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## Executive summary

LEGO® Group, which began as a tiny carpenter's workshop in Denmark in 1949, has grown into a contemporary, multinational organization that is now the world's largest toy producer. Unlike other toy companies that provide a wide range of items, Lego is centered on one basic concept: the plastic brick. Lego has broadened its product line and actively invested in its online and digital operations, as well as established several Lego-branded retail outlets, which are vital for their experiential marketing, balancing the retirement of many national chains where Lego was sold.

In June 2021, the firm stated that it had succeeded in making bricks out of recycled plastic bottles, allowing the company's product line to become more ecologically friendly in the future by moving away from fossil fuels plastic. Near record sales and earnings in 2020, the firm is anxious about maintaining growth and expanding its toy market share. It has contemplated adopting virtual reality to enhance the play experience to increase interest in its goods but is skeptical if this technique would be economically effective in the long term.

According to the macro environment research, the top issues facing toy and game manufacturers are Ecology, Supply Chain, Digitalization, and Counterfeiting. Furthermore, the present pandemic crisis causes supply chain interruptions, unemployment, and, as a result, lower demand.

### Research aims:

1. The first aim of the study is to identify and evaluate marketing strategies that will help promote and disseminate the idea to promote the use of recycled plastic bottles in the production of Lego parts.
2. The next aim is to predict the demand for a planned Lego product. As technology advances, Lego plans to incorporate AR/VR technology and products into its range. The aim will be to find out if the consumer in face of children is ready and needs such an offering in the next 5-10 years.
3. And the third aim is to get the results of market research to help Lego decide whether to expand its retail network and in what direction it could be expanded.

### Suggested approaches to research aims:

Consumers from across the world, as well as customers from rivals, will be surveyed. *Cross-tabulations, regression analysis, and conjoint analysis* will be used to analyze **primary** (internal CRM systems, customer personal information) and **secondary data** (geodemographic information). Most ways recommend using **online focus groups** and analyzing **customer data** (segmentation, discriminant analysis, trace analysis). **The target audience is children and their parents.**

Global toy and game manufacturers are dealing with a changing world, with digitalization and environmental issues posing exciting future challenges. Ecology, Supply Chain, Digitalization, and Counterfeiting are the most significant difficulties facing toy and game manufacturers.

## Core section

### Introduction

From the client brief provided, the company has a clear focus and reference point for its - the plastic brick's basic concept. However, there are some objectives for that research. Lego has broadened its product line and actively invested in its web and digital operations, as well as established several Lego-branded retail outlets, which are vital for their experiential marketing, balancing the shutdown of several chain stores wherever Lego previously sold.

Lego is focused on preserving growth and expanding its share of the market in the toy industry. It has contemplated adopting XR (extended reality) technology to enhance the play experience to increase interest in its goods but is skeptical if this technique would be economically effective in the long term.

### Summary of the client's brief

Background information: Lego, Denmark, world's largest toymaker

Objectives: Market research

- 1) Identify and evaluate marketing strategies that will help promote and disseminate the idea to promote the use of recycled plastic bottles in the production of Lego parts
- 2) Evaluate the prospects for the use of AR technology in sales
- 3) Decide whether to expand its retail network and in what direction it could be expanded

Target to research: customers and competitors, at least 3 000 Lego users

Who will use the findings: Analysis for company top management and implementation/PR. This is a primary descriptive problem identification research.

Constraints:

- If possible, conduct online research (but exceptions can be justified)
- Several types of proposed data analyses to be carried out, but others can be added: cross-tabulations, regression analysis and conjoint analysis
- The sample size must be at least 3,000 Lego customers
- Unlimited monetary budget
- Duration of the study is 4 months

### Research aims

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## **Market and business context**

Recycling, renewable energy, and carbon neutrality are all social concerns that are having a significant influence on established enterprises. On the one hand, corporations compete for trademarks, designs, and patents; but in the other hand, the present trend of environment protection requires toy and game manufacturers to develop alternative materials as the primary raw material.

For manufacturers who are willing and able to invest financially in this technique, a competitive advantage may arise from the adoption of novel materials. Customers may eventually choose environmentally friendly goods alternatives.

Digitalization also brings with it a new sociological framework to consider. Producers of toys and games have long recognized the need of incorporating this fact into their conceptions and have designed sets with this in mind. Staying digital and online is ubiquitous, which poses challenges as well as possibilities. Toy and game manufacturers quickly understood that pioneering in the digital domain required designing learning bundles that combined digital gadgets with classic bricks and architectural models, as well as mobile games and console games. At present time, augmented reality technology is still in its infancy, and even companies that make use of it are far from realizing its full potential. In the not-too-distant future, new AR items are likely to hit the market from the toy business.

For many shops, establishing new shops is a frequent expansion strategy. Setting up business in several places allows you to expand your brand's physical presence and reach new clients.

If you're considering expanding more stores, keep in mind that the profitability of your multi-store business will be determined by how effectively you balance two factors: your localized strategy and your business's standardized components.

## **Proposed analysis**

It would make more sense to line up different agilities for each target. Therefore, the following analyses for market research are proposed and described separately for each objective.

The measure of assurance that the real values of the data are within the reported number in your market research study is described as the confidence level or confidence interval in market research. In market research, the confidence interval is commonly linked to the margin of error, which is normally sought to be +/- 5% or lower. The margin of error of a survey is a term used by analysts from time to time. This is a common misunderstanding: surveys don't have margins of error; parameters do, and they're frequently associated with questions. The sample design for this research study considers the parameters that are most important to the study's goal. For example, the proportion of consumers who are likely to try a new product and the proportion who are likely to purchase it again in a product test or a simulated test market.

*Identify and evaluate marketing strategies that will help promote and disseminate the idea to promote the use of recycled plastic bottles in the production of Lego parts*

When developing a long-term marketing plan, there are several factors to consider. It's not just about adding "green" to your brand's platform or proclaiming your support for a good cause. A focus on sustainability ought to be element of the company's overarching vision and an important element of the company's values and core beliefs for it to be most successful.

For this analysis the **target population** to research is the experience and data from other brands that are also 'go green' and analyze data from their marketing strategies.

The observer examines all parts of the occurrence that appear relevant to the situation at hand in **unstructured observation** and **trace analysis** - for example, youngsters playing with new toys or the attitude and influence of "green" items on buyers.

To determine the effectiveness of this or similar Lego strategies to be evaluated:

- Tactics: Tactics are the methods or programs used to carry out the strategies.
- Market: Determine which market you're in and where your service or product is in its life span: development, launch, growth, maturity, or decline.
- Consumer target audience: Determine who your potential customer is via telephone interview or online focus groups.

You can use business hypotheses (to identify the market and potential customer), open-ended interviews, and use customer segmentation based on data from the customer database.

To analyze the effectiveness of the strategies it may be necessary to research and find similar strategies and implementations among other companies and analyze their experience/statistics/cases to draw conclusions about the best tactics and strategies. After all, obviously, we won't be able to interview all Lego consumers,

so we'll rely on samples to confirm our findings. Although just one sample is taken, the notion of a sampling distribution is still useful.

Here the sample is chosen in systematic sampling by selecting a random beginning point and then picking every *ith* element from the sampling frame in order. By dividing the population size,  $N$ , by the sample size,  $n$ , and rounding to the closest integer, the sampling interval. When the items are ordered according to the feature of interest, systematic sampling improves the sample's representativeness.

By collecting data on users and their feedback and response to marketing strategies to promote eco products, the analyst can identify patterns of successful strategies and develop a plan for their implementation and development. It is also possible to note what users react negatively to and incorporate this into their marketing mechanics.

I would also suggest the use of bivariate regression analysis or multiple linear regression, which would predict how multiple factors related to customers influence their choice of green products, thereby finding correlations between tactics in marketing strategies.

**Further research:** In terms of the environment, LEGO tries to think sustainably at all stages of production and consumption. In addition to balanced renewable energy production, they are experimenting with paper packaging, as single-use plastic bags, which are used to package most LEGO bricks, are one of the most harmful products to the environment. Therefore, offline shops could test the attitudes and demand for eco bags from consumers, their attitudes towards eco and non eco toy collections with the help of video/filming/surveys from retailers. On the internet it would also be possible to introduce online surveys for users on the website and use cookies to track whether people are interested in eco-sustainability and production of goods (to see if they read these sections when they buy them).

### Evaluate the prospects for the use of technology in sales for children's interests

To find out if the consumer in face of children is ready and needs such an offering in the next 5-10 years, the research should be conducted on **target population** - both on the **potential user group (children)** and on the experiences and attitudes of **their parents**. Identify the attributes and attribute levels of these groups to be used in constructing the stimuli. For this research I would suggest an **Exploratory research approach** as we need to get insights about the introduction of new technologies and understanding of the nature of marketing phenomena of selling such products to both parents and children.

Data can be obtained as well as **secondary data** from analysis of open-source trends in product digitalization and trends among children and their parents. For example, find datasets with search queries of

children/analyze loyalty cards from children's shops (what toys children are currently buying) - identify trends from all this. Thus, it could be a **multiple cross-sectional design** and one-group, before-after design. However, it would be more effective to conduct research on your own and obtain **primary data, which can be collected during focus group research separately from parents and separately from children.**

To conduct analysis for exploratory research the sample studied may not be very large. Since Lego prefers an online methodology for analysis - I would suggest that qualitative research **on online focus groups** should be carried out. There are several arguments to support this:

Conducting online focus groups has several advantages. The increased usage of the internet allows for more prospective participants to be recruited, as well as the increasing convenience of holding talks online. Participants can be persuaded to believe that they have the potential to participate, which will help them gain confidence rapidly. Disputes in face-to-face focus group discussions can be avoided by avoiding participants' hate for other participants based on their physical appearance. The categories and geographic distribution of participants allow for a wide range of data to be collected. In this way, we can interview families with different traditional attitudes, incomes, attitudes towards modern technology and so on.

We will unfortunately not be able to interview all Lego customers - so we will use samples to verify the research. In practice only one sample is drawn (rather than all possible samples), the concept of a sampling distribution is still relevant. Also, Lego does not limit us in the budget and has enough time to carry out a large-scale study for which we want to obtain a 95% chance that the estimation error should be no larger than  $e$  units (we refer to  $e$  as the tolerance on the sampling error), then this is equivalent to having a 95% confidence interval of width  $2e$ . From the formulas obtained in statistics it is possible to calculate the size of the sample using  $z$ -value and  $\pi$ . The completion rate is the percentage of qualified participants who complete the interview, enabling researchers to account for anticipated refusals by people who qualify. We can use access to these 3,000 people and test business hypotheses on them.

In the following we will use the business hypothesis testing method:

- 1) Compile and describe the hypotheses
- 2) Collect data from sources:

To collect data from open sources you can use YouTube Kids/TikTok to assess trends in the younger generation. You can also analyze current purchases and developing trends in in-store sales and on the Lego website by customer loyalty cards and their actions on the website/on the app.

- 3) Compose interview with **questionnaire design**:

- Do you trust these technologies to be used by your children?
- Would you buy such a toy for your child?
- How much money are you willing to spend on it?
- Would you be willing to buy the whole system (as AR is not just virtual reality glasses, but a whole system of interconnected parts) for your child to play?
- Would you consider it a safe game?

#### 4) Conduct the interview

It may be difficult for an organization to conduct interviews directly with children because of laws and ethics. But as children are not our target audience, it may make sense to interview their parents/guardians to understand their attitudes towards the innovation

#### 5) Reject or accept the hypothesis

Finally, we can do joint analysis to identify consumer preferences and use this information to select product features, assess price sensitivity, forecast market share, and adopt new products or services. It may be used to figure out what kind of thing people are most likely to buy and what they esteem the most (and less) about a product in a variety of situations. As a result, it's widely used in advertising, marketing, and product development.

**Further research:** The study can then be extended to discrete choice analysis - to provide data for marketers that contains the user(s) choices made by people from among several alternatives. Commonly, we want to understand what drove people to make these choices. In this way, it will be possible to understand and evaluate their choices regarding toys with and without new technology. It is also possible to apply a kind of conjoint study response in which respondents are asked to choose which alternative they would purchase. Because it is the most genuine in a market research scenario, it is considered the most trustworthy approach to selecting responses. Also, the use of various kinds of regressions/multi-regressions will help determine the prediction for new products. All this information can be analyzed in predicting further trends in the introduction of new technologies in toys and for a better understanding of their target customers.

#### *Decide whether to expand its retail network and in what direction it could be expanded*

It's vital to note that kids' toys are not necessities, which means that their purchase is contingent on family income, and any shift in that trend has a direct impact on customers' capacity to purchase toys and games. Customers can be segmented using a variety of characteristics. Geographic segmentation, product type segmentation, and demographic segmentation will all be discussed. The latter was chosen to be studied throughout the study since it better resembles industry organization and enables for deeper insights into this strategy report.



### **Segmentation by region/demographics (geodemographic information system)**

For some types of analysis, we can take personal information that our clients have in their personal accounts (purchase history, personal information) - this is primary data, we can also pull secondary data for analysis of average wages in the regions/population/number of children/well-being, etc. All this will be needed to segment customers by region and depending on the segment to decide about opening a shop - if the area is good, you can open, if the segment belongs to the class of unsuccessful, it is better not to. Here we can also use segment classification tasks to determine the status and risk of opening a shop.

### **Segmentation by product Type**

Although future growth trends are an essential component to consider when evaluating industry sectors, they should not be the only consideration. Compiling an integrated study, such as the sustainable value of segments, gives a more comprehensive knowledge of comparative potential.

Because specific data for each sector is difficult to get by, a proxy was created using publicly accessible data for firms operating within that segment, particularly to generate net margins and a sustainable index. In this study, we take data from CRM systems about purchase history and count segments (customer or operational data).

In the research, we build profiles of consumers in each region and, depending on this, choose a strategy for developing a chain of shops in that region. The data is taken from within our system and mixed with general open data on the population. This practice helps us properly assess the risks and opportunities at a given opening.

Because there is a larger margin for error, a wide confidence interval indicates that there is less trust in the data. Hedging your bets using a large confidence interval is like hedging your bets. The purpose of survey market research is to deduce what's likely true of the objective audience from the sample. A sample is a data collection that can be seen or known. An investigator can predict the extent whereby an unidentified value or variable can be discovered in a target group using this seen or known data.

**Further research:** In further research, it is possible to assess the effectiveness of opening a shop outlet after it has opened directly - measure the shop's KPIs, comparing them with expectations. The shop's KPIs will also be easily obtained from Lego's internal closed sources on revenues/margins/sales of product types and so on. Only use historical user data in this analysis.

## Conclusion

The initial investment outlays of the growth techniques under consideration should be carefully examined by business owners. When selecting how to extend present activities, owners may need to employ market information. Market intelligence is looking at rivals' activities to see if they are increasing or decreasing. This analysis may alert business owners to important changes in the economy and the financial implications of new Lego business ventures by conducting different types of analysis.

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