



COMPANY ANALYSIS

LG ELECTRONICS

**TECHNOLOGY ENTREPRENEURSHIP (ENT600):
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FUTURISTIC WATER HEATER

LG ELECTRONICS

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EXECUTIVE SUMMARY

This case study looks at how a business went about designing, manufacturing, and marketing its goods. The chosen product for this case study was LG Inverter Heat Pump Water Heater which was a newly launched model by LG Electronics earlier December 2020. Using SWOT Analysis, we can identify the strength, weaknesses, opportunity and threats upon this product. This particular product has caught my interest as it is the first water heater model ever produced by LG. Furthermore, its features are futuristic and innovative as it can be controlled by our mobile phone through the LG ThinQ™ app, never mind from inside or outside of the home. Despite the excellent features that it has, we must take into account the marketing strategy of LG in an attempt to make the product well-known and gain as much revenue as they targeted. Hence, this case study discussed just that and offers some viewpoints to overcome challenges faced by LG.

1.0 INTRODUCTION

1.1 Background of the Study

Nowadays, water heaters are common in most houses and are widely used in most Malaysian households, despite the country's year-round warm weather. An electric water heater brings cold water in through the dip tube and heats it using the electric heating elements inside of the tank. Its main function is to keep the water at a more or less constant elevated temperature.

According to 6Wresearch.com, Malaysia's electric water heater market size is projected to grow throughout the forecast period from 2020 to 2026. The increased residential use of water coupled with an increased need for bathing and hygienic activities to combat the effect of COVID-19 spread has led to an increased demand for hot water. The current situation has resulted in increasing demand for electric water heaters and simultaneously benefits the growth of the Malaysia electric water heater market. On top of that, there are several brands that offer the best water heater in Malaysia which includes Panasonic, Toshiba, Joven, Rubine, and Centon.

Furthermore, LG Electronics, which is a top brand in South Korea has invented their first water heater model that promotes fast and effective water heating, not to forget the lower electricity consumption and running costs. Taking into account that there are many competitors in the market, LG aims to stand out by offering high-performing products that have less impact on household energy expenses and aims to conserve more energy which can save the earth. Moreover, LG will develop environmentally-responsible solutions that make daily life more comfortable for consumers worldwide.

Finally, this case study will be developed to perform multiple functions based on the current product. Ideas and recommendations will be provided to increase the product's capability. This research will help LG in improving its product and also to achieve much greatness in the future.

1.2 Problem Statement

Every product was created in response to consumer demand to meet the needs and desires of customers. However, each product has its own strengths and limitations, necessitating some changes. People nowadays want to use products that make their lives simpler, and the price of the product must be reasonable. This case study was developed to address product issues as well as make process and technology improvements.

Since LG has just launched their first water heater in the market, the main challenge faced by LG is to promote their product to become well-known and trusted by consumers. Although the demand is high in Malaysia, LG needs to compete with other competitors that have been dominant in the market for a long time.

1.3 Purpose of the Study

This case study aims to learn more about the business and its goods. This case study will be able to identify the product's potential flaws and include a suitable implementation of innovations that can address the issues. In other words, this case study aims to design and improve a new technology-based product as a problem-solving tool. The aim of the latest technology-based product established is to solve current problems and maximize profits by maximizing product output.

2.0 COMPANY INFORMATION

2.1 Background

LG Electronics is a core company of South Korea which is headquartered in Seoul. It was founded by In-Hwoi Koo back in 1958 as a division of the LG Corporation that engages in five business units which are the manufacturing of display devices, home appliances, multimedia goods, electronic parts and develops software. In the early days, the company had contributed as the country's first electronic producers for radios and televisions. Over the several decades, the company has been in close competition with Samsung Electronics over the production of home appliances. Moreover the increased competition with Chinese rivals in consumer products, LG Electronics aims to raise sales by setting up another division specialized in research and development and supply to automakers such as Hyundai. Today, the company stands as the third largest conglomerate business in South Korea, employing nearly forty thousand people worldwide. As of 2019, the global revenue of LG Electronics amounted to 56.5 trillion South Korean won, about 55.76 billion USD.

2.2 Organizational Structure



2.3 Product

The LG Inverter Heat Pump Water Heater is the first Futuristic Water Heater ever created by any company and the LG Inverter Heat Pump Water Heater was selected for this case study. This product has LG's exclusive square design and luxury silver color which makes it an excellent design for the interior. Also a Low Noise Operating system which is processed Through BLDC Motor and DUAL Inverter Compressor, the noise is reduced to 53dBA (sound power). Figure 3 shows the LG Inverter Heat Pump Water Heater.



Figure 3: LG Inverter Heat Pump Water Heater



Figure 4: LG Inverter Heat Pump Water Heater size comparison to bathtub

2.4 Technology

There are several technologies used by LG in producing the energy-saving Inverter Heat Pump Water Heater.

Firstly, LG's Dual Inverter Compressor heats water using condensation heat generated in the process of compressing and circulating refrigerant. The result is a water heater that uses up to 74 percent less energy to operate annually than a conventional electric water heater. The new product will be available in 200-liter and 270-liter capacity versions, featuring impressive energy efficiency and saving.

Secondly, the smart Inverter Heat Pump Water Heater is Wi-Fi-enabled, allowing it to work seamlessly with LG's mobile ThinQ application. The controls are available on both Android and iOS devices. Through the application, consumers can manage and monitor the system remotely, receive regular maintenance reminders and diagnose certain issues without having to call customer service. They can also check the water temperature in real-time and use the scheduling function to set the time and duration of operation.

2.5 Business, Marketing, Operational Strategy

2.5.1 Business Strategy

LG uses difference as the main principle in their business strategy to provide items and services that are distinctive to the market. They must invest in research and development (R & D) to assist the creation of new generation devices in order to meet the growing demands of customers. Their unique selling proposition, USP, is built on a wide range of TFT-LCD screens that offer a slim and stylish appearance. Furthermore, their goal includes enhancing customer alignment so that they can better respond to their customers' demands in a fast and effective manner.

LG's vision is to become the market leading company with broad market recognition. The company will succeed through the constant development of capability based in ethical management. LG Electronics 'Jeong-do Management' embodies their high ethical standards and doing business in a transparent and honest manner. It is a unique way in LG to conduct business and, at its core is a commitment to fair competition in the market. The principle of management is embodied in their declarative code of ethics and practice guidelines, thereby forming the foundation of the thinking and behavior of everyone associated with the company.



Figure 4 Business Strategy in LG Corporation.

It is the intention of LG to spread the management philosophies of 'creating value for customers' and 'respect-based management' allowing for more responsible and open management.

LG continues to develop as the global leading company through seeking greater public benefits founded in cooperation, mutual trust, and respect for the free market company.

Meeting strategic objectives might provide an advantage over the competition. It can also result in rapid innovation and new-product development, design and technological innovation, increased product sales, market share, and corporate value. Fast growth is the result of implementing strategies designed to swiftly expand market size and earnings, with an eye toward monetary growth.

2.5.2 Marketing Strategy

By promoting the company through numerous channels of communication, the promotional strategy helps in the creation of widespread brand awareness. Next, because the corporation believes in selling things directly to clients, advertising plays an important part here. The corporation has marketed through a variety of mediums, including television commercials, magazines, newspapers, and the internet. Finally, they provide fantastic offers through this medium, resulting in increased market sales. In 2010, the firm announced that it will ramp up its marketing efforts and introduce a few new goods.

LG target audience focus under the heading of household appliances and electronics, it caters to customers aged 30 to 50. Next, it is segmented into upper and middle-income groups. On the other hand, it caters to clients of all socioeconomic levels. Besides, the market is separated into two psychographic segments: lifestyle and personality. Since the company's geographic segmented, it covers tier 1 and tier 2 cities.

2.5.3 Operational Strategy

Based on LG's operation strategy, they distributed their products through local retailers. However, over time, with the development of e-commerce, they offered their products through their website and other e-commerce platforms such as Shopee and Lazada. In addition, the corporation has also partnered with the outlets of other companies. Some of the products can also be found in other stores' display cases. For example, LG phones are available at the mobile shops and LG TVs are available at Home Decor shops.

Moreover, LG's Malaysia has opened 34 stores nationwide and is also planning to open more. The corporation has also extended its reach in rural regions by offering products at significantly lower prices in order to increase its sales volume and income. This shows the way they are distributing their products is to make sure that all of their products are available to buyers.

Besides, all of the decision-making in LG's operation is made by LG's CEO and also consists of executive board members. Meanwhile, the LG Electronics Corporate Audit Team and overseas divisional ethics bureaus are in charge of carrying out the committee's recommendations and monitoring the actual implementation of Management by Principle and related training.

3.0 COMPANY ANALYSIS

3.1 SWOT Analysis

SWOT analysis is a company's strategy tool for analyzing or identifying the company's competition's strengths, weaknesses, opportunities, and risks. SWOT analysis often aids in the identification of a company's major concerns, but it does not offer a solution to the problems. The SWOT analysis is critical since it can assist the organization in planning the steps necessary to achieve its goals.

INTERNAL FACTORS	STRENGTH <ul style="list-style-type: none">• Good quality and customized products• A strong brand in Malaysia• Easy accessible	WEAKNESS <ul style="list-style-type: none">• Expensive products• The higher cost of production• Lack of product description on the official website
EXTERNAL FACTORS	OPPORTUNITY <ul style="list-style-type: none">• An innovative product that has not been exposed broadly to the market• An ongoing relationship with the customer	THREATS <ul style="list-style-type: none">• Competitive market the similar products• Economy downturn• Technologies changes

	<ul style="list-style-type: none"> • Developing market such as the internet 	
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Table 2: SWOT Analysis

STRENGTH

I. With good quality and customized products, LG is known for producing high-quality goods. LG is a well-known brand in the electric industry, with a solid reputation for high-quality products. Their goods are said to be of high quality because they are long-lasting. It is well-suited to long-term use.

II. A strong brand in Malaysia, Since LG is based in Petaling Jaya, Selangor, Malaysia, it is a very strategic place which is near to the city. Therefore it will be a lot easier to distribute the product to the sellers and buyers. Also, LG's product is one of the most popular.

III. Easy accessible, LG maintains a website to assist consumers in finding knowledge about their products. If customers want to learn more about the product, they can just go to the company's website.

WEAKNESSES

I. Expensive products, the product from LG is quite expensive. This may be because the price of each product produced by this company is determined by its quality and material. Also, if it is imported then the price will become higher. Some items are really expensive and cannot be purchased by regular citizens because of the high price.

ii. The higher cost of production, LG is very particular with their products. The Higher the quality of the product, the higher the cost of production. As long as the product can achieve great results it is acceptable for LG to market the product.

iii. Lack of product description on the official website, While LG has a website, the information provided there is inadequate. Customers would find it difficult to obtain full product details as a result of dissatisfaction and less interest to buy the following product. Customers who want to know more about LG goods should go to a store that sells them.

OPPORTUNITIES

I. An innovative product that hasn't been widely disclosed to the market since there isn't much competition for these products, LG has the potential to sell an innovative product. LG can draw more consumers to purchase their goods by modifying them according to the most recent technology.

ii. An ongoing relationship with the customer, when a consumer buys a product from LG, the company normally instructs them on how to install and use it. To make it easier for their customers to ask questions about the items, the company also offers some customer service contacts and their company's email address. This condition, inadvertently, establishes a long-term relationship between the company and its customers. It would be easier for the company to continue marketing its goods as a result of this.

iii. Developing markets such as the internet, the internet has now become one of the primary forums for conducting business. With the advent of the internet, consumers can now purchase goods through the internet. LG may also market their goods via the internet. LG may use social media to promote their product, such as Facebook, Instagram, and others.

THREATS

i. Competitive market similar products, Panasonic, Toshiba, Sony, and other home appliance manufacturers are among LG's competitors. Since many companies produce the same product, most consumers would choose the product that offers the highest quality at a fair price.

ii. The economic downturn, a slowdown in the economy. As a result of this situation, consumers' purchasing power will dwindle as the economy worsens. There will be a surplus of unsold products as a result of this.

iii. The rapid change of technology is the biggest challenge for the company. The company must always use the latest technologies in their products. It is because most of the customers are more interested in getting products that have advanced technology. After all, it can make the daily life of customers easier.

4.0 FINDINGS AND DISCUSSION

4.1 Findings

According to the SWOT analysis, it is explained that the Water Heater has strengths and also weaknesses. Throughout the entire product manufacturing process, there will always be benefits and drawbacks. After doing some research on this product, it was discovered that there are a few issues with it. To begin with, it demonstrated that the items are not available to everyone because the device is extremely costly. People mistakenly believe that if a product is expensive, it must be of high quality. Since the Water Heater is a bit pricey, the finished product can be very impressive in terms of results. But, Customers would also stop purchasing the goods due to the high price, resulting in a product surplus.

Next, based on the research we can see that lack of technology in the goods has been discovered. People nowadays are more interested in new technology because it can improve the product's value. People's lives will benefit greatly from technology if they practice and explore it. All become more manageable with new technology, which can also save time. The organization must conduct product research and development as well as incorporate new technology into its products.

Lastly, the majority of businesses will face problems with their goods' competitiveness. These are the most common problems in the business world, and they can result in a loss of customers. This business also has a poor marketing plan due to a lack of marketing knowledge. If a company lacks marketing experience, it will have a tough time successfully commercializing its goods.

4.2 Discussion

The major problems with the device are the lack of technologies to reduce the wastage of water. The technologies used must be suitable for the shower condition and need to follow the customer needs and wants. Several alternatives can be implied from the findings to improve the products. The alternatives are:

I. By adding a digital water flow control, one of the benefits of this option is that the user can control the amount of water used. If the user exceeds the volume limit, the shower will alert the user by turning on the LED on the showerhead. This system will help to minimize water waste.

II. By adding a variety of colours, this is to enhance the buyers' interest and to increase the chances of selling the product. For example, add a limited edition colour which may be the flagship edition of the LG Inverter Heat Pump Water Heater. As a result, customers will be more than satisfied with their purchase.

5.0 RECOMMENDATION AND IMPROVEMENT

Many challenges must be overcome by a firm in order for it to remain competitive in the market. The company must make certain that the things it creates meet the needs and wishes of its clients. The company must provide goods in response to customer requirements. However, in order to stay in business, the corporation must compete with its competitors. They must always strive to improve their products.

The inclusion of digital temperature and a range of colours, based on the available options, will make it a must-have in any home. Because the technology is utilised to monitor water waste, the consumer will be enticed to buy the shower. Given the scarcity of water in some locations, water usage should be closely regulated to avoid waste.

This will absolutely help the corporation compete with the market's competitors, the upcoming product must have more unique characteristics. The unique characteristics of the water heater would set it different from other water heaters already on the market. One of the unique features that can be included is digital shower control. This automatic shower control allows the user to change the temperature and water flow in addition to using the LCD that comes with the tub. The digital shower control does not need to be kept in the bathroom because it can be used anywhere in the building by connecting it to our smartphones. Even if the LCD is destroyed, this might aid the user in utilising the shower.

6.0 CONCLUSION

In conclusion, the organization must recognize its issues to keep its goods on the market. The organization will use SWOT analysis to assess the products' strengths, limitations, opportunities, and risks. This case study can be used to examine the product's flaws and determine the best solution for improving the product based on the problem.

The study found that a LG company is having a problem with the technology used. This is one of the product's weaknesses. As a result, the organization must take steps to devise a new strategy to address the issues where the company would develop a water heater that uses a heat pump system. The LG heat pump obtains 75% of its energy from outside air. This renewable energy source converts low temperature to high temperature using two heat exchangers, a condenser and an evaporator. This is also to exceed the customers' expectations and hopefully happiness will be met by the product that is purchased.

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8.0 APPENDICES



LG's Twin Tower in Yeouido-dong, Seoul,



LG Malaysia Headquarters



LG's Store Opening Ceremony

