Research on the Operation Management Model and Marketing Strategies of Monopolistic Commercial Companies: A Case Study of LEGO

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Abstract:

This essay examines LEGO's rise to market leadership in the toy industry, emphasizing its distinctive strategies, including a diversified product line, innovative marketing strategies, and an efficient distribution model. It highlights LEGO's strategic expansion into the adult market, illustrating how its market dominance is rooted in a consistent commitment to product quality and continuous innovation development. These efforts have broadened LEGO's customer base and boosted profitability through specialized products and targeted marketing. The essay also addresses LEGO's key challenges, such as environmental concerns from the high reliance on plastic use, market saturation in mature regions, and the threat of counterfeit products undermining brand integrity. Although LEGO has made strides in managing these issues, further advancements in sustainability and innovation are crucial for its long-term success. By tackling these challenges and adapting to market changes, LEGO is expected to continue inspiring creativity and maintaining its leadership in the highly competitive toy industry.

Keywords: LEGO; Marketing Strategy; Operation Management; LEGO Brick.

1. Introduction

Construction toys have long been recognized as ideal tools for developing children's problem-solving skills and hand-eye coordination. These toys are generally considered to be suitable for younger age groups, easy to use and have an empowering purpose. However, one company managed to turn it into a product

suitable for a wide range of players.

When the LEGO product was first released, it quickly gained popularity and sparked a trend among young people. It swiftly dominated the construction toy industry, eventually becoming a monopoly before substitute items were introduced. As the first type of brick toy introduced to the public, LEGO achieved remarkable results, establishing itself as a toy leader

in the years that followed. By 2023, LEGO had successfully operated 1031 physical stores globally with an annual profit of 65.9 DKK [1], demonstrating its capacity to innovate and react to industry trends while maintaining a close relationship with customers.

This essay examines LEGO's strategic tactics, with a focus on innovative marketing techniques and ground-breaking product creation. By first discovering LEGO's evolution and the distinctive characteristics of its products, then obtaining insight into how the corporation has maintained market supremacy. Lastly, the essay also assesses LEGO's current performance, identifies the obstacles it confronts, and proposes potential options for ongoing success.

2. Introduction to LEGO's Brand Development and Industry Monopoly

2.1 . Brand Establishment and Development

LEGO was founded by Ole Kirk Christiansen in 1932, a carpenter from Billund, Denmark. He started his business by making wooden toys and named the company "LEGO", which is derived from the Danish phrase "leg godt", meaning "play well" [2]. The LEGO group promotes the values of Imagination, Fun, creativity, Caring, Learning, and Quality and aims to inspire and develop builders tomorrow.

The well-known iconic interlocking plastic bricks were first launched by LEGO in 1958 in its present form. Through the simple connection between each block, also known as the interlocking principle, it shows players the infinite building possibilities, allowing them to play while letting their imagination run wild. Such a significant product then became the foundation of the brand and brought LEGO to become the later marketing leadership in the Brick toy industry. The business is honored to have received two "Toy of the Century" awards. Its products have experienced substantial development, but the fundamental element is still the conventional LEGO brick.

From a little carpenter workshop to the largest brick toy producer, the company has been passed down from generation to generation for almost 85 years, and it continues to be owned by the Kirk Kristiansen family. By the 1990s and 2000s, LEGO had expanded into video games, movies, and theme parks, increasing its brand reach. In recent years, LEGO has embraced digital technologies, including augmented reality applications and internet platforms, to improve the gaming experience and consistently expand its markets in several ways.

${\bf 2.2}$. The Current Status of the Brand's Monopoly

With a strong brand image and customer loyalty, LEGO

has been a dominant player in the toy industry for decades, selling products in over 140 countries and operating over 1000 physical stores globally. LEGO's popularity has been long-lasting since it was first introduced to the market and was widely used and represented in a variety of cultural works, including literature, movies, and artwork. It was also one of the first toys to be inducted into the National Toy Hall of Fame at The Strong in Rochester, New York, in 1998 [3].

On top of that, LEGO had effectively leveraged digital and social media to forge connections with its audience, solidifying its position as a well-known and adored brand on a global scale. The company is highly engaged on social media platforms, particularly X and Instagram. While search interest in LEGO varies seasonally, frequently peaking around the holiday season, social media interaction remains consistently high all year. Just by searching "brick toys" on Instagram and X, the top 10 posts that appear first are related to the brand LEGO. This shows the media coverage of LEGO and the dominant power in the internet market.

Today, the LEGO Group remains a dominant force in the toy industry, with a reported operating profit of approximately DKK 17.1 billion in 2023, underscoring its strong financial performance. Despite the toy market experiencing a decline in 2023, the revenue of LEGO this year was DKK 65.9 billion, an increase of 2 per cent. With a diverse portfolio of 780 different products, LEGO's consumer sales grew 4% in 2023 compared to 2022, driven by strong growth in the U.S. and Central/Eastern Europe [1].

3. Analysis of LEGO's Efficient Marketing Strategy

3.1. Diversified Product Line

The LEGO bricks are designed to foster children's creativity and imagination. With just a simplistic plastic brick, LEGO explores innovative ideas. By Changing its size, colour, and shape, this type of plastic block has convex particles at one end and a hole that can be implanted in the convex particles. Series such as LEGO Creator, LEGO Duplo, and LEGO Classic allow kids to explore and create endless LEGO models with their surprising and valuable ideas. Studies have revealed a connection between children's performance on math word problems and assessments and their LEGO play [4]. Due to the open-ended nature of LEGO, children have the freedom to use their imagination and creativity when playing, which is inseparable from their ability to display creativity later in life. [5].

Not only just providing the youngest age groups with such

educational benefits, but LEGO also brings in mini-figures, gears, and other parts, designing a range of products that also fulfil teenagers and adults. Recently, there have been at least 88 LEGO sets that have over 3000 pieces, such as the Art World Map (11,695 pieces), Icons Eiffel Tower (10,001 pieces), and Titanic (9,090 pieces) [6]. This satisfies the mindset of today's young people, who are willing to try new things and accept challenges. With designers, architects, engineers, and artists representing almost 39 different countries, the LEGO design team is highly diverse, which allows them to explore and design such creative and subtly LEGO sets. Significant series like Duplo, Friends, Technic, Architects, Mindstorms, and Brick Headz were very popular among players. By following the guides, players could also finish an amazing LEGO model, even if they are not talented with construction toys. Furthermore, LEGO has also licensed with several famous IP (Intellectual Property) such as Star Wars, Harry Potter, Marvel, Jurassic Park, and Stranger Things [6]. At the same time, LEGO has also worked with Porsche, Bugatti, Lamborghini, and other automotive brands, which have attracted millions of loyal fans to purchase their collaborative products.

3.2. Multifaceted Promotion Marketing

By entering the digital era, LEGO has immediately responded to the digital trends. One innovative marketing approach of LEGO was the production of films like "LEGO Star Wars: Revenge of the Brick (2005)" Through film productions, LEGO has brought its product to the screen using 3d modelling. The success of the infant LEGO films has encouraged LEGO to keep exploring cartoons and has continuously launched different series of LEGO cartoon films, such as "The LEGO Movie", which was released by Warner Bros. These videos serve as entertainment and effective marketing tools. Highlighting LEGO's inventiveness and storytelling ability. LEGO captivates a varied audience by bringing its distinctive bricks to life on the big screen, appealing to children and adults. In addition to its film projects, LEGO is also trying to attract more customers by designing and distributing spinoff games from popular movies. LEGO video games are adaptations of popular film series such as Batman, Harry Potter and Star Wars, using LEGO characters and environments to create dynamic, puzzle-based gameplay [7]. These games offer a variety of leisure options for customers with different preferences. Whether it is family-friendly or humorous, even some themes with dark overtones are covered.

Apart from this, in order to build a stronger connection with global players, LEGO effectively utilizes social media platforms to engage with fans based on their interests and preferences. The firm maintains distinct pages and accounts (for example, @LEGO_Group, @LEGOBat-manMovie, and @LEGOMarvelGame), sharing negating content and the latest LEGO news. By developing engaging online experiences like interactive building instructions, virtual play spaces, and augmented reality elements, LEGO has embarked on a further step of digital transformation

Furthermore, The LEGO Group has developed "LEGO Ideas," a platform allowing players to share and submit their designed models. The platform is a form of crowd-sourcing, with fan-created designs being reviewed once they get 10,000 supporters. The successful idea will be produced as an official LEGO product, and the creator of the idea will receive self-satisfaction and royalties from the sale of the product. This approach increases brand loyalty while also allowing LEGO to learn what excites the community, which in turn promotes a more targeted social media campaign [8].

3.3. Effective Channel Strategy

LEGO's distribution marketing strategy is an integrated method that aims to expand its reach (recently reaching over 140 countries), ensure product accessibility for consumers worldwide, meeting international demand. A major part of its strategy is to work with large retailers like Walmart and Amazon, which enables LEGO to maintain a strong presence in offline and online retailers, ensuring its products are widely accessible to players worldwide.

In addition to working with third-party retailers, LEGO also operates over 125 retail outlets worldwide (including branded shops and flagship stores), most of which are in key markets such as the United States, Denmark, and the UK. These stores provide customers with immersive shopping experiences, including unique series and sets, and frequently hold special events that enhance brand loyalty and customer engagement. LEGO enhances its brand identification and fosters consumer interactions by establishing a unique retail atmosphere. LEGO also runs a robust e-commerce infrastructure: The official LEGO website. It serves as a direct-to-consumer channel, allowing customers to purchase products online conveniently. It offers exclusive sets and promotions, catering to the demands of a digitally aware audience and extending LEGO beyond traditional retail boundaries.

Apart from retail outlets, another key distribution of LEGO is its extensive network of LEGOLAND theme parks, which are located in Billund, California, Florida, New York, Malaysia, Dubai, Windsor, Japan, Korea and Germany. The parks are strategically designed to cater primarily for families with children ages 2 to 12. They offer a variety of rides, performances, and attractions based on LEGO bricks and models. By providing an immersive experience that goes beyond traditional toy retail, it had

16.7 million visitors to its parks globally, representing a 6% rise over the previous year (Source: Statista.com).

4. The Reason of LEGO becoming a Market Leader

4.1 . Innovative Marketing and Product Development

LEGO continuously demonstrated its ability to identify market trends and capitalize on growth prospects. One of the keys to LEGO's success is its unwavering dedication to product quality and innovation. Since the invention of interlocking bricks in 1958, LEGO has been praised for the durability and diversity of its products, showcasing high-quality and innovative ideas. Research has shown that LEGO has steadily increased the variety of bricks in its sets by an average of 2.4% each year, and within this, the maximum number of blocks contained in different types of products is also increasing at a rate of 4.1% per year. [9]. Not just improving the bricks' complexity, these high-quality items also provide endless creative possibilities, which led them to become household staples worldwide. LEGO is always evolving with unique themes such as LEGO Technic and LEGO Architecture, fulfilling different needs of a wide age demographic and challenging the players with complex projects that blend fun and education.

Beyond product innovation, the company has also innovated its marketing approaches. For example, the transformation of producing digital projects, such as introducing a "Digital Citizenship" program with 20 different languages available, includes mini-games, interactive manuals, and activities to assist families in learning digital skills and being mindful of their safety in the digital world. The "Doom to Gloom" also allows children to showcase their creativity and imagination by creating a virtual Minifigure, called the "Hero Builder" feature. It allows kids to add accessories to their Minifigure throughout the journey of experience by unlocking them during various activities. This educable program also encourages children to share their works on the LEGO Life platform with other "citizens", honoring their journey towards digital citizenship. Another example is the epic sport introduced in 2023, where LEGO launched the game LEGO Fortnite®, aiming to create a safe e-sport environment for children and parents.

4.2. Embracing the Adult Market

Back then, LEGO symbolized the joy of limitless imagination and creativity, a toy manufacturer that initially only targeted the children demographic, aiming to train children's thinking ability, manual ability, creativity and other

related skills to support their growth. Despite the results being impressive, the development of the toy industry has become more prosperous, especially when a variety of toys are introduced to children and parents, and LEGO's competitiveness is eventually reduced. To ensure business sustainability, LEGO has strategically embraced the growing interest among adult fans, recognising that this demographic has higher financial stability and purchasing power as they generally have established employment and a higher disposable income. This also means that they have the ability and willingness to purchase more expensive and intricate LEGO sets, allowing LEGO to explore more possibilities for product variations.

Moreover, Adult consumers also tend to value quality above quantity, choosing rare or collector's items that add value to their collections. As a result, limited edition or exclusive releases are more likely for them to buy, which helps LEGO ® increase its sales margins. Research indicates that adult LEGO enthusiasts find the building process therapeutic, enhancing creativity and relaxation [10]. The LEGO Creator Expert and LEGO Art series, which appeal exclusively to adult builders, feature intricate designs that may be used as both creative endeavours and ornamental pieces. According to data from LEGO's consumer demographic, the largest percentage of LEGO consumers (38%) were found to be Gen X (1962`1985), followed by millennials with an account of 33%. In terms of spending, 55% of LEGO customers spend over USD 80K, while 27% spend between USD 40K and 80K and 18% spend less than USD 40 K, which brought steady growth in LEGO's profitability (Source: Marketsplash. com).

Additionally, this demographic's purchasing behaviour tends to be less influenced by trends, leading to more consistent sales and higher potential customer loyalty over time. By just focusing on the quality of its products, LEGO can attract more consumers who are seeking meaningful and valuable products. Sets like the LEGO Ideas NASA Apollo Saturn V and the LEGO Star Wars Millennium Falcon have become popular among collectors because they provide sophisticated and interesting construction experiences.

By opening up this new market, LEGO not only diversifies its customer base but also secures a more stable revenue stream, ensuring long-term success in a competitive landscape.

5. Limitation LEGO is Facing and Its Mitigation

5.1 . Reliance on Plastics

Although LEGO has released numerous series and sets, its

products are all built with iconic plastic-made interlocking components. With Global warming and other environmental challenges, sustainability has become a consensus priority for many countries, including the UN.

A project called "LEGO Lost at Sea" mentioned that fishermen in Cornwall, England, saved fish that were trapped in the net because they bit the LEGO bricks accidentally. The study followed by this suggested that tiny ABS LEGO pieces might persist in the water for 100–1,300 years and produce microplastic particles [11]. This indicates that plastic LEGO bricks are causing environmental problems due to inappropriate disposal and the persistence of plastics in marine environments. The microplastic particles that LEGO bricks release into the ecosystem harm living under the water and potentially harm human health. Hence, LEGO must address its efforts to promote global sustainability.

The high reliance on plastic could limit LEGO's corporate growth. To address this, LEGO has committed to changing its strategies for eco-friendliness and sustainability, aiming to reduce the impact on the environment and align with the global sustainability goals with 400 million dollars of investment [12]. These strategies include but are not limited to experimenting with making toy bricks from recycled plastic and bioplastics and reducing packaging waste, with a goal for all LEGO packaging to consist of renewable or recycled materials by 2025. LEGO has also launched a program called "LEGO Replay" that allows users to donate discarded LEGO bricks, which are then donated to children who cannot afford toys. This is a step towards achieving a circular economy. However, while LEGO outlined ambitious sustainability goals and initiatives, the results of these programs have not been signifi-

The fact that many of the targeted dates are still in the future means that LEGO is still unable to solve the problem at the moment. This connotes that LEGO will need to face the challenge of balancing both to make meaningful, sustainable changes to its products and operations without compromising its brand image and core product offerings that have made it so successful at the same time.

5.2 . Saturation in Mature Markets

As LEGO has grown, they have faced significant market saturation issues in recent years, particularly in North America and other Western countries. As these markets approach saturation, growth opportunities become limited, urging LEGO to explore additional geographic markets. While entering new regional markets has opportunities, it also presents challenges. Pricing is a crucial concern since high costs can exclude less developed countries, restricting prospects for potential growth. In response, LEGO has attempted to release smaller, more affordable sets while

retaining the quality and creativity of the brand. However, balancing these two factors remains a challenge for LEGO ®. Meanwhile, building an effective distribution network will also be challenging as it is essential for market entry. For instance, infrastructure in places such as India and Africa may be relatively underdeveloped, which impacts logistics and generates more spending, thus raising prices. To address this, LEGO has increased coverage and efficiency by partnering with local merchants and leveraging existing networks.

Another challenge could be a lack of localization: the inability to meet consumers' expectations from the new market due to cultural differences. Take the Chinese market as an example. The educational value of LEGO is a key selling point in Western markets, but the concept of "learning through play" might not be as well-established in the Chinese environment. To address this, the LEGO Foundation is funding studies and forming alliances with Chinese universities to encourage play and creativity in Chinese classrooms. Furthermore, LEGO has updated its product lines, introducing a series of products that blend with the local culture, like Chinese New Year or such as the "Ninjago" range, to include more Asian characters and settings to better cater to the Chinese and Japanese markets. LEGO's adaptability and respect for local traditions enhance appeal in diverse markets.

Lastly, regarding the issues of plagiarism and counterfeiting. LEGO has faced various counterfeit products that copy its designs, these challenges jeopardize LEGO's brand integrity and reduce market trust, particularly threatening the market share and potential sales. This problem is particularly pronounced in the Chinese market, which is a manufacturer's powerhouse. To combat it, LEGO has taken legal action against counterfeiters and boosted its efforts to educate consumers about the value of genuine products. The most notably winning a significant lawsuit against Lepin in 2017. This victory underscored LEGO's commitment to protecting its intellectual property and set a precedent for future enforcement. This is not an issue that can be solved immediately in the short term. LEGO continues to strengthen its intellectual property safeguards and cooperate with authorities to combat counterfeit activities. By focusing on both legal measures and consumer awareness, LEGO hopes to protect its brand value and ensure that customers receive the high-quality items they expect.

6. Conclusion

In conclusion, this essay aims to examine the motion behind the market dominance power of LEGO, achieving significant revenue and accomplishment in the toy industry.

By fostering creativity and innovation through a wide range of products, with the involvement of digital technology and engaging marketing strategies, LEGO has been able to successfully establish itself to become the leader of the construction toy industry. The company has unwaveringly committed to product quality and continuous product development, which was evidenced by the increasing variety of bricks and special themes.

Meanwhile, this also demonstrates the company's ability to respond and adapt to market changes and the ability to thrive across the panel of age demographics. For instance, LEGO has broadened its consumer base by strategically embracing the adult market, skillfully capitalizing on the financial stability and purchasing power of enthusiastic adult players. This shift not only improves the sales margins but also builds up long-term customer loyalty, as adult consumers tend to seek higher quality and collectable products.

Nevertheless, LEGO is facing challenges, including its reliance on plastic materials and the market saturation in mature geographical markets, which limits the further growth and development of the company. To address and mitigate these limitations, LEGO is actively implementing sustainability efforts and exploring new markets regionally. In addition, LEGO is also dedicated to combating counterfeiting to protect its intellectual property. Despite the company has made progress in resolving these issues, the path forward still requires sustained commitment and innovative solutions, breaking down the limitations precisely. Through these initiatives, LEGO not only ensures a steady flow of income but also keeps motivating a great number of people to follow their ambitions and use their imaginations, which guarantees long-term success in a cutthroat market.

It is also important to highlight that this essay was based on the current data and information available, which means that limitations and certain biases could happen among the data. Furthermore, unpredicted factors like the dynamic nature of the toy industry, rapid market changes, and evolving consumer preferences present ongoing uncertainties that could impact LEGO's strategies.

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