
2019 - Present	Managing Director, HO Kitchen Co., Ltd.
2015 - Present	Director, S AND S Property Co., Ltd.
2009 - Present	President, Director, and Eexecutives Director, Bualuang Securities Plc.

Current Positions:

- **Listed Company** - None -
- **Public Company / Limited Company (5)**
 - Thailand Futures Exchange Plc.
 - TSFC Securities Plc.
 - HO Kitchen Co., Ltd.
 - S & S Property Co., Ltd.
 - Bualuang Securities Plc.
- **Other Organizations/Institutions (2)**
 - Association of Thai Securities Companies
 - The Stock Exchange of Thailand (SET)
- **State Enterprise** - None -

Having a Special Interest that is Different from Other Directors - None -

Family Relation with Other Directors - None -

Dispute in the 10 Preceding Years - None -

Participation in administration or consultants who receive a regular salary - None -

Being a professional service provider, such as an auditor, legal advisor - None -

Business relationships that May result in inability to perform duties independently - None -

Mr. Prasert Deejongkit

Independent Director (Non-Executive), Chairman of the Nomination and Remuneration Committee, Member of the Audit Committee
Age 58 Yrs.

Shareholding: None

(As at December 31, 2024)

Appointment: April 23, 2021

Education:

- M.B.A. (Financial Management (2nd honours)), National Institutes of Development Administration (NIDA)
- L.L.B. Sukhothai Thamathirat Open University, Nonthaburi
- B.E. (Mechanical Engineering), Chulalongkorn University

Training Participation:

Training Program of Thai Institute of Directors Association (IOD):

- Advanced Audit Committee Program (AACP) รุ่น 53/2024
- Board Nomination & Compensation Program (BNCP), Class 14/2022
- Director Accreditation Program (DAP), Class 184/2021

Other Training:

- Law, Regulations, and Financial Risk Management in Banking under Islamic Law, Class of 2008, Euromoney, Singapore.
- Senior Executive Development, Class 24/2010, Sasin Graduate Institute of Business Administration, Chulalongkorn University.
- Leadership Succession Program, Class 2/2014, Thailand State-Owned Enterprise Research and Development Institute Foundation.

Board Skill Matrix (as December 31, 2024):

Accounting and Finance / Legal related to business / Human Resources / Responsibility and Sustainable Development

Work Experience (5-years past experiences):

2021 - Present	Director, Harn Engineering Solutions Plc.
2021 - Present	Director, CMDF Digital Infrastructure for Capital Market Co., Ltd.
2020 - Present	EVP & Manager, Corporate Finance Department, Bangkok Bank Plc.
2015 - Present	Director, Club's Board of Directors, Investment Banking Club, Association of Securities Companies (Thailand)
2013 - Present	Director, the Registered Provident Fund of Bangkok Bank Plc.
2019 - 2023	Director, TRIS Corporation Limited
2020 - 2021	Director of Sub-Committee on Director on Debt Securities, the Securities and Exchange Commission
2009 - 2019	SVP & Manager, Corporate Finance Department, Bangkok Bank Plc.

Current Positions:

- **Listed Company (1)**
 - Bangkok Bank Plc.
- **Public Company / Limited Company (1)**
 - CMDF Digital Infrastructure for Capital Market Co., Ltd
- **Other Organizations/Institutions (2)**
 - Investment Banking Club, Association of Securities Companies (Thailand)
 - The Registered Provident Fund of Bangkok Bank Public Company Limited
- **State Enterprise** - None -

Having a Special Interest that is Different from Other Director - None -

Family Relation with Other Director - None -

Dispute in the 10 Preceding Years - None -

Participation in administration or consultants who receive a regular salary - None -

Being a professional service provider, such as an auditor, legal advisor - None -

Business relationships that May result in inability to perform duties independently - None -

Dr. Teerachai Pornsinsirak

Independent Director (Non-Executive), Chairman of the Risk Management Committee, Member of the Audit Committee
Age 54 Yrs.

Shareholding: None

(As at December 31, 2024)

Appointment: April 25, 2022

Education:

- Ph.D. (Electrical Engineering), California Institute of Technology (Caltech), California, USA.
- M.S. (Electrical Engineering), Stanford University, California, U.S.A.
- L.L.B. (Legal Science), Sukhothai Thammathirat Open University
- B.S. (Physics and Electrical Engineering), California Institute of Technology (Caltech), California, USA.
- Executive Certificate in Engineering and Business for Executives, California Institute of Technology (Caltech), California, U.S.A.

Training Participation:

Training Program of Thai Institute of Directors Association (IOD):

- Advanced Audit Committee Program (AACP), Class 50/2023
- Directors Certification Program (DCP), Class 211/2015

Other Training:

- Executive Program, Capital Market Academy (CMA), Class 29, Capital Market Academy
- Blue Ocean Shift: Beyond Competing Master Class, FDB
- Advanced Strategic Management, Corporate Strategy & Learning Institute (CSLI)
- The Art of Public Speaking, PTT Leadership & Learning Institute (PLLI)
- Energy Executive Program for Young Leaders (EYP Class 3), Institute of Energy Knowledge (IEK)
- Harvard Business School (PTT Leadership Development Program II)
- MIT-CMMU Strategy and Innovation for Business in Asia (SIBA Class 2)
- PTT Management Development Program III (Business, Company, and People Management)

Board Skill Matrix (as December 31, 2024):

Core Business / Strategy, Marketing and Competition / Technology and IT / Risk Management / Human Resources / Responsibility and Sustainable Development

Work Experience (5-years past experiences):

2022 - Present	Director, Harn Engineering Solutions Plc.
2022 - Present	Head of Digital and Innovation, Banpu Plc.
2021 - 2022	Director and Managing Director, Thai Film Industries Plc.
2020 - 2021	Independent Strategy and Management Consultant, TEKA Construction Co., Ltd.
2018 - 2020	Chief Strategy Officer, B.Grimm Co., Ltd.
2011 - 2018	Research Manager, Technology and Innovation / Corporate Strategy, PTT Public Company Limited

Current Positions:

- **Listed Company (1)**
 - Banpu Plc.
- **Public Company / Limited Company** - None -
- **Other Organizations/Institutions** - None -
- **State Enterprise** - None -

Having a Special Interest that is Different from Other Director - None -

Family Relation with Other Director - None -

Dispute in the 10 Preceding Years - None -

Participation in administration or consultants who receive a regular salary - None -

Being a professional service provider, such as an auditor, legal advisor - None -

Business relationships that May result in inability to perform duties independently - None -

Mrs. Valeeratn Chuerboonchai

Independent Director (Non-Executive), Chairperson of the Audit Committee, Member of the Nomination and Remuneration Committee
Age 70 Yrs.

Shareholding: 5,671,700 shares (0.97%)

(As at December 31, 2024)

Appointment: May 15, 2022

Education:

- B.B.A. (Accounting), Assumption University

Training Participation:

Training Program of Thai Institute of Directors Association (IOD):

- Advanced Audit Committee Program (AACP), Class 49/2023
- Board Nomination & Compensation Program (BNCP), Class 14/2022
- Financial Statements for Directors (FSD), Class 28/2015
- Director Certification Program (DCP), Class 205/2015
- Anti-Corruption for Executive Program (ACEP), Class 14/2015
- Director Accreditation Program (DAP), Class SET/2012

Other Training:

- Director Forum: Engaging Board in ESG – The Path to Effective Sustainability
- 12 Leadership Qualities for Transformation in the Digital Era and AEC
- Enterprise Risk Management
- Four Strategic Breakthrough Ideas
- Finance for Non-Finance Executives
- The Habits of Highly Effective Working Professionals
- Marketing 3.0: Human Spirit Marketing
- Key Issues in Payroll Tax Deduction and Employee Benefits
- New Accounting Standards Impacting Businesses
- Techniques for Utilizing Accounting and Financial Data for Executives

Board Skill matrix (as December 31, 2024):

Accounting and Finance / Human Resources

Work Experience (5-years past experiences):

2023 - Present	Directors, Pumitalin Co., Ltd.
2018 - Present	Directors and Chairperson of the Audit Committee, Harn Engineering Solutions Plc.
2018 - 2024	Directors, Nutrix Plc.
2012 - 2018	Director, Harn Engineering Solutions Plc.
2012 - 2017	Director and Assistant Managing Director: Operations, Harn Engineering Solutions Plc.
2007 - 2016	Director, Chillmatch Co., Ltd.
2007 - 2016	Director, QIIS Co., Ltd.
2007 - 2012	Finance Director, Fire Victor Co., Ltd.

Current Positions:

- Listed Company - None -
- Public Company / Limited Company (1)
- Pumitalin Co., Ltd.
- Other Organizations/Institutions - None -
- State Enterprise - None -

Having a Special Interest that is Different from Other Director - None -

Family Relation with Other Director - None -

Dispute in the 10 Preceding Years - None -

Participation in administration or consultants who receive a regular salary - None -

Being a professional service provider, such as an auditor, legal advisor - None -

Business relationships that May result in inability to - None -

Mrs. Sirima Iamsakulrat

Directors (Non-Executive)

Authorized Director

Age 62 Yrs.

Shareholding: 81,884,151 shares (14.01%)

(As at December 31, 2024)

Appointment: September 5, 2012 (HARN was listed on the Stock Exchange of Thailand in 2014, resulting in holding the position continuously.)

Education:

- M.B.A., Stanford University, USA.
- B.Econ. (Economics), Chulalongkorn University

Training Participation:

Training Program of Thai Institute of Directors Association (IOD):

- Board Nomination & Compensation Program (BNCP), Class 5/2018
- Successful Formulation & Execution of Strategy (SFE), Class 24/2015
- Director Certification Program (DCP), Class 211/2015
- Director Accreditation Program (DAP), Class SET/2012

Other Training:

- P01: Corporate Social Responsibility Management for Sustainable Development
- S01: Strategic Corporate Social Responsibility Management
- S02: Supply Chain and Stakeholder Engagement
- S03: Strategic Activity Development for Sustainable Development
- S04: Risk Analysis and Key Sustainability Issues
- S05: Evaluation and Data Management in Corporate Social Responsibility
- S06: Sustainability Reporting
- Challenges for Internal Auditors in Creating Added Value in the Current Economic Climate

Board Skill Matrix (as December 31, 2024):

Core Business / Accounting and Finance / Risk Management / Responsibility and Sustainable Development

Work Experience (5-years past experiences):

2019 - Present	Directors, Thawiphasura Co., Ltd.
2018 - Present	Directors, Harn Engineering Solutions Plc.
2017 - Present	Directors, Jainnopsiri Co., Ltd.
2017 - Present	Directors, Phraborriban Co., Ltd.
1989 - Present	Director, Harn Engineering Co., Ltd.
2016 - 2018	Director and Chairperson of the Executive Committee, Harn Engineering Solutions Plc.
2012 - 2016	Director, Harn Engineering Solutions Plc.

Other Positions

- Listed Company - None -
- Public Company / Limited Company (4)
- Harn Engineering Co., Ltd.
- ainnopsiri Co., Ltd.
- Phraborriban Co., Ltd.
- Thawiphasura Co., Ltd.
- Other Organizations/Institutions - None -
- State Enterprise - None -

Family Relation with Other Director Elder sister of Dr.Jain Charnnarong

Dispute in the 10 Preceding Years - None -

Dr. Jain Charnnarong

Directors (Non-Executive), Member of the Executive Committee

Member of the Nomination and Remuneration Committee

Authorized Director

Age 58 Yrs.

Shareholding: 68,953,030 shares (11.80%)

(As at December 31, 2024)

Appointment: April 28, 2017

Education:

- Doctoral Philosophy of Mechanical Engineering, Minor in Management, Massachusetts Institute of Technology, Cambridge, USA.
- Master of Science in Mechanical Engineering, Massachusetts Institute of Technology, Cambridge, USA.
- Bachelor of Engineering (First Class of Honor), Chulalongkorn University, Thailand

Training Participation:

Training Program of Thai Institute of Directors Association (IOD):

- The Board's Roles in Climate Governance (BCG), Class 2/2024
- Board Nomination & Compensation Program (BNCP), Class 14/2022
- How to Develop a Risk Management Plan (HRP), Class 8/2015
- Successful Formulation & Execution of Strategy (SFE), Class 23/2015
- Family Business Sustainability (FBS), Class 1/2014
- Director Certification Program (DCP), Class 173/2013

Other Training:

- Business Transformation Towards Sustainable Development Goals
- Key Technology Trends and Directions for Digital Transformation
- P01: Corporate Social Responsibility Management for Sustainable Development
- S01: Strategic Corporate Social Responsibility Management
- S02: Supply Chain and Stakeholder Engagement
- S03: Strategic Activity Development for Sustainable Development
- S04: Risk Analysis and Key Sustainability Issues
- S05: Evaluation and Data Management in Corporate Social Responsibility
- S06: Sustainability Reporting

Board Skill Matrix (as December 31, 2024):

Technology and IT

Work Experience (5-years past experiences):

2020 - Present	Directors, Aiyara Harn Co., Ltd.
2019 - Present	Directors, Thawiphasura Co., Ltd.
2017 - Present	Director, Harn Engineering Solutions Plc.
2017 - Present	Directors, Jainnopsiri Co., Ltd.
2017 - Present	Directors, Phraboriban Co., Ltd.
2007 - Present	Directors, Harn Engineering Co., Ltd.
2001 - 2014	Founder & CEO, Siam General Aviation Company Limited (SGA)
1999 - 2001	Directors & General Manager, Siam Land Flying Company Limited (SGA)
1998 - 2000	Business Analyst, Siam Commercial Bank Plc.

Other Positions

- **Listed Company** - None -
- **Limited Company/Public Company Limited (5)**
 - Harn Engineering Co., Ltd.
 - Aiyara Harn Co., Ltd.
 - Jainnopsiri Co., Ltd.
 - Phraboriban Co., Ltd.
 - Thawiphasura Co., Ltd.
- **Other Organizations/Institutions** - None -
- **State Enterprise** - None -

Family Relation with Other Director Younger brother Mrs. Sirima Iamsakulrat

Dispute in the 10 Preceding Years - None -

Mr. Wirat Sukchai

Directors (Executive), Chairman of the Executive Committee

Member of the Risk Management Committee, Authorized Director

Chief Marketing Officer: Refrigeration System and Investor Relations

Age 59 yrs.

Shareholding: 89,657,617 shares (15.34%)

(As at December 31, 2024)

Appointment: September 5, 2012 (HARN was listed on the Stock Exchange of Thailand in 2014, resulting in holding the position continuously.)

Education:

- M.B.A. (E-MBA), National Institute of Development Administration (NIDA)
- B.B.A. (Sales and Marketing), Bangkok University

Training Participation:

Training Program of Thai Institute of Directors Association (IOD):

- How to Develop a Risk Management (HRP) Class 12/2017
- Successful Formulation & Execution of Strategy (SFE), Class 24/2015
- Director Certification Program (DCP), Class 204/2015
- Role of Chairman Program (RCP), Class 36/2015
- Anti-Corruption for Executive Program (ACEP), Class 14/2015
- Director Accreditation Program (DAP), Class SET/2012

Other Training:

- The mai CFO 2024: Growth & AI Chapter
- IR In Action4
- Create Everlasting Company : Sustainability, Succession, and Strategy
- Team Engagement for TOP Culture
- Fire Product value and on Lead Free (NSF) value
- Analytical Thinking and Systems Thinking for Cross-functional Problem Solving and Decision Making
- Senior Executive Program (CMA), Class 29
- ISO 9001 : 2015 Understanding and Implementation
- 12 Quality Leaders toward Digital Age and AEC Course
- Risk Management of Organization Course
- 4 Super Strategic Ideas Course
- Finance for Non-finance Executive Course
- Marketing 3.0: Human Spirit Marketing Course

Board Skill Matrix (as December 31, 2024):

Core Business / Strategy, Marketing and Competition

Work Experience (5-years past experiences):

2023 - Present	Chairman of Director, Zenex Property Plc.
2023 - Present	President of the Association, Market for Alternative Investment - mai
2022 - Present	Director, Chairman of the Executive Committee, Chief Marketing Officer: Refrigeration System, Harn Engineering Solutions Plc.
2016 - 2022	Director, Chief Executive Officer and Managing Director: Fire Protection System, Air-conditioning System and Sanitary, Harn Engineering Solutions Plc.
2012 - 2016	Director and Managing Director, Harn Engineering Solutions Plc.
2002 - 2012	General Manager, Fire Victor Co., Ltd.

Current Positions:

- **Listed Company** - None -
- **Public Company / Limited Company (1)**
 - Zenex Property Plc.
- **Other Organizations/Institutions (1)**
 - Market for Alternative Investment - mai
- **State Enterprise** - None -

Family Relation with Other Director - None -

Dispute in the 10 Preceding Years - None -

Mr. Thammanoon Tripetchr

Directors (Executive), Member of the Executive Committee,
Member of the Risk Management Committee, Authorized Director,
Chief Executive Officer, Chief Marketing Officer: Digital Printing System
Age 57 Yrs.

Shareholding: 23,786,313 shares (4.07%)

(As at December 31, 2024)

Appointment: November 1, 2016

Education:

- B.B.A. (Management), Assumption University of Thailand

Training Participation:

Training Program of Thai Institute of Directors Association (IOD):

- How to Develop a Risk Management Plan (HRP), Class 31/2022
- Director Certification Program (DCP), Class 211/2015
- Successful Formulation & Execution of Strategy (SFE), Class 24/2015
- Financial Statements for Directors (FSD), Class 28/2015
- Director Accreditation Program (DAP), Class 116/2015

Other Training:

- Intro Generative AI
- Team Engagement for TOP Culture
- Analytical Thinking and Systems Thinking for Cross-functional Problem Solving and Decision Making
- Chief Transformation Officer (CTO)
- P01: Corporate Social Responsibility Management for Sustainable Development
- S01: Strategic Corporate Social Responsibility Management
- S02: Supply Chain and Stakeholder Engagement
- S03: Strategic Activity Development for Sustainable Development
- ISO 9001 : 2015 Understanding and Implementation
- Safety Officer
- Development of strategic thinking
- Leadership Skill
- Internal Quality Audit
- Application of KPIs to ISO 9001: 2000
- CRM - Strategy & Technology

Board Skill Matrix (as December 31, 2024):

Core Business/ Strategy/ Marketing and Competition/ Accounting and Finance/
Technology and IT/ Risk Management/ Human Resources/ Responsibility and
Sustainable Development

Work Experience (5-years past experiences):

2022 - Present	Director, Chief Executive Officer and Chief Marketing Officer: Digital Printing System, Harn Engineering Solutions Plc.
2021 - Present	Director, Harnvietnam Co., Ltd.
2020 - Present	Director, Aiyaraharn Co., Ltd.
2016 - 2022	Director, Managing Director: Digital Printing System, Harn Engineering Solutions Plc.
2015 - 2016	Director, Managing Director, Q II S Co., Ltd.
2014 - 2016	Director, Chillmatch Co., Ltd.
2010 - 2015	Director, General Manager, Q II S Co., Ltd.

Current Positions:

- Listed Company - None -
- Public Company / Limited Company (2)
 - Aiyaraharn Co., Ltd.
 - Harnvietnam Co., Ltd.
- Other Organizations/Institutions - None -
- State Enterprise - None -

Family Relation with Other Director - None -

Dispute in the 10 Preceding Years - None -

Mr. Rattanaphan Mukhariwattananon

Chief Marketing Officer: Safety and Comfortable
Age 46 yrs.

Shareholding: 4,713,586 shares (0.81%)

(As at December 31, 2024)

Appointment: January 1, 2014

Education:

- Executive M.B.A. KU 25, Kasetsart University
- B.Ind.Tech. (Mechanical), Sriprathum university

Training Participation:

- Scenario Planning for sustainability Leadership
- PEX and PPR pipeline knowledge
- Team Engagement for TOP Culture
- Basic knowledge of international product exports
- Inert gas fire extinguishing system course
- Halogen carbon fire extinguishing system course
- Fire Product value and on Lead Free (NSF) value
- Analytical Thinking and Systems Thinking for Cross-functional Problem Solving and Decision Making
- Basic of Air-conditioning System
- HVAC Training by Victaulic
- CSR for Corporate Sustainability (P01)
- ISO 9001: 2015 Understanding and Implementation
- Risk Management Certificate Program, Class 10
- Sprinkler System Design
- Warehouse Sprinkler System and Clean Agent Fire Extinguishing Design

Work Experience (5-years past experiences):

2022 - Present	Chief Marketing Officer: Safety and Comfortable, Harn Engineering Solutions Plc.
2014 - 2022	Sales Director: Safety and Comfortable, Harn Engineering Solutions Plc.
2008 - 2013	Sales Manager, Fire Victor Co., Ltd.
2003 - 2008	Sales Engineer, Fire Victor Co., Ltd.

Mr. Wisit Wachiralappaitoon

Chief Financial Officer

The person taking the highest responsibility in finance and accounting

Age 50 Yrs.

Shareholding: 1,054,229 shares (0.18%)

(As at December 31, 2024)

Appointment: March 16, 2016

Education:

- Master of Science (Accounting), Thammasat University
- B.B.A. (Accounting), Ramkhamhaeng University
- LL.B. (Laws), Ramkhamhaeng University
- Global Entrepreneurship and Electronic Commerce, York College of Industry Technology, Ontario, Canada

Certified Public Accountant of Thailand: License No. 6051

Training Participation:

- All TFRS 2024 editions, Class 2/67 (Sub-course 302)
- SMP Manual Edition - V2
- Insight in SET: Understanding the Growth and Sustainability of Capital Markets, No. 3/2024 (SET)
- Tax and Accounting Due Diligence for M&A
- Accounting and tax updates for 2024
- Team Engagement for TOP Culture
- The Continuing Professional Development Program by Self-Study CPD Financial Reporting Standards for Non-Publicly Interested Entities (NPAEs)
- Basic knowledge of international product exports
- Operations in accordance with the Personal Data Protection Act
- Checking corporate fraud with Jurisprudence of Accountancy
- Analysis and management of foreign exchange rate risk
- Training Schedule Ethics Training Project For Professional Accountants Only Certified Public Accountant Class 5
- Accounting tools with RPA, AI and OCR technology
- Training for Continuing Professional Knowledge (CPD) for auditors and accountants According to the regulations of the Federation of Accounting Professions.
- Executive Accountant Testing Program (Financial Strategy)
- Financial Management Strategy To revive the organization and create growth in the New Normal
- The New CFO (Crisis Finance Officer) (SET)
- Changes in TFRS15, and Draft TFRS9, TFRS16, effective 2019 and 2020
- Prepare Financial Reporting Standard No. 9 Financial Instruments (TFRS 9) and No. 16 Lease Agreement (TFRS 16)

Work experience (5-years past experiences):

2019 - Present	Chief Financial Officer, Harn Engineering Solutions Plc.
2016 - 2019	Finance Director, Harn Engineering Solutions Plc.
2012 - 2016	Chief Financial Officer, Hot Pot Plc.

Mrs. Varinkan Teraumranon

Chief Operating Officer

Age 59 Yrs.

Shareholding: 1,766,966 shares (0.30%)

(As at December 31, 2024)

Appointment: January 1, 2014

Education:

- B.B.A. (Accounting), Rajamangala Institute of Technology

Training Participation:

Training Program of Thai Institute of Directors Association (IOD):

- Effective Minute Taking Plan (EMT), Class 36/2016
- Company Reporting Program (CRP), Class 16/2016
- Company Secretary Program (CSP), Class 72/2016
- How to Develop a Risk Management Plan (HRP), Class 8/2015

Other Training:

- Including labor law issues
- Safety, Occupational Health and Working Environment Committee
- Serve as an internal auditor according to ISO 9001:2015
- Intro Generative AI
- Anti-Corruption Working Paper
- Team Engagement for TOP Culture
- Personal financial management course for private pension funds
- Certificate in ESG Management (C-ESG) Class 2/2022
- Operations in accordance with the Personal Data Protection Act
- Analytical Thinking and Systems Thinking for Cross-functional Problem Solving and Decision Making
- Personal Data Protection Act (PDPA)
- CSR for Corporate Sustainability(P01)
- Business Sustainability Strategy (S01-S03)
- Sustainability Risk and Materiality Analysis (S04)
- CSR Evaluation and Data Management (S05)
- Sustainability Reporting (S06)
- Organizational Success Assessment through KPI Course
- 360° Marketing Communication Techniques Course
- Finance for Non-finance Executive Course
- Finance for the Boss Course

Work Experience (5-years past experiences):

2021 - Present	Chief operating officer, Harn Engineering Solutions Plc.
2019 - 2021	Chief operating officer and Company Secretary, Harn Engineering Solutions Plc.
2016 - 2019	Corporate Governance Director and Company Secretary, Harn Engineering Solutions Plc.
2016 - 2017	Assistant Managing Director: Corporate Governance and Secretary Company, Harn Engineering Solutions Plc.
2014 - 2016	Operation Support Director (General Management Group), Harn Engineering Solutions Plc.

Miss Ananya Proyngoen

The person supervising accounting

Age 43 yrs.

Shareholding: 220,456 shares (0.04%)

(As at December 31, 2024)

Appointment: December 1, 2016

Education:

- Master of Accountancy (M.Acc.), Chulalongkorn University
- B.B.A. (Accounting), Rajamangala Institute of Technology Chakrabongsa Bhuvanarth Campus

Certified Public Accountant of Thailand: License No. 11654

Training Participation:

- The Development of Accounting Systems in the Digital Age, class 1/67
- Problems and errors in preparing financial statements over the past year, and analyzing the issues from the notes to the financial statements.
- Architectural Accounting
- Professional financial statements
- Prepare consolidated financial statements (basic)
- Basic Financial Statement Analysis
- Upgrading working papers expert in reviewing anti-corruption
- Summarizing accounting standards and financial reporting standards, revised year 2023.
- Accounting Information
- Accounting standards related to land. Building and equipment
- Ethics for accounting professionals
- Financial statement analysis

Work Experience (5-years past experiences):

2016 - Present Accounting Manager, Harn Engineering Solutions Plc.
2014 - 2015 Accounting Manager, I AM Consulting Co., Ltd.
2013 - 2014 Accounting Supervisor, Yum Restaurants International

Miss Wasukan Boonmee

Company Secretary

Age 45 yrs.

Shareholding: 141,820 shares (0.02%)

(As at December 31, 2024)

Appointment: August 11, 2021

Education:

- B.B.A. (Business Computer), Chandrakasem Rajabhat University

Training Participation:

Training Program of Thai Institute of Directors Association (IOD):

- Effective Minute Taking Plan (EMT), Class 65/2015
- Company Secretary Program (CSP), Class 64/2015

Other courses:

- Professional Development Plan for Company Secretaries in 2024
- Insight in SET: Understanding the Growth and Sustainability of Capital Markets, No. 1/2024
- S01 Setting goals for sustainable development of business
- S02, S04 Value Chain and Materiality Analysis
- S03 Sustainability strategy and Initiative

Work Experience (5-years past experiences):

2021 - Present Company Secretary, Harn Engineering Solutions Plc.
2016 - 2021 Assistant Company Secretary, Harn Engineering Solutions Plc.
2015 - 2016 Company Secretary and Secretary of the Audit Committee,
Chillmatch Co., Ltd.
2007 - 2015 Administrative, Harn Engineering Co., Ltd

1.3 Details Position the Board and the Management of HARN / Subsidiaries / Related Companies

Name	Position																		
	HARN	Subsidiaries		Related Companies															
		Harn Vetnam Co., Ltd	Aiyaraham Co., Ltd	Harn Engineering Co., Ltd.	Jainnopsiri Co., Ltd	Pharaborriban Co., Ltd.	Thawiphasura Co., Ltd.	Zenex Property Plc.	Market for Alternative Investment - mai	The Stock Exchange of Thailand (SET)	Thailand Futures Exchange Plc.	TSFC Securities Plc.	Bualuang Securities Plc.	HO Kitchen Co., Ltd.	S & S Property Co., Ltd.	Banpu Plc.	Bangkok Bank Plc.	CMDF Digital Infrastructure for Capital Market	Pumitalin Co., Ltd.
1. Mr. Pichet Sithi-Amnuai	▲									■	■	■	■	■					
2. Mr. Prasert Deejongkit	■															■	■		
3. Dr. Teerachai Pornsinsirak	■														■				
4. Mrs. Valeeratn Chuerboonchai	■																		■
5. Mrs. Sirima Iamsakulrat	■			■	■	■	■												
6. Dr. Jain Charnnarong	■ ●	■	■	■	■	■	■												
7. Mr. Wirat Sukchai	■ ● ◻						▲	▲											
8. Mr. Thammanoon Tripetchr	■ ● ◻	■ ◻	■																
9. Mr. Rattanaphan Mukhariwattananon	● ◻																		
10. Mr. Wisit Wachiralappaitoon	● ◻																		
11. Mrs. Varinkan Teraumaranon	● ◻																		

Note : ▲ = Chairman ■ = Director ● = Executive ◻ = Management

2.1 Harn Vietnam Company Limited

The Board of Directors at the Meeting No. 5/2018, held on November 9, 2018 resolved to establish a subsidiary in Vietnam, named “HarnVietnam” To support the market expansion into Asian countries AEC and enhance the efficiency of services and focus is on the pioneer of the sales and services of technology in digital printing system products, targeting industries label sticker manufacturing and packaging. The goal is to explore opportunities to introduce the digital solutions developed by HARN, which have already been successful in Thailand, to the Vietnamese market.

HARN registered the establishment of Harn Vietnam Company Limited (“first subsidiary”), Vietnam, with a registered capital of 800,000,000 Vietnamese dong or approximately Baht 1,057,444. HARN holds 100% of the first subsidiary’s shares of the registered capital on July 30, 2019. Specifying the legal representatives of the Subsidiary as follow Mr. Thammanoon Tripetchr, sign and affix the company seal.

2.2 Aiyaraharn Company Limited

The Board of Directors at the Meeting No. 4/2020, held on May 14, 2020 decided to establish a subsidiary. Provide intelligent building and Internet of Things (IoT) development services under the name “Aiyarahran”.

HARN registered the establishment of Aiyaraharn Company Limited (“second subsidiary”), with a registered capital of Baht 2,000,000. HARN holds 65% of the second subsidiary’s shares of the registered capital on July 8, 2020. Specifying the Directors having authority to sign on behalf of the Subsidiary as follow Mr. Jain Charnnarong, Mr. Thammanoon Tripetchr, Mr. Prasertsak Detudom, two-thirds shall jointly sign.

2.3 Details Position of the Subsidiaries

Name		Position of Subsidiaries	
		Harn Vietnam Co., Ltd.	Aiyara Harn Co., Ltd.
1. Mr. Thammanoon	Tripetchr	■▶	■
2. Mr. Jain	Charnnarong		■
3. Mr. Prasertsak	Detudom		■▶

Note : ■ = Director/Legal representatives ▶ = Management

References information disclosed on HARN website, be in the links below, shall be deemed to be part of Form 56-1 One Report.

<https://www.harn.co.th/en/about/business-structure/>

3.1 Head of Internal Audit

HARN does not have its own internal audit department and therefore uses external services (Outsourcing). The audit committee approves the appointment of as internal audit namely Ultima Advisory Company Limited, which appointed Miss Chonlada Thirapattananon, Managing director and Miss Siriphan Tantipanichphan, senior internal audit manager as the head of internal audit of HARN. Supervising the operations in accordance with the objectives and the international standards,

including objectivity and independent consulting on HARN’s operation and report directly to the Audit Committee, with Mr. Wisit Wachiralappaitoon, Chief Financial Officer, who is the Secretary of the Audit Committee responsible for coordinating within the company to ensure that HARN has an adequate and appropriate internal control system: as follows: **(Details in Section 2, Topic: internal control and connected transaction, “Item 1 internal control”, page 167)**

Miss Chonlada Thirapattananon Managing Director Age 56 Yrs.

Shareholding proportion - None -
(As at December 31, 2024)

Appointment date December 2, 2016

- Education**
- M.Acc. (Accounting and Finance), Chulalongkorn University
 - Graduate Diploma Program in Auditing, Thammasat University
 - B.Acc. (Accounting), Thammasat University

Certified Public Accountant of Thailand License No. 4994

- Training participation**
1. Training project to receive a certificate in internal audit, class 3
 2. COSO 2013 course
 3. Internal Audit in Information System, Class 2/2016
 4. Strategic Leadership in the Future Digital Adge (Chulalongkorn Business School)

- Work Experiences (5 years past experiences)**
- | | |
|----------------|--|
| 2010 - Present | Managing Director, Ultima Advisory Co., Ltd. |
| 2005 - 2010 | Manager, Deloitte Touche Tohmatsu Jaiyos Advisory Co., Ltd. |
| 1997 - 2005 | Financial Controller, Sensient Technologies (Thailand) Ltd. Accounting and Finance Department, Amex Team Advertising Group |
| | Manager, Gilberte Reed Co., Ltd. |
| 1991 - 1996 | Audit Manager / Ernst & Young Office Limited |

Relation among Family with other Directors, Management, Major Shareholders of the Company or Subsidiaries - None -

Participation in administration, staff, employees or consultants who receive a regular salary - None -

Significant business relationships that May result in inability to perform duties independently - None -

Miss Siriphan Tantipanichphan Senior Internal Audit Manager Age 55 Yrs.

Shareholding proportion - None -
(As at December 31, 2024)

Appointment date August 10, 2017

- Education**
- M.B.A, National Institute of Development Administration
 - B.Acc. (Accounting), Thammasat University

Certified Public Accountant of Thailand License No. 4820

- Training participation**
1. Training project to receive a certificate in internal audit, class 13
 2. COSO 2013 course
 3. COSO ERM 2017 course
 4. Internal Audit in Information System, Class 2/2016
 5. Corruption Prevention Course in Organizations, Class 16

- Work Experiences (5 years past experiences)**
- | | |
|----------------|--|
| 2016 - Present | Senior Manager, Ultima Advisory Co., Ltd. |
| 1993 - 2015 | Senior Manager, Ernst & Young Office Limited |

Relation among Family with other Directors, Management, Major Shareholders of the Company or Subsidiaries - None -

Participation in administration, staff, employees or consultants who receive a regular salary - None -

Significant business relationships that May result in inability to perform duties independently - None -

References information disclosed on HARN website, be in the links below, shall be deemed to be part of Form 56-1 One Report (Risk Management Policy\Internal Audit) <https://www.harn.co.th/en/corporate-governance/corporate-governance-policy/>

3.2 Head of Compliance

The Chief Operating Officer is responsible for overseeing the operation of HARN (Compliance) to promote and support supervision of business operations, including the operations of executives and employees and its subsidiaries, to comply with the law. The rules of HARN's investment.

This is to ensure that there is a process to supervise compliance with the relevant laws and regulations, including the specification of duties and responsibilities of various departments, to reduce any impacts that may incur from operations not in compliance with the relevant laws and regulations. This may cause HARN to face legal penalties or loss of benefits. The executives of

all departments are responsible for collecting and reviewing the laws related to their responsibilities, while setting procedures and work processes based on the appropriate internal control and risk management, in line with the follow-up for compliance. The Quality Management Department by the Chief Operating Officer is a regulatory body responsible for monitoring the work performance as appropriate and accuracy according to the relevant laws, regulations and ethics, and presenting to the Board of Directors for acknowledgment at least once a year. **Profile details in Section 4, Attachment 1, page 238**

References information disclosed on HARN website, be in the links below, shall be deemed to be part of Form 56-1 One Report
<https://www.harn.co.th/en/about/management-team/>



4.1 Business Assets

4.1.1 Investment properties

As at December 31, 2024 HARN's investment properties which can generate profit from rental or from value appreciation or both. The net book value of HARN's investment properties less accumulated depreciation and allowance for impairment the total shown in the consolidated, details as follows:

Unit: THB million

Investment properties	Net book values as of December 31, 2024	Proprietary nature	Obligation
1. Land	135.29	HARN's owned	None
2. Buildings and structures	16.41	HARN's owned	None
3. Buildings and structures improvements	0.40	HARN's owned	None
4. Tools and equipment	-	HARN's owned	None
5. Rigt-of-use assets	13.70	Leasehold rights for a portion of the building	None
Total	165.80		

4.1.2 Land, Buildings and Equipment

As at December 31, 2024 HARN's total operating fixed assets consist of land, buildings and structures, tools and equipment, furniture and office equipment, vehicle, assets for rent and demonstration, and assets under construction. The net book value of HARN's operating fixed assets less accumulated depreciation and allowance for impairment the total shown in the consolidated, details as follows:

Unit: THB million

Land, Buildings and Equipment	Net book values as of December 31, 2024	Proprietary nature	ภาระผูกพัน
1. Land	37.36	HARN's owned	None
2. Buildings and structures	30.81	HARN's owned	None
3. Tools and equipment	2.05	HARN's owned	None
4. Furniture and office equipment	17.00	HARN's owned	None
5. Vehicle	6.87	HARN's owned	None
6. Assets for rent and demonstration	6.05	HARN's owned	None
7. Assets under construction	0.47	HARN's owned	None
Total	100.61		

4.1.3 Long-Term Lease Agreement and Right of Use Asset

HARN has entered into a long-term lease agreement, which is categorized into three types: 1. office building space lease, 2. warehouse space lease, and 3. other asset leases, such as office equipment. These leases are intended for establishing the company's headquarters, storing goods, and utilizing other assets. The lease agreements have been made with both related companies and external entities that own assets qualifying as Right of Use Assets (ROU) under financial reporting standards. The details are as follows:

Counterparties	Place			Rental period			Area (sq.m.)	Qualify as Right of Use Assets (ROU)	Book values as of December 31, 2024
	No.	Floor	Road / Sub-District / District / Province	Term of lease	Contract start	Contract end			
Office Building 1. Lessor: Jainnopsiri Co., Ltd. (Related companies) Renter: HARN	559 ^{1/}	1-6	Soi Soonviai 4, Bangkapi, Huaykwang, Bangkok	3 years ^{1/}	May 1, 2024	April 30, 2027	4,375.20	Qualify	83.04 ^{2/}
Warehouse buildings 2. Lessor: Phraboriban Co., Ltd. (Related companies) Renter : HARN	509		Soi Soonviai 4, Bangkapi, Huaykwang, Bangkok	3 years	May 1, 2024	April 30, 2027	307.55	Qualify	3.30
Warehouse buildings 3. Lessor: Phattararit 1997 Co., Ltd. (External companies) Renter: HARN	38/43		Moo 4, Lamlukka Road, Lamlukka, Pathumtani	5 years	March 2, 2020	March 2, 2025	100.00	Unqualified condition is the space service contract	-
Others Asset 4. Lessor: External companies Renter: HARN	-	-		4 years	2021 2022 2024	2025 2026 2027	-	Qualify	0.59
Total Right of Use Asset									86.93

Note : 1/ On May 1, 2024, HARN entered into a office building lease agreement with Jainnopsiri Co., Ltd. and the conditions under the contract the commitment of the lessor to lease the office building for another 7 years after the contract expires, and a portion of the office building space, equivalent to 14.16%, has been leased to external companies. The value of this portion is included in investment properties.
2/ The carrying amount after reclassifying certain items as investment properties.

1) Property Insurance Policy Contract

HARN has insured 2 policies of property all risk insurance and third-party liability insurance with Dhipaya Insurance Public Company Limited, with a total sum insured of Baht 437.52 million, following details;

Type insurance	Company Insured	Property Insured	Capital (MB.)	Period assured	Assured
insured no.1 Property all risk insurance and third-party liability insurance	Dhipaya Insurance Public Company Limited	<ul style="list-style-type: none"> Property Location, 559 Soi Soonviai 4 Bangkapi, Huaykwang, Bangkok <p>The insured property, All kinds, various raw materials including all packaging, and including all assets belonging to the insured and/or under the care of the Insured as a keeper.</p> <p>Protection This insurance policy covers loss or damage to insured property resulting from various events such</p>	53.52	September 18, 2024 to September 18, 2025	HARN

Type insurance	Company Insured	Property Insured	Capital (MB.)	Period assured	Assured
		<p>as fire, lightning, explosions, vehicle impact, smoke, aircraft, water damage, storms, floods, riots, strikes or malicious acts (excluding those committed for political, religious, or ideological purposes), acts of nature such as earthquakes, and other unforeseen or unspecified events that are not specifically excluded in the insurance policy contract (OCI Form).</p> <p>Limit of liability For flood disaster, not more than Baht 70 million per time and throughout the insurance period.</p> <p>Extending protection</p> <ul style="list-style-type: none"> • Insurance for electrical appliances limit not more than: Baht 30 million per time and throughout the insured period • Glass insurance limit not more than: Baht 30 million per time and throughout the insured period • Losses due to theft of property, which show no signs of forced entry (excluding stocks and all types of goods), are not covered under this policy, limit not more than: Baht 30 million per time and throughout the insured period • Machine insurance limit not more than: Baht 30 million per time and throughout the insured period • Protection of electronic equipment, equipment due to unforeseen external factors and theft involving visible signs of forced entry, limit not more than: Baht 20 million accident and throughout the insurance period • Money insurance (Por Ngor.2) limit not more than: Baht 2 million per time and throughout the insured period • Cover damage to real estate located in an open space or a building with one side open, including a fence, gate, from the dangers of scorpions, storms, floods, ice, sand, or dust, limit not more than: Baht 10 million per time and throughout the insured period • The maximum liability for loss or damage to insured property resulting from theft or robbery (Tor Sor. 1.21) is limited to the sum insured. <p>Public Liability</p> <p>Protection</p> <ul style="list-style-type: none"> • Legal liability of the insured for accidents and physical injuries, death, and damage to the property of third parties caused by defects in the insured premises. Or negligence of the insured or employees of the insured within the insured premises and occurring during the insured period. 			

Type insurance	Company Insured	Property Insured	Capital (MB.)	Period assured	Assured
		<ul style="list-style-type: none"> Costs, fees for compensation claiming which the insured must compensate the claimant with written consent from the Company. <p>Special conditions</p> <ul style="list-style-type: none"> Liability from elevators, escalators, cranes and hoists PL/002-1. Liability from providing first aid by the insured, limit not more than Baht 0.01 million per person and not more than Baht 0.50 million per time throughout the insured period. Liability from parking lot, limit not more than Baht 0.50 million per person and not more than Baht 5 baht per time throughout the insured period. Liability from neon signs and advertising signs Form Ror. Bor. 102, limit not more than Baht 1 million per time throughout the insured period. Legal liability from fire and explosion for property not owned by the insured Form Ror. Bor. 007. Expand coverage for medical expenses for injuries occurring within the operation premises Form Ror. Bor. 008 form, maximum liability not more than Baht 0.01 million per person and not more than Baht 0.50 million per time throughout the insured period. MECHANICALLY PROPELLED VEHICLES : limit not more than Baht 1 million per time throughout the insured period. 			
insured no.2					
Property all risk insurance and third-party liability insurance	Dhipaya Insurance Public Company Limited	<ul style="list-style-type: none"> According to location of branch offices namely; 2.1) Office and Warehouse, 888/14-16 (branch no. 11) <p>The insured property, includes: buildings, furniture, fixtures, affixed and stock</p> <ul style="list-style-type: none"> Building No. 888/14 - 16 Moo 21, Bang Phli Yai Sub-District, Bang Phli District, Samut Prakan (excluding foundation), including renovations, additions, fences, gates, utilities such as air-conditioning systems, water systems, electrical systems and other systems. Decorations, renovations, additions, furniture, fixtures, office equipment, computer systems, computers, tools, appliances, demonstrations, all kinds of related machinery and equipment, forklifts, and all kinds of assets belonging to the insured and/or under the care of the insured as a keeper and all kinds of products various raw materials. 	384.00	September 18, 2024 to September 18, 2025	HARN





Type insurance	Company Insured	Property Insured	Capital (MB.)	Period assured	Assured
		<ul style="list-style-type: none"> All kinds' products, raw materials, including all packaging and including all property belonging to the insured and/or under the care of the Insured as a keeper. <p>2.2) 100 Years Building, 1st Floor Faculty of Engineering Chulalongkorn University (branch no. 10)</p> <p>The insured property, includes: furniture, fixtures and products stock.</p> <p>2.3) Warehouse, 38/43 Moo 4, Lam Luk Ka Road, Lam Luk Ka Sub-district, Lam Luk Ka District, Pathum Thani.</p> <p>The insured property, includes: products stock</p> <p>2.4) Warehouse, 509 Soi Soonvijai (branch no.8)</p> <p>The insured property, includes: furniture, fixtures and products stock.</p> <p>Protection This insurance policy covers loss or damage to insured property resulting from various events such as fire, lightning, explosions, vehicle impact, smoke, aircraft, water damage, storms, floods, riots, strikes or malicious acts (excluding those committed for political, religious, or ideological purposes), acts of nature such as earthquakes, and other unforeseen or unspecified events that are not specifically excluded in the insurance policy contract (OCI Form)</p> <p>Limit of liability For flood disaster, not more than Baht 70 million per time and throughout the insurance period.</p> <p>Extending protection</p> <ul style="list-style-type: none"> Insurance for electrical appliances limit not more than: Baht 30 million per time and throughout the insured period Glass insurance limit not more than: Baht 30 million per time and throughout the insured period Losses due to theft of property, which show no signs of forced entry (excluding stocks and all types of goods), are not covered under this policy, limit not more than: Baht 30 million per time and throughout the insured period Machine insurance limit not more than: Baht 30 million per time and throughout the insured period Protection of electronic equipment, equipment due to unforeseen external factors and theft involving visible signs of forced entry, limit not more than: Baht 20 million accident and throughout the insurance period 			

Type insurance	Company Insured	Property Insured	Capital (MB.)	Period assured	Assured
		<ul style="list-style-type: none"> • Money insurance (Por Ngor.2) limit not more than: Baht 2 million per time and throughout the insured period • Cover damage to real estate located in an open space or a building with one side open, including a fence, gate, from the dangers of scorpions, storms, floods, ice, sand, or dust, limit not more than: Baht 10 million per time and throughout the insured period • The maximum liability for loss or damage to insured property resulting from theft or robbery (Tor Sor. 1.21) is limited to the sum insured. <p>Public Liability</p> <p>Protection</p> <ul style="list-style-type: none"> • The insurer is legally liable for bodily injury, loss of life, and property damage to third parties caused by defects on the insured premises or the negligent actions of the insurer or their employees within the insured premises during the policy period. • The expenses and fees for claiming indemnity, which the insured shall pay to the claimant, with the insured's written consent to the company. <p>Limit of liability</p> <ul style="list-style-type: none"> • Limit no more than Baht 40 million per accident and throughout the insured period <p>Special conditions</p> <ul style="list-style-type: none"> • The liability for providing first aid by the insurance policyholder limit not more than: the maximum responsibility shall not exceed Baht 0.01 million per person and no more than Baht 1 million each time, and throughout the insured period • The liability arising from parking premises limit not more than: Baht 0.5 million per time and limit not more than: Baht 5 million throughout the insured period • The liability arising from NIA and advertising signs, Form Ror Bor.102 limit not more than: Baht 1 million per time and throughout the insured period • The legal liability for fire and explosion hazards for properties not owned by the insurance policyholder, Form Ror Bor. 007. • Expanding coverage for medical expenses for injuries occurring within the business premises, Form Ror Bor. 008: Maximum liability of up to Baht 0.01 million per person and limit not more than: Baht 1 million per time and throughout the insured period • MECHANICALLY PROPELLED VEHICLES limit not more than: Baht 1 million per time and throughout the insured period 			

2) Intangible Asset

HARN's intangible assets include computer software, goodwill, customer relationships, and trademarks. The details as of December 31, 2024 are as follows:

1. Computer software which has a net book value of Baht 7.69 million, with amortization by the straight-line method over the asset's useful life of 5-10 years
2. Goodwill total value is Baht 315.97 million, a decrease of Baht 18.70 million from the previous year. This reduction is due to an impairment loss on the goodwill of the refrigeration system business unit, as a result of an impairment test conducted in accordance with Accounting Standard No. 36 on Asset Impairment.
3. Trademarks/service marks which have developed their own brand of 7 brands, namely HARN, VALTEC, Spark, GuardiaN, BLUEICE, KOPPAR, YUKI. Details are as follows:

No.	trademark	Owner	Registration	For Products / Services	Period
1.		HARN	201120438	For the administration of sales, design, installation and service of firefighting system equipment, air-conditioning system and sanitary, administration of sales and the assemble of industrial cooling system equipment, administration of sales, installation and service of machines, equipment, spare parts, consumables of digital printing system on the package, packet, labels including workpiece creation from digital file.	March 28, 2018 to March 27, 2028
2. ^{/1}		HARN	Kor162287	For the metal water pipe valve products	October 18, 2021 to October 17, 2031
3. ^{/1}		HARN	Kor381341	For the fire hose set, fire hose, fire hose connector products	October 30, 2022 to October 29, 2032
4. ^{/1}		HARN	Kor62121	For the fire extinguisher products	June 20, 2016 to June 19, 2026
5. ^{/1}		HARN	171127993 171127974	For the compressor lubricant products For the - oil separators as part of the compressor - pressure regulators as part of the compressor - an emergency device of the compressor to stop the operation of the compressor when the lubricant is lower than the limit - Anti-vibration devices of the compressor	April 4, 2016 to April 3, 2026
6. ^{/1}		HARN	171127981 171127990	For the copper pipes, copper joints, copper welding wires For the insulations	April 4, 2016 to April 3, 2026
7. ^{/1}		HARN	181101901	For the refrigerant products	April 4, 2016 to April 3, 2026

Note: ^{/1} Products under the trademark of HARN (No. 2 - 7) are contracted products with domestic or foreign manufacturers.

4.1.4 Investment Policy in Subsidiaries and Associates

As a policy, HARN invests in subsidiaries, joint ventures, to support and promote business growth and ensures governance and by assigning its representatives to serve as Directors in subsidiaries, joint ventures. The presence of HARN's representatives as Directors in subsidiaries, ventures enable it to participate in policymaking, stay informed, and periodically monitor performance. Any activity that may have a significant impact on HARN must be approved by the Board of Directors first.

4.2 Details on Asset Valuation

During 2023-2024, the company appraised two items of land, buildings and buildings provided by two independent appraisers approved by the Securities and Futures Commission, using market value criteria to assess land value, and replacement cost method to evaluate constructions. According to the report, the total fair value amounted to Baht 252.27 million (as per the financial statements as of December 31, 2024, the total value Baht 219.87 million). The details are as follows:

1. Vacant land with an area of 5-0-9 rai, property location Soi Chaloe Phrakiat Rama 9, Soi 28, Dokmai Subdistrict, Prawet District, Bangkok, had a book value of Baht 114.95 million, according to the asset valuation and appraisal report, fair value of December 8, 2023 was Baht 125.40 million.
2. Land with warehouse building, land area of 6-2-00 rai with a 2-story warehouse and office building (3 buildings), property location number 888/14 - 16, Jongsiri Parkland Project, Bang Phli Yai Subdistrict, Bang Phli District, Samut Prakan, book value is equal to Baht 104.92 million according to the asset valuation and appraisal report, fair value of January 17, 2024 was Baht 126.87 million.

Harn Engineering Solutions Public Company Limited (“HARN”) operates its business responsibly, transparently, accountably, fairly, ethically and with due regard to all of its stakeholders by adhering to the principles of good corporate governance. Recognizes that its adherence to the principles of good corporate governance will contribute to the operational and management efficiency of HARN’s and Subsidiaries. The Company also bolsters its credibility and fosters sustainable growth, itself but also for the society and the nation as a whole in order to achieve its vision.

The Board of Directors has formulated the Policies and Principles of Corporate Governance and Code of Conduct has been distributed throughout its establishment in order for directors, executives, employees, subsidiary, joint venture, controlling person of HARN, including business representatives (if any) to adhere when performing their duties to express intention to develop and improve our good corporate governance to be rated excellence in accordance with international standard. HARN has reviewed and revised the handbook so as to keep them up-to-date, and to keep them abreast of any changes be in line with business strategies including related regulations. Also, comprehensively communicated to all Directors, Executives and Employees, who have acknowledged and understood it entirely, and implement as a guideline for executing their duties.

References information disclosed on HARN website, be in the links below,
shall be deemed to be part of Form 56-1 One Report

<https://www.harn.co.th/en/corporate-governance/corporate-governance-policy/>



6.1 Report of the Audit Committee

Mrs. Valeeratn Chuerboonchai Chairperson of the Audit Committee



The Board of Directors (the Board) appointed the Audit Committee, consisting of 3 independent directors, all of whom command diverse expertise, skills, and experience, with Mrs. Valeeratn Chuerboonchai as Chairperson, Mr. Prasert Deejongkit and Dr. Teerachai Pornsinsirak both serving as members of the Committee, with secretary to this committee is Mr. Wisit Wachiralappaicon (chief financial officer).

The composition and qualifications are considered suitable. Mrs. Valeeratn Chuerboonchai and Mr. Prasert Deejongkit are particularly qualified for reviewing financial statements' credibility against the requirements of the Securities and Exchange Commission, Thailand (SEC) and Stock Exchange of Thailand (SET).

The committee executed its Board-assigned duties and those under its own charter, which agreed with SEC's and SET's best practices, in oversees review financial reports to ensure that they are accurate, completely, and its business operations are compliant with applicable laws regulations and policy. The Audit Committee is also responsible for proposing to appoint and proposing to terminate the external auditor of the HARN's, including considering the appointment, transfer and termination of the employment the internal auditors of the HARN's. It also reviewed and advocated HARN's corporate governance, together with adequate risk management and internal control system, as well as enforcement of compliance. It ensured HARN's emphasis on being a transparent organization with efficient and effective internal audit activity, while aligning

corporate goals, and improve the Internal Audit to be a trustworthy for sustainable long-term value creation for HARN with due regard for satisfying stakeholders' expectations.

1. Advocated the upgrading of processes of governance, risk management, and compliance processes, with a focus on raising awareness of employees' careful and thoughtful actions, including the review of rules and regulations related to the operation together with the cautious internal control process, the review of the investigation process and disciplinary action to be appropriate and fair.
2. Strengthen internal audit quality to efficiently, effectively, and credibly accommodate stakeholders' expectations by focusing on performance audit practices and increasing the role of advice consulting. In addition, by utilizing important external risk factors that affect business operations, internal audit activities can be identified in a timely manner, add value to HARN and continuously improve operational processes.
3. Encouraged and focus on managing Cybersecurity Risks that could impact the security and stability of the HARN's Information system to ensure the professional operation of HARN, considering all aspects of operation.

- Enhance Corporate Governance to drive the organization towards sustainable growth by advocating the role in providing assurance and consultation on Sustainability as well as the disclosure of Sustainability information in a transparent and trustworthy manner to all stakeholders.

In 2024, held a total of 4 meetings all of the Audit Committee members attended every meeting detail of attendance meeting as follows:

- Mrs. Valeeratn Chuerboonchai Chairperson (independent) attended 4/4 times
- Mr. Prasert Deejongkit Member (independent) attended 4/4 times
- Dr. Teerachai Pornsinsirak Member (independent) attended 4/4 times

Including consultation with the executives, the Internal Auditor, and the Auditor. In addition, the Audit Committee held one non-executive meeting with the external auditor for unrestricted consultation on the external auditor's work, its opinions, issues arising from audit and financial report scrutiny, together with its collaboration with the Audit Committee and Internal Auditor. Each quarter, the Audit Committee a performance report to the Board, which the performance highlights of the Audit Committee as follows:

1. Reviewed the Financial Statements:

The Audit Committee reviewed financial reports both quarterly and annual separate and consolidated financial statements data. It also examined key audit matters, appropriateness of the account recording system, and disclosure of other key information, indicated in the auditors' report by Karin Audit Co. Ltd To this end, reviewed the credibility of estimated figures, assumptions requiring managements' discretion, disclosure of key transactions potentially affecting financial reports, while obtaining clarification from the external auditor and management to ensure that financial report preparation was accurately, credibly undertaken and useful for the useful for users of financial reports, as well as the criteria of the Securities and Exchange Commission (SEC) and the Stock Exchange of Thailand (SET). The auditor has reviewed and audited the financial report, and provided unqualified opinions.

2. Internal Audit:

The Audit Committee reviewed and approved annual audit plans, conformance to the plans, internal audit findings and recommendations and follow-ups as well as improvements of significant issues every quarter. It also assessed the independency of the internal audit from Ultima Advisory Company Limited to perform the duties efficiently and effectively continuously, comply with rules and policies, support the adoption of audit management system and data analysis tools to manage the internal audits. In addition, it also pushed of the quality of audit perform for greater professionalism that creates sustainable value to the organization, and upheld internal audit assessment of international professional standards, to ensure aspects of good governance and adequate internal control and internal audit.

3. Connected Transactions:

The Audit Committee reviewed connected transactions or those posing potential conflicts of interest with that of HARN's and subsidiary under the SET's regulations to the Office of the Securities and Exchange Commission (SEC) and the Stock Exchange of Thailand (SET) announcements and other relevant laws. There is a view that transaction meets the general trade conditions, fairness, and sensibility taking into account the best benefits of business and its shareholders. Such transactions were also promptly disclosed to SET.

4. Review of Compliance with Laws, Corporate Governance, Risk Management, and Internal Control:

The Audit Committee reviewed the efficiency and effectiveness of corporate governance while giving support for business in pursuit of sustainability, reviewing compliance with current laws and regulations, as well as encouraged the preparation for and closely monitored the upcoming laws that may impact HARN's businesses, also reviewed risk management measures and close monitoring of cyber security risk outcomes and emerging threats, include key risk other to ensure efficiency and effectiveness. It also emphasized the readiness of the workforce in support of rapid change. The Audit Committee, moreover, followed supervises the adequacy and appropriateness of good corporate governance, risk management, internal controlm comply withorganization-wide regulations laws and rules include reviewed the anti-corruption policy and practices, and complaint handling and whistleblowing process, it endorsed the sufficiency of the internal control system as required by the SEC to ensure that HARN commands appropriate and sufficient internal control, comply with law without major problems or defects process business.

5. Appointment of the External Auditor for 2024 and Approval for Audit Fee:

In selecting the external auditor, the Audit Committee reviewed performance records, experience, independency, auditing fees, and compliance with SEC's announcements and nominated Karin Audit Company Limited, namely

1. Mr. Jadesada Hungsaprue CPA Registration No. 3759 or
2. Ms. Kannika Wipanurat CPA Registration No. 7305 or
3. Mr. Jirote Sirirorote CPA Registration No. 5113 or
4. Ms. Nonglak Pattanabandith CPA Registration No. 4713 or
5. Ms. Sumana Senivongse CPA Registration No. 5897 or
6. Mr. Komin Linphrachaya CPA Registration No. 3675 or
7. Ms. Kojchamon Sunhuan CPA Registration No. 11536 or
8. Mr. Worapol Wiriyakulapong CPA Registration No. 11181 or
9. Mr. Pojana Asavasontichai CPA Registration No. 4891 or
10. Mr. Wichian Proongpanish CPA Registration No. 5851 or
11. other auditors approved by the Office of the SEC's from Karin Audit Company Limited for the Board of director endorsement and submission to the 2024 AGM for shareholders' approval of external auditor and auditing fee for 2024.

6. Quality Assessing of the Audit Committee

The Audit Committee reviewed its own charter and assessed its own performance as a group and individuals against SET's best practices to ensure efficient, fruitful performance. Overall assessment result for as a group and dividul was "excellent" and result for self-assessment was "excellent", and reported its performance outcomes to the Board acknowledged, as well as action sets plans to improve its process of governance, risk management, and internal control supervision as well as compliance with HARN's regulations.

In this regard, HARN and the Board, including Executives, were **not** violation/non-compliance with the guidelines on share repurchase/deprivation of communication between shareholders/non-disclosure of agreements between shareholders, and violation/non-compliance with the guidelines on equity trading or asset trading.

In conclusion, this year the Audit Committee its charter duties and responsibilities with diverse expertise, prudence, and independence while providing creative views and advice for equal benefit of all stakeholders. The Audit Committee concluded that HARN and Subsidiaries had valued efficient and effective business conduct, prepared credible and material financial reports in line with financial reporting standards, and sufficiently provide disclosure of connected transactions with potential conflicts of interest, as well as had risk management, internal control process, good corporate governance and anti-corruption prevention suitable and adequate, include in full has compliance with business applicable laws and regulations has efficient and efficient.

6.2 Report of the Nomination and Remuneration Committee



Mr. Prasert Deejongkit
Chairman of the Nomination
and Remuneration Committee

The Board of Directors appointed the Nomination and Remuneration Committee to ensure the independent performance of duties as well as checks and balances in accordance with good corporate governance principles, consists of at least 3 directors, most directors must be qualified as independent directors. The current Nomination and Remuneration Committee, consists of 3 members, namely Mr. Prasert Deejongkit (independent director) as the chairman of the Committee, Mrs. Valeeratn Chuerboonchai (independent director) and Dr. Jain Charnnarong, both serving as members of the Committee, with secretary to this committee is Mrs. Varinkan Teraumranon (chief operating officer).

The Nomination and Remuneration Committee duty is to recruit qualified people under HARN process and criteria for nomination as Directors and Chief Executive Officer, also selects Directors to serve on Board-Committees and reviews Director and Board-Committee's remuneration models and criteria before proposing for the consideration of the Board and the Annual General Meeting of Shareholders as required by law.

In 2024, the Nomination and Remuneration Committee executed duties assigned by the Board of Directors, considered, screened, and gave opinions on various issues before presenting to the Board of Directors with caution, prudence, transparency, and fairness as specified in the charter completely in line with the operational strategy Realize the best interests of the stakeholders, held a total of 2 meetings all of the Nomination and Remuneration Committee members attended every meeting, with attendance detailed below:

- | | | |
|-------------------|---------------|--|
| 1. Mr. Prasert | Deejongkit | Chairman (independent)
attended 2/2 times |
| 2. Mrs. Valeeratn | Chuerboonchai | Member (independent)
attended 2/2 times |
| 3. Dr. Jain | Charnnarong | Member
attended 2/2 times |

The performance highlights of the Nomination and Remuneration Committee as follows:

6.2.1 Recruitment Duties

Proceeded Strictly conduct recruitment and selection of qualified persons to be appointed as Board of Directors in accordance with the screening process and criteria specified in the policies and principles of corporate governance and code of conducts was carefully, from qualifications diversity as required from the Board Skill Matrix which includes gender and age, and does not allow race, nationality, or origin to become limitation in the selection, for nominate qualified persons to the Board of Directors and/or the shareholders' meeting as required by law.

1. Recruitment and selection of qualified person as director Replace directors who completed their terms

Reviewed the criteria and procedures for the nomination and appointment of GC's Directors to ensure completeness, suitability, and compliance with laws, regulations, and best practices for the selection and appointment of Directors. In 2024, conduct recruitment and selection of qualified persons as Board of Directors, replace directors who completed their terms, to present to the Board of Directors and the AGM. The 3 directors nominated for another term were Mr. Prasert Deejongkit (independent director), Dr. Teerachai Pornsinsirak (independent director) and Mr. Wirat Sukchai (director). Also, all candidates nominated have all qualifications as specified by relevant regulations and suitable for the business, and the candidates nominated as independent directors are fully qualified in accordance with the law and regulations relating to independent directors and are able to provide opinions independently and those who have no conflict of interest with HARN. The Board of Directors and the 2024 AGM thus resolved to approve the appointment of these candidates as Directors as instructed by the Nomination and Remuneration Committee.

2. Orientation and provided documents for new director

For new directors, HARN arranges an orientation program on its business policies, as well as information, applicable laws and regulations. In addition, each director receives a Director's Handbook, with useful information for performing duties. In 2024 no new directors were appointed. However, HARN improvement the director's handbook to be current to accord with of good corporate governance.

3. Reviewed stipulated the overall qualification structure framework (Board Skill Matrix)

Reviewed the Board Skills Matrix and the diversity of expertise for accordance with corporate governance principles, and conducting a specific competence assessment of the Board of Directors for the year 2024 to review the appropriate expertise, both governance and strategic, to be appropriate and in line with the business context.

In this regard, the list of professional directors in the Thai Institute of Directors Association (IOD) was used to assist in the selection of suitable persons, to this end, considered the composition and qualifications of the Board, both overall and individually, to match the size, type, complexity, and diversity of businesses, as well as personal independence as required by applicable laws and HARN's criteria. The activities are described below:

4. Reviewed succession plan

Devised succession plan of key positions prepared especially chief executive office and reported of progress in performance against targets every quarter for the Board. In 2024 considered qualified internal personnel to develop leadership skills in alignment with changes and future business directions for the position of Chief Marketing Officer (CMO), with 2 positions.

5. Reviewed the development plan for directors and top executive

Reviewed the training courses related to the development of knowledge, competence, good corporate governance, climate change and the performance of a director's duties of the Thai Institute of Directors Association (IOD) to enhance the knowledge and capabilities of the board members to promote more effective execution of their duties, including the development of the Chief Executive Officer (CEO) to expand knowledge that will benefit the execution of responsibilities and support HARN's operations. In 2024, dispatching Mr. Prasert Deejongkit in the Advanced Audit Committee Program (AACP), class 53/2024 and Dr. Jain Charnnarong in the Board's Roles in Climate Governance (BCG), class 2/2024.

6. Opportunities minority shareholders propose agenda and persons as directors

Encouraged and supported the granting opportunity for minor shareholders, to propose agendas and nominate candidates as directors to nomination process from from October 1 to December 31, 2024 before the 2025 AGM, open rules through the HARN website and Thailand Stock Exchange website, it has been proven that no shareholder has nominated anyone to serve as a director.

6.2.2 Remuneration Duties

The Nomination and Remuneration Committee defined directors' remuneration under criteria, based on company performance and business complexity; Board performance; director responsibilities; and comparison with peer companies in the same industry. The elaborated as follows:

1. Determine remuneration and criteria for remuneration payment to directors

Consider the Identified remuneration payment rate and criteria for directors and sub-committees before proposing for the approval of the 2024 AGM. The survey of comparison with leading companies of similar industries revealed that monthly remuneration and meeting allowance payment rate and structure remained appropriate. Therefore, the same remuneration rate as that of 2023 had been proposed and was approved by the 2024 AGM, and acknowledged the directors' 2024 remuneration payment survey outcomes, conducted by the Thai IOD.

2. Reviewed the criteria for performance evaluation and set remuneration for Chief Executive Officer (CEO)

Acknowledged the remuneration of the CEO for the year 2024, taking into account his performance pursuant for 2023 in accordance with the guidelines of the SET, and endorsed the criterion for performance assessment for the CEO for the year 2024, for the Board of Director approval based on transparent, fair, and reasonable criteria. The performance appraisal criterion was made up of 2 parts: KPI, performance indicator to target, weighted 70% and API, performance evaluation weighted 30%.

6.2.3 Other duties according to the charter

1. Reviewed the director recruitment and remuneration policy

Reviewed the rules, procedures for recruitment of directors and structure of remuneration for the Board of Directors, criteria for remuneration payment, including promotion of continual developmen. This policy still appropriate coverage guidelines and sufficient with complete, with no issues to be additionally resolved.

2. Reviewed of performance evaluation form for Chief Executive Officer

Reviewed the criteria, methods, remuneration payment structure and and CEO's annual performance assessment in accorded in line with the HARN's strategic direction and maximizes its benefits. The policy still follows the established principles with no issues to be additionally resolved.

3. Reviewed the succession policy of Top Executives

Consider the criteria for selecting suitable personnel both externally and internally, qualifications, regulations, and succession processes to mitigate risks or impacts from a lack of continuity in management. The policy remains appropriate and transparent with no issues requiring further correction.

4. Reviewed charter, meeting, assessment of the Nomination and Remuneration Committee

Reviewed the Nomination and Remuneration Committee charter to ensure their comprehensiveness, suitability, sufficiently and alignment with the principles of good corporate governance and the current performance of duties. Reviewing and the performance assessment both roup assessment and self-assessment, for 2024 to ensure their alignment with the Nomination and Remuneration Committee charter and the good practices of the SET. Pre-setting the dates for its meetings for 2025 to consider, acknowledge and reporting performancer relating to the Board of Directors. The assessment results both roup and individuals are at an excellent level, which has been reported to the Board.

Nomination and Remuneration Committee have used knowledge, ability, caution, and sufficient independence in giving opinions and suggestions for the overall benefit of HARN for the best interest of shareholders. It also serves to oversee the Board's performance under the good corporate governance system in accordance with the relevant laws and criteria. In 2024, **no** significant errors that affect HARN and the shareholders have been found. And **no** independent director non-executive directors resigned due to HARN's corporate governance issues, including avoiding methods of harming HARN's reputation.

6.3 Report of the Executive Committee

Mr. Wirat Sukchai Chairman of the Executive Committee



The Board of Directors appointed the Executive Committee, consists of director and top executive of 6 member, namely Mr. Wirat Sukchai (Chief Marketing Officer) as the Chairman of the Committee, Mr. Jain Charnnarong (director), Mr. Thammanoon Tripetchr (Chief Executive Officer), Mr. Rattanaphan Mukhariwattananon (Chief Marketing Officer), Mr. Wisit Wachiralappaitoon (Chief Financial Officer) and Mrs. Varinkan Teraumranon (Chief Operating Officer), as members of the Committee, which knowledgeable, competent, and experienced to support the Board in formulating policies and guidelines, and various strategic plans, as well as monitoring the results of performance to be in objectives, in line with the CG and sustainability code of the international standard, with secretary to this committee is Mrs. Varinkan Teraumranon.

The Executive Committee emphasizes adherence to the principles of good corporate governance, code of conduct, anti-corruption, and sustainable development, aims to create a balance between the environment, society, and governance (ESG) in line with international standards on an ongoing basis. These factors are crucial in ensuring efficient operations and promoting sustainable business practices, so that HARN gains trust from all stakeholders and is recognized internationally.

In 2024, marked another year in which HARN was faced with a series of complex, unpredictable, and unavoidable business events and circumstances, including geopolitical conflicts such as the ongoing Russia-Ukraine conflict and the war between Israel and Hamas, as well as concerns over an impending economic recession, all of which led to high volatility in product prices and spreads. To address this, HARN implemented a number of measures to manage and minimize the impact of these risks on the achievement of its objectives in different dimensions so as to overcome crises, maintain its competitiveness, and achieve sustainable growth.

In 2024, the Executive Committee, held a total of 12 meetings, with perfect attendance by all members, completely executed all duties stated in the charter the Executive Committee, and as assigned by the Board of Directors completely by report the performance to the Board of Directors regularly, with attendance detailed below:

1. Mr. Wirat Sukchai	Chairman attended 12/12 times
2. Dr. Jain Charnnarong	Member attended 12/12 times
3. Mr. Thammanoon Tripetchr	Member attended 12/12 times
4. Mr. Rattanaphan Mukhariwattananon	Member attended 12/12 times
5. Mr. Wisit Wachiralappaitoon	Member attended 12/12 times
6. Mrs. Varinkan Teraumranon	Member attended 12/12 times

The performance highlights of the Executives Committee as follows:

1. Specified and reviewed of HARN and its subsidiaries' mission, vision, strategy, and business plan.

Specified and reviewed vision, mission and business operation plans of HARN's across various business lines and subsidiaries on a monthly, by specifying that the meeting shall be arranged and such plans communicate be conveyed to the management and the employees at all levels for their acknowledgement and compliance, so that the targets should be achieved as per specified, considering the internal and external factors, including acceptable opportunities and risks and report every quarter the progress to the Board for acknowledgment.

2. Reviewed and monitored performance

Reviewed and track the performance of HARN's across various business lines and subsidiaries on a monthly, as well as the progress of various projects, budgets approved by the Board, in order to accordance plan and target, including provided useful recommendations and suggestions in conducting business to maximize efficiency and effectiveness, and report every quarter the performance to the Board for acknowledgment.

3. Considered and approved the annual budget and investment

Scrutinize and granting approved the annual budget and investment of HARN, including the develop information technology systems, computer equipment renovation, fire protection system renovation, innovation project and other important matters in business to promote sustainable business operations on environment, society, and governance, which are then proposed to the Board's approval.

4. Consider granting approved the 2023 annual dividend

Scrutinize and granting approved, annual dividend payment at the rate Baht 0.15 per share, as the dividend payment of net profit from the operating results of the year 2023 as reference to specific financial statements, which are then proposed to the Board's and the shareholders' approval.

5. Specified and reviewed organizational structure, administration, and policy of human resource management

Reviewed the organizational structure, administration, and policy of human resource management by reviewing the criteria for recruitment, training, performance evaluation development, relocation, termination, and setup of salary increase rate, bonus, and other benefits for the year 2024 for employee and department manager, except Chief Executive Officer.

6. Supervised compliance with good corporate governance

Supervised and monitoring HARN's and subsidiaries governance to ensure compliance with international standards and criteria set forth by regulatory agencies such annual general meeting of shareholders, disclosures to ensure their timeliness and the completeness and accuracy of the material information disclosed in accordance with the criteria stipulated by regulators, and monitoring the handling of complaints to ensure with the complaints/whistleblower policy.

7. Supervised the develop of corporate innovations

Driving giving comments and suggestions innovation to ensure a complete innovation management with efficient and systematic innovation and technology management for increased innovation effectiveness that meets HARN's strategic objectives and core goals, as well as resource optimization, to achieve tangible results and leveraging business in line with the purpose contributing to sustainable growth.

8. Consider the sustainable development

Giving importance to addressing climate change and has approved the annual sustainability development plan, covering success evaluation, development, as well as the strengthening of the culture and communication of sustainability efforts. As well as has also provided feedback, suggestions, and monitored the implementation of the plan. Key activities in 2024 include reviewing the sustainable development policy, setting environmental policies across all ESG dimensions, and setting targets to reduce carbon dioxide in both direct and indirect operations, attaining Carbon Neutrality by 2040, and achieving net zero greenhouse gas emissions by 2050, Fostered the corporate sustainability culture for directors, executives and employees through communication and activities

9. Reviewed charter and assessment of the Executive Committee

Reviewed the Executive Committee charter to ensure that the guidelines for their performing duties are comprehensiveness, suitability, sufficiently and alignment with the current situations. Reviewing and the performance assessment both rroup assessment and self-assessment, for 2024 to ensure their alignment with the Executive Committee charter and the good practices of the SET. The assessment results both rroup and individuals are at an good level, which has been reported to the Board. The Executive Committee intends to taking the evaluation results as a guideline for further improvement.

However, HARN and the Board, including Executives, no fine or civil actions by regulatory corporate such as the SEC, SET or NACC etc., regarding corruption, good corporate governance, code of conduct, compliance with relevant laws.

The Executive Committee still has a commitment to perform duties with full capacities and prudence for the most benefit of all groups of stakeholders, places great importance with the corporate governance on ensuring HARN's strict compliance the corporate governance policy, anti-corruption, code of conduct and organizational development sustainable. Considering the balance in ESG, as well as support the vision, mission, and strategy of HARN's business for the international sustainability direction. Following the commitment in various fields, HARN has been evaluated in the 5-star "excellent" business for the 6th consecutive year with the full score of 100 for the shareholders' meeting for the 7th consecutive year, Including obtaining "A-level" sustainability assessment as the first year. The achievements show HARN's good corporate governance standards along with sustainable development and responsibilities for the social, which result from the commitment and cooperation of the Board's, executive and employees, which has enabled HARN experience continuously growth and its sustainability and its sustainability has been recognized by all stakeholders, creating long-term sustainable value for shareholders.

6.4 Report of the Risk Management Committee



The Board of Directors appointed the Risk Management Committee, consists of director and executives of 13 member, namely Dr. Teerachai Pornsinsirak (independent director) as the Chairman, Mr. Thammanoon Tripetchr (chief executive officer), Mr. Wirat Sukchai (chief marketing officer), Mr. Rattanaphan Mukhariwattananon (chief marketing officer), Mr. Wisit Wachiralappaitoon (chief financial officer), Mr. Prapas Rakpanya (strategy and marketing director), Miss Warangkana Jongnui (sales director), Mr. Suchat Suwatnodom (sales director petrochemical), Mr. Kittiphong Kittimethawenun (sales director), Mr. Vachiravit Akaraseranee (project sales director), Mr. Sukit Litikorn (engineering support director), Mr. Withoon Thamee (sales director) and Mrs. Varinkan Teraumranon (chief operating officer) as members of the Committee.

The Risk Management Committee are competent and experienced directors with various expertise and mastery businesses is responsible for supporting the Board under the good corporate governance, to managing corporate risks to effective and efficient, achieve business goals and enhance confidence in and credibility of HARN among investors and stakeholders, Mrs. Varinkan Teraumranon is the secretary to this committee.

The Risk Management Committee, performs duties under the principles of governance and the Risk Management Committee charter to ensure that HARN's risk management is effective and contributes to achieving business objectives. Aligns with the company's vision and strategic direction, to ensuring minimized impacts from business environment uncertainties, under the increasing complexity and severity of emerging risks both internal and external, include global economic volatility.

HARN's risk management system is designed to address risks comprehensively. This instills confidence and credibility among shareholders and stakeholders.

In 2024, the Risk Management Committee, held a total of 4 meetings, with attendance by all members detailed below:

1. Dr. Teerachai Pornsinsirak	Chairman
	attended 4/4 times
2. Mr. Thammanoon Tripetchr	Member
	attended 4/4 times
3. Mr. Wirat Sukchai	Member
	attended 3/4 times
4. Mr. Rattanaphan Mukhariwattananon,	Member
	attended 4/4 times
5. Mr. Wisit Wachiralappaitoon	Member
	attended 4/4 times
6. Mr. Prapas Rakpanya	Member
	attended 4/4 times
7. Miss Warangkana Jongnui	Member
	attended 3/4 times
8. Mr. Suchat Suwatnodom	Member
	attended 4/4 times
9. Mr. Kittiphong Kittimethawenun	Member
	attended 2/4 times
10. Mr. Vachiravit Akaraseranee	Member
	attended 4/4 times
11. Mr. Sukit Litikorn	Member
	attended 4/4 times

12. Mr. Withoon Thamee	Member attended 2/4 times
13. Mrs. Varinkan Teraumranon	Member attended 4/4 times

The performance highlights of the Risk Management Committee as follows:

1. Reviewed and Amend the Risk Management Policy

Reviewed the acceptable risk management policies to have a framework and process covering short-term and long-term key risks as well as emerging risks that may affect the business in the future and corruption risk to be in line with the strategic direction and changing circumstances, flexibility to take appropriate action such as strategic risk and operational, compliance, financial, external factors, etc., to ensure mitigating impacts of business uncertainties.

2. Reviewed the Enterprise Risk Control Reports

Reviewed and advocated leading and lagging key risk indicators to measure the effectiveness of risk management and counseled management on the review / improvement of its management practices by revising risk management plans in line with prevailing business strategies and contexts, and new risk, as well as, implementation was cascaded throughout the corporation to effectively address the risks.

3. Steered Risk Management to Ease Business Impacts

Key global situations and potential risks that may affect HARN's business operations were monitored. Has proactive measures focusing on management and defined comprehensive risk management plans for all situations to lower the likelihood of all risk incidents, with reactive measures if a risk event occurs to minimize the impact on organizational goals to ensure that HARN's risk management process is appropriate and effectively implemented.

4. Supervised the Risk Management Considering Environment, Society and Governance

Emphasized sustainability processes covering environmental, social, and governance (ESG) the drive for implementation by all functions, monitoring risk management results to ensure that HARN continues in line with its sustainable development to align with the strategic directions and stakeholders' expectations efficiently and effectively in the future.

5. Considered commented on future Business

Focused on the investment supervision process with rigorously considered risk issues and risk management practices to exchange information, analyzes, scrutinizes, and reviews the investment process carefully, concisely, efficiently, and in line with the changing global business environment.

6. Monitored Corporate Risk Management

Supervised, followed up, and reviewed plans and recommended guidelines for corporate risk management, mitigation plans, 2024 key risk indicators, and key projects on a quarterly basis, to ensure that effective and appropriate risk management is implemented within risk appetite statement, consistent with the risk management policy and handbook of anti-corruption measures. The committee also reported the findings of corporate risk management and risk management performance to the Board every quarter basis. The board of directors pushing for close monitoring of the debtor's risk management process with continuous monitoring conditions under highly volatile market.

7. Reviewed charter and assessment the Risk Management Committee

Reviewed the Risk Management Committee charter to ensure that the guidelines for their performing duties are flexible, suitability with the current situations. Reviewing and the performance assessment both group assessment and self-assessment, for 2024 to ensure their alignment with the charter and the good practices of the SET. The assessment results both group and individuals are at an excellent level, which has been reported to the Board.

The Committee concluded In 2024, HARN has developed a comprehensive corporate risk management system for all aspects of according to the risk management policy, and cover risk management practices to strategic, financial, compliance, social and environmental include emerging risk to cope with prevailing circumstances, in line with the changing environment. The Committee has meetings were regularly arranged to continuously manage key and urgent such risk issues, rendering HARN risk management indeed efficiently, sufficient and controlled risks within the risk appetite. Able to achieve sustainably support business goal achievement in the create long-term amid challenging circumstances.

ค่านิยมองค์กร



Professional Responsibility



Teamwork



Ownership มีความรัก



Innovation



Sustainable Development




Value Creation




Integrity




Excellence

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