
Andi Maulana, Zulfaa Irbah Zain, and Yafiazmi Dhaniswara
Department of Industrial Engineering, Faculty of Engineering
Universitas Indonesia
Kampus UI Depok, 16424, Indonesia
andi.maulana01@ui.ac.id, zulfaa.irbah@ui.ac.id, yafiazmi.dhaniswara@ui.ac.id

Abstract

The COVID-19 pandemic has limited many human activities, including the buying and selling process. It makes many companies experience a decline in sales and even go bankrupt. This paper takes the example of a baby product company to explore the impact of competitive strategies on sales volume in the era of the COVID-19 pandemic. Based on the analysis, the baby product company's sales volume has decreased, but not significantly. The company is still able to survive with the cost leadership strategy implemented. This research paper aims to study the cost leadership strategy and analyze the benefits of adopting such strategies on baby product companies. In addition, this paper also provides views on how companies must respond to crises such as COVID-19 to survive.

Keywords

1. Introduction

Indonesia is the country with the fourth-largest population globally, with 270,20 million people; according to Badan Pusat Statistik Indonesia (2020), the average number of maternal/postpartum in Indonesia is 148,548 annually. Data presented from Central Statistics Indonesia also shows that the total birth rate is 2.45 children per family in early 2020. According to United Nations - World Population Prospects (2021) The current birth rate for Indonesia in 2021 is 17.372 births per 1000 people, a 1.58% decline from 2020. The birth rate for Indonesia in 2020 was 17.650 births per 1000 people, a 1.55% decline from 2019. The birth rate for Indonesia in 2019 was 17.927 births per 1000 people, a 1.53% decline from 2018. The birth rate for Indonesia in 2018 was 18.205 births per 1000 people, a 2.03% decline from 2017. Along with developing people's needs and lifestyles, companies continue to innovate and evolve their products to meet people’s demand. This also affects baby products companies, in return, will give changes in baby’s needs, such as eatery equipment, toiletries, and baby food. According to Euromonitor International (2020), from the period of 2014 to 2018, the retail sales of baby and maternity products increased by 8% annually. This marks a purchase power increase for the coming years.

Being a company that delivers common products to customers, this baby company has many competitors. Also with such market opportunity in baby products, companies must find ways to be able to gain competitive advantage from other players. To achieve a competitive advantage, this company must differentiate itself from competitors through the lowest price offered or best value offered. From the characteristics above and in addition to baby products being price-sensitive, this company implements cost leadership-best value to give the lowest price with the best value offered, considering how delicate and important quality is to the target market.

A successful brand offers products that gain sustainable unique added values which fulfil customer’s needs (De Chernatony, 1989). By nature, customers have considerations on risks. Price, performance, perceived quality and value for money influence this degree of risk. Customers tend to reduce risk in their decision making process, this is no exception when choosing products. Well-known and familiar brands are perceived to the customers as a means to reduce risks (De Chernatony, 1998). This is seen as customers might consider quality more than price on several occasions. Risk consideration is important in any condition, especially on rough times, such as COVID-19 pandemic.

Amid the development of baby product innovation, COVID-19 disrupts business stability. COVID-19 is one of the foremost severe pandemic within the last 100 years, it's affected almost the whole world in unprecedented ways. COVID-19 affects the transportation, tourism, trade, health and other sectors worldwide (Susilawati et al., 2020). This
is no exception to Indonesia with its social and physical distancing policy. In response to those measures, people not only reduce their mobility but also adapt their travel patterns to limit their exposure by avoiding places with a high number of cases. The anticipation or announcement of their movement restrictions because of COVID-19 causes changes in people’s lifestyles, routines, and consumption patterns, like panic buying during the first pandemic or lockdown stage, performing from home, or a decline in nonessential retail consumption. With people spending on average, around 40% less, these new trends also risk generating an economic slowdown that might last for an extended time (Mahajan et al., 2021).

With the presence of the COVID-19 global pandemic, many industrial sectors feel greatly impacted. This case is no exception to the baby products company. Due to the target user of baby products being for direct use, sales are channeled through modern trade, such as supermarkets and hypermarkets. Nevertheless, with the hysteria of COVID-19, social and physical distancing are declared by the government, and this pushes the target consumer to stay home and make purchases online, instead of going out to the supermarket to make purchases. Also, with the policy of minimizing the number of visitors up to half capacity, supermarkets are losing their sales target. Because of the reduction of sales, supermarkets are more likely to halt purchases from distributors. And making a loss of sales also to the baby products company. Along with that, in Indonesia, more than 60% of consumers purchase baby and maternity products online (HKTDC, 2020). For this reason, impacted companies such as this baby product company need to come up with a strategy in dealing with change due to the COVID-19 pandemic.

Based on the above background, strategy is an essential part of any effective business plan. Porter (1985) asserts there are basic business strategies – differentiation, cost leadership, and focus – and a company performs best by choosing one strategy on which to concentrate (Porter 1980) (p.434). Porter (1980, 1985) generic strategies represent a widely accepted theory of strategic options that clearly explain companies behavior. Some research has been conducted for companies implementing Porter’s strategy, but there is only a little research implemented in a baby product company, such as Daniels (2009) and Kieu Diem (2017). In addition to that, most of the research on baby product companies has not compared the impact on sales volume before and amid COVID-19 pandemic. For that reason, this paper will explain further on how Porter generic strategies are implemented in a baby product company, how said strategies are affecting sales volume before and after COVID-19, and what actions can baby product companies take to tackle obstacles.

1.1 Objectives
The COVID-19 pandemic has an impact on the sales volume of many companies in the world. Many companies have gone bankrupt due to COVID-19 because their sales volume is far below average. This research will explain Porter's five strategies, especially cost leadership. With that strategy, the impact on sales volume of baby product companies will be analyzed in the era of the COVID-19 pandemic and make business improvement plans to stay afloat if something similar to COVID-19 occurs again. This paper also suggests several future research avenues to expand existing knowledge further to increase baby product companies' sales volumes.

2. Literature Review
Every organization has objectives, some purpose to do. But not all organizations know how to reach said goals. According to the Merriam-Webster dictionary, strategy is the science of planning and directing operations to the most advantageous position. Being that important, strategy can determine an organization's success in terms of setting the general organization’s direction and enables it to face challenges in a very competitive environment. Moreover, strategy is needed to confirm proper synchronization of the organizations’ different activities and direct its efforts. It is also important for workers because it determines their roles and objectives by providing a sense of direction. Furthermore, “Strategy is required to scale back uncertainty and supply consistency to assist cognition, to satisfy an intrinsic need for order, and to push efficiency under conditions of stability by concentrating resources and exploiting past learning” (Mintzberg 1987).

2.1 Business Strategy
Business Strategy is also an idea that's concerned with achieving and maintaining organizations’ competitive advantage (Stanley et al. 2010). Competitive advantage is made by companies to gain market opportunities, and from there companies will perform specific activities developed to be superior to its competitors (Nurcahyo et al., 2018). Every firm competing in an industry has a competitive strategy, explicit or implicit. It's concerned with meeting the various needs of customers within the market through the utilization of the organization’s resources and capabilities to fulfill those desires and preferences. Competitive advantage is found to be gained by cost leadership, differentiation, and focused strategies (Porter 1980). These strategies are known as Porter’s generic strategies. These strategies
represent a widely accepted theory of strategic options that explain an organization’s behavior. These three generic strategies consolidate into two basic strategies, cost leadership and differentiation, which means that focus generic strategy is actually complementary and is obtainable in both cost leadership and differentiation strategies (Brenes & Mena 2003; Campbell-Hunt 2000).

2.2 Cost Leadership
Cost leadership is the strategy that focuses on producing standardized products at a very low unit cost for consumers. Cost leadership is implemented for companies that have a broad target market. For having a broad target market with many competitors, cost leadership emphasizes on companies whose consumers are price-sensitive (David, 2009). Cost leadership has two types. The first type is cost leadership - low cost. Low-cost strategy is a strategy in which a company attempts to gain a competitive advantage by reducing its costs below the costs of its competitor to a wide market (Griffin, 2005). The second type is cost leadership - best value, which gives products or services also to a wide market but at the best price-value available at the market. Cost leadership strategy should not be considered as an inferior product, but as a product that has the same qualities with competitors at an appropriate price (Pulaj, 2014). A successful implementation of cost leadership strategy creates barriers against competitors through charging lower prices, in which price sensitive customers will choose products with the lowest price, and therefore gaining the company bigger market share and pushing competitors (Mahfod et al., 2017). Companies that play in a broad market such Wal-Mart and McDonald’s are two well known companies that implement cost leadership strategy (David, 2009).

2.3 Differentiation
Differentiation strategy is a strategy in which an organization seeks to distinguish itself from competitors through the quality of its products or services (Griffin, 2005). Differentiation strategy aims at producing products and services considered unique industry wide and directed at consumers who are relatively price-insensitive (David 2009). Unlike cost leadership and focus strategy, differentiation can be present in both large or small sizes of the market. The advantages from implementing differentiation strategy includes loyalty from customers from gaining their trust on providing unique and high quality products (Porter, 1985). Successful implementation of differentiation strategy can mean greater product flexibility, greater compatibility, lower costs, improved service, less maintenance, greater convenience, but this unique product or services need be time-consuming, cost-prohibitive, and simply too burdensome for rivals to match (David 2009), thus a company need more capital to create said uniqueness. For example, differentiation strategy has been used to investigate the relationship between differentiation strategy and performance hotels in Kano states (Abdullahi, H. G. and Haim, H. 2017). In addition, the influence of differentiation strategy on customer loyalty has also been studied by pharmaceutical companies in Nairobi Country (Rhoda, W. G. and Nixon, K. N. 2018)

2.4 Focus
The last types are focus, focus means producing products and services that fulfill the requirements of small groups of consumers. two alternative varieties of focus strategies are low-cost focus and best-value focus. A low-cost focus strategy that gives products or services to a tiny low range (niche group) of consumers at all-time low prices available on the market. samples of firms that use the low-cost focus strategy include Jiffy Lube international and Pizza Hut, still as local used car dealers and hot dog restaurants. A best-value focus strategy that gives products or services to a tiny low range of shoppers at the simplest price value available on the market. Sometimes called “focused differentiation,” the best-value focus strategy aims to provide a definite segment group of consumers products or services that meet their tastes and requirements better than rivals’ products do (David, 2015). Both low-cost and best-value focus strategies target a tiny low market. However, the difference is that low-cost focus strategies offer products or services to a distinct segment group at rock bottom price, whereas best-value focus strategies offers products and services to a distinct segment group at higher prices but loaded with features that the offerings are perceived because the best value. samples of firms that use the best-value focus strategy include Cannondale (top-of-the-line mountain bikes), Maytag (washing machines), and Lone Star restaurants (steakhouse), moreover as bed-and-breakfast inns and native retail boutiques (David, 2015).

According to Thompson et al. (2007), a low-cost or best-value focus strategy are often especially attractive under the subsequent conditions:
1. When the target market niche is large, profitable, and growing.
2. When industry leaders don't consider the niche to be crucial to their own success.
3. When industry leaders consider it too costly or difficult to satisfy the specialized needs of the target market niche while taking care of their mainstream customers.
4. When the industry has many alternative niches and segments, thereby allowing a focuser to select a competitively attractive niche suited to its own resources.
5. When few, if any, other rivals try to specialize in the identical target segment.

3. Methodology

This study is conducted with data collected from a baby products company. The study is done by analyzing the impact of the cost leadership strategy implemented in this company before and during the COVID-19 pandemic on sales volume. The products used in this paper are top-selling products such as bottles, nipples, accessories, and toiletries for babies. For this study, we are using 56 SKUs for bottles, 38 SKUs for nipples, 25 SKUs for accessories, and 33 SKUs for toiletries. This target market for this company are mothers, mostly pregnant mothers and mothers with newborn babies. For the company’s sales volume before and under the influence of COVID-19, the analysis data are collected respectively from January to December 2019, 2020, and January to March 2021. This paper’s framework is based on a paper by Ma (2021), that discusses the impact on competitive strategy implemented by a company that also implemented cost leadership strategy, McDonald’s amid COVID-19. After we went through literature review, we extracted some data related to sales volume for analysis and discussion from a baby product company. From collected data, analysis is conducted to compare before and during COVID-19 results on sales volume. After the analysis on sales volume is revealed, an analysis for implementing cost leadership strategy is done, followed by the recommendation on gaining competitive advantage for this baby product company.

4. Data Collection

This paper aims to see the impact of implementing cost leadership strategy on the sales volume in the early and the middle of COVID-19 pandemic. Figure 1 shows the sales volume of chosen baby products from 2019 to 2020. From Table 1 and Figure 1, it can be seen that sales volume for baby products are decreasing between 2019 and 2020. The decrease rate of sales volume of baby products in this company was 9%.

From Table 1, it can be seen that Toiletries products in both 2019 and 2020 have the highest sales volume between other products. Toiletries products in the baby product companies consist of baby shampoo, soap, cream, oil, lotion, powder, lotion, and others. Baby toiletries products are the highest in sales because these products are fast moving, unlike bottles, nipples, and other accessories that might need to be purchased once only. Customers need to repurchase toiletries products once they run out.

<table>
<thead>
<tr>
<th>Product</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bottle</td>
<td>4.515.395</td>
<td>4.023.721</td>
</tr>
<tr>
<td>Nipple</td>
<td>4.209.269</td>
<td>4.010.362</td>
</tr>
<tr>
<td>Accessories</td>
<td>1.674.293</td>
<td>1.440.666</td>
</tr>
<tr>
<td>Toiletries</td>
<td>5.029.723</td>
<td>4.578.405</td>
</tr>
<tr>
<td>Total</td>
<td>15.428.680</td>
<td>14.053.154</td>
</tr>
</tbody>
</table>
As we all know that after the report from China, on March 1, 2020, nasopharyngeal, throat swabs, and sputum from 31- and 64-year-old women were confirmed positive for SARS-CoV-2 by real-time (RT) -PCR using two WHO-recommended methods (Corman VBT et al. 2020) and (Lu X 2020). Table 2 and Figure 2 stated that there was an increase in the purchase of baby products, especially in January to March 2020. Based on this data, sales volume that January to March 2020 increased by 10.1% compared to 2019. The sales volume in January to March 2020 was still higher than in 2021. This data is evidence that companies with a cost leadership strategy will positively impact panic buying.

Table 2. January to March 2019, 2020, and 2021 Sales Volume.

<table>
<thead>
<tr>
<th>Product</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bottle</td>
<td>1.064.761</td>
<td>1.336.293</td>
<td>1.032.880</td>
</tr>
<tr>
<td>Nipple</td>
<td>1.032.574</td>
<td>1.202.482</td>
<td>1.053.826</td>
</tr>
<tr>
<td>Accessories</td>
<td>432.979</td>
<td>296.038</td>
<td>341.269</td>
</tr>
<tr>
<td>Toiletries</td>
<td>1.154.885</td>
<td>1.222.426</td>
<td>1.159.300</td>
</tr>
<tr>
<td>Total</td>
<td>3.685.199</td>
<td>4.057.239</td>
<td>3.587.275</td>
</tr>
</tbody>
</table>

Figure 1. 2019 and 2020 Sales Volume in Million Quantity
5. Results and Discussion

According to Table 1 and Figure 1, sales volume in 2019 to 2020 is decreasing. This phenomena can be caused by many reasons. From previous data mentioned, the birth rate for Indonesia in 2019 was 17.927 births per 1000 people, and it decreased to 17.650 births per 1000 people (United Nations, 2021). With products specified for infant babies, the decrease of birth means less target market. This might affect sales volume for some baby products.

Apart from results above, this baby product company distributes its products mainly to offline stores such as supermarkets and hypermarkets. From March to December 2020, the customer capacity of those offline stores were limited due to regulations of the government to physical distancing and the advice on staying home amid the COVID-19 pandemic. Also by the availability and the convenience of online shopping, customers are able to choose various products and might consider the cheapest product without even going to the supermarket.

During the COVID-19 pandemic, companies with a cost leadership strategy will experience an increase in sales volume due to panic buying. To prepare all the needs during the large-scale social restriction, people were hoarding goods. People scrambled to buy what they needed and piled them. Hoarding of necessities in large quantities is called panic buying behavior. Shadiqi, M. A. et al. (2020) explained that panic buying is an act of hoarding necessities in a large quantity so that there is no deficiency in the future. Many news reports that panic buying was happening in all parts of the world. Panic buying had occurred before the Covid-19 outbreak. Historically, panic buying behavior began during the Spanish flu outbreak in 1918 (Honigsbaum 2013). Shadiqi, M. A. et al. (2020) explained that panic buying behavior occurred due to the stress response of the community during an outbreak.

Cost leadership could be a strategy that allows the firm to achieve a competitive advantage over its competitors through gaining market share supported by reducing its costs. Cost leadership will be achieved through various methods like process enhancement, controlling overheads, and economies of scale. Some of the actions that this company can decide are to improve business process efficiency such as implementing new technology or making the supply chain more efficient. When operational efficiency is attained in an exceeding nutshell, a cost leadership strategy is applied (Banker, Mashruwala, and Tripathy 2014).

Baby product companies, especially well-established companies offer different kinds of products with high quality in order to sell them to customers. But relying on lower cost and high quality might not be enough to gain competitive advantage. Firms do not need to spend revenue to be the cost leader, especially in a company that offers high quality products, since high revenue might be achieved through obtaining a large market share (Bauer and Colgan, 2001). Large market share is achieved through gaining customers’ trust. With such low cost, it would be hard for new market entrants to compete, knowing it required large capital (Hyatt, 2001). Nevertheless, if a company lowered its prices too much, they might lose revenues, and from this, a best value strategy must be implemented, with other strategies to gain competitive advantages.
To achieve this competitive advantage over its competitors, this company develops its own logistics company that makes its efficiency and effectiveness in delivery of its products remain stable even in a pandemic situation. If the delivery performance is terrible and repeatedly occurs, then the distributors likely terminate contracts. However, if the delivery performance tends to be good, it could increase its business performance to be better developed. (R. Nurcahyo, and A. D. Wibowo 2015). With the existence of an own logistics company, the quality of delivery will improve. In the end, the delivery implied a positive effect on manufacturing performance. (R. Nurcahyo, and A. D. Wibowo 2015). This company also aims their sales scope to far too remote cities in eastern Indonesia. Better safety and protection, also more control of the product supply chain all the way to the customers are fine benefits that make the creation of a transportation subsidiary highly worthwhile.

Another strategy this baby company might add to gain competitive advantages is to reevaluate their marketing strategy. A great marketing strategy is useful to amplify their power to gain more customers (Mathutra and Latha 2016). During COVID-19, the competition is getting tighter because of minimum visits to this baby company’s distribution channel. In addition to expanding a supply chain logistic fleet, this company must make ways on other channels by taking advantage of the internet, building partnerships, and implementing sustainable marketing strategies in the future.

6. Conclusion

Based on the analysis above, the baby product company's sales volume has decreased in 2020 and 2021 compared to 2019, but it is not significant. The cost leadership strategy pursued by baby products companies can survive the era of the COVID-19 pandemic. One interesting thing is that baby product companies experienced a positive impact from panic buying during the January to March 2020 period. In that period, baby product companies experienced an increase in sales compared to 2019 and 2021.

This company implements the cost leadership strategy-best value to give the lowest price with the best value offered. The focus of the cost leadership strategy should be to optimize the cost structure and reduce the cost, rather than blindly reduce the product price. Enterprises with the same strategy will inevitably lead to a price war. Suppose the enterprise takes the lead in reducing the price to a minimum value, and the current cost is not enough to support the continued reduction of the price. In that case, it will lead to malicious bidding by competitors and put the enterprise at a competitive disadvantage. At the same time, to optimize the cost structure, enterprises should also have unique management methods that are not quickly imitated by competitors, such as making subsidiaries in logistics. With a subsidiary in the logistics sector, the company was able to reduce costs and increase sales volume. The company is flexible in sending anywhere and anytime at a more affordable cost.

A baby product company with a cost leadership-best value strategy is one example of a company that can withstand sudden attacks by COVID-19. Thousands of companies around the world have gone bankrupt due to COVID-19. The COVID-19 outbreak is likely to cause bankruptcy for many well-known brands in many industries as consumers stay at home and economies are shut down (Tucker 2020). In the US, famous companies such as Sears, JCPenney, Neiman Marcus, Hertz, and J. Crew are under enormous financial pressure. The travel industry is deeply affected; 80% of hotel rooms are empty (Asmelash and Cooper 2020), airlines cut their workforce by 90%, and tourism destinations are likely to see no profits in 2020.

The era of the COVID-19 pandemic provides lessons for all companies, including baby product companies, to always be ready to face various challenges. Various strategic plans must be prepared to face other challenges in the future, including marketing strategy. Due to time constraints, this study has not explored different strategies and has not used data other than sales volume. In further research, research can be using other strategies such as differentiation strategy, focus strategy, or different strategies, and the study must use more data to be considered.

References

Banker, R. D., Mashruwala, R., & Tripathy, A. (2013). Does a differentiation strategy lead to more sustainable financial performance than a cost leadership strategy? Management Decision, 872-896.


Euromonitor Indonesia (2020). Retail Sales of Baby and Maternity Products in Indonesia.


Pulaj E (2014) The attractiveness of the construction industry from the point of view of porter's competitive strategies. University of Tirana - Faculty of Economics - Department of Management, Tirana.


Biographies

Andi M. is a Master of Engineering candidate of Universitas Indonesia. Andi has an interest in Supply Chain Management. Currently, he is a Supply Chain Management staff in the FMCG company. Andi will explore this knowledge to become a reliable practitioner in the field of Supply Chain Management. He did not attend an undergraduate in industrial engineering, but he did do mathematics. During his undergraduate, Andi took a specialization in operations research. After graduating, he had an interest in the industrial world. Andi continues to delve deeper into the world of industrial engineering. There are many branches of science in industrial engineering that he has never studied during his undergraduate studies in mathematics—for example, the management of industrial strategy, which is currently the topic of this scientific paper. Even so, the degree in mathematics that Andi has undertaken has also provided many benefits for Andi. He realized that he was a little behind compared to others who took degrees in industrial engineering. However, with high spirits, he continued to try to catch up. Currently, Andi is preparing himself to become a Supply Chain supervisor. Andi and his colleagues at work are pushing various improvisations. Andi's company is giving the freedom to provide innovation to add value. With the knowledge he currently has, Andi dreams of becoming one of the Supply Chain Directors of a company in the future. Andi hopes that he can realize his dream in the next 10-15 years.

Yafiazmi D. is a Master of Engineering candidate in the Faculty of Engineering at Universitas Indonesia. He holds a Bachelor’s degree in Industrial Engineering. He has several experiences working in different sectors such as in tobacco, construction, electricity and commodity futures companies. His research interests are in the areas of project management, supply chain management and HSE (health, safety, environment). He has a scientific research entitled “Studying the Procurement of Cement Raw Materials for Making Box Piles (Non Centrifugal) at PT. WIKA Beton PPB Bogor” and the title of his undergraduate research paper entitled “Analysis Occupational Health and Safety Hazards for Operators in the Mechanical Division by Using the Job Safety Analysis (JSA) Method”.

Zulfaa Z. Zulfaa Irbah Zain, also known as Zulfaa, is a Master of Engineering candidate of Universitas Indonesia, born in September 1997 in Jakarta, Indonesia. Having work experiences in the operational area such as Supply Chain Associate and Pricing Controller, also background knowledge of business and industrial management, and by having her Bachelor’s Degree in Agricultural Engineering with 3.63 GPA, Zulfaa is quite passionate in developing resources with technology and innovation that gives great value both in agricultural and in industrial scope. Zulfaa has certifications in Quality Assurance and Quality Control course, Food Safety Management System Trainings, also was a laboratory teaching assistant in Characteristics of Agricultural Products and Post-harvest Engineering courses. While pursuing her Bachelor’s Degree, Zulfaa joined a research team of “Seleksi Hasil dan Komponen Hasil Tanaman Stevia Hasil Mutasi In-Vitro untuk Memenuhi Kebutuhan Gula Rendah Kalori Nasional”, and went to local conference to deliver the results. In her spare time, she runs a secondhand bookshop and handmade souvenirs with her twin sister.