

A Summer Internship Project Report on

**A DATA-DRIVEN DIGITAL MARKETING APPROACH TO ENHANCE  
THERMAX'S AIR POLLUTION CONTROL BUSINESS**

Submitted in partial fulfillment of the requirement for the degree of

**Master of Business Administration**

**(Affiliated to Savitribai Phule Pune University)**

By

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Under the guidance of

**Dr. Mrityunjay Kumar**

A study conducted for

**Thermax Limited**

At



**INDIRA SCHOOL OF BUSINESS STUDIES, PUNE**

**Tathawade, Pune – 411033**

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**Rishi Anil Patil**

**B2M - 42 (2022-2024)**

## CERTIFICATE FROM THE COLLEGE

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Date: 4<sup>th</sup> December 2023

To Whomsoever It May Concern

This is to certify that **Mr. Rishi Anil Patil** is a bonafide student of this Institute and has successfully completed his project entitled "**A DATA-DRIVEN DIGITAL MARKETING APPROACH TO ENHANCE THERMAX'S AIR POLLUTION CONTROL BUSINESS**" at "**Thermax Limited**" under the guidance of "**Dr. Mrityunjay Kumar**" for partial fulfillment of the course Master of Business Administration in Marketing, affiliated to Savitribai Phule Pune University from Indira School of Business Studies, Pune.

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01<sup>st</sup> November, 2023

### TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Mr. Rishi Anil Patil** student of "**Indira School of Business Studies, Pune**" has successfully completed his internship at Thermax Limited from **01<sup>st</sup> August 2023** to **31<sup>st</sup> October 2023** under the guidance of **Shruti Pathak**.

During the tenure of his internship with us, he has worked on "**A Data-Driven Digital Marketing Approach to Enhance Thermax's Air Pollution Control Business**"

We found him sincere, hardworking and consistent.

We wish him all the very best for all his future endeavors.

**Yours Sincerely,**  
**For Thermax Limited.**

A handwritten signature in black ink, appearing to read "Saldhana".

**Josephine Kaitan Saldhana**  
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## **EXECUTIVE SUMMARY**

In today's digital era, businesses must leverage digital marketing for survival and growth. Social media platforms offer dynamic spaces for engagement, while email marketing and well-designed websites remain powerful tools. Thermax Limited, a global leader in energy solutions, is strategically expanding in Africa, the Middle East, and Southeast Asia, focusing on South Asian markets' potential for environmental solutions. As a Marketing and Content Creation Intern, the aim was to organically grow Thermax Thailand's LinkedIn profile by crafting a tailored content strategy. The research involves analyzing post formats to provide insights for compelling LinkedIn posts. This endeavor aims to attract a wider audience, increase followers, and maximize impressions on LinkedIn, aligning with the target audience's preferences for optimal online presence. Beyond LinkedIn growth, templates were developed for brand consistency, saving time, and ensuring accessibility. These efforts collectively position Thermax Limited for success in dynamic global markets.

The engineering sector, spanning civil, mechanical, electrical, chemical, and software engineering, is a crucial driver of global economic growth and innovation. Highly skilled engineers contribute to the design and construction of diverse systems, impacting infrastructure, manufacturing, and technology. Key challenges include a global skills shortage and the sector's increasing globalization. However, emerging markets, new technologies, and sustainable development present significant opportunities. Notable trends include digital transformation, sustainability initiatives, data-driven engineering, and automation. Leading global companies like Siemens, ABB, and Hitachi, along with prominent Indian firms such as Larsen & Toubro and TCS, spearhead innovation and economic development. The industry's business model, as outlined by the Business Model Canvas, involves strategic considerations of customer relationships, value propositions, and cost structures. Porter's Five Forces Model indicates moderate competition, emphasizing the importance of differentiation and customer relationships. A PESTEL analysis underscores the sector's sensitivity to political, economic, social, technological, environmental, and legal factors. In summary, the engineering sector's resilience hinges on its adaptability to technological advancements, regulatory landscapes, and emerging market demands.

Thermax Ltd., a Pune-based global leader in energy and environmental solutions, boasts a robust business portfolio spanning heating, cooling, air pollution control, and more. With a revenue

of INR 4,899 Cr. (661 million US\$) and a presence in 88 countries, the company aligns its mission with becoming a leading global technology provider. Operating through a network of subsidiaries and international offices, Thermax serves diverse industries worldwide, including power, oil and gas, chemicals, and pharmaceuticals. The business model revolves around providing energy and environmental engineering solutions, generating revenue through product sales, engineering services, and long-term contracts. Emphasizing customer satisfaction, innovation, and sustainability, Thermax has a wide product range and a strong focus on research and development. Strategic analysis reveals a moderately competitive landscape, where Thermax's strengths, such as a strong brand and global reach, position it favorably against weaknesses like customer concentration. The SWOT analysis underscores the company's opportunities in global energy demand and government initiatives, recommending diversification and operational efficiency improvements.

The engineering sector is on a trajectory of significant growth and transformation, driven by global demand, technological advancements, and sustainability initiatives. Market projections indicate a substantial rise from \$7.5 trillion in 2022 to \$9.1 trillion by 2027, fueled by emerging markets and investments in infrastructure and technology. In the U.S., engineering employment is expected to grow by 8% from 2020 to 2030, outpacing the average for all occupations. China's engineering sector is set for rapid expansion, reaching \$3.5 trillion by 2027, propelled by government focus on infrastructure and innovation.

Thermax Ltd., a key player in the engineering landscape, demonstrates strategic prowess with substantial orders, technology partnerships, and global expansion. Notable initiatives include securing a significant order for a Sulphur Recovery Block, investing in manufacturing capacity expansion in Pune, and acquiring a majority stake in Denmark-based SPX Flow. The company's focus on sustainability is evident in winning orders for energy-efficient and renewable energy projects, including Flue Gas Desulphurisation systems and waste-to-energy plants in India.

The literature review guides the formulation of an impactful content strategy for Thermax Thailand's LinkedIn page, aiming to bolster engagement and increase followers in the competitive Thai market. Drawing on insights from various sources, the review recommends diverse post types such as technical, sales, and social posts. Strategies for optimizing engagement on LinkedIn include profile optimization, regular updates, hashtag use, and active participation in groups. The

review further emphasizes the effectiveness of video-based, text-based, image-based, and interactive posts, along with the unique benefits of LinkedIn newsletters. By merging these findings with the collected study data, the aim is to create a content strategy grounded in established principles while tailored to Thermax Thailand's audience. The strategic use of LinkedIn is deemed pivotal for Thermax to position itself as a thought leader, build brand loyalty, and achieve growth objectives. As the study progresses, actionable insights from detailed data analysis will contribute to the development of a nuanced content strategy aligned with Thermax Thailand's primary business goals.

This research employs a strategic approach to B2B lead generation in the engineering sector, focusing on Thermax and its competitors in the Air Pollution Control industry. Recognizing the preferences of decision-makers aged 35 and above, the strategy centers on LinkedIn and email as primary lead sources due to their relevance, efficiency, and widespread acceptance in professional communication. Competitor analysis identifies key players in the Indian market, guiding strategic decision-making.

The LinkedIn analysis of the top 10 competitors, including Thermax, reveals growth in followers from March to October 2023. Content scrutiny on LinkedIn profiles showcases diverse post types, offering insights into competitors' engagement strategies. Furthermore, the research emphasizes a targeted email marketing approach to convert leads from expos and social media. Crafting tailored campaigns ensures engagement and facilitates tracking responses for optimized lead conversion. In essence, this research provides a comprehensive understanding of the competitive landscape, LinkedIn strategies, and effective lead generation practices in the B2B engineering sector, culminating in strategic recommendations for Thermax and similar entities.

Leveraging insights collected from a meticulous examination of the LinkedIn posts of key industry players, the above data was collected from the competitive analysis of Thermax's Air Pollution Control division. Focusing on the dynamic landscape surrounding Thermax, the study observed the strategic maneuvers, market positioning, and engagement strategies employed by its competitors. Various valuable patterns, emerging trends, and potential areas of advantage for Thermax were derived from this data.

The performance analysis of Thermax Thailand's LinkedIn page from 26/07/23 to 21/10/23 revealed key metrics, showcasing a steady increase in organic impressions, peaking on 14th

August. Unique impressions demonstrated the diversity and uniqueness of the audience reached, while reactions reflected audience engagement. The success of an informative video post on 9th August and pivotal event-focused posts highlighted the strategic alignment of content. The use of carousels for heightened user engagement emphasized the importance of a balanced approach for optimal results.

Further granular analysis of individual posts revealed insights into the impact of various content types, with the video post on 9th August garnering the highest impressions. Informative image and carousel posts recorded the highest clicks, emphasizing the importance of visually appealing formats for meaningful interactions. Balancing informative and visually engaging posts resulted in optimal engagement rates.

As a marketing manager, leveraging these insights can inform future content strategies for Thermax Thailand's LinkedIn page, emphasizing a diverse and balanced approach to maximize both reach and interaction. Continuing to align with industry trends while showcasing expertise will contribute to Thermax Thailand's sustained success in the air pollution control sector.

While the project successfully outlines a content strategy for organic marketing, several key considerations should guide future efforts. These include a deeper exploration of varied demographic audiences, a heightened emphasis on lead generation tactics, and the potential integration of paid advertising strategies to enhance reach and conversion.

The dynamic nature of social media and the evolving preferences of LinkedIn users necessitate ongoing data-driven optimization. Regular updates to the strategy should incorporate emerging trends, technological advancements, and audience feedback.

The project's future scope encompasses the exploration of employee advocacy, global audience tailoring, and alignment with broader business goals. Additionally, the project should consider community building on LinkedIn and experimentation with new features to maintain a fresh and engaging digital presence.

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# **Chapter 1**

## **INTRODUCTION**

In today's rapidly evolving digital landscape, businesses, both small and large, find themselves at a pivotal juncture where the strategic use of digital marketing has become not just a valuable option but a critical necessity. The Internet has transformed the way companies engage with their target audience, opening up a wealth of opportunities that should not be overlooked.

Social media platforms, such as Facebook, Instagram, Twitter, LinkedIn, and YouTube, have become dynamic arenas for connecting with potential customers. These platforms offer a unique space for businesses to build their brand presence, engage in conversations, and foster meaningful relationships with their audience. The vast user base and various advertisement formats on these platforms enable precise targeting, making it easier to reach the right customers with the right message.

Moreover, email marketing remains a powerful tool for lead generation and customer retention. A well-crafted email campaign can reach a large number of potential customers at a low cost, making it an efficient way to drive sales and maintain a connection with the company's customer base.

Websites, on the other hand, serve as digital storefronts for businesses. They are often the first point of contact for prospective customers and play a crucial role in establishing a strong online presence. A well-designed website that is optimized for search engines can help businesses generate leads, showcase their products or services, and build trust with visitors. It's also an invaluable tool for maintaining relationships and enhancing brand recall.

In a world where information is at our fingertips, the digital marketing landscape provides businesses with unprecedented opportunities to connect, engage, and grow. Whether through social media, email marketing, or a user-friendly website, the digital realm offers a diverse set of tools that can help companies not only survive but thrive in the modern business landscape. As such, harnessing the power of these digital mediums has become imperative for those who seek to stay competitive, relevant, and connected in the 21st century.

Thermax Limited, a global leader in energy and environmental solutions, is strategically positioning itself for growth through an ambitious international expansion plan. A key facet of this

strategy involves penetrating untapped markets and fortifying their foothold in existing ones. The company is directing its efforts towards Africa, the Middle East, and Southeast Asia, recognizing the immense potential for its offerings in these regions.

In particular, Thermax has identified South Asian markets as ripe for expansion due to the proactive initiatives taken by governments in the region to curb emissions. The increasing adoption of sustainable practices by industries underscores a growing awareness of the need to minimize carbon footprints. This presents a lucrative opportunity for Thermax to showcase its expertise in air pollution control solutions, positioning the company as a vital player in fostering environmental sustainability.

As a Marketing and Content Creation Intern, the aim was to organically grow the company's Thermax Thailand LinkedIn profile. The objective was to craft a tailored content strategy for Thermax Thailand's target audience, amalgamating insights from literature reviews with data gathered during the study. The research involves an in-depth analysis of various post formats, including text-based posts, images, videos, and infographics. By discerning which content resonates best with the target audience, the study aims to provide actionable insights for the creation of compelling LinkedIn posts.

The significance of this endeavor lies in its potential to attract a wider audience, increase follower count, and maximize impressions on LinkedIn. The data-driven approach ensures that the content strategy aligns with the preferences and interests of Thermax Thailand's target audience, thereby optimizing the impact of the company's online presence. This holistic approach to social media marketing positions the company to thrive in dynamic and competitive global markets.

Beyond this LinkedIn growth project, my responsibilities encompassed diverse assignments that collectively advanced Thermax Limited's marketing objectives across various domains. By leveraging the principles outlined in the Brand Communication Guide, I developed straightforward templates designed for widespread accessibility and effortless modification. These templates not only facilitate significant time savings but also promote uniformity in communication across various channels. The emphasis on accessibility ensures that these resources are readily available to everyone and ease of use. Ultimately, these templates serve as a practical and efficient tool for maintaining consistency in brand messaging while streamlining the communication process.

## Chapter 2

### SECTOR ANALYSIS

#### **2.1 Introduction to Engineering Sector**

The engineering sector is a broad term that encompasses all industries related to the design, construction, and operation of machines, structures, and systems. It is a vital part of the global economy, contributing to the development and maintenance of infrastructure, transportation, energy, manufacturing, and communication networks.

This sector is divided into a number of sub-sectors, each with its own specialized focus. Some of the most common sub-sectors include:

- Civil engineering: This sub-sector deals with the design and construction of infrastructure, such as roads, bridges, water and wastewater systems, and buildings.
- Mechanical engineering: This sub-sector focuses on the design and manufacture of machines and devices, such as engines, turbines, and robots.
- Electrical engineering: This sub-sector deals with the design, development, and operation of electrical and electronic systems.
- Chemical engineering: This sub-sector focuses on the design and operation of chemical processes, such as those used to produce petroleum products, pharmaceuticals, and food.
- Software engineering: This sub-sector deals with the design, development, and testing of software applications.

The engineering sector is a highly skilled and technical field. Engineers typically have a bachelor's degree or higher in engineering from an accredited university. They must also be able to think critically, solve problems, and work effectively in a team. This sector is a major driver of economic growth and innovation. It is also a major employer, with millions of people working in engineering jobs around the world.

#### **2.2 Industry Characteristics and Segments**

##### **2.2.1 Characteristics of the Engineering Industry:**

The engineering industry is characterized by a number of factors, including:

- High levels of innovation: This industry is constantly evolving, with new technologies and processes being developed all the time. This is driven by the need to find more efficient and sustainable ways to design, build, and operate systems.
- Global reach: This industry is a global business, with companies operating in multiple countries. This is because engineering projects often require access to a wide range of skills and resources.
- Capital intensive: This industry is a capital-intensive industry, meaning that it requires a significant investment in machinery and equipment. This is due to the complex and specialized nature of the work that engineers do.
- Highly skilled workforce: This industry employs a highly skilled workforce. Engineers typically have a bachelor's degree or higher in engineering from an accredited university. They must also be able to think critically, solve problems, and work effectively in a team.
- Regulatory compliance: This industry must comply with a variety of government regulations, such as building codes and safety standards. This ensures that the systems and structures they design are safe and reliable.
- Complex products and services: Engineering products and services are often complex and require a high level of technical expertise to design, manufacture, and maintain. Engineers must have a strong understanding of mathematics, science, and engineering principles in order to be successful.

### 2.2.2 Segments of the Engineering Industry:

The engineering industry is a vast and complex field, with a wide range of segments and categories. However, all engineers share a common goal: to use their knowledge and skills to design and build systems that improve our lives. The engineering industry can be segmented into a number of different ways, depending on the criteria used. Some common segmentation criteria include:

- Industry sector: The engineering industry can be segmented by the industry sector that it serves. For example, there is civil engineering, mechanical engineering, electrical engineering, chemical engineering, and software engineering.

- Product type: The engineering industry can also be segmented by the type of product that it produces. For example, there are companies that produce machines, components, systems, and software.
- Geographic region: The engineering industry can also be segmented by the geographic region in which it operates. For example, there are companies that operate in North America, Europe, Asia, and South America.

Following are some examples of the different segments of the engineering industry:

- Aerospace engineering: This segment of the engineering industry designs and builds aircraft, spacecraft, and satellites.
- Automotive engineering: This segment of the engineering industry designs and builds cars, trucks, and other vehicles.
- Chemical engineering: This segment focuses on the design and operation of chemical processes, such as those used to produce petroleum products, pharmaceuticals, and food.
- Construction engineering: This segment of the engineering industry designs and builds buildings, bridges, roads, and other infrastructure projects.
- Electrical engineering: This segment focuses on the design, development, and operation of electrical and electronic systems.
- Electronics engineering: This segment of the engineering industry designs and manufactures electronic devices, such as computers, smartphones, and medical devices.
- Energy engineering: This segment of the engineering industry designs and builds energy systems, such as power plants, renewable energy systems, and energy transmission and distribution systems.
- Environmental engineering: This segment of the engineering industry works to protect the environment by designing and building systems to control pollution and waste.
- Manufacturing engineering: This segment of the engineering industry designs and builds manufacturing processes and systems.
- Mechanical engineering: This segment focuses on the design and manufacture of machines and devices, such as engines, turbines, and robots.

- Software engineering: This segment focuses on the design, development, and testing of software applications.

The engineering industry is a complex and diverse industry that plays a vital role in the modern world. Engineers work in a wide range of industries and sectors, designing and building the systems and infrastructure that we rely on every day.

### **2.3 Importance for the Economy**

The engineering sector is important for the economy because it plays a vital role in the development and maintenance of infrastructure, transportation, energy, manufacturing, and communication networks. It is also a major driver of economic growth and innovation.

Following are a few ways in which the engineering sector contributes to the economy:

- Creates jobs: The engineering sector is a major employer, with millions of people working in engineering jobs around the world. Engineers are in high demand in a variety of industries, and they typically earn good salaries.
- Boosts productivity: Engineers develop new technologies and processes that help businesses to produce goods and services more efficiently. This can lead to lower costs for consumers and businesses, and it can also help to create new jobs.
- Improves infrastructure: Engineers design and build the infrastructure that we rely on every day, such as roads, bridges, water and wastewater systems, and buildings. This infrastructure is essential for economic growth and development.
- Promotes innovation: Engineers are at the forefront of innovation, developing new products and services that improve our lives and work. For example, engineers have developed new medical devices, energy technologies, and software applications that have had a major impact on the economy and society.

Some examples of how the engineering sector contributes to economic growth and development are:

- Infrastructure: Engineers design and build the roads, bridges, airports, and other infrastructure that businesses and consumers need to operate and thrive.

- Manufacturing: Engineers design and build the machines and equipment that are used to manufacture goods. They also develop new manufacturing processes that improve efficiency and reduce costs.
- Energy: Engineers design and build power plants and other energy infrastructure. They also develop new energy technologies, such as solar and wind power.
- Transportation: Engineers design and build the vehicles and infrastructure that we use to get around. They also develop new transportation technologies, such as self-driving cars and hyperloop trains.
- Healthcare: Engineers develop new medical devices and technologies. They also design and build hospitals and other healthcare facilities.
- Information technology: Engineers design and build the computer systems and networks that we use to communicate and do business. They also develop new software applications.

## **2.4 Challenges, Opportunities and Trends**

The engineering sector faces a number of challenges, opportunities, and trends. The companies which are able to adapt to these changes and take advantage of the opportunities that they present will be well-positioned for success in the future.

### Challenges

- Skills shortage: There is a growing shortage of skilled engineers around the world. This is due to a number of factors, including the aging workforce, the increasing demand for engineers in emerging economies, and the changing nature of engineering work.
- Globalization: The engineering sector is becoming increasingly globalized. This presents a number of challenges for engineers, such as the need to work with people from different cultures and backgrounds, and the need to keep up with the latest engineering trends and developments around the world.
- Technological change: The engineering sector is constantly evolving, with new technologies and processes being developed all the time. This presents a challenge for engineers, who must be able to stay up to date on the latest trends and developments in order to be successful.

## Opportunities

- Emerging markets: The engineering sector is growing rapidly in emerging markets, such as China, India, and Brazil. This presents a number of opportunities for engineers, as there is a high demand for their skills and expertise in these markets.
- New technologies: Technologies, such as artificial intelligence, robotics, and big data, are creating new opportunities for engineers. Engineers are needed to develop, implement, and maintain these new technologies.
- Sustainable development: There is a growing demand for engineers to develop and implement sustainable solutions. This is due to the growing awareness of the need to protect the environment and conserve resources.

## Trends

- Digital transformation: Digital transformation is having a major impact on the engineering sector. Engineers are increasingly using digital technologies, such as 3D printing, simulation, and augmented reality, to design, manufacture, and operate products and systems. Simulation is being used by engineers to test and validate new designs before they are built. This is helping to reduce the cost and time to market new products.
- Sustainability: Sustainability is a major trend in the engineering sector. Engineers are increasingly focused on developing and implementing sustainable solutions. This is due to the growing awareness of the need to protect the environment and conserve resources.
- Data-driven engineering: Data-driven engineering is another major trend in the engineering sector. Engineers are increasingly using data to make decisions about product design, manufacturing, and operation. Big data and analytics are being used by engineers to improve the design, manufacturing, and maintenance of engineering products and systems. This is due to the increasing availability of data and the development of new analytical tools.
- Automation: Automation is playing an increasingly important role in the engineering sector. Engineers are developing new automated systems to improve efficiency and productivity.

## **2.5 Leading companies in this sector**

### **2.5.1 Leading companies in the world**

The top engineering companies in the world vary depending on the specific industry or sector. However, some of the largest and most well-known engineering companies include:

- Siemens (Germany): Siemens is a global leader in the fields of electrical engineering, electronics, and automation. It designs and manufactures a wide range of products and systems, including power generation and transmission equipment, medical devices, and transportation systems.
- ABB (Switzerland): ABB is a global leader in the fields of power generation and transmission, automation, and robotics. It designs and manufactures a wide range of products and systems, including power transformers, circuit breakers, and robots.
- Hitachi (Japan): Hitachi is a global leader in the fields of information technology, power systems, and industrial machinery. It designs and manufactures a wide range of products and systems, including computers, telecommunications equipment, and power turbines.
- China State Construction Engineering (China): China State Construction Engineering is the world's largest construction company. It designs and builds a wide range of infrastructure projects, including roads, bridges, and airports.
- Emerson Electric (United States): Emerson Electric is a global leader in the fields of automation and control, environmental technologies, and life sciences. It designs and manufactures a wide range of products and systems, including valves, sensors, and medical devices.

Other notable engineering companies include:

- |                                    |                                     |
|------------------------------------|-------------------------------------|
| • General Electric (United States) | • Mitsubishi Electric (Japan)       |
| • Honeywell (United States)        | • Toshiba (Japan)                   |
| • Schneider Electric (France)      | • Samsung Electronics (South Korea) |
| • Thales (France)                  | • LG Electronics (South Korea)      |

- Taiwan Semiconductor Manufacturing Company (Taiwan)
- Hyundai Engineering & Construction (South Korea)
- Larsen & Toubro (India)

These companies are at the forefront of innovation in the engineering sector. They are developing new technologies and solutions that are helping to shape the world around us.

### 2.5.2 Leading companies in the India

The top Indian companies in the engineering sector are:

- Larsen & Toubro Limited (L&T): L&T is the largest engineering and construction company in India. It has a presence in a wide range of industries, including construction, manufacturing, infrastructure, and energy.
- Bharat Heavy Electricals Limited (BHEL): BHEL is the largest manufacturer of power generation equipment in India. It also manufactures a wide range of other electrical and mechanical equipment.
- Tata Consultancy Services Limited (TCS): TCS is a leading global IT services company. It provides a wide range of IT services to clients in a variety of industries.
- Infosys and Wipro Limited: Infosys and Wipro are two other leading global IT services companies. They provide a wide range of IT services to clients in a variety of industries.
- Godrej & Boyce Manufacturing Company Limited: Godrej & Boyce is a leading manufacturer of consumer durables, engineering equipment, and other products.
- Kirloskar Brothers Limited: Kirloskar Brothers is a leading manufacturer of pumps, valves, and other engineering products.
- Siemens India Limited and ABB India Limited: Siemens India and ABB India are subsidiaries of leading global engineering companies.
- Voltas Limited: Voltas is a leading manufacturer of air conditioners, refrigerators, and other products.
- Thermax Limited: Thermax is a leading manufacturer of boilers, heat exchangers, and other products.

These companies are leaders in their respective fields and play a vital role in the Indian economy. They are involved in a wide range of activities, including infrastructure development, manufacturing, and IT services.

## **2.6 Role of Innovation and Technology**

Innovation and technology play a vital role in the engineering sector. Engineers are constantly developing new technologies and solutions to solve the world's most pressing challenges.

Artificial intelligence (AI) and automation are two of the most transformative technologies in the engineering sector. AI is being used to develop new products and services, improve the efficiency of engineering processes, and automate tasks that are currently performed by humans. Automation is also being used to improve the efficiency of engineering processes and reduce costs.

Some of the major changes that innovation and technology are bringing to the engineering sector include:

- Increased use of digital tools and technologies: Engineers are increasingly using digital tools and technologies, such as computer-aided design (CAD) and simulation software, to design, manufacture, and operate products and systems. This is helping to improve the efficiency and productivity of engineering work.
- Development of new materials and processes: Engineers are developing new materials and processes that can be used to improve the performance and durability of products and systems. For example, engineers are developing new lightweight materials for use in aircraft and vehicles, and new 3D printing processes for manufacturing complex components.
- Integration of different technologies: Engineers are increasingly integrating different technologies to create new products and systems. For example, engineers are integrating AI and robotics to create autonomous vehicles and smart factories.

These changes are having a major impact on the engineering sector. They are creating new opportunities for engineers and leading to the development of new products and services that are improving the lives of people around the world.

Some examples of how innovation and technology are being used in the engineering sector:

- AI-powered design tools: AI-powered design tools are helping engineers to design products and systems more quickly and efficiently. For example, AI can be used to generate multiple design options for a given problem, and then to evaluate and select the best option.
- Automated manufacturing processes: Automated manufacturing processes are helping engineers to manufacture products more efficiently and at a lower cost. For example, robots can be used to perform tasks such as welding, assembly, and packaging.
- Digital twins: Digital twins are virtual representations of physical products and systems. They can be used to simulate the behavior of products and systems in different conditions, and to identify potential problems before they occur.
- 3D printing: 3D printing is being used to manufacture complex components that would be difficult or impossible to produce using traditional manufacturing methods. For example, 3D printing is being used to manufacture medical implants and aircraft parts.

## 2.7 Business Model Canvas for Engineering Sector

<b>Key Partners</b>	<b>Key Activities</b>	<b>Value Propositions</b>	<b>Customer Relationships</b>	<b>Customer Segments</b>
Suppliers	Design	Technical expertise	Personal relationships	Construction companies
Contractors	Engineering	Experience	Customer support	Manufacturing companies
Consultants	Construction	Quality	Account management	Infrastructure companies
Construction companies	Operation	Innovation	Long-term relationships	Energy companies
Software companies	Maintenance	Customized solutions		Transportation companies
Subcontractors		One-stop solution		Healthcare companies
		Efficiency		Aerospace companies
		Safety		Defense companies
<b>Key Resources</b>			<b>Channels</b>	
Engineers			Direct sales	Government agencies
Technology			Partner channels	Individual consumers
Equipment			Online channels	Public sector agencies
Software				Industry associations
Intellectual property				International organizations
<b>Cost Structure</b>		<b>Revenue Stream</b>		
Salaries and Benefits	Travel costs	Project fees		
Technology costs	Transportation costs	Product sales		
Equipment costs	Factory costs	Licensing fees		
Marketing and Sales costs	Software costs	Time-based fees		
Intellectual Property costs	Raw material costs			

**Fig. 1. Business Model Canvas for Engineering Sector**

## **2.8 Porter's Five Forces Model for Engineering sector**

The Porter's Five Forces analysis suggests that the engineering sector is a moderately competitive sector. There are a number of factors that are both increasing and decreasing competition in the sector. Engineering firms can be successful by focusing on providing high-quality services and products that meet the needs of their customers.

Bargaining power of buyers: The bargaining power of buyers in the engineering sector is moderate. Buyers have a number of options when choosing an engineering firm, and they can often negotiate on price and other terms. However, as engineering projects are often complex and expensive, buyers also rely on engineering firms for their expertise and experience, which gives engineering firms some bargaining power as well.

Bargaining power of suppliers: The bargaining power of suppliers in the engineering sector is moderate. Engineering firms rely on a variety of suppliers for materials, equipment, and services. Some suppliers, such as the suppliers of specialized engineering software, have a high degree of bargaining power. However, other suppliers, such as the suppliers of general-purpose materials and equipment, have low bargaining power.

Threat of new entrants: The threat of new entrants to the engineering sector is low. The engineering sector is a capital-intensive industry and there are a number of barriers to entry, including the need for a high level of expertise and the need to invest in specialized equipment and software. Additionally, the engineering sector is a highly regulated industry, and new entrants would need to comply with a variety of regulations. However, there are also a number of factors that are making it easier for new entrants to enter the market, such as the increasing availability of online design tools and the growing number of engineering freelancers.

Threat of substitutes: The threat of substitutes in the engineering sector is moderate. There are a number of substitutes for engineering services, such as in-house engineering departments and the use of foreign engineering firms. However, there are few substitutes for specialized engineering services, e.g., a new bridge or a power plant. Engineering firms offer a number of advantages over these substitutes, such as their expertise and experience.

Competitive Rivalry: The rivalry among existing competitors in the engineering sector is high. There are a number of engineering firms competing for business, and they often compete on price

and other terms. Engineering firms are constantly looking for ways to differentiate themselves from their competitors. However, there are also a number of factors that are reducing competition in the market, such as the consolidation of the engineering industry and the increasing specialization of engineering firms.

Engineering firms can mitigate the competitive forces in the sector by focusing on the following:

- Differentiation: Engineering firms can differentiate themselves from their competitors by offering unique services or by specializing in a particular industry or sector.
- Customer relationships: Engineering firms can build strong customer relationships by being responsive to their customers' needs and by exceeding their expectations.
- Innovation: Engineering firms can innovate to develop new services and products that meet the needs of their customers.

Some additional thoughts on the Porter's Five Forces Model analysis for the engineering sector:

- The threat of new entrants is likely to increase in the coming years, as technology makes it easier for new entrants to enter the market. However, the bargaining power of buyers and suppliers is likely to remain moderate.
- The threat of substitutes is likely to remain moderate, as there are a number of advantages to using engineering firms over other options.
- The rivalry among existing competitors is likely to remain high, as there are a number of engineering firms competing for business.

## 2.9 PESTEL Analysis for Engineering Sector

The engineering sector is affected by a variety of political, economic, social, technological, environmental, and legal factors. Engineering firms need to be aware of these factors and develop strategies to mitigate the risks and capitalize on the opportunities. Engineering firms that are able to successfully adapt to the changing landscape of the engineering sector will be well-positioned for success.

### Political Factors

- Government regulations: Governments often regulate the engineering sector, for example, by requiring engineers to be licensed and by establishing safety standards for engineering projects.
- Government spending: Government spending on infrastructure projects and other engineering projects can have a significant impact on the engineering sector.
- Political stability: Political stability is important for the engineering sector. Political instability can lead to uncertainty and disruption, which can make it difficult for engineering firms to operate effectively.
- Trade policies: Government trade policies can affect the demand for engineering services and products from both domestic and international customers.

### Economic Factors

- Economic growth: Economic growth leads to increased demand for engineering services and products.
- Interest rates: Interest rates can affect the cost of financing engineering projects.
- Inflation: Inflation can increase the cost of materials and labor for engineering projects.

### Social Factors

- Population growth: Population growth leads to increased demand for infrastructure and other engineering projects.
- Urbanization: Urbanization is leading to the development of new cities and the expansion of existing cities. This is creating new opportunities for engineering firms.
- Changing demographics: Changing demographics, such as the aging population and the increasing diversity of the workforce, are also creating new opportunities for engineering firms.
- Changing values and attitudes: Changing values and attitudes can impact the demand for engineering services. For example, the increasing focus on sustainability is leading to increased demand for engineering services related to renewable energy and energy efficiency.

### Technological Factors

- New technologies: Technologies such as 3D printing and artificial intelligence are disrupting the engineering sector. These new technologies are creating new opportunities for engineering firms, but they are also challenging the traditional ways of doing business.
- The pace of technological change: The pace of technological change in the engineering sector is rapid. This can make it difficult for engineering firms to keep up with the latest technologies and trends.

### Environmental Factors

- Climate change: Climate change is leading to more extreme weather events and rising sea levels. This is creating new challenges for engineering firms, such as the need to design infrastructure that is more resilient to climate change.
- Environmental regulations: Governments are increasingly implementing environmental regulations. This can impact the engineering sector by increasing the cost of engineering projects and by limiting the types of materials and technologies that can be used.
- Resource scarcity: Resource scarcity, such as the scarcity of water and energy, is a challenge for the engineering sector. Engineering firms need to be able to design and build infrastructure and products that are efficient in their use of resources.

### Legal Factors

- Employment laws: Engineering firms must comply with employment laws, such as the minimum wage and safety laws.
- Intellectual property laws: Engineering firms need to protect their intellectual property, such as patents and trade secrets.
- Environmental laws: Environmental regulations impact the design and construction of engineering projects. Engineering firms must comply with environmental laws, such as laws regulating the disposal of hazardous waste.
- Health and safety regulations: Health and safety regulations impact the way that engineering firms operate. Engineering firms need to comply with all applicable health and safety regulations.

## Chapter 3

### COMPANY ANALYSIS

#### **3.1 Introduction to Thermax Ltd.**

Thermax is an engineering company providing sustainable solutions in energy and environment.



Thermax Group is an INR 4,899 Cr. (661 million US\$) company headquartered in Pune, India. Its business portfolio includes products for heating, cooling, air pollution control, water and waste management, solar power, and specialty chemicals. The company also designs, builds, and commissions large boilers for steam and power generation, turnkey power plants, industrial and municipal wastewater treatment plants, waste heat recovery systems and air pollution control projects.

The systems, products and services developed by Thermax help industry achieve better resource productivity and improve bottom lines, while maintaining a cleaner environment. Even as the company converts costs to profits, they help to protect the environment in their own limited ways. A win-win for industry and society at large.

Their presence spans 88 countries and supports customers through an extensive sales & service network spread over Asia, South-East Asia, Middle East, Africa, Europe, and the Americas.

Thermax is committed to ‘Conserving Resources and Preserving the Future’, two areas vital for the world. They support industry and business establishments to be energy efficient and environmentally friendly.

#### **VISION**

To be a globally respected high-performance organization offering sustainable solutions in energy and the environment.

## **MISSION**

- We aspire to become a leading technology company with a global outlook delivering world-class products and services to customers.
- We exist to fulfil the needs of our customers – best understood through an enlightened partnership with him.
- Our challenge is to continually expand and define new markets by expanding the frontiers of research and engineering and customer applications in our chosen field of business.
- Our commitment is to create an organization, which nurtures the talent and enterprise of our people, helping them to grow and find fulfilment, in an open culture.
- We seek dependable partnership with our suppliers – to generate a strong mutual interest in each other's welfare.
- We live by a high value of integrity and excellence in management.
- We strive to contribute substantially to the global priority areas of energy conservation, environment protection and enrichment of society.

## **VALUES**

- Respect      • Commitment      • Honesty & Integrity      • Concern For Society & Environment

The group consists of 9 wholly owned domestic subsidiaries and 21 wholly owned overseas subsidiaries.

### INDIA

- Thermax Engineering Construction Company Ltd.
- First Energy Pvt. Ltd.
- Thermax Instrumentation Ltd.
- Thermax Onsite Energy Solutions Ltd.
- Enernxt Pvt. Ltd.
- Thermax Sustainable Energy Solutions Ltd.
- Thermax SPX Energy Technologies Ltd. (JV)
- Thermax Babcock & Wilcox Energy Solutions Pvt. Ltd.
- Thermax Limited

## INTERNATIONAL

- Boilerworks A/S,  
Denmark
- Boilerworks Properties  
ApS, Denmark
- Danstoker A/S, Denmark
- PT Thermax  
International, Indonesia
- Thermax Denmark ApS
- Thermax Engineering  
Singapore Pte. Ltd.
- Thermax Hong Kong  
Limited
- Thermax Inc., USA.
- Thermax International Limited,  
Mauritius
- Thermax Netherlands B.V
- Thermax Nigeria Limited, Nigeria
- Thermax SDN. BHD., Malaysia
- Thermax Senegal S.A.R.L, Senegal
- Thermax Europe Limited, UK
- Rifox – Hans Richter GmbH  
Spezialarmaturen, Germany
- Thermax do Brasil Energia e  
Equipamentos Ltda., Brazil
- Thermax Energy and Environment  
Lanka (Private) Limited, Sri Lanka
- Thermax Energy and  
Environment Philippines  
Corporation
- Danstoker Poland Spolka Z  
OrganicznaOdpowiedzialnoscia
- Ejendomsanpartsselskabet  
Industrivej Nord 13,  
Denmark
- Thermax (Zhejiang)  
Cooling & Heating  
Engineering Co. Ltd., China

Thermax's business operations are supported by 29 international offices, sales and service teams, a network of Thermax Channel Associates, a robust and innovative R&D setup, and 14 state-of-the-art manufacturing facilities, complying with stringent international codes.

Bangladesh	Germany	Malaysia	Philippines	Sri Lanka	USA
Brazil	India	Mauritius	Poland	Tanzania	UAE
Canada	Indonesia	Myanmar	Saudi Arabia	Thailand	Vietnam
Denmark	Italy	Netherlands	Senegal	Turkey	Zambia
Egypt	Kenya	Nigeria	Singapore	UK	

Thermax has 14 state-of-the-art manufacturing facilities which build reliability and quality into the products and systems that are supplied to global clients. These plants are certified to adhere to rigorous standards: ISO 9001: 2000, ISO 14001 : 2004 and OHSAS 18001 : 1999. The facilities are inspected by Lloyds, Bureau Veritas, SGS, and TUV.

- |                              |                                  |                                      |
|------------------------------|----------------------------------|--------------------------------------|
| 1. Dahej, Gujarat (India)    | 6. Mundra, Gujarat (India)       | 11. Shirwal, Maharashtra (India)     |
| 2. Danstoker, Denmark        | 7. Paudh , Maharashtra (India)   | 12. Solapur, Maharashtra (India)     |
| 3. Danstoker, Poland         | 8. Pune (2), Maharashtra (India) | 13. Sri City, Andhra Pradesh (India) |
| 4. Indonesia                 | 9. Rifox, Germany                |                                      |
| 5. Jhagadia, Gujarat (India) | 10. Savli, Gujarat (India)       |                                      |

Thermax Limited has a wide range of clients across a variety of industries, including:

- Power: Tata Power, Reliance Power, Adani Power, NTPC, NHPC, etc.
- Oil and gas: ONGC, Reliance Industries, BP, Shell, Chevron, etc.
- Chemicals and petrochemicals: Reliance Industries, Indian Oil Corporation, ONGC Petro additions, etc.
- Fertilizer: National Fertilizers, Coromandel International, Indian Farmers Fertilizer Cooperative, etc.
- Food and beverage: Nestle, PepsiCo, Coca-Cola, Hindustan Unilever, ITC, etc.
- Pharmaceuticals: Cipla, Dr. Reddy's Laboratories, Sun Pharmaceutical Industries, Lupin, etc.
- Textiles: Arvind Mills, Raymond, Reliance Industries, etc.
- Paper and pulp: ITC, UPM, Nippon Paper, etc.
- Building and construction: Larsen & Toubro, Shapoorji Pallonji, Mahindra & Mahindra, etc.

Thermax also has a significant presence in international markets, with clients in over 70 countries. Some of its major international clients include:

- |           |                         |                                  |             |
|-----------|-------------------------|----------------------------------|-------------|
| • VOPAK   | • Emirates Lube Oil Co. | • Qatar Petroleum                | • Petronas  |
| • Shell   | • British Petroleum     | • Abu Dhabi National Oil Company | • Pertamina |
| • Sinopec | • Saudi Aramco          |                                  | • CNOOC     |

Thermax is a trusted partner for many of the world's leading companies, providing them with innovative and sustainable energy and environmental solutions. Its growth strategy is focused on the following key areas:

- Expanding its product and services portfolio: Thermax is constantly expanding its product and services portfolio by focusing on innovation and customer-centricity. The company is also focusing on developing new and innovative products and solutions, such as those in the renewable energy and air pollution control segments.
- Expand into new markets: Thermax is expanding its international presence by entering new markets and strengthening its presence in existing markets. The company is targeting countries in Africa, the Middle East, and Southeast Asia for growth and is focusing on developing strategic partnerships and joint ventures with local companies to target new customers in these markets.
- Focusing on key growth sectors: Thermax is focusing on key growth sectors such as power, oil and gas, chemicals and petrochemicals, and renewable energy. The company is also focusing on the growing demand for water and wastewater treatment solutions.
- Strengthen partnerships: Thermax plans to strengthen its partnerships with technology partners, channel partners, and joint venture partners. This will help the company to expand its reach and offer a wider range of solutions to its customers.
- Focus on digital transformation: Thermax is investing heavily in digital transformation to improve its operational efficiency and customer experience. The company is also using digital technologies to develop new products and services.
- Focusing on operational excellence: Thermax is focusing on operational excellence to improve its efficiency and profitability. The company is also investing in new technologies and processes to improve its product quality and service levels.
- Investing in research and development: Thermax is investing heavily in research and development to develop new and innovative products and solutions. The company is also focusing on developing new technologies to reduce the environmental impact of its operations.

Thermax's growth strategy is based on a long-term view of the market and a commitment to providing its customers with the best possible solutions. The strategy is aligned with the company's vision of becoming a leading global provider of sustainable energy and environmental engineering solutions. The company is well-positioned to continue to grow in the future and to play a leading role in the development of sustainable energy and environmental engineering solutions.

In addition to the above, Thermax is also focusing on the following key initiatives to drive its growth:

- Digital transformation: Thermax is investing in digital technologies to transform its operations and improve its customer experience. The company is also developing new digital solutions for its customers.
- Sustainability: Thermax is expanding its renewable energy business by developing and manufacturing solar and wind energy products. The company is also providing engineering, procurement, and construction (EPC) services for renewable energy projects. Thermax is committed to sustainability and is developing new products and solutions to help its customers reduce their environmental impact. The company is also investing in sustainable manufacturing and energy efficiency practices.
- People development: Thermax is committed to developing its people and creating a high-performance culture. The company is investing in training and development programs for its employees.

Thermax's growth strategy is ambitious but achievable. The company has a strong track record of growth and profitability, and it is well positioned to continue to grow in the future.

### **3.2 Products & Business Model**

Thermax Limited's business model is based on providing energy and environmental engineering solutions to its customers. The company has a diversified business portfolio spanning heating, ventilation, and air conditioning (HVAC), boilers, water and wastewater treatment, renewable energy, and air pollution control.

#### Products and Services

- Boiler & Heater – TBWES (Thermax Babcock and Wilcox Energy Solutions)
  - Biomass Fired Boilers
  - Fixed Plate Type AFBC Boilers
  - Spent Wash (VINASSE) Fired Boilers
  - Waste To Energy Boilers
  - Oil & Gas Fired Boilers
  - Lean Gas Fired Boilers
  - Waste Heat Recovery Boilers
  - Waste Heat Recovery Units

- Fired Heater and Process Furnaces
  - Fluidised Bed Combustion
  - Pulverised Fuel Fired Boilers
  - Bi-drum Boilers
  - Heat Recovery Steam Generators
- Process Heating – Packaged Boilers, Thermal Oil Heaters, Heat Recovery Boilers, and Hot Water Generators
- Projects and Energy Solutions – Captive power plants on EPC (Engineering, Procurement and Construction) basis (Cogeneration Plants, Waste Heat Recovery Power Plants, Captive Power Plants, Independent Power Plants)
- Solar Power
- Air Pollution Control – Electrostatic Precipitators, Bag Houses / Bag Filters, ComboFilters®, Flue Gas Desulphurisation, Dry/Wet Scrubbers
- Water & Waste Solutions
  - Solutions: Water Treatment, Wastewater Treatment, Zero Liquid Discharge, Desalination
  - Products: Water Treatment, Sewage Treatment, Effluent Treatment, Pharmaceutical Ro, Solid Waste Management
  - Services: Plant Upgrade & Improvement, Plant Management Services, Spare Parts Management, Plant Audit & Evaluation, Characterisation & Treatability Test, Membrane Integrity, Autopsy, Outsourced Utility Services
- Chemicals – Ion Exchange Resins, Water Treatment Chemicals, Fuel Additives and Fireside Chemicals, Oil Field Chemicals, Paper Chemicals, Construction Chemicals
- Process Cooling – Evaporative Condenser, Closed Loop Cooling Tower, Adiabatic Cooler, Dry Cooler, Air Cooled Heat Exchanger
- Absorption Cooling – Vapour Absorption Chiller, Triple Effect Chiller, Chiller Heater, Hybrid Chillers, Heat Pumps, Heat Transformers, Heat Pump Chiller
- TOESL (Thermax Onsite Energy Solutions Ltd.) – Steam and Heat, Treated Water, Chilled Water, CHPC / Power, Solar Power

Thermax also recently launched Thermax EDGE™ Live, a digital solution powered by advanced capabilities of artificial intelligence, machine learning and Thermax engineered algorithms. It integrates all industrial assets across the globe and can perform data analytics at the click of a button. Besides serving as a digital solution, it leverages the company's longstanding experience in energy and the environment space, which translates seamlessly into expert guidance and service for customers.

Thermax's primary revenue stream comes from the sale of its products and services. The company also generates revenue from the provision of engineering, procurement, and construction (EPC) services, as well as from the operation and maintenance of its customers' facilities.

Thermax also enters into long-term contracts with its customers for the operation and maintenance of their energy and environmental systems. These contracts typically last for 5-10 years and provide Thermax with a recurring revenue stream.

Thermax's business model is focused on providing its customers with innovative and sustainable solutions. The company invests heavily in research and development to develop new technologies and solutions that can help its customers to reduce their energy consumption, emissions, and environmental impact.

Thermax also has a strong focus on customer satisfaction. The company has a network of over 200 sales and service offices across India and overseas. This network helps Thermax to provide its customers with local support and service.

Thermax's business model has been successful in helping the company to become one of India's leading providers of energy and environmental engineering solutions. The company has a strong track record of growth and profitability, and it is well positioned to continue to grow in the future.

Thermax's business model can be summarized as follows:

- Product development: Thermax invests heavily in research and development to develop new and innovative energy and environmental engineering solutions.
- Manufacturing: Thermax has a number of manufacturing facilities in India and overseas, where it manufactures a wide range of products.

- Sales and marketing: Thermax has a global sales and marketing network that helps the company to reach its target customers and sell its products and services.
- After-sales service: Thermax provides comprehensive after-sales service to its customers, including installation, commissioning, maintenance, and repairs.

Thermax's business model is based on the following key principles:

- Customer focus: Thermax is committed to providing its customers with the best possible solutions and services.
- Innovation: Thermax is constantly innovating to develop new and better products and solutions.
- Quality: Thermax is committed to providing its customers with high-quality products and services.
- Sustainability: Thermax is committed to developing and providing sustainable energy and environmental engineering solutions.

In addition to the above, Thermax also has a Build-Own-Operate-Transfer (BOOT) model for its Energy business. Under this model, Thermax invests in, constructs, and operates utility plants on customer premises, and then transfers the ownership to the customer at the end of the contract period. This model allows Thermax to provide its customers with a comprehensive solution for their energy needs, without requiring them to make any upfront investment.

Here are some of the key elements of Thermax's business model:

- Diversified product portfolio: Thermax has a diversified product portfolio, which helps the company to reduce its risk and to capitalize on opportunities in different markets.
- Strong focus on research and development: Thermax invests heavily in research and development to develop new technologies and solutions that can help its customers to reduce their energy consumption, emissions, and environmental impact.
- Focus on customer satisfaction: Thermax has a strong focus on customer satisfaction and provides its customers with local support and service through its network of over 200 sales and service offices.

### 3.3 Business Model Canvas for Thermax Ltd.

<b>Key Partners</b>	<b>Key Activities</b>	<b>Value Propositions</b>	<b>Customer Relationships</b>	<b>Customer Segments</b>
Suppliers	Design	Technical expertise	Comprehensive after-sales service	Power industry
Channel partners	Engineering	Experience		Oil and gas industry
Technology partners	Construction	Quality	Customer satisfaction	Chemicals and petrochemicals industry
Joint Venture partners	Operation	Innovation	Long-term relationships	Fertilizer industry
Software companies	Maintenance	Holistic solutions		Food and beverage industry
Contractors	After-sales service	Sustainable solution		Pharmaceuticals industry
Subcontractors		Large service network		Textiles industry
Construction companies		Global presence		Paper and pulp industry
<b>Key Resources</b>			<b>Channels</b>	
Experienced Engineers			Direct sales	Building and construction industry
Manufacturing facilities			Channel Partners	Government and public sector
R&D facilities			Joint Ventures	
Sales network			Exhibitions	International markets
Intellectual property				
<b>Cost Structure</b>		<b>Revenue Stream</b>		
Salaries and Benefits	Travel costs	R&D cost	Project fees	
Technology costs	Transportation costs		Product sales	
Equipment costs	Factory costs		BOOT model	
Marketing and Sales costs	Software costs		After sales service	
Intellectual Property costs	Raw material costs			

**Fig. 2. Business Model Canvas for Thermax**

### **3.4 Porter's Five Forces Model for Thermax Ltd.**

Threat of New Entrants: The threat of new entrants is moderate for Thermax Limited. The company operates in a capital-intensive industry with high barriers to entry. New entrants would need to have a significant amount of capital to invest in research and development, manufacturing facilities, and distribution channels. Additionally, Thermax Limited has a strong brand reputation and a loyal customer base, which would make it difficult for new entrants to gain market share.

Bargaining Power of Suppliers: The bargaining power of suppliers is moderate for Thermax Limited. The company has a large number of suppliers, and the cost of switching to a new supplier is relatively low. However, some of Thermax Limited's suppliers are specialized and have a strong bargaining position. Additionally, the prices of raw materials have been volatile in recent years, which has put pressure on Thermax Limited's margins.

Bargaining Power of Buyers: The bargaining power of buyers is moderate for Thermax Limited. The company sells its products to a variety of customers, including large industrial companies, small businesses, and governments. Customers are price-sensitive, but they also value quality and reliability. Thermax Limited has a strong brand reputation and a history of providing high-quality products, which gives it some bargaining power with its customers.

Threat of Substitute: The threat of substitute is moderate for Thermax Limited. The company's products are used in a variety of industrial applications, and there are a number of substitutes available. However, Thermax Limited's products are often the best or only option for certain applications. Additionally, the company is constantly innovating and developing new products, which helps to keep customers from switching to substitutes.

Competitive Rivalry: The intensity of competitive rivalry is high for Thermax Limited. The company operates in a fragmented industry with a large number of competitors. Competitors are constantly vying for market share, and they are using a variety of tactics, such as price cuts, product innovation, and marketing campaigns, to gain an edge. Thermax Limited has a strong track record of innovation, but it will need to continue to innovate in order to maintain its competitive advantage.

Overall, Thermax Limited is in a good position to compete in its industry. The company has a strong brand reputation, a loyal customer base, and a history of innovation. However, the company

will need to continue to innovate and watch out for new entrants and substitutes in order to maintain its competitive advantage. The recommendations drawn from this analysis suggests strategies for Thermax to enhance its competitive advantage, mitigate risks, and navigate the evolving landscape of the industry, ultimately securing its long-term success and market leadership.

- Continue to build on its reputation and innovation to maintain a strong position as a market leader. Strengthen the existing customer relationships to create barriers for new entrants.
- Diversify the supplier base to reduce dependence on any single supplier. Negotiate long-term contracts to secure stable prices and quality. Explore options for vertical integration to have more control over the supply chain.
- Focus on understanding the customers' needs and tailor the offerings accordingly. Offer value-added services and support to enhance customer loyalty and reduce their bargaining power. Diversify the customer base to reduce reliance on any single customer.
- Continuously innovate and invest in research and development to stay ahead of potential substitutes. Educate the customers on the unique value Thermax solutions provide compared to substitutes.
- Invest in research and development to maintain a competitive edge. Explore strategic partnerships and acquisitions to expand the reach and capabilities. Continuously monitor and adapt to changes in the competitive landscape.

In summary, Thermax Limited should focus on maintaining its strong position as a market leader by leveraging its reputation, innovation, and customer relationships. It's also essential to manage supplier relationships, understand customer needs, innovate to stay ahead of substitutes, and stay agile in the face of competitive rivalry. By addressing these elements, Thermax can continue to thrive in its industry.

### **3.5 SWOT Analysis for Thermax Ltd.**

Thermax, a leading global energy and environment solutions provider, is a company that warrants a comprehensive SWOT analysis. This Indian multinational boasts a strong presence in various sectors, including energy, environment, and chemical industries. To evaluate its strategic positioning, we will assess Thermax's strengths, weaknesses, opportunities, and threats, shedding

light on its current and future prospects in the ever-evolving landscape of energy and environmental solutions.

### Strengths

- Strong brand reputation
- Wide range of products and services
- Global reach
- Strong track record of growth and profitability
- Commitment to customer satisfaction
- Innovation focus
- After-sales service

### Weaknesses

- Dependence on a few key customers
- High operating costs
- Cyclical nature of some of the end markets
- Competition from domestic and international players
- High capital expenditure requirements

### Opportunities

- Growing demand for energy and environmental engineering solutions in emerging markets
- Increasing focus on renewable energy and sustainability
- Expanding global presence
- Government initiatives to promote energy efficiency and environmental protection

### Threats

- Economic slowdown
- Rising input costs
- Changes in government regulations
- Technological disruption and obsolescence

Thermax can leverage its strengths and opportunities to overcome its weaknesses and threats. For example, the company can reduce its dependence on a few key customers by expanding its customer base and diversifying its end markets. Thermax can also mitigate the cyclical nature of some of the end markets by developing new products and services that are less cyclical. Thermax can also face competition from domestic and international players by focusing on innovation and differentiation. To capitalize on the growing demand for energy and environmental engineering solutions, Thermax can expand its product and service portfolio and enter new

markets. Thermax can also mitigate the risk of economic slowdown by expanding its global presence and diversifying its customer base. To mitigate the risk of fluctuations in energy prices, Thermax can hedge its energy costs. To mitigate the risk of government regulations, Thermax can stay up to date with the latest regulations and develop solutions that meet the regulatory requirements.

Overall, Thermax is a well-positioned company with a strong track record of growth and profitability. The company has a number of strengths, including its strong brand recognition, diversified product and service portfolio, global reach, and commitment to research and development. Thermax also has a number of opportunities, including the growing demand for energy and environmental engineering solutions, expanding global presence, and new technologies such as digitalization and artificial intelligence. By leveraging its strengths and opportunities, Thermax can overcome its weaknesses and threats and continue to grow in the future.

After conducting a thorough SWOT analysis of Thermax, we have identified key insights that inform my recommendations for the company's strategic direction. Leveraging Thermax's strengths while addressing its weaknesses will be crucial in capitalizing on emerging opportunities and mitigating potential threats in the energy and environment solutions market. In this report, we present a set of tailored recommendations to help Thermax maximize its competitive advantage, overcome challenges, and achieve sustainable growth in an increasingly dynamic industry.

Thermax should focus on the following recommendations to maintain its market leadership and achieve its growth objectives:

- Diversify its customer base to reduce its dependence on a few key customers.
- Improve operational efficiency to reduce costs.
- Invest in research and development to stay ahead of the competition and develop new and innovative products and solutions.
- Expand its presence in emerging markets.
- Focus on renewable energy and sustainability solutions.
- Develop partnerships with other companies to expand its product and services portfolio and to enter new markets.

## **Chapter 4**

### **NEWS ANALYSIS**

#### **4.1 News from Engineering Sector:**

From advancements in technology and sustainability to emerging market opportunities and challenges, the news analysis provides a comprehensive overview of the dynamic forces driving change in the engineering industry. Key industry players, regulatory updates, and transformative projects that impact the sector's growth and direction were explored. Here is a summary of some of the recent news and their analysis related to Engineering sector:

- Global engineering market to reach \$9.1 trillion by 2027: The global engineering market is expected to grow from \$7.5 trillion in 2022 to \$9.1 trillion by 2027, according to a report by Market Research Future. The growth is being driven by increasing demand from emerging markets, growing investments in infrastructure development, and the adoption of new technologies such as artificial intelligence and machine learning.
- US engineering employment projected to grow 8% from 2020 to 2030: Employment of engineers in the United States is projected to grow 8% from 2020 to 2030, faster than the average for all occupations, according to the US Bureau of Labor Statistics. The growth is being driven by increasing demand for engineering services in a variety of industries, including healthcare, information technology, and manufacturing.
- China's engineering sector to continue to grow rapidly: China's engineering sector is expected to continue to grow rapidly in the coming years, driven by the government's focus on infrastructure development and technological innovation. According to a report by BIS Research, the Chinese engineering market is expected to reach \$3.5 trillion by 2027, up from \$2.5 trillion in 2022.
- Europe's engineering sector to see modest growth: Europe's engineering sector is expected to see modest growth in the coming years, driven by investments in infrastructure development and renewable energy. However, the sector is facing some challenges, such as the ongoing war in Ukraine and rising inflation.
- India's engineering sector to benefit from government's infrastructure push: India's engineering sector is expected to benefit from the government's focus on infrastructure development. The

government has announced a number of large-scale infrastructure projects in recent years, which is expected to boost demand for engineering services.

- New technologies to transform the engineering sector: New technologies such as artificial intelligence, machine learning, and the Internet of Things (IoT) are transforming the engineering sector. These technologies are being used to improve the design, construction, and operation of engineering systems.
- Engineering sector faces challenges from climate change and sustainability: The engineering sector is facing a number of challenges, including climate change and sustainability. Engineers are playing a key role in developing solutions to these challenges, such as renewable energy technologies and energy-efficient buildings.
- Engineering sector needs to attract and retain top talent: The engineering sector needs to attract and retain top talent to meet the growing demand for engineering services. This is a challenge, as the sector is facing competition from other industries for top talent.
- Diversity and inclusion in the engineering sector: The engineering sector is working to improve diversity and inclusion. This is important because a diverse workforce is more innovative and can better meet the needs of society.
- Engineering sector is essential for economic growth: The engineering sector is essential for economic growth. Engineers play a key role in developing new products and services, improving manufacturing processes, and building infrastructure.
- Engineering job market to remain strong in 2023: The engineering job market is expected to remain strong in 2023, according to a report by Indeed. The report found that the demand for engineers is higher than the supply, and that engineers can expect to earn high salaries.
- Engineering sector to play a key role in the development of the metaverse: The metaverse is a virtual world that is still under development. Engineers are playing a key role in developing the metaverse's infrastructure and technologies.
- Engineering sector to benefit from the growing demand for electric vehicles: The demand for electric vehicles is growing rapidly. Engineers are playing a key role in developing new technologies and solutions for electric vehicles, such as batteries, motors, and charging infrastructure.
- Engineering sector to benefit from the growing demand for renewable energy: The demand for renewable energy is growing rapidly. Engineers are playing a key role in developing new

technologies and solutions for renewable energy, such as solar panels, wind turbines, and battery storage systems.

- Engineering sector to benefit from the growing demand for healthcare: The demand for healthcare is growing rapidly. Engineers are playing a key role in developing new medical devices and technologies, such as robotic surgery systems, 3D-printed prosthetics, and wearable health monitors.
- Engineering sector to benefit from the growing demand for consumer electronics: The demand for consumer electronics is growing rapidly. Engineers are playing a key role in developing new consumer electronics products, such as smartphones, laptops, and televisions.

## **4.2 Outlook for the Future:**

The outlook for the engineering sector is very positive. The sector is expected to grow significantly in the coming years, driven by demand from developing countries and the increasing use of technology in all industries. Engineers will play a vital role in addressing global challenges and driving economic growth.

Here are some of the key trends that are expected to shape the engineering sector in the future:

- Artificial intelligence (AI): AI is rapidly transforming the engineering sector. AI-powered tools are being used to design products and systems, automate tasks, and improve efficiency.
- Robotics: Robotics is another key trend that is transforming the engineering sector. Robots are being used to perform a wide range of tasks, including manufacturing, inspection, and construction.
- Additive manufacturing: Additive manufacturing, also known as 3D printing, is a new manufacturing technology that is revolutionizing the engineering sector. Additive manufacturing allows engineers to create complex products on demand, without the need for traditional manufacturing processes.

These trends are creating new opportunities for engineers and engineering companies. Engineers who are skilled in AI, robotics, and additive manufacturing will be in high demand in the future.

Overall, the outlook for the engineering sector is very positive. The sector is expected to grow significantly in the coming years, and engineers will play a vital role in addressing global challenges and driving economic growth.

#### **4.3 News from Thermax Ltd.:**

By examining recent news, financial reports, and market trends, this is a comprehensive overview of how Thermax is faring in the dynamic business landscape. This analysis will shed light on the company's strategic moves, partnerships, financial performance, and their impact on its market position and future prospects. Here is a summary of some of the recent news and their analysis related to Thermax Limited:

- Thermax bags Rs. 1,176 crore order for a Sulphur Recovery Block. The company has won a Rs. 1,176 crore order from a leading petrochemical company for the design, engineering, procurement, and construction of a Sulphur Recovery Block. This is the largest single order ever received by Thermax for a Sulphur Recovery Block.
- Thermax signs technology agreement with Steinmüller Babcock Environment for Waste to Energy boilers. Thermax has signed a technology agreement with Steinmüller Babcock Environment, a leading German company, for the supply of Waste to Energy boilers. This agreement will enable Thermax to offer its customers a wider range of Waste to Energy solutions.
- Thermax announces plans to invest Rs. 250 crore in its manufacturing plant in Pune to expand its capacity for the production of heat exchangers, boilers, and other equipment. This investment will help Thermax to meet the growing demand for its products and services.
- Thermax is also expanding its global footprint through acquisitions and partnerships. In August 2023, the company acquired a majority stake in Denmark-based SPX Flow, a leading provider of energy-efficient solutions for the food and beverage industry.
- Thermax's focus on sustainable growth is paying off. The company is increasingly winning orders for its energy-efficient and renewable energy solutions. For example, in July 2023, Thermax won an order of Rs. 522 crore for a refinery and petrochemical complex that will use its waste heat recovery technology.

- Thermax bags Rs 545.6 crore order for two Flue Gas Desulphurisation (FGD) systems. This order is a positive sign for Thermax's environmental technology business, which is growing rapidly. FGD systems are used to remove sulfur dioxide from flue gases, which is a major air pollutant. The government is increasingly mandating the use of FGD systems, which is driving demand for Thermax's products.
- Thermax commissions India's first waste-to-energy plant in Pune. This is a significant development for Thermax, as it demonstrates its capabilities in the renewable energy sector. Waste-to-energy plants convert waste into electricity, which is a clean and sustainable source of energy. The government is promoting the use of waste-to-energy plants, which is creating new opportunities for Thermax.
- Thermax partners with ReNew Power to develop solar power plants. This partnership is a positive development for Thermax, as it will help the company to expand its presence in the solar power sector. ReNew Power is one of India's leading renewable energy companies. The partnership will give Thermax access to ReNew Power's expertise and resources.
- Thermax wins order to supply boilers for a new refinery in Saudi Arabia. This order is a positive sign for Thermax's international business, which is growing rapidly. The company is increasingly winning orders from overseas markets, which is diversifying its revenue stream and reducing its dependence on the domestic market.
- Thermax launches a new range of energy-efficient boilers. This launch is a positive sign for Thermax's commitment to innovation. The company is constantly developing new products and solutions that meet the needs of its customers. The new range of energy-efficient boilers will help customers to reduce their energy costs and carbon footprint.
- Thermax signs agreement with Power Roll to develop the market for solar film in India. This agreement is a positive development for Thermax, as it will help the company to expand its presence in the solar energy sector. Power Roll is a leading manufacturer of solar film. The agreement will give Thermax access to Power Roll's expertise and resources.
- Thermax bags Rs 830 crore order for three FGD systems. This order is another positive sign for Thermax's environmental technology business. The order is from a leading steel company

in India. The order will help Thermax to strengthen its position in the environmental technology sector.

- Thermax commissions India's first waste-to-energy plant in Visakhapatnam. This is another significant development for Thermax, as it demonstrates its capabilities in the renewable energy sector. The plant has a capacity to convert 500 tons of waste into electricity per day. The plant will help to reduce Visakhapatnam's carbon footprint and provide a sustainable solution for waste management.
- Thermax wins order to supply boilers for a new power plant in Bangladesh. This order is another positive sign for Thermax's international business. The company is increasingly winning orders from overseas markets, which is diversifying its revenue stream and reducing its dependence on the domestic market.

Overall, the outlook on Thermax Limited is very positive. The company is benefiting from strong order booking growth, expanding its product portfolio, and investing in its manufacturing capacity. This should position Thermax well for continued growth in the coming years.

Thermax reported a roughly 45% jump in Q2 profit, helped by higher demand for its industrial products and infrastructure. Consolidated net profit rose to 1.58 billion rupees (\$19 million) in the three months ended Sept. 30, 2023 from 1.09 billion rupees a year ago. The company's revenue rose 11% to 23.02 billion rupees. Sales of industrial products, including for heating, cooling, water and waste management, increased 18%. Its infrastructure business, which includes building large boilers, turnkey power plants and wastewater treatment plants, posted a 13% increase in revenue. Thermax's order balance was 102.64 billion rupees at the end of September, compared to 94.85 billion rupees at the end of June. The company has also approved an investment up to \$2 million in its Singapore unit. Thermax's shares closed up just under 1% ahead of the results and have gained more than 36% during the Sept. quarter. (\$1 = 83.2463 Indian rupees)

## Chapter 5

### LITERATURE REVIEW

In conducting this study, the primary objective is to leverage the collected data to formulate an impactful content strategy tailored specifically for Thermax Thailand's LinkedIn page. The aim is to enhance engagement with the target audience, thereby facilitating an increase in both followers and impressions on the platform. This strategic approach is crucial for Thermax to effectively achieve its growth goals in the dynamic market of Thailand.

To lay the groundwork for the content strategy, a comprehensive literature review was undertaken. The focus of this review was to gain insights into the most effective types of posts on LinkedIn. By delving into existing research and industry best practices, we sought to identify key trends, successful content formats, and engagement strategies that have proven to be particularly effective within the LinkedIn environment.

By merging the findings from the literature review with the data collected in this study, we aim to create a content strategy that is not only grounded in established principles but also tailored to the specific nuances of Thermax Thailand's target audience. This approach ensures that the content resonates with the audience on a deeper level, fostering increased interaction and connection.

The strategic utilization of LinkedIn as a platform for communication and brand representation is pivotal in today's digital landscape. Through a nuanced understanding of content effectiveness and audience preferences, Thermax Thailand can position itself as a thought leader, build brand loyalty, and drive the desired growth in the competitive market of Thailand. As the study progresses, a detailed analysis of the data will provide actionable insights, enabling the development of a content strategy that aligns seamlessly with Thermax Thailand's primary business objectives.

According to [12], the following types of LinkedIn posts may work the most for B2B businesses:

- Technical posts that showcase the firm's expertise and knowledge in its service category, such as white papers, case studies, industry trends, and empirical data. These posts can generate trust and competence among potential customers and influencers.

- Sales posts that highlight the firm's products or services, such as new features, value propositions, customer testimonials, and success stories. These posts can generate awareness and interest among prospects and existing customers and drive them to the firm's website or contact channels.
- Social posts that emphasize the human and social aspects of the business, such as employee stories, awards, events, and social responsibility. These posts can generate emotional value and positive image among the audience and foster engagement and reputation.

According to this study [13] on B2B social media content and engagement on LinkedIn, to increase engagement on LinkedIn, the following strategies can be used:

- **Optimize profile** with a professional photo and a clear headline that showcases the expertise and value proposition.
- **Post regular updates** about interesting and valuable topics related to the industry, such as trends, insights, data, news, etc.
- **Use hashtags** to promote the posts and reach a wider audience who are interested in similar topics. We can also follow relevant hashtags to join the conversation and interact with other users.
- **Ask questions** and invite feedback from your connections and followers. We can also create polls or surveys to engage your audience and collect their opinions.
- **Share posts** with relevant groups and participate in discussions. We can also create your own group and invite your target audience to join and share their thoughts and experiences.
- **Interact with and provide value** to others by liking and commenting on their posts. We can also share useful content from other sources or tag other users who might be interested in your posts.
- **Show your face and personality** by posting videos or stories that showcase your work, your achievements, your challenges, your tips, etc.
- **Identify what sets you apart** and showcase your expertise and unique value proposition. We can also share testimonials, case studies, success stories, etc. that demonstrate your credibility and trustworthiness.

According to Neely P. [9], following are some type of LinkedIn posts that can prove effective:

### **1. Video-based LinkedIn posts**

- Short videos summarizing new content.

Video may be harder to do than typing up a text post, but it's worth the extra work. Video doesn't need to be long to be effective. Even a five to 15-second video is enough to get attention.

According to LinkedIn: "Video is 5x more likely than other types of content to start a conversation among members. LinkedIn members spend almost 3x more time watching video ads compared to time spent with static Sponsored Content."

- "Medium" length videos of 30 seconds to two or three minutes.

Given that the typical person speaks between 125 and 150 words per minute, a 30-second video may give you just enough time to convey some key points. It would be the equivalent of about 60 to 75 words. That's a medium-length social media post, which is just enough for a one-sentence introduction, three bullet points, and a call to action.

A two or three-minute video will be the equivalent of 300 to 450 words. This is clearly much longer and almost a short blog post's worth of content. This length may be more suited to a message from the CEO, a quick piece of thought leadership, or the announcement of a new product line or service.

### **2. Text-based LinkedIn posts**

- Questions.

One of the better ways to leverage the LinkedIn algorithm is to get people to comment on your posts. One of the better ways to get people to comment is to ask them a question.

- Share a win or some experience that demonstrates your insider knowledge or expertise.

Everybody loves a win, even if it's not their own. So if something great happens, share it. Even if it's something only an insider would understand.

### **3. Image-based LinkedIn posts**

- Communication excerpts.

Communication excerpts are a great way to humanize your brand and to sneak in a chance to show customers or business partners saying something nice about your company. Just be sure to blur all of the personal information out.

- Infographics.

Infographics are visual representations of data and information that can easily be accessed and shared. Infographics received the highest engagement and response rates from the participants of an online survey, compared to academic or public language formats. [3]

These are more elaborate than simple infographics. If they're too detailed, they can be hard to read in the LinkedIn feed, but most of the time this isn't a problem.

- Photographs of examples or real things.

#### **4. Interactive LinkedIn posts**

- Polls.

Polls are a more interactive version of the question post, but they can get more engagement simply because everyone wants to know how other people answered the question. We love to see how we compare to other people.

Marketing fails for brands that present a flat, impersonal, and passionless personality. People find it difficult to relate to or relate to them. This is where brand humanization comes in. Brand humanization is about being honest and transparent, about identifying the people behind your brand, about owning your mistakes, and about forging connections. According to Dascau L. [3], following are some more type of LinkedIn posts that can prove effective for a B2B business:

- **Employee highlights**

Employee highlights posts are a fantastic opportunity to share employee experiences, strengthen relationships among staff members, and enhance your company's and employer brand.

Employee highlights are also an endless source of content inspiration. We can create content around your employee's history with your company, accomplishments, personality, work anniversaries, challenges, and more.

This way, you'll give potential new leads more information about the people they would be working with.

- **Corporate achievements**

Some LinkedIn milestones worth mentioning would be your first 1,000 connections, your first client, or your first publicity opportunity. The list goes on.

Take advantage of the chance to express gratitude to everyone who helped you succeed. Recognizing achievements can do wonders for your company culture.

And who wouldn't want to work with a brand that's on the winning side?

- **Interactive content**

51% of B2B buyers say interactive content is helpful when tackling business challenges.

Many brands fail to provide interactive content, which causes their content to be ineffective and businesses to struggle.

Polls, surveys, and quizzes are fun, unique techniques for collecting valuable data like audience feedback and buying preferences.

- **LinkedIn newsletters**

A newsletter can help us increase brand recognition and position yourself as an industry leader. By creating valuable content, your connections will consider you a reliable source of information.

The main advantage LinkedIn newsletters hold to other types of content is that your subscribers are notified whenever you publish. This increases the likelihood of them actually reading your content.

An article, for example, enters your timeline when it is published. Only those of your connections who scroll through their feed will see it.

## **Chapter 6**

### **OBJECTIVES**

As understood in the Company Analysis section, the key growth strategy of Thermax is to expand its business in international markets. As a Marketing and Content Creation Intern, I was assigned the task of organically growing Thermax Thailand's LinkedIn profile to effectively market its offerings and generate leads. Thermax recognizes the growing importance of environmental sustainability and the need to align its marketing efforts with this emerging trend. The implementation of emission reduction initiatives by the South Asian governments and the adoption of sustainable practices by industries to minimize their carbon footprint have created a fertile ground for Thermax's expertise in air pollution control solutions in the South Asian markets.

By analyzing the performance of various types of posts, including text-based posts, images, videos, and infographics, the study will identify the content formats that resonate best with the target audience. This data will be instrumental in crafting compelling LinkedIn posts for the Thermax Thailand page of Thermax Limited, enabling the company to attract a wider audience, increase follower count, and maximize impressions on LinkedIn. The following are the objectives to create effective content for Thermax Thailand's LinkedIn profile to achieve organic growth:

**Objective 1:** Identify Thermax's top 10 competitors in the Air Pollution Control industry.

- Conduct thorough research to identify Thermax's direct and indirect competitors in the APC industry within the target markets.
- Utilize industry reports, market research databases, and online resources to gather comprehensive information on competitors.
- Consider factors such as market share, product offerings, geographic reach, and customer base when identifying competitors.

**Objective 2:** Gather data on competitors' LinkedIn profiles.

- Create a list of the top 10 competitors' LinkedIn company pages.
- Conduct a comprehensive analysis of types of LinkedIn posts (industry news, company updates, thought leadership, case studies, product promotions) on each company's LinkedIn page.

Objective 3: Analyze the data to identify the most effective content formats for Thermax Thailand's LinkedIn posts.

- Compare and contrast the content strategies of Thermax's competitors to identify patterns and trends.
- Identify the types of posts that are most engaging for each competitor's target audience.
- Analyze the use of visuals by competitors and identify best practices for incorporating visuals into Thermax's LinkedIn posts.

Objective 4: Develop a preliminary content strategy for Thermax Thailand's LinkedIn page based on the findings of the competitive analysis.

- Utilize the insights gained from the analysis to create a content strategy tailored to Thermax's specific needs and target audience.
- Incorporate best practices identified from competitors' LinkedIn pages into Thermax's content strategy.
- Ensure that the content strategy is aligned with Thermax's overall marketing and business goals.

Objective 5: Continuously monitor and evaluate the effectiveness of Thermax's LinkedIn content strategy.

- Track key metrics such as likes, comments, shares, and clicks to measure the engagement of Thermax's LinkedIn posts.
- Regularly review and analyze the performance of Thermax's LinkedIn content to identify areas for improvement.
- Adjust the content strategy as needed to optimize engagement and achieve Thermax's marketing goals.

## Chapter 7

### RESEARCH METHODOLOGY

Thermax and similar companies in the engineering sector operate as business-to-business (B2B) entities. Their primary customers are other businesses, industrial plants, and manufacturers looking to invest in products or services that improve their operations, such as environmental solutions or equipment. Given the nature of these industries and the characteristics of their decision-makers, a unique approach is required for marketing and lead generation.

The strategies and reasoning behind focusing on LinkedIn and email as primary lead-generating sources are:

1. Target Audience Profile: The primary decision-makers in B2B industries like engineering are typically professionals aged 35 and above. These individuals tend to prioritize platforms that are directly relevant to their business needs, rather than leisure-oriented social media platforms like Instagram. They are more likely to engage with professional networking platforms like LinkedIn, where they can find industry-specific content and connect with peers and potential suppliers or partners.
2. LinkedIn's Professional Network: LinkedIn is a powerful platform for connecting with professionals in various industries, including engineering. It offers features like company pages, groups, and advanced search capabilities, making it an ideal platform for reaching decision-makers. Moreover, it is a platform where professionals often turn to when researching products, services, or suppliers for their businesses.
3. Email as a Direct Communication Channel: Email remains a widely accepted and effective communication channel in the business world. Decision-makers are accustomed to using email for important business-related communications and transactions. Utilizing email as a lead-generating source allows for direct and personalized interactions with potential clients. It also provides a way to nurture leads and maintain ongoing communication.
4. Competitor Analysis: As part of the strategy, a thorough analysis of competitors' online presence was conducted. The observation revealed that most competitor companies did not have a significant presence on platforms like Instagram, YouTube, Twitter (now X), and

Facebook, as their target customers were not active on these platforms. This further solidified the decision to concentrate efforts on LinkedIn.

5. Efficient Resource Allocation: By focusing efforts on LinkedIn and email, resources, time, and marketing efforts are allocated where they are most likely to yield results. This strategic allocation minimizes the need to manage multiple social media accounts and produce content for platforms with limited relevance to the target audience.
6. Consistency Across Platforms: Although accounts were found on other social media platforms, it was decided to maintain a presence on these platforms with similar content. This strategy ensures consistency in brand visibility and messaging across various channels, even if the accounts on those platforms are not the primary lead-generating sources.

In conclusion, the decision to primarily use LinkedIn and email for lead generation in the engineering sector is based on a deep understanding of the target audience, their preferences, and the business nature of B2B interactions. It allows for a more focused and efficient approach to reaching decision-makers and potential clients while maintaining a consistent brand presence on other social media platforms for broader visibility.

Identifying Thermax's top 10 competitors in the Air Pollution Control sector necessitated a comprehensive analysis of their product portfolios and market presence. This in-depth assessment revealed prominent industry players, enabling a clearer understanding of the competitive landscape, and facilitating strategic decision-making within this dynamic and environmentally critical market. The following companies were identified who provided solutions for the Air Pollution Control applications in the Indian market:

**Table 1. Prominent companies in Air Pollution Control business in India.**

Company	Location	Products
Thermax	Pune, Maharashtra	Electrostatic Precipitator, Bag Houses / Bag Filters, Combofilters, Flue Gas Desulphurisation, Scrubbers
RIECO	Pune, Maharashtra	Dust Extraction System, Flue Gas Desulphurization System, Fumes Extraction System, VOC's and Odour Removal Systems, Gas Cleaning Plant, Retrofitting and Revamping Solutions, Bag Filter (Dust Collector), Electrostatic

		Precipitator, Scrubbers, Forced Draught Heat Exchanger, Explosion Protection Devices, Spark Arrestor, Cartridge Type Bag filters, Multiclones, Cyclones
ISGEC Heavy Engineering	Yamunanagar, Haryana	Electrostatic Precipitator, DeNox
Techflow Enterprises	Ahmedabad, Gujarat	Electrostatic Precipitator, Bag Filters, Fume Extraction and Filtration, Centrifugal Blowers and Fans, Pneumatic Conveying Systems
Enviropol Engineers	Noida, Uttar Pradesh	Wet Scrubbers, WESP (Wet Electrostatic Precipitator), Bag Filter, Electrified Gravel Bed, Electrostatic Precipitator, Flue Gas Desulphurization
Nederman	Pune, Maharashtra	Mobile and Compact Dust Collectors and Fume Extractors, Stationary Air Filtration Systems, Extraction Arms and Vehicle Exhaust Extraction Systems, Fans and Pumps,
Batliboi	Pune, Maharashtra	Pulse Jet Bag Filter, Electrostatic Precipitator, Wet Electrostatic Tar Precipitator
VT Corp	Mumbai, Maharashtra	Electrostatic Precipitator (Multi and Single Field), Electrostatic Tar Precipitator, Forced Draft Cooler
Clair	Hyderabad, Telangana	Process Bag Filter (Optiwave – Long Bag and Conventional Pulse Jet Technology), Hybrid Filters, Electrostatic Precipitator, Industrial Dust Extraction Systems, Reverse Air Bag House
GEA	Vadodara, Gujarat	CO2 saving processes, Cooling, quenching & conditioning, Filtration and Separation, Scrubbers, Sorption, Specific emission control processes
Elex	Thane, Maharashtra	Electrostatic Precipitator, Catalytic Gas Cleaning, Evaporative Coolers, Hybridfilters, Bag Houses, Water Injection Systems
TNBi Industries	Pune, Maharashtra	Scrubber, Classifier, Bag Filter, Cyclone, Pneumatic Conveying System

FilterOn India	Pune, Maharashtra	Mist Collectors, Fume Extractors for Robo, Portable Fume Extractor, Welding Fumes Extraction, Dry Scrubber
ANDRITZ Group	Multiple Locations, India	Particulate control, dry and wet scrubbers, multi-pollutant equipment for industrial, waste-to-energy and power generation plants
Donaldson Filtration Solutions	Gurgaon, Haryana	Cartridge Dust Collectors, Cartridge Filters, Baghouse Dust Collectors, Baghouse Filters, PowerCore® Dust Collectors, PowerCore® Filter Packs, Mist Collectors, Mist Filters, Cyclone Dust Collectors, Fume Collectors
Balkrishna Boilers	Ahmedabad, Gujarat	Dry electrostatic precipitator, Water scrubber for chemical industry, Cyclone dust collector

Based on their product offerings and presence in the market, the sample of following 10 companies were shortlisted for analyzing their LinkedIn profiles:

- |                            |                        |          |
|----------------------------|------------------------|----------|
| 1. Thermax                 | 5. Enviropol Engineers | 9. GEA   |
| 2. RIECO                   | 6. Batliboi            | 10. Elex |
| 3. ISGEC Heavy Engineering | 7. VT Corp             |          |
| 4. Techflow Enterprises    | 8. Clair               |          |

**Table 2. Details of the LinkedIn profiles of shortlisted 10 companies.**

LinkedIn Name	LinkedIn URL	Followers (03/08/23)	Followers (31/10/23)	Change %
Thermax Limited	<a href="https://www.linkedin.com/company/thermaxlimited/">https://www.linkedin.com/company/thermaxlimited/</a>	446,839	462,807	3.57
Rieco Industries Limited	<a href="https://www.linkedin.com/company/riecko-industries-limited/">https://www.linkedin.com/company/riecko-industries-limited/</a>	17,823	18,646	4.62
ISGEC Heavy Engineering Ltd.	<a href="https://www.linkedin.com/company/isgec-heavy-engineering-ltd/">https://www.linkedin.com/company/isgec-heavy-engineering-ltd/</a>	50,664	56,909	12.33
Techflow Enterprises Pvt. Ltd.	<a href="https://www.linkedin.com/company/techflow-enterprises-pvt-ltd/">https://www.linkedin.com/company/techflow-enterprises-pvt-ltd/</a>	1,651	2,068	25.26
Enviropol Engineers Pvt. Ltd.	<a href="https://www.linkedin.com/company/enviropolengineers/">https://www.linkedin.com/company/enviropolengineers/</a>	3,511	4,372	24.52

Batliboi Ltd.	<a href="https://www.linkedin.com/company/batliboi-ltd/">https://www.linkedin.com/company/batliboi-ltd/</a>	6,436	6,450	0.22
VT CORP Pvt. Ltd.	<a href="https://www.linkedin.com/company/vt-corp-pvt-ltd/">https://www.linkedin.com/company/vt-corp-pvt-ltd/</a>	2,016	2,131	5.70
Clair Engineers Pvt. Ltd.	<a href="https://www.linkedin.com/company/clair-engineers-pvt-ltd/">https://www.linkedin.com/company/clair-engineers-pvt-ltd/</a>	631	679	7.61
GEA Solutions for Environment & Chemical Industry	<a href="https://www.linkedin.com/showcase/gea-solutions-environment-chemical-industry/">https://www.linkedin.com/showcase/gea-solutions-environment-chemical-industry/</a>	942	1,258	33.55
ELEX AG	<a href="https://www.linkedin.com/company/elex-ag/">https://www.linkedin.com/company/elex-ag/</a>	550	590	7.27

The above company profiles were investigated for the following types of posts:

1. Informative Images: Posts that use images to convey useful information or data.
2. Carousels: Multiple images or cards in a single post that users can swipe through to see a series of related content.
3. Videos: Posts featuring video content, which can be used for various purposes, from tutorials to promotions.
4. Blogs: Posts that link to longer written articles, typically offering in-depth information or analysis.
5. Recent Updates, News, and Announcements – Images, Videos: Posts that share the latest information, often in visual formats.
6. Posters: Graphics or images designed to convey a specific message or promotion.
7. Contests/Quizzes: Engaging posts that encourage user participation, often with rewards.
8. New installations, commissioning, products: Posts introducing new products or services and highlighting their features.
9. Problem-Solution: Posts that identify a problem and offer a solution, often related to a product or service.
10. Days, Festivals: Posts celebrating special occasions or holidays.
11. Hiring: Posts related to job openings and recruitment.

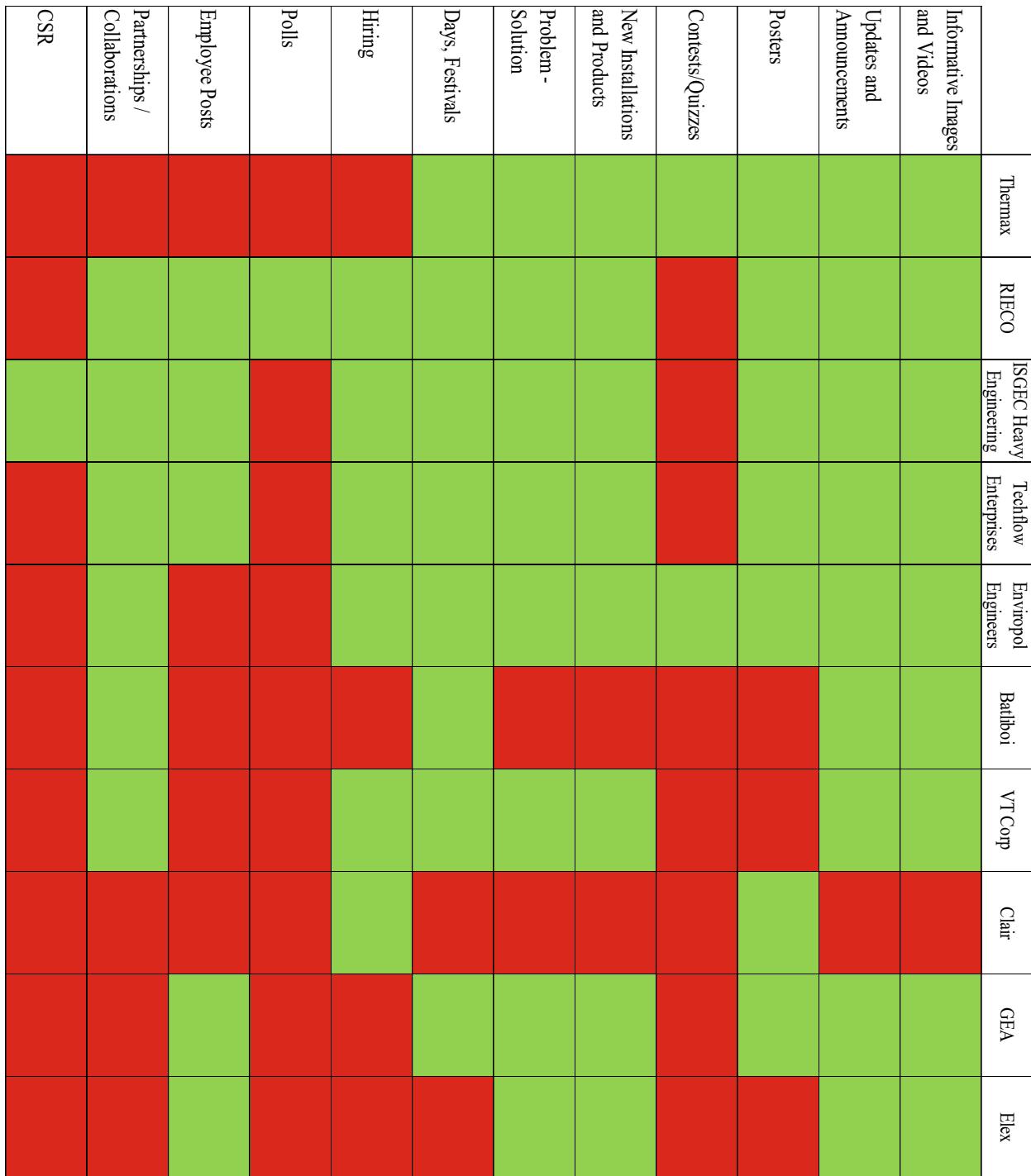
12. Polls: Posts that pose questions to the audience, seeking their opinions or feedback.
13. Employee Posts: Content created and shared by employees, giving a behind-the-scenes look at the company.
14. Partnerships/Collaborations: Posts that announce or promote partnerships with other organizations.
15. Corporate social responsibility: Posts showcasing the company's involvement in social and environmental initiatives and causes.

Leads obtained from diverse sources such as expos and social media posts were diligently pursued through the strategic utilization of email marketing. This approach involved crafting tailored and compelling email campaigns designed to engage, inform, and ultimately convert these leads into valued customers. By capitalizing on the data, targeted content was sent that resonated with each prospect's unique interests and needs. This method not only allowed nurturing relationships but also enabled tracking their responses, measuring engagement, and adjust strategies accordingly, thereby optimizing lead conversion efforts.

## Chapter 8

### RESULTS AND DISCUSSION

#### 8.1 Competitive analysis of Thermax's top 10 competitors in the Air Pollution Control sector:



**Fig. 3. Competitive analysis of Thermax's top 10 competitors**

In conducting a thorough competitive analysis of Thermax's counterparts in the air pollution control sector, a pattern emerged revealing a prevalent marketing strategy among industry players. The majority of these companies demonstrated a robust online presence through informative images and videos, regular updates and announcements, engaging posters, highlights of new installations and products, as well as problem-solution posts. Moreover, a proactive approach was observed in commemorating national days and festivals, showcasing a blend of professionalism and cultural awareness.

In light of these findings, a strategic decision was made to align Thermax Thailand's LinkedIn page content with this successful model. The objective is to leverage a similar mix of informative and visually compelling material, ensuring a dynamic and engaging online presence. By adopting this approach, Thermax Thailand aims to not only stay current with industry trends but also to effectively communicate its expertise, innovations, and corporate values to a wider audience on the professional networking platform. This strategy reflects a commitment to showcasing the company's strengths, fostering client trust, and staying at the forefront of the air pollution control sector.

## **8.2 Content for Thermax Thailand's LinkedIn Page**

Following are the types of content that were prepared for Thermax Thailand LinkedIn page:

### **Captions**

Join Thermax at **PALMEX Thailand 2023**: Unveiling Innovations in Palm Oil Industry! 

Today, access to clean air, clean energy, and clean water is the most pressing concern.

#Thermax with its innovative energy and environment solutions strives to bridge this gap by enabling more and more industries and businesses to mitigate their environmental impact for a greener world.

To understand more about Thermax's offerings, meet our experts and listen to our speakers at PALMEX Thailand 2023.

Don't miss out on this unique chance to collaborate, learn, and forge new partnerships. Let's cultivate a thriving and responsible palm oil sector for generations to come.

Keep watching this space for more updates as we get closer to the event or follow the hashtag **#ThermaxAtPALMEX**.

#ThermaxForABetterTomorrow #PALMEX #PALMEXThailand #Environment #Sustainability.

## Email Campaigns

Dear {Name},

Thank you for visiting us at **PALMEX Thailand 2023**.

Thermax with its innovative energy and environment solutions strives to enable more industries and businesses to mitigate their environmental impact for a greener world.

To understand more about Thermax's offerings, click here and get in touch with our experts. Let's collaborate and forge new partnerships.

**WhatsApp:** +66 6226 89011

**Email:** [enquiry@thermaxglobal.com](mailto:enquiry@thermaxglobal.com)

For more details about our Thermax Thailand Division, click here:

<https://www.thermaxglobal.com/thailand/>

## Event Posts



**Fig. 4. FGCS for WtE Plant Post**



**Fig. 5. ASEAN WtE Week Post**



**Fig. 6. PalmEx Thailand Thank you post**



**Fig. 7. REI Expo Post**

## Newsletters and Case Studies

**Fig. 8. Thermax ESP Newsletter**

**Fig. 9. Thermax Opticor Case Study**

## Carousal

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**Solutions:**

- Flue Gas Desulphurisation (FGD)
- Scrubber

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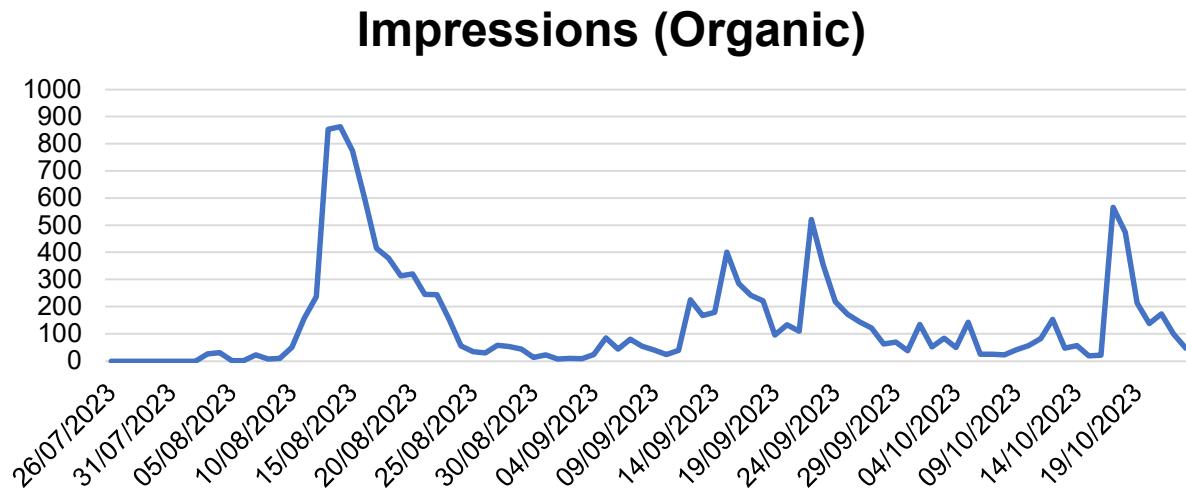
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**Fig. 10. PalmEx Thailand Informative Carousal Post**

### **8.3 LinkedIn Page Performance for Thermax Thailand:**

#### **1. Impressions (Organic):**

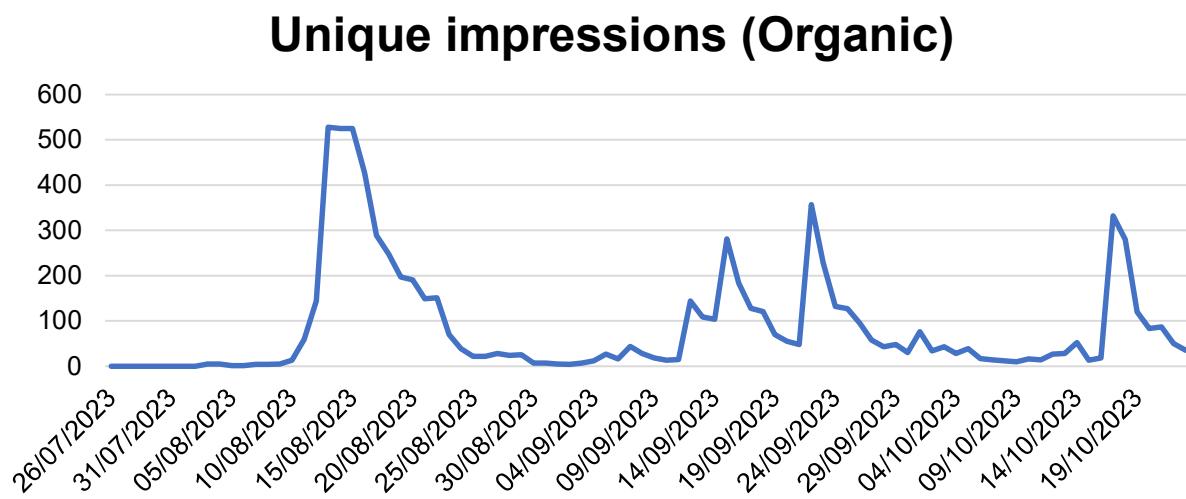
The organic impressions indicate the total number of times content from the page was displayed in users' feeds. This metric provides insights into the reach and visibility of the page's content.



**Fig. 11. Impressions for Thermax Thailand's LinkedIn Page (26/07/23 to 21/10/23)**

#### **2. Unique Impressions (Organic):**

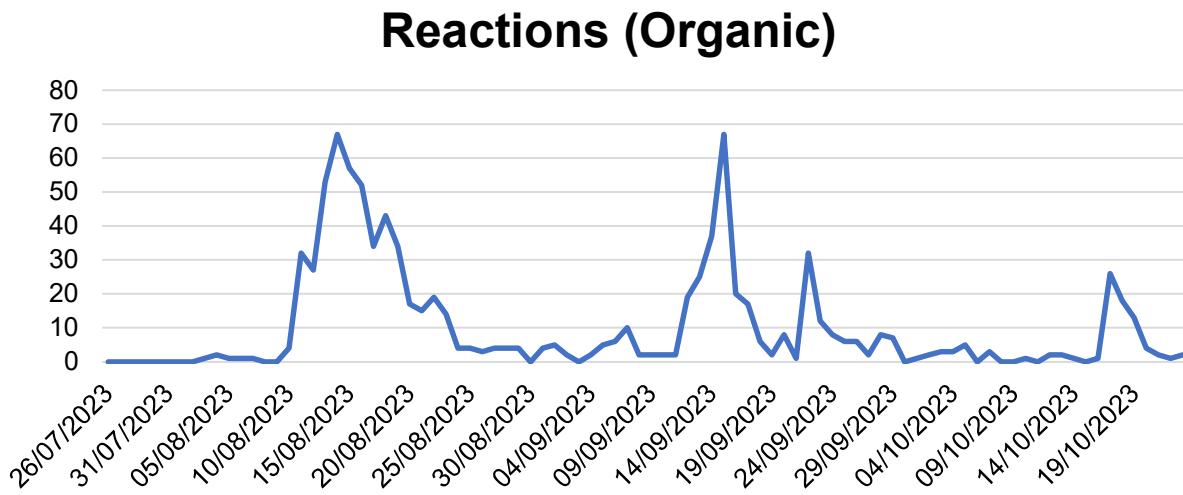
Unique impressions represent the number of distinct users who saw Thermax Thailand's content organically. This helps in understanding the diversity and uniqueness of the audience reached.



**Fig. 12. Unique Impressions for Thermax Thailand's LinkedIn Page (26/07/23 to 21/10/23)**

### **3. Reactions (Organic):**

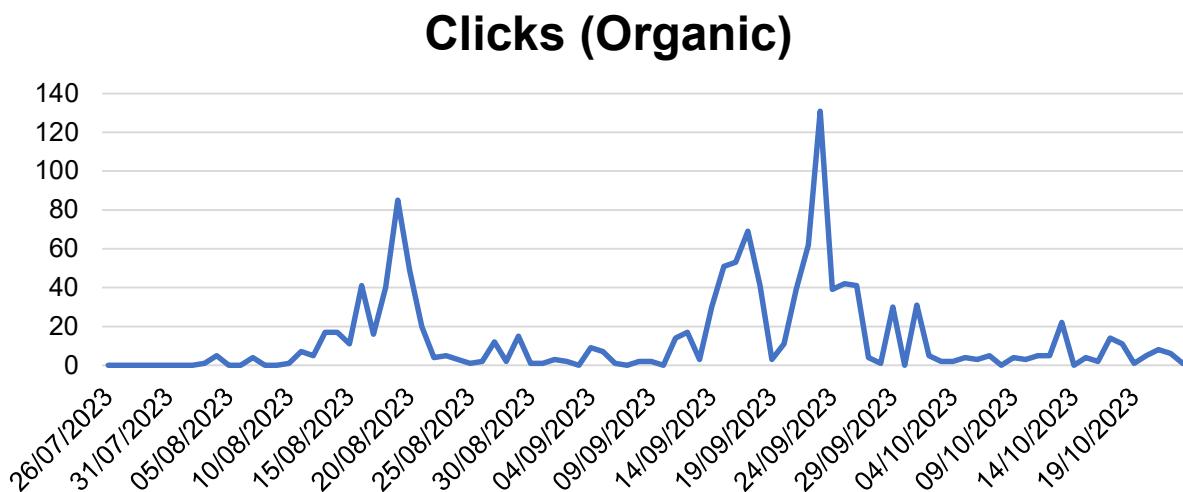
Reactions on LinkedIn include likes, comments, and shares. Organic reactions reflect the audience's engagement and sentiment towards Thermax Thailand's content.



**Fig. 13. Reactions for Thermax Thailand's LinkedIn Page (26/07/23 to 21/10/23)**

### **4. Clicks (Organic):**

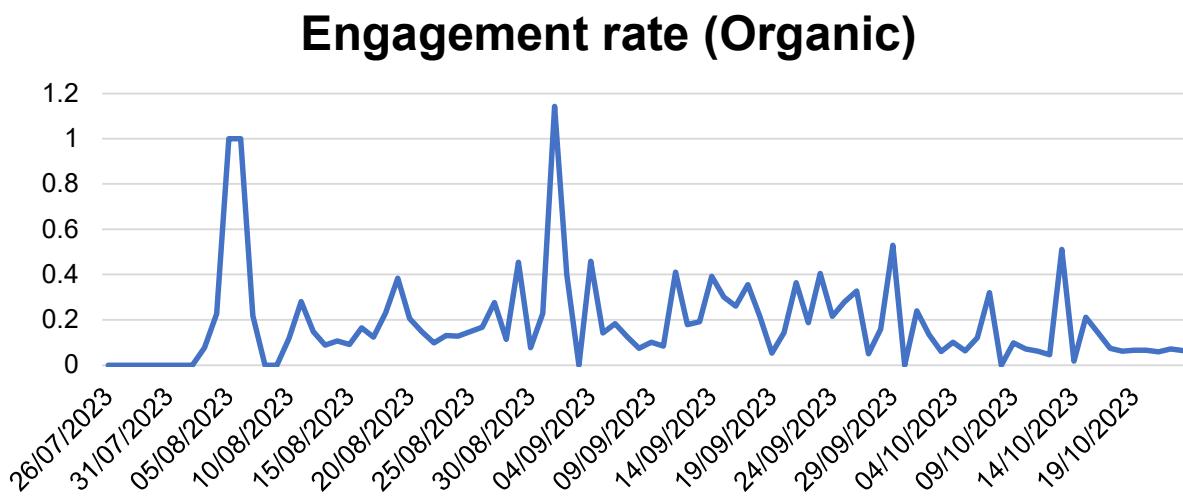
The number of organic clicks represents the instances when users interacted with the content by clicking on links, images, or other elements. This metric measures the level of interest and interaction.



**Fig. 14. Clicks for Thermax Thailand's LinkedIn Page (26/07/23 to 21/10/23)**

## 5. Engagement Rate (Organic):

The engagement rate is a key metric that combines various interactions (likes, comments, shares, clicks) relative to the total number of impressions. It provides a comprehensive view of audience engagement on Thermax Thailand's LinkedIn page.



**Fig. 15. Engagement Rate for Thermax Thailand's LinkedIn Page (26/07/23 to 21/10/23)**

## Key Insights:

By examining these metrics, we gain valuable insights into the performance of Thermax Thailand's LinkedIn page, helping to refine strategies and enhance future content for improved engagement and reach. On 9th August, an informative video post garnered substantial attention. The subsequent trio of posts, strategically centered around the Palmex Thailand event on 10th and 11th August, proved to be pivotal in sustaining the momentum.

This led to the heightened traction observed on 14th August, where the cumulative impressions exceeded 800. The strategic alignment of informative video content and event-focused posts not only captured the audience's attention but also showcased Thermax Thailand's commitment to delivering valuable and relevant content.

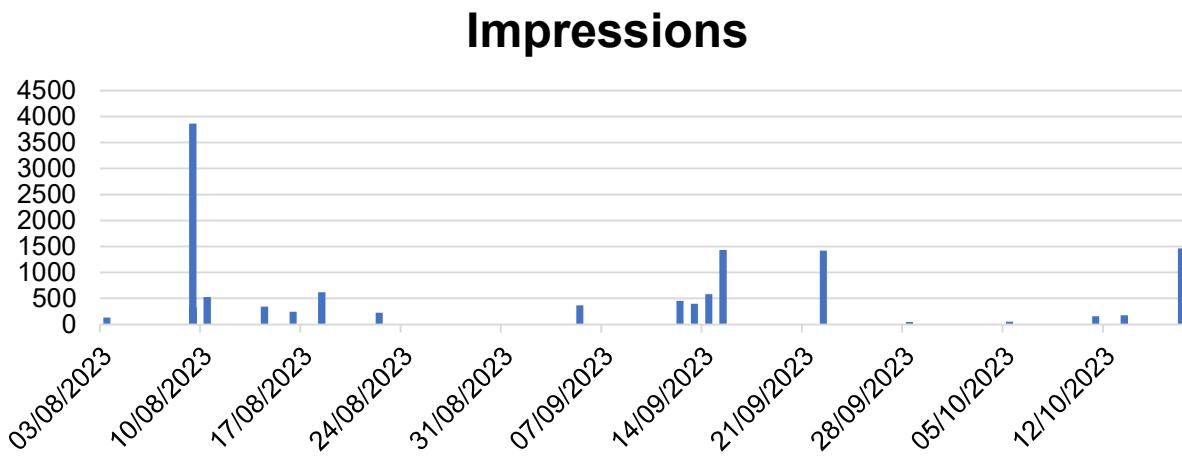
Posts featuring multiple photos and carousels on the 19th of August and 22nd of September strategically leveraged the carousel format, demonstrating a substantial increase in user engagement, specifically through a higher number of clicks. The interactive nature of these posts,

with the option to click and view all photos in full size, and the ability to swipe through the carousel to consume content comprehensively, proved to be key drivers behind the heightened click rates.

#### **8.4 LinkedIn Post Performance for Thermax Thailand:**

##### **1. Impressions (Organic):**

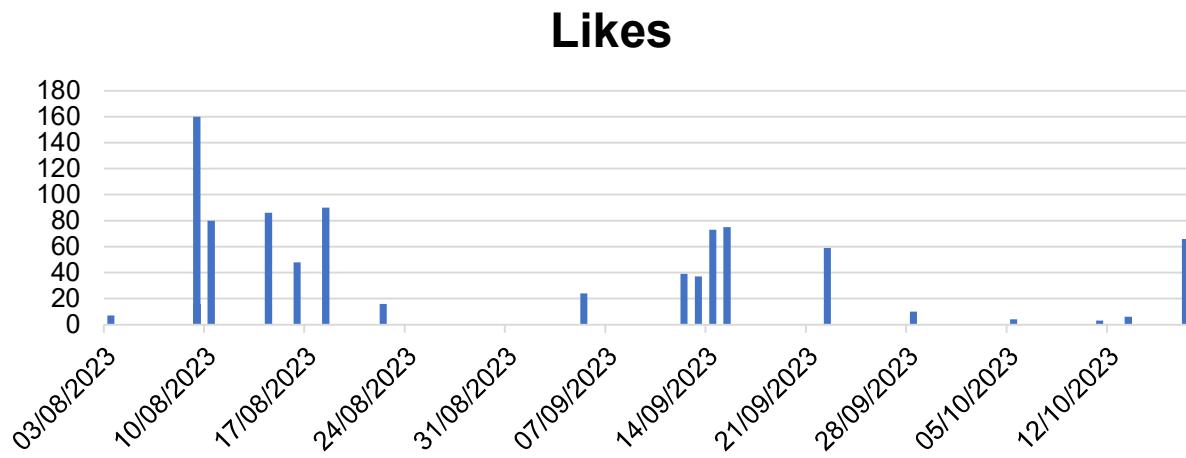
This metric indicates the total number of times the post was displayed in users' feeds organically.



**Fig. 16. Impressions on individual posts on Thermax Thailand's LinkedIn Page (26/07/23 to 21/10/23)**

##### **2. Reactions (Organic):**

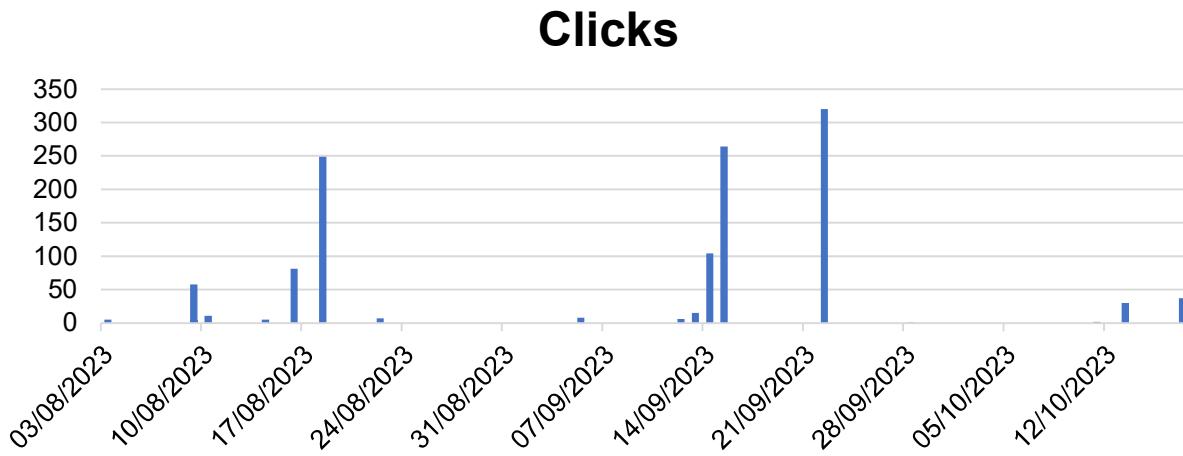
Reactions (likes, comments, and shares) reflect the audience's engagement towards the post.



**Fig. 17. Likes on individual posts on Thermax Thailand's LinkedIn Page (26/07/23 to 21/10/23)**

### **3. Clicks (Organic):**

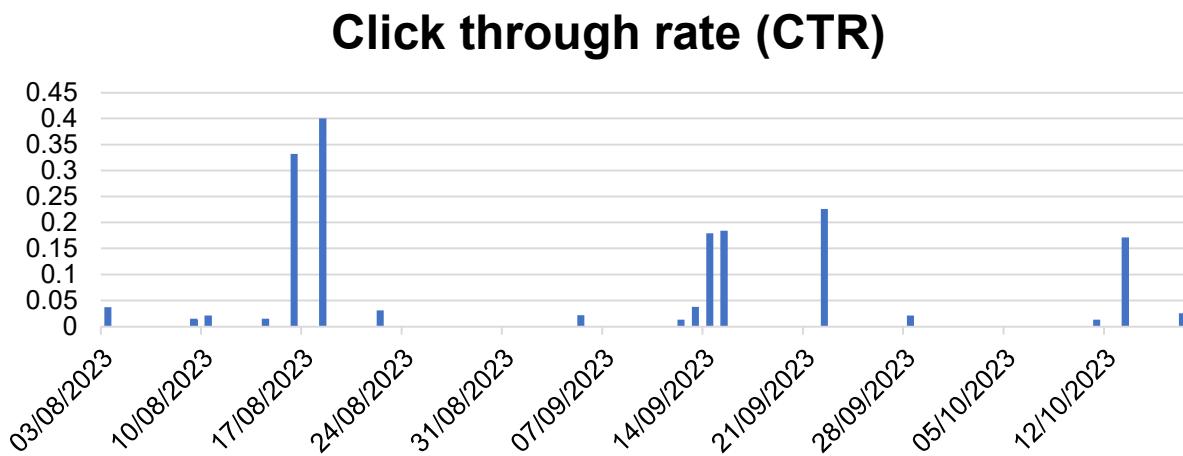
The number of organic clicks represents instances when users interacted with the post by clicking on links, images, or other elements.



**Fig. 18. Clicks on individual posts on Thermax Thailand's LinkedIn Page (26/07/23 to 21/10/23)**

### **4. Click-through Rate (Organic):**

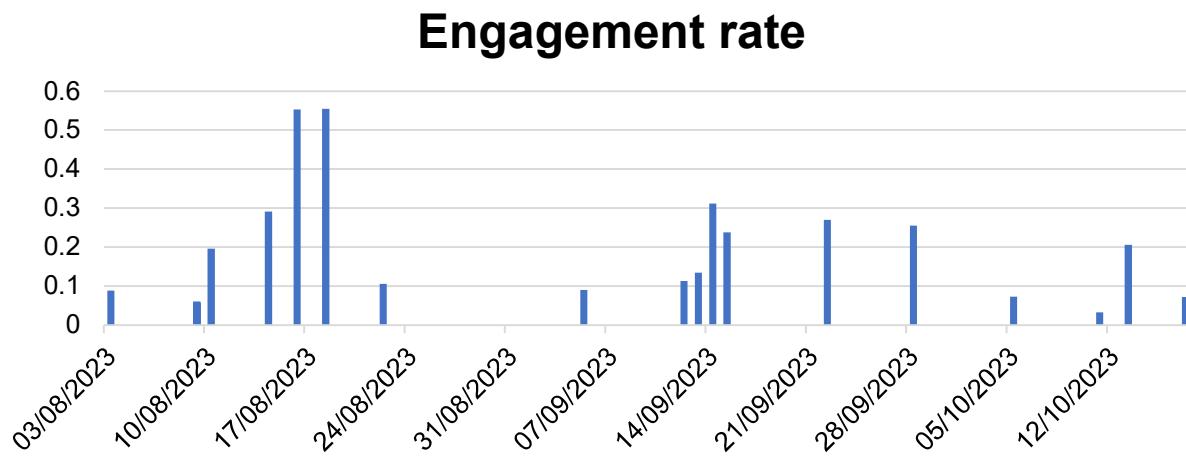
Click-through rate (CTR) is the ratio of clicks to impressions, providing insights into the effectiveness of the post in driving user interaction.



**Fig. 19. Click through rate for individual posts on Thermax Thailand's LinkedIn Page (26/07/23 to 21/10/23)**

## 5. Engagement Rate (Organic):

The engagement rate is a key metric that combines various interactions (likes, comments, shares, clicks) relative to the total number of impressions for the post.



**Fig. 20. Engagement rate for individual posts on Thermax Thailand's LinkedIn Page (26/07/23 to 21/10/23)**

### Key Insights:

By examining the performance of each post on Thermax Thailand's LinkedIn page, we gain a granular understanding of the content's impact and can make informed decisions to optimize future posts for enhanced engagement and reach.

The individual post analysis for Thermax Thailand's LinkedIn page underscores the impact of various content types on audience engagement. The informative video posted on the 9th of August emerged as a standout performer, amassing the highest number of impressions. This suggests a strong resonance with the audience, emphasizing the effectiveness of video content in conveying information and capturing attention.

Following closely, an image post on the 15th September gained significant impressions, showcasing the power of visually compelling content. The carousel post on the 22nd September and the informative image post on the 17th December also garnered notable impressions, indicating a sustained interest in dynamic and informative content formats.

While impressions provide a measure of reach, the highest clicks, reactions, and overall engagement were recorded by the informative image and carousel posts. This emphasizes the importance of not only reaching a wide audience but also driving meaningful interactions. The success of these posts suggests that a balance between informative content and visually appealing formats, such as carousels, can yield optimal results in terms of user engagement.

As a marketing manager, leveraging these insights can inform future content strategies, focusing on a mix of informative and visually engaging posts to maximize both reach and interaction on Thermax Thailand's LinkedIn page.

## **Chapter 9**

### **CONCLUSIONS**

The engineering sector is a broad and diverse sector that encompasses all industries related to the design, construction, and operation of machines, structures, and systems. It is a vital part of the global economy, contributing to the development and maintenance of infrastructure, transportation, energy, manufacturing, and communication networks. This sector is characterized by high levels of innovation, global reach, capital intensity, highly skilled workforce, regulatory compliance, and complex products and services. The engineering sector faces a number of challenges, opportunities, and trends, such as skills shortage, globalization, technological change, emerging markets, new technologies, sustainable development, data-driven engineering, and automation. Engineering firms need to be aware of these factors and develop strategies to mitigate the risks and capitalize on the opportunities. Engineering firms that are able to successfully adapt to the changing landscape of the engineering sector are well-positioned for success.

Thermax is a well-established and reputed company with a diversified product and service portfolio, a global reach, and a strong track record of growth and profitability. It is committed to providing its customers with innovative and sustainable solutions that help them to reduce their energy consumption, emissions, and environmental impact. Thermax has a number of opportunities, such as growing demand for energy and environmental engineering solutions in emerging markets, increasing focus on renewable energy and sustainability, expanding global presence, and new technologies such as digitalization and artificial intelligence. However, it faces some challenges, such as dependence on a few key customers, high operating costs, cyclical nature of some of the end markets, and competition from domestic and international players. Thermax should focus on diversifying its customer base, improving operational efficiency, investing in research and development, expanding its presence in emerging markets, focusing on renewable energy and sustainability solutions, and developing partnerships with other companies.

The main project involved crafting a tailored content strategy for Thermax Thailand's LinkedIn profile, based on an in-depth analysis of various post formats and their impact on the target audience. Further, accessible and uniform templates were developed for various communication channels, following the principles outlined in the Brand Communication Guide. The document highlights the significance of these endeavors in advancing Thermax Limited's

marketing objectives across various domains, especially in the South Asian markets where the company seeks to expand its presence. The document concludes by emphasizing the importance of harnessing the power of digital marketing tools to connect, engage, and grow in the 21st century.

The literature review provided a theoretical foundation for the content strategy that was developed further in the report. It covered four main categories of posts: video-based, text-based, image-based, and interactive. The strategies to increase engagement on LinkedIn, such as optimizing profile, posting regular updates, using hashtags, asking questions, sharing posts with groups, interacting with others, and showcasing expertise were discussed. It also highlighted the importance of brand humanization, employee highlights, corporate achievements, interactive content, and LinkedIn newsletters. The content strategy for Thermax Thailand's LinkedIn posts was based on both the findings from the literature review and the data collected in this study.

The LinkedIn content posted by Thermax's top 10 competitors in the air pollution control sector were analyzed, followed by the preparation of various types of content for the page, such as captions, email campaigns, event posts, newsletters, and case studies. The performance of the page and the individual posts was evaluated using metrics such as impressions, reactions, clicks, click-through rate, and engagement rate. The analysis revealed that a mix of informative and visually engaging content, such as videos, images, and carousels, was effective in attracting and retaining the audience's attention, as well as driving meaningful interactions. The insights gained from this project can inform future content strategies, focusing on delivering valuable and relevant content that showcases Thermax Thailand's expertise, innovations, and corporate values to a wider audience on the professional networking platform.

## **9.1 Limitations and Recommendations**

While the project outlined a comprehensive content strategy for Thermax Thailand's LinkedIn profile, there are several limitations that should be considered:

- Generalization: The analysis of Thermax's competitors in the air pollution control sector may not fully capture the diversity of the engineering sector or the specific challenges and opportunities faced by Thermax Thailand. The content strategy should be adaptable to changes in the industry and regional variations.
- Dynamic Nature of Social Media: Social media platforms, including LinkedIn, are constantly evolving. The effectiveness of certain post formats or strategies may change over time due to

algorithm updates, changes in user behavior, or platform features. The project's recommendations should be viewed as a snapshot in time and may require regular updates.

- Implementation Challenges: While the content strategy is well-defined, its successful implementation depends on various factors such as organizational commitment, resource availability, and the ability to adapt to real-time changes. The project does not delve deeply into potential challenges during the execution phase.
- Audience Dynamics: The project outlines strategies for engaging the target audience but may not fully capture the evolving dynamics of the audience on LinkedIn. Audience preferences, expectations, and behavior can change, and the strategy may need adjustments based on ongoing feedback and analysis.
- Competitive Landscape: The project focuses on the top 10 competitors in the air pollution control sector. However, the competitive landscape may expand or change, and new entrants or market shifts could impact the relevance and effectiveness of the proposed content strategy.
- Long-Term Sustainability: The content strategy's long-term sustainability is not extensively discussed. Adapting to emerging trends, technological advancements, and changes in the business environment is crucial for the continued success of the content strategy.
- Limited Analysis of Varied Demographic Audience: The project may not provide a comprehensive understanding of the diverse demographic groups within Thermax Thailand's target audience on LinkedIn. Varied demographic factors, such as age, industry roles, geographic locations, and cultural preferences, can significantly influence content consumption patterns.
- Limited Emphasis on Lead Generation: Achieving a broad reach is valuable, but converting this reach into tangible business leads is a distinct challenge that requires a tailored approach. The project could benefit from a deeper exploration of how the content strategy aligns with lead generation goals, including the incorporation of lead generation tactics such as call-to-action (CTA) buttons, targeted advertising, and personalized engagement strategies.
- Exclusive Reliance on Organic Marketing: The project primarily emphasizes organic content strategies for LinkedIn, focusing on optimizing posts and engagement without delving into paid advertising or sponsored content. Paid advertising can offer precise targeting, expanded visibility, and accelerated growth but comes with associated costs. Analyzing the balance between organic and paid approaches would provide a more comprehensive view of how Thermax Thailand can maximize its LinkedIn presence and effectively allocate resources for optimal results.

To enhance the strategy's robustness, it would be beneficial to conduct periodic reviews and updates, considering the evolving nature of the engineering sector and the digital marketing landscape. Additionally, ongoing monitoring and feedback mechanisms should be established to assess the effectiveness of the content strategy and make necessary adjustments.

## 9.2 Future Scope

The future scope for this project lies in continuous adaptation, refinement, and expansion to ensure its relevance and effectiveness in an ever-evolving digital landscape.

- Dynamic Content Evolution: As digital platforms, user behaviors, and industry trends evolve, the content strategy should be dynamic. Regularly revisit and update the strategy to incorporate emerging trends, technological advancements, and changes in audience preferences.
- Data-Driven Optimization: Implement robust data analytics and monitoring systems to track the performance of content and engagement metrics over time. Utilize these insights to refine the strategy, identify successful content types, and adjust tactics based on the evolving needs and behaviors of the target audience.
- Incorporation of Paid Strategies: Explore the integration of paid advertising and sponsored content on LinkedIn. This could involve A/B testing to determine the most effective paid strategies for reaching and converting the target audience while maintaining a cost-effective approach.
- Lead Nurturing and Conversion: Expand the project to include a more detailed exploration of lead nurturing strategies on LinkedIn. Develop content and engagement tactics specifically designed to guide leads through the conversion funnel, converting audience interest into tangible business opportunities.
- Integration with Marketing Funnel: Align the content strategy with Thermax Thailand's overall marketing and sales funnel. Ensure that LinkedIn content is strategically linked to other marketing initiatives, and implement mechanisms to seamlessly transition engaged audiences from online interactions to offline business interactions.
- Global Expansion: If applicable, consider tailoring the content strategy for global audiences. Account for regional differences in business practices, cultural nuances, and industry dynamics to enhance the effectiveness of LinkedIn content on a global scale.

- Employee Advocacy Programs: Explore the potential of employee advocacy on LinkedIn. Develop strategies to encourage employees to share and engage with company content, amplifying the reach and authenticity of the brand message.
- Community Building: Foster a sense of community among the LinkedIn audience. Encourage discussions, feedback, and user-generated content to create an engaged and loyal following. Consider creating LinkedIn groups or forums related to the engineering sector to position Thermax Thailand as an industry thought leader.

By continually adapting to the changing landscape, embracing innovation, and aligning with business objectives, the project can serve as a valuable and sustainable tool for Thermax Thailand's digital marketing success on LinkedIn.

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