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# Analysis of Innovative Product Development of The *Boardgame*"Kewania"

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# **ABSTRACT**

**Purpose:** This study aims to examine the innovation process and development of Kewania board game products within the Indonesian context, utilizing the Design Thinking (DT) framework, Business Model Canvas (BMC) method.

**Design:** The research employs a multi-method approach, incorporating Design Thinking for product development analysis, BMC for business model assessment. Data collection involves qualitative analysis of the Kewania board game's innovation journey and business strategies.

*Findings:* The analysis reveals that employing the Design Thinking approach results in responsive board game designs that cater to user needs, emphasizing family interaction and educational value. Additionally, the Business Model Canvas provides insights into key business components such as service, distribution, and cost structures.

**Research limitations:** Limitations of the study include potential biases in data collection and the focus on a single board game product. Future research could explore a broader range of board games and incorporate quantitative methods for a more comprehensive analysis.

**Practical implications:** The findings offer practical insights for board game manufacturers in Indonesia, emphasizing the importance of user-centric design, strategic partnerships, and sustainable innovation practices. Implementing the identified strategies can enhance market acceptance and foster long-term growth.

*Originality:* This research contributes to the understanding of board game product development and business strategies within the Indonesian market context. By integrating multiple frameworks, it provides a holistic view of the innovation process, business model dynamics, and readiness for sustainable growth.

Paper type: Research paper

Keywords: Boardgame, Design Thinking, Business Model Canvas, KTH Innovation Readiness Level

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# I. INTRODUCTION

The early childhood phase is a time when a child has not been able to develop his potential independently (Rohmadi et al., 2020). Whatever the child gets from the environment will enter his subconscious easily (Lestari, Mudhawaroh and Ratnawati, 2020). Children have a different world from teenagers or adults, where children are born to learn through play (Zosh et al., 2017). This play activity benefits the development of all children across social, cognitive, physical, and emotional domains (White, 2013). In this phase, children need parental assistance in providing direction and the development process.

The trend of using gadgets in children has increased significantly since the Covid-19 pandemic. As a result, many children prefer to play with gadgets rather than with their friends (Zikrillah and Humardhiana, 2021). Research results Nurliana & Aini (2021), shows that the use of gadgets results in a decrease in the intensity of communication between parents and children, and can cause health problems. While the intensity of smartphone use can affect communication behavior that has an impact on children's psychology, especially the crisis of self-

confidence and physical development (Maria and Novianti, 2020). So that negative impacts need to be addressed, one of which is to offer other playing media such as board games that have long been known, but are disappearing with the presence of digital games.

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Board game is a game that requires media in the form of a board and is equipped with regulations as a guide to the process of physical interaction between players (Bayeck, 2020). These games facilitate the improvement of critical thinking, problem-solving abilities and social skills. The application of regulations is an important aspect for social learning and the improvement of skills, understanding and interpretation of body language between players (Chou, 2017).

According to the Indonesian Boardgame Industry Activist Association (APIBGI), global market demand for broadband products by the global community is increasing, reaching US \$ 1.5 billion in the North American market in 2017 with a growth of 8% compared to 2016, which is US \$ 1.38 billion (Hadyan, 2019). The global market reached US\$7.8 billion in 2018. The following year, the end of 2019 is predicted to increase by 8.24% to US\$8.5 billion, and the end of 2023 to reach US\$12 billion, with an average annual increase of around 10%. According to information from playday.id there are 79 domestic boardgames entering the global market and 18 boardgames are still in the process of development, while according to boardgamegeek.com there are 49 Indonesian-themed boardgames, which have successfully entered the global market (Hadyan, 2019). However, the development of the boardgame industry, which is included in the category based on the Craft & Board platform, has not been the focus of the development of the Creative Economy Agency (Bekraf) responsible for the development of the creative economy in Indonesia (Marlinah, 2017). There are only 17 out of 23 creative economy subsectors that are the focus of government development. Thus, the national boardgame industry has challenges because the ecosystem has not developed and also at the same time can provide opportunities because competitors are still low.

Based on Focus Economy Outlook 2020 data, the creative economy contributed IDR 1,100 trillion to Indonesia's Gross Domestic Product (GDP) in 2020. The largest contribution to GRDP comes from three of the 17 focus subsectors of the creative economy developed (Akbar, 2021). According to Bekraf, there are 3 (three) business subsectors that are predicted to grow rapidly, namely a). film, animation, and video; b) applications and game developers; and c). music (Hariyati, 2019). From this data, it shows that game development has good potential in Indonesia.

Bekraf has recognized the potential of the global board game industry that has entered the domestic market, and welcomed its growth. The game has educational functions such as togetherness and other social values, which the game does not have (Hadyan, 2019). Research on the comparison of the performance of students who are accustomed to playing using board games with students who have never been, shows that numeracy, interrelation, and aesthetic skills in students who are accustomed to using board games are higher compared to students who are not used to using board games (Chou, 2017). The development of innovative products and local market board games for children, is expected to increase interaction between family members in fostering stronger bonds, communication, emotional skills and stress management and can introduce local wisdom.

Based on data from the Central Statistics Agency (BPS), there are currently 30.83 million early childhood children in Indonesia, consisting of 13.56% are infants (aged < 1 year), 57.16% toddlers (aged 1-4 years), and 29.28% preschool children (aged 5-6 years) (Kusnandar, 2021). This number and composition, can be a development opportunity and boardgame market for families. Board game development can be an important alternative to overcome the negative impact of gadgets, especially for children's development.

One of the new innovative products to overcome the negative impact of gadgets on children's development, namely the Kewania (BK) boardgame which was introduced to the family segment and played in groups. BK is an animal world game, where all citizens have characters, behaviors and emotions like humans (anthropomorphic animals), with the theme of natural disasters and storytelling mechanics that tell stories in rescue scenarios of various kinds of natural disasters. However, BK's innovative product has still not succeeded in netting the market, even though the board game industry in Indonesia is relatively developed.

Research that has elevation with this study are Setiawan et al. (2018); Misdaniawan & Purwanto (2017); Zizlavsky (2016); Prasetyo et al. (2022); Diva & Priyadi (2020); Zikrillah & Humardhiana (2021); Mostowfi et al. (2016); Nasrulloh et al. (2019); Chou (2017); Hayhow et al. (2019); In the study, there are several research gaps when compared to previous research. The following is a mapping of the gap:

- a. Research Approach: Previous research has generally used approaches, such as BMC (Business Model Canvas) or business strategy analysis. This study uses the KTH IRL (Innovation Readiness Level) approach to measure the innovation readiness of Kewania's boardgame products. This gap shows a specific change in approach to measuring innovation, especially in boardgame products.
- b. Research Object: Previous research has had a lot to do with different industries or topics, such as surfactants, milk cheese, companies in the Czech Republic, or development in Bali Aga. This research focuses on Kewania's boardgame products. Therefore, there is a gap in the understanding of innovation readiness in boardgame products, which have different characteristics and challenges.

Thus, this study has a significant gap in terms of approach and object of research, which distinguishes it from previous studies that have been conducted.

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Based on the background described above, the problems in this study can be formulated as follows:

- a. What is the process of developing Kewania (BK) boardgame innovation products?
- b. What are the strategic elements in driving the business growth of Kewania (BK) boardgame innovation products?

#### II. METHODS

The research process uses a mix method approach, which is a combination of qualitative approach and quantitative approach. The merging of two methods is superior to a single method because it will provide rich insight into research phenomena that cannot be fully understood using only a single method. This is because the mix method approach can integrate and synergize various data sources that can help study complex problems (Dawadi, Shrestha and Giri, 2021). In business studies, the mix method approach plays an important role in the development of the business field because of its potential results to enrich understanding of business problems and questions, as well as being able to add value and contribute to the development of business field research (Azorin, 2016).

To achieve the research objectives in identifying the development process with the DT method, analyzing existing BMC BK innovation products. The research design uses an exploratory approach according to the explanation from Pasuraman (2010) in Kuncoro (2013), where this approach is to develop knowledge or conjectures that are still new and to provide direction for previous research.

The qualitative research design was carried out using the qualitative in-depth interview method with Mr. T as the designer of Kewania to identify the innovation product development process and identify the existing business model of BMC BK innovation products. In addition, a qualitative in-depth interview method was also conducted with Mr. A as the designer of the boardgame commercial product "XYZ" to identify his business model. While quantitative research design is carried out by questionnaire using worksheets.

Expert opinion by means of key-informant technique is carried out to find and interview several experts related to the situation to be studied (Kuncoro, 2013). Respondents in this study are experts in the field of children's play industry who are believed to contribute to the advancement of technology and intelligence of children and people who care about the development of children's growth. The object of this research is BK's innovation product developed by the Clampeace team that led to the birth of BK. The study time starts in July 2023 to December 2023.

Data collection and processing techniques in carrying out research are described in the following subchapters. Data collection techniques are carried out using three ways, namely observation, interviews, and giving questionnaires to several respondents according to needs. Analysis of 5 elements of Design Thinking on BK's innovative products, using 2 data collection techniques, namely interviews and observations. Interviews were conducted with the founders of Clampeace. while observations were conducted by observing a). boardgame fan favorite, b). children's fondness for a board game product, and c). Board game product design that is a favorite of boardgame fans and children. Analysis of 9 strategic elements of BMC using 2 data collection techniques, namely interviews and observations. Interviews were conducted with Mr. T as the designer and owner of BK and also conducted with Mr. A as the owner and designer of the commercial product of the board game "XYZ" or "Waroong Wars", so that it could be a lesson of success and reference for BK.

# III. RESULTS AND DISCUSSION

## A. Research Results

The boardgame "Kewania" is a game that raises the concept of a fantasy world where animals are the main characters. These animals have intelligence and the ability to speak like humans. They not only coexist, but also have their own work and uniqueness. Players in this board game enter Kewania and take on the role of one of the Kewania residents, the majority of whom have anthromorphic forms, which have human characteristics on their animal bodies. Each player will have an animal character with a job that matches its uniqueness and characteristics.

The objectives of the game vary. Players must work together to complete missions or achieve certain objectives in Kewania. Players can explore various interesting places in Kewania, such as animal markets, city parks, or even enchanted forest areas. During the game, players will face challenges and choices that affect the course of the story. There are conflicts between Kewania residents or external challenges, and players must work

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together or compete to overcome them. In addition, social interaction between players can also be an important aspect in this game, where negotiations, alliances, or strategic actions can affect the final outcome of the game.

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Game components include a game board that depicts a Kewania map, character cards for each player, mission or challenge cards, and also 3D elements such as anthromorphic miniatures of animals as players' pawns. The artistic design of this game can strengthen the magical and magical atmosphere of the world of Kewania. The board game "Kewania" creates a unique and imaginative gaming experience, allowing players to explore a colorful fantasy world inhabited by intelligent animals with their own uniqueness.

Kewania boardgame is designed with two main objectives that reflect the diversity of nature and the world of professions. First of all, the game aims to introduce players to different types of animals and their uniqueness. Each animal character in Kewania has unique traits and traits, creating a rich picture of natural diversity. For example, players can get to know animals such as cheerful birds, wise turtles, or brave lions. Each animal in Kewania represents the beauty and complexity of the animal world, giving players the opportunity to learn and appreciate the diversity of nature.

In addition, the Kewania board game also aims to introduce the world of professions to players. Each animal character in Kewania has a job that suits his special nature or ability. Thus, players can explore various professions that exist in the world of Kewania, such as farmers, park rangers, zookeepers, or forest guards. Through interaction with these professions, players can learn about the positive values associated with each job, such as hard work, caring, and courage.

The main moral message that Kewania board game wants to convey is "Leave the business immediately to the experts" or "Right man for the right Job". This message emphasizes the importance of appropriate skills and expertise in carrying out a task or job. With this principle, Kewania teaches players to appreciate the diversity of talents and skills possessed by each individual, and understand that every job has positive values that can contribute to mutual success and prosperity. By bringing these two goals together, Kewania boardgames provide an educational gaming experience, combining elements of knowledge about animals and the world of professions while conveying a positive moral message to players.

The target users of the Kewania board game include children aged kindergarten to elementary school, ranging from 5 to 13 years. These are individuals who show a special interest in educational animation, including series such as Dora/Diego, Ask the StoryBots, and Wild Kratts. This target is directed at children living in urban areas in Indonesia. In general, they come from families with middle to upper socioeconomic levels (middle to upper class).

The expected users are children who have an interest in educational animations that combine educational and entertainment elements. Potential users are also expected to have access and permission from parents to watch YouTube content, especially children's channels. Meanwhile, the parents of these users have certain characteristics, such as high care and involvement in terms of parenting. They are used to keeping up with the latest developments in the world of parenting, showing awareness of the importance of supporting their children's development.

digital platforms, including YouTube, keep occasional surveillance of the media consumed by their children. This shows that parents have a concern for the quality and safety of content accessed by their children in cyberspace. By understanding the characteristics and preferences of these target users. Kewania board games are expected to provide a good gaming experience.

Kewania boardgame has created the BMC concept at the beginning of its establishment. The picture of the existing BMC Kewania can be seen in the following figure.

Key Partners	Key Acitivities	Value Propositions	<u>Customer</u> Relationship	Customer Segment
1. Freelance illustrator 2. Board game enthusiasts 3. Other boardgame designers 4. Publisher boardgame	Board game design     Social media content creation     Respond to customers on social media     Key Resources     Board game designer     Prototype boardgame maker     Social media	1. Learn while playing. 2. Tools to improve interaction between parent and child. 3. Tools to foster courage in children to convey thoughts through storytelling. 4. Tools that can make children understand roles through role play. 5. Teach children about animals and their abilities, natural disasters, and rescue tools.	Interactive and educational content on social media     Reply to comments on social media      Channel     Kewania social media with educational content.	Generation X parents and millennials.     Board game enthusiasts.
Cost structure	content creators	Revenue stream	<u> </u>	

Cost of making a boardgame prototype	1. Revenue from board game sales
2. Cost of creating illustrations	
3. Cost of creating social media content	
4. Board game production costs	

Figure 1 BMC existing boardgame Kewania

Kewania's business model, depicted in their initial BMC, features collaborations with several key partners. Kewania works with freelance illustrators, boardgame enthusiasts, other boardgame designers, and boardgame publishers to enrich the gaming experience and expand their product reach. Kewania's main activities involve board game design, creative social media content creation, and active responses to customers on social media.

Kewania's value proposition includes the concept of learning by playing, tools to improve interaction between parents and children, as well as tools that help foster courage in children through storytelling and role play. The product is also designed to help children understand roles, while teaching about animals, natural disasters, and rescue equipment. All of these values are intended to meet the needs of generation X and millennial parents, as well as boardgame enthusiasts looking for an educational gaming experience.

Kewania builds relationships with customers through interactive and educational content on social media, creating an effective two-way channel with their customers. The Kewania team is also active in responding to comments on social media, ensuring a positive relationship with their customers. Key resources involve boardgame designers, boardgame prototypes, and social media content creators who contribute to product development and promotion.

Kewania's main distribution channel is through their own social media, where educational content is delivered to the audience. The cost structure involves the cost of prototyping a boardgame, the cost of creating illustrations, the cost of creating social media content, and the cost of producing a boardgame. The main revenue currently comes from board game sales, but to increase funding readiness, Kewania is directed to produce full versions of their products and consider YouTube monetization options as an additional source of revenue. With this strategy, BMC Kewania reflects its mature efforts to create, market, and support their educational boardgame products.

Kewania boardgame innovation products have reached the production stage where  $\pm 100$  pieces of Kewania board game lite version products have been produced (fewer components but can already get a gaming experience like a full version of the product). This lite version of the product has met the requirements as a Minimum Viable Product (MVP), which is a product with enough features to attract early adopter customers and validate product ideas early in the product development cycle.

This lite version of the product has been almost sold out and received a positive response from the first buyer. Communication with the first buyer was established through Kewania's social media, one of which was Instagram which already had 83 followers. But currently Kewania boardgame innovation products still have not started full version production or further product development. This causes Kewania to tend to stagnate and undeveloped. Based on innovation theory, currently Kewania's boardgame innovation product is in the position of Valle of Death. If no effort is made, Kewania will be trapped in the Valley of Death.

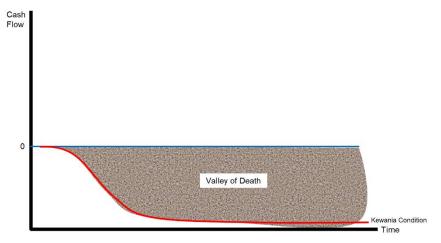


Figure 2 Graph of Kewania's current condition

#### **B.** Discussion

# 1. Kewania Innovation Product Development Process with Design Thinking Framework

The product's goal to enhance family interaction and teach values such as role play and storytelling reflects a deep understanding of the family's needs. The focus on creating fun and rewarding gaming experiences while strengthening family bonds reflects an effort to provide greater added value than just entertainment. Overall, Kewania board game has implemented the principles of design thinking in its early stages by understanding and prioritizing user needs in designing relevant solutions. An overview of the design process can be seen in the picture below;

#### **Empathize:**

- The main goal is to increase the interaction of families who have been affected by the use of gadgets.
- 2. Focus on families, especially generation X and millennial parents who want to improve the quality of time with their children.
- It takes tools that car provide a combination of gaming experiences that are not only entertaining but also educational.
- 4. Since the main purpose is children, it must be liked and attract the attention

#### **Define:**

- The product is expected to be something physical and does not require the use of gadgets.
- gadgets.

  2. The product must accommodate the interaction between parents and children
- parents and children.

  3. The product must be able to provide fun to children and parents, as well as provide learning or information that is educational.
- Children tend to like animals and something cute and cute with bright colour

#### Ideate:

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- 1. The product was chosen in the form of a board game because it is a form of physical game.
- Board game mechanics are chosen in the form of storytelling and role play, because storytelling will train children's courage to express their thoughts, and with role play will train children's creativity and knowledge related to the role being carried out.
- knowledge related to the role being carried out.Storytelling and role playing will encourage active interaction between parents and children.
- 4. Designed a boardgame titled Kewania. The world of Kewania is a world whose inhabitants are only animals. The animal can talk and act like a human. This trait is called anthropomorphic. Therefore, Animals in the world of Kewania also have jobs.
- The theme of Kewania is about Disasters and Rescue Teams that prioritize the expertise of each animal in carrying out rescues.
- The duration of the game time is designed to be 15-30
  minutes so that children stay focused on the game and
  do not have time to get bored.
- 7. The design of all components of the Kewania game is made with cute and cute designs and uses bright colours

#### Prototype:

- The Kewania prototype is made with several main components, namely: 36 Animal Cards that have 2 sides representing residents and rescue squads, 20 Tool Cards, 8 Disaster Cards, 8 Location Cards, 8 Victim Condition Cards, 16 Event Cards, 24 Medal Tokens, 1 Game Base and 1 Pouch.
- Cards and Game Pads are made from Hard Board material to last, while Pouches are made of canvas.
- 3. The game mode is made 3 difficulty levels, namely Level 1 by using all cards except the victim Condition Card and Event Card, then Level 2 by adding the victim condition card, and Level 3 by adding event cards (using all cards).
- 4. Several ways to play are prepared, namely: 1. All players are team heads and hold medals then hand them to the squad head who tells the best plan besides themselves, and 2. There are informants who take turns to brief all team heads.

#### Test:

- Conducted several Test plays with different segments of players, namely board game fans, children with parents, and the general public.
- Test play with boardgame fans received feedback that in terms of concept it was good and exciting to play as a party game, but it needs to be added more challenging events.
- 3. Test play with parents and children shows intense interactions related to animal skills and disasters that occur. The usefulness of rescue tools is also widely discussed. From this test play, it can be seen that the creativity of children in making rescue stories with their respective animal skills. The design is considered attractive enough for children.
- 4. Test play with the general public indicates that the game is quite fun to play together. Creativity in making storytelling is felt and is recommended to be used as a learning tool for kindergarten and elementary school children in small classes.
- Of all the test plays carried out, the method of playing using informants is considered more appropriate in role

Figure 3 Results of design thinking analysis of Kewania's existing boardgame

In the define stage, the factors needed by the target consumer involve more frequent interactions with children, interaction aids, and solutions for shared activities. The advantage of the product lies in its form in the form of a board game, presenting the added value of role playing, storytelling, and storytelling mechanical

innovation. Nonetheless, the product also faces obstacles such as lack of awareness about board games, traditional perceptions, challenges in market segmentation, competition with gadgets as children's main entertainment, and difficulties entering the middle to lower economic market.

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The second stage of design thinking is to consolidate the information obtained during the empathy stage to define the problem and establish features and functions that will help solve the problem (Shé et al., 2022). In the define stage, the Kewania board game identifies the key factors needed by the target consumer, reflecting the continuity of understanding from the previous stage, namely empathize. These factors include more frequent interactions with your child, interaction aids, and solutions for shared activities. This analysis shows an effort to detail user needs and create solutions that can respond concretely to the challenges facing the modern family.

The advantage of the product lies in its form in the form of a board game, with added values such as role playing, storytelling, and storytelling mechanical innovation. This reflects an effort to provide a more immersive and meaningful gaming experience, while also describing the special features that set this product apart from other solutions. However, the results of the analysis also reflect some of the obstacles faced by the product. Lack of awareness about board games, traditional perceptions, challenges in market segmentation, competition with gadgets as children's main entertainment, and difficulties entering the middle to lower economic market are some aspects that need to be addressed. This indicates the need for effective marketing strategies, consumer education, and product adaptation to meet the needs of a wider market segment. Overall, the define stage of the Kewania boardgame reflects efforts in detailing the challenges and opportunities faced in creating solutions that suit the needs and desires of target consumers.

In the idea stage, the main goal is to provide interactive tools for parents to interact positively with children. Board games are chosen because they are able to provide a gaming experience without involving gadgets, create physical interaction, and provide opportunities to play together. The solution is a boardgame with mechanics focused on role playing and storytelling, which supports parents in interacting with children while teaching certain values and skills. Role playing and storytelling mechanics were chosen to meet the needs of parents who wanted to interact more intensely with children. The cute and cute character designs are designed according to the preferences of children to provide added value.

The third stage is the design thinking process, i.e. ideating or developing ideas on how to solve problems creatively (Shé et al., 2022). In the ideate stage, Kewania boardgames show a focus on creativity and idea development to create innovative solutions. The main goal is to provide interactive tools for parents to interact positively with children. The selection of board games as an interactive medium reflects an awareness of the importance of gaming experiences that do not involve gadgets, with an emphasis on creating physical interaction and opportunities to play together.

The solution is a boardgame with mechanics focused on role playing and storytelling. This decision is based on the understanding that such mechanics can support parents in interacting with children while teaching certain values and skills. Role playing and storytelling mechanics were chosen as tools to meet the needs of parents who wanted to interact more intensely with children, creating a more immersive play experience.

The cute and cute character designs are designed according to children's preferences, adding added value to the product. It reflects attention to detail and the introduction of elements that can attract the attention of the main target user. Overall, the ideate stage of the Kewania boardgame reflects efforts in generating creative and innovative ideas to create solutions that suit the goals and needs of users.

In the prototype stage, interesting factors involve family-based value propositions, innovative storytelling mechanics, and character designs that appeal especially to children. Kewania boardgames are differentiated with a focus on value for parents and children, the advantages of storytelling mechanics, as well as special character design and striking image styles, creating unique and attractive products.

Developing a draft or prototype version of the final solution is the fourth stage in design thinking (Shé et al., 2022). In the prototype stage, the Kewania boardgame shows a focus on developing a draft version or prototype as a concrete step in realizing the final solution. Interesting factors include family-based value propositions, innovative storytelling mechanics, and character designs that appeal especially to children. A family-based value proposition shows that this product not only creates a play experience, but also has added value related to family needs and values. A focus on values for parents and children demonstrates an understanding of key stakeholders.

The advantages of storytelling mechanics are the main differentiator of this product. This shows that Kewania board games not only focus on the usual gaming experience, but also create an immersive and engaging narrative through storytelling mechanics. Attractive character designs, especially for children, create visual and aesthetic appeal that can enhance the play experience. The striking style of the image gives a strong visual identity to the product, creating a unique and attractive impression of the product. Overall, the prototype stage of the Kewania boardgame reflects a step-in product development, highlighting elements that make it unique and appealing to families, especially for parents and children.

In the test phase, Kewania's game design and planning is based on four core values: fun interaction, role play, introduction to the animal world, and storytelling. Game mechanics are tailored for families with elementary

to middle school age children, focusing on using board games as a physical tool to enhance family interaction, reduce gadget use, and create a fun experience in less than 15 minutes per round. The initial goal was achieved by applying four core values to the design, utilizing storytelling mechanics to teach certain values to children, and creating a product as a family interaction tool that combines the fun of play with educational learning.

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The final stage of the design thinking process is testing. This stage involves redefining and empathizing with the end user to ensure the best solution is sought (Shé et al., 2022). In the test phase, Kewania boardgame demonstrated the approach by detailing the design and planning of the game based on four core values: fun interaction, role play, introduction to the animal world, and storytelling. These four values reflect attention to fun, educative, and family-oriented play experiences.

The game mechanics are tailored specifically for families with children of elementary to junior high age, demonstrating a deep understanding of the characteristics and needs of the target user. The focus on using board games as a physical tool to improve family interaction and reduce the use of gadgets creates added value in the context of increasingly rapid technological developments.

The initial goal of the product was successfully achieved by applying four core values in the design. The utilization of storytelling mechanics to teach certain values to children shows a strong educative approach. This product successfully creates a family interaction tool that combines the fun of play with educational learning, providing a holistic solution for user needs. Overall, the test phase of the Kewania boardgame reflects efforts to ensure that the resulting solution matches the expectations and needs of the end user, with an emphasis on a sustainable and rewarding gaming experience.

## 2. Business Model Canvas (BMC) Analysis "XYZ" boardgame products

From the results of design thinking analysis, then BMC analysis of the product "XYZ, the results and recommendations of the analyses above can be compiled into the framework of the existing BMC Kewania in the picture. All of the above recommendations aim to improve Kewania's operational focus and efficiency, while strengthening connections with customers and partners. In addition, further exploration of collaborations and partnerships can open up new opportunities for business growth.

<u>Key Partners</u>	Key Acitivities	Value Propositions	Customer Relationship	<u>Customer Segment</u>
1. Boardgame fan community 2. Other boardgame designers 3. Potential partnerships with boardgame publishers 4. Potential partnerships with educational institutions such as kindergarten or elementary school 5. Potential partnerships with	1. Board game design and development 2. Social media content creation with short stories about the world of Kewania 3. Social Media Management 4. Doing Playday to kindergarten or small-class SD	1. Learn while playing. 2. Tools to improve interaction between parent and child. 3. Tools to foster courage in children to convey thoughts through storytelling. 4. Tools that can make children understand roles through role play. 5. Teaching children about animals and	Interactive and educational content on social media     Management of comments and suggestions on social media     Engagement with the internal community of boardgames and testers.     Feedback gathering and product iterations through playday sessions in	1. Generation X parents and millennials. 2. Board game enthusiasts. 3. Special segmentation potential for teachers interested in the educative aspects of the game.
boardgame stores	Key Resources  1. Board game designer 2. Prototype boardgame maker 3. Social media content creators 4. In-house Illustrator Recruitment 5. Potential Partnership with Publisher or printing company 6. Potential partnerships with boardgame stores	their abilities, natural disasters, and rescue tools	schools  Channel  1. Kewania social media with educational content.  2. Direct sales to customers.  3. Marketing through boardgame stores  4. Potential distribution through resellers or other partners.	

4. Board game production costs

5. Marketing and promotion costs.

6. The potential cost of collaboration with third parties.

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# Cost structureRevenue stream1. Cost of making a boardgame prototype1. Revenue from board game sales2. In-house design and illustrator team salaries2. Potential revenue from collaboration with third parties, such as publishers or printing companies

Commercialization (monetization) of Kewania social media by delivering content related to short stories in the world of Kewania.

Figure 4 BMC Kewania end (after recommendation)

In the customer segment, Kewania can specifically target parents of generation X and millennials as its main market share. This choice is based on the understanding that this group has needs that need to be met in improving family interactions that are sometimes overlooked due to the use of gadgets. In addition, the marketing strategy adopted by Kewania includes an educative approach aimed at educators at the basic education level, such as kindergarten and elementary school. This shows Kewania's commitment to not only provide fun products for families, but also plays a role in supporting children's education through its educational marketing to educators. Thus, Kewania seeks to build connections with these two main segments to create a positive impact in meeting the needs of family interaction and children's education.

Customer segment refers to understanding and identifying the different customer groups that a business will serve. In BMC, customer segments help companies to better understand the needs, preferences, and characteristics of each customer group, so that companies can develop marketing strategies, product offerings, and services that better suit the needs of each segment (Osterwalder and Pigneur, 2010).

This selection is based on the understanding that this group has needs that need to be met related to increasing family interactions that are often overlooked due to the use of gadgets. By targeting this group, Kewania seeks to provide solutions that are in accordance with the challenges faced by modern parents in maintaining the quality of family interaction. In addition, the marketing strategy that adopts an educational approach to educators at the kindergarten and elementary levels shows Kewania's commitment to not only providing fun family entertainment but also supporting children's education. By embracing this segment, Kewania hopes to build strong connections with these two main groups, creating a positive impact in meeting family interaction needs and supporting children's educational development. This analysis is done by understanding the importance of customer segments in the Business Model Canvas (BMC), which helps companies' detail and understand the characteristics and needs of each customer segment to support the development of more effective business strategies.

In terms of value propositions, Kewania offers two main added values to its customers. First, Kewania presents interactive board games as a learning tool. Thus, this product not only serves as a source of entertainment, but also as a tool that supports children's education through interactive and educational play experiences. Second, Kewania marketing focuses on the concept of quality time in the family. This product is designed to be a hub in improving interaction between family members, reducing dependence on technology, and encouraging togetherness. Therefore, Kewania provides added value by prioritizing quality experiences with family as an integral part of using its products. This analysis is carried out in the context of value propositions, which are key elements in the Business Model Canvas (BMC) to present added value that can differentiate the products or services of a business in the market.

Value proposition refers to the promise or added value provided by a product or service to customers. Value proposition explains why customers should choose a product or service from a particular company over other competitors (Osterwalder and Pigneur, 2010). In the context of value propositions, Kewania presents two main added values presented to customers. First of all, Kewania offers interactive board games as a learning tool, showing that this product not only acts as entertainment, but also as a tool that can support children's education through interactive and educational play experiences. Thus, Kewania provides added value to customers by integrating educational elements in their entertainment products.

Furthermore, Kewania focused their marketing on the concept of quality time in the family. This indicates that the product is designed to be a link in improving interaction between family members, as well as to reduce dependence on technology and encourage togetherness. By emphasizing quality experiences with family as an integral part of using its products, Kewania provides attractive added value for customers. Value propositions help a business to differentiate itself from competitors by offering better or different added value to customers, thereby increasing the attractiveness of the product or service in the market.

In the channel aspect, Kewania adopts two important strategies to reach customers and build their brand presence. First, Kewania actively manages social media platforms by providing educational content. In this way, they not only use social media as a conventional marketing tool, but also as a channel to convey value-added and educational information to their audience. This educational content can cover a variety of topics relevant to

children's education, family interaction, and the benefits of playing board games, reinforcing Kewania's image as a brand that cares about child development and family togetherness.

ISSN: 2597-4785 (ONLINE)

ISSN: 2597-4750 (PRINTED)

Furthermore, Kewania also developed short stories related to the world of Kewania on social media platforms. These strategies help create narratives and stories around their brand, capturing the audience's attention by engaging them in a broader narrative experience. By incorporating storytelling elements in their marketing, Kewania creates an emotional bond with customers, making social media platforms an effective channel to communicate, build trust, and introduce their brand values to the target audience. This analysis is done within the channel framework, which is a key element in the Business Model Canvas (BMC) to describe the way a company delivers products or services to customers.

Channel refers to the way a company delivers its products or services to customers. Channel includes various channels or means that companies use to distribute, communicate, and convey the value of their products or services to consumers (Osterwalder and Pigneur, 2010). In channel strategy, Kewania took a strategic step by managing social media platforms as one of the main means to reach customers and strengthen their brand presence. Through being active in managing social media, Kewania not only views it as a conventional marketing tool, but also as a channel that can provide added value to the audience. They provide educational content that focuses on topics relevant to children's education, family interaction, and the benefits of playing board games. This approach reflects Kewania's commitment to their role in supporting child development and family togetherness, as well as strengthening their brand image as a carrier of positive values.

In addition, Kewania expanded their marketing strategy by developing short stories related to the world of Kewania on social media platforms. By creating narratives and stories around their brand, Kewania managed to capture the audience's attention and engage them in a broader narrative experience. This approach not only creates an emotional connection with customers but also transforms social media platforms into effective tools for communicating, building trust, and introducing the brand's core values. This strategy is implemented within the channel framework, showing how Kewania conveys and communicates their products and values to customers.

In the customer relationship aspect, Kewania puts a focus on increasing direct interaction with customers through social media and online platforms. Customer relationship refers to the way companies interact and foster relationships with their customer segments. Customer relationships include a variety of strategies and activities designed to build, maintain, and improve relationships with customers (Osterwalder and Pigneur, 2010). Kewania is actively present on social media to strengthen bonds with customers, provide relevant information, and respond quickly to questions or feedback. They not only present educational content but also create a two-way communication channel, allowing customers to interact directly with the brand.

In addition, Kewania holds regular feedback collection sessions. This approach reflects the company's commitment to continuously improve their products and services according to customer needs and expectations. Feedback collection sessions give customers the opportunity to actively participate, provide feedback, and feel that their voices are valued and heard. Thus, this customer relationship strategy helps strengthen the attachment between Kewania and their customers, supports efforts to provide a better experience, and builds long-term trust. This analysis is done within the framework of Customer Relations, which is a key element in the Business Model Canvas (BMC) to describe how companies interact with their customers.

In the aspect of revenue stream, Kewania designed three main strategies to generate revenue. Revenue stream refers to the main source of revenue generated by companies through the sale of their products or services. Revenue streams include the various ways that companies use to generate financial revenue (Osterwalder and Pigneur, 2010). First, they offer interactive board game products as the main source of revenue. By providing interactive board games that are not only fun but also support children's learning, Kewania creates attractive added value for customers, and in turn, increases their revenue potential.

The second strategy adopted by Kewania is to increase direct interaction through social media to increase sales. By actively communicating and engaging with customers on social media platforms, they create opportunities to promote products directly, obtain feedback, and increase customer awareness. Then, the third strategy increases the effectiveness of the second strategy further, namely by commercializing social media through the delivery of content related to short stories in the world of Kewania. This commercialization means using the platform to promote a particular product or brand through various content, such as short stories, related to context or stories within the world of Kewania. With the mechanism where content will be present regularly, income is also expected to come from the YouTube media monetization mechanism which can be an additional passive income when meeting the requested requirements. With this focus, Kewania hopes to achieve increased sales through social media, create additional sources of income, and support overall business growth. This strategy reflects the company's efforts to make optimal use of digital platforms to increase their revenue. This analysis is done within the Revenue Source framework, which is a key element in the Business Model Canvas (BMC) to describe how companies generate revenue from the sale of their products or services.

In the key resource's aspect, Kewania focuses its main resources on supporting their design activities and presence on social media. Key resources refer to all the assets and elements required by a company to run its

business model well. Key Resources cover everything essential to business operations and sustainability (Osterwalder and Pigneur, 2010). This selection shows that companies recognize the importance of strong design and presence on digital platforms as key factors for the success of their business. In addition, Kewania is considering the option of recruiting an in-house design team or illustrator. This step shows the company's efforts to have human resources who are dedicated and focused on their product design needs. By having an internal team, Kewania can be more flexible in responding to needs and changes in product design quickly.

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ISSN: 2597-4750 (PRINTED)

Partnerships with boardgame publishers were also identified as one of the key resources. This shows that Kewania recognizes the importance of collaboration with external parties to expand networks, gain access to additional resources, and improve the quality of their products through the experience and support that board game publishers have. Overall, the key resource strategy taken by Kewania reflects the company's efforts to build a solid foundation in terms of design, digital presence, and external cooperation to support the development and success of their products. This analysis is carried out within the framework of key resources, which are key elements in the Business Model Canvas (BMC) to describe resources that are important to the company's operations.

Kewania carries out several key activities that are fundamental pillars in their operations. Key activities refer to a set of actions and activities that are essential to running a company's business model. Key activities include all operational activities that are essential in generating and delivering value to customers (Osterwalder and Pigneur, 2010). First, the company placed a primary focus on board game design and development. This choice shows that Kewania recognizes the importance of design quality as a major factor to create attractive products and compete in the market. Expertise in board game design becomes a core activity that supports the achievement of the company's main goals.

The next key activity is benchmarking and innovation in boardgame design. Kewania is committed to continuously developing innovative products by studying industry trends and seeking inspiration from best practices in the field of board game design. The move reflects the company's efforts to stay relevant, adapt to market changes, and deliver superior products.

Finally, Kewania involves itself in socialization through playdays with nearby kindergarten and elementary schools. This activity shows that the company is trying to get closer to its consumers directly, especially by involving children and the educational environment. Through playday, Kewania can introduce their products directly to their main target market, while building positive relationships with schools and local communities.

Overall, Kewania's key activities reflect a strategy focused on design, innovation, and direct interaction with consumers, all critical elements in building and sustaining the company's success. This analysis is carried out within the framework of key activities, which are key elements in the Business Model Canvas (BMC) to describe the core operational activities carried out by the company.

Kewania builds a strong key partners strategy with a focus on three main aspects. Key partnership refers to the strategic relationship established by a company with other entities outside the organization. Key partnerships involve working with external parties that can add value, reduce risk, or provide access to critical resources (Osterwalder and Pigneur, 2010).

First, the company prioritizes strengthening relationships with boardgame publishers. By forging close partnerships with board game publishers, Kewania can ensure access to the latest resources and information in the industry, and improve the quality of their products through collaboration with experts. This move reflects Kewania's policy to build strategic partnerships that support the growth and development of their business.

Furthermore, Kewania seeks to improve relations with the community of boardgame lovers. Actively engaging with the community provides an opportunity to get direct feedback from boardgame enthusiasts, understand trends in the market, and build a positive brand image. Partnerships with communities can also be an effective platform to promote Kewania products and build trust among influential audiences.

Finally, Kewania identifies partnership opportunities with educational institutions. By forging relationships with educational institutions, companies can incorporate further educational elements in their products and support educational initiatives at the school level. This partnership can create a win-win situation where Kewania gains access to the education market, while educational institutions get innovative solutions to improve children's learning.

By implementing this key partner strategy, Kewania shows their commitment to collaborate with external parties who can strengthen their position in the market and provide added value to their products and services. This analysis is conducted within the framework of key partners, which is a key element in the Business Model Canvas (BMC) to describe strategic partnerships that support business operations and growth.

The cost structure strategy adopted by Kewania reflects a careful and efficient approach in managing the company's operational finances. Cost structure refers to all costs associated with operating and maintaining a company's business model. The cost structure includes all expenses required to carry out key activities, establish and maintain partnerships, and generate and deliver value to customers (Osterwalder and Pigneur, 2010).

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First, Kewania concentrated efforts on adjusting its cost structure with a focus on key elements. By evaluating and identifying the most significant cost elements, companies can allocate resources effectively to support day-to-day operations and long-term growth.

Furthermore, Kewania chose to hire an in-house design team or illustrator as a strategy to reduce costs. By having an internal team, companies can manage and control production costs and minimize dependence on external parties. This step creates greater flexibility and control over the creative and production aspects of their board game products.

In order to reduce production and marketing costs, Kewania also built partnerships with board game publishers. This cooperation opens up opportunities to get financial support and access to existing production infrastructure, which can reduce the burden of production costs and speed up the marketing process.

Finally, periodic evaluations of all costs demonstrate Kewania's proactive approach in identifying potential savings. By regularly evaluating and auditing costs, companies can adjust their strategies according to changing market and economic conditions, ensuring the sustainability and success of their business in the long run.

Through these measures, Kewania built a strong foundation for their cost structure, illustrating prudent financial management policies and being responsive to market dynamics. This analysis is carried out within the framework of cost structure, which is a key element in the Business Model Canvas (BMC) to describe how companies manage and allocate their financial resources to support operations and business growth. By implementing BMC, this recommendation is expected to lift Kewania from the valley of death and be able to bring Kewania to the next stage/generation.

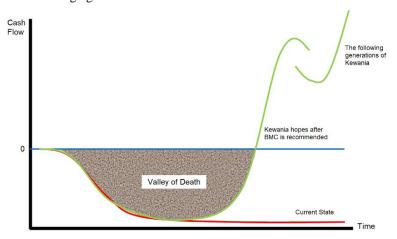


Figure 5 Expectations of Kewania condition after BMC Implementation Recommendations

# IV. CONCLUSION

The conclusions that can be drawn from this study are:

Conclusion related to design thinking

The purpose of this study is to identify the process of developing the innovative board game product "Kewania" using a design thinking framework. Analysis at these stages of the development process provides an in-depth look at the design, testing, and implementation of this board game in the context of improving family interaction, especially in the digital era dominated by technology. This process consists of several stages, namely empathize, define, ideate, prototype, and test.

The empathize stage focuses on a deep understanding of the needs and expectations of the target audience, especially generation X and millennial parents. In this stage, a thorough analysis is carried out to identify consumer needs and aspirations. "Kewania" aims to address modern family challenges, such as the balance between technology use and time with children. This stage forms the basis for human-centered design, ensuring that "Kewania" not only entertains but also satisfies the emotional and practical needs of users.

The define stage establishes the key factors that are the main needs of target consumers, such as shared activities, increased interaction of children, and alternative solutions to gadget dominance. "Kewania" is geared towards being a smart and useful alternative in creating precious moments and building close connections among family members.

The ideate stage emphasizes the uniqueness of the "Kewania" product as a boardgame that combines role play and storytelling to provide a unique learning experience. Cute and cute character designs not only work visually but also as a tool to captivate children's attention. "Kewania" is not only directed to entertainment, but also to provide significant educational value.

ISSN: 2597-4785 (ONLINE)

ISSN: 2597-4750 (PRINTED)

The prototype stage highlights the core values of "Kewania," namely family interaction, innovation in storytelling mechanics, and compelling character design. Prototyping is done carefully to create a gaming experience that is not only entertaining but also provides educational value. This boardgame is expected to be a top choice for families looking for a smart and meaningful alternative to spending time together. The test phase involves testing the product to ensure the suitability of the game mechanics to the target user. This trial reflects a commitment to ensure that "Kewania" can meet the needs of both parents and children. The results of the trial showed that "Kewania" managed to become an entertaining and educational family interaction tool.

The development of "Kewania" using a design thinking approach succeeded in creating a board game that is responsive to user needs and expectations. This product not only provides entertainment, but also has a positive impact on family interaction and children's development. Recommendations including education, pricing strategies, continued development, collaboration with the community, and periodic evaluations are expected to strengthen Kewania's position in the market and provide sustainable benefits to users.

b. Conclusion on Business Model Canvas (BMC)

Based on the Business Model Canvas (BMC) that has been presented, it can be concluded that the company's business model has several key elements that are interrelated to achieve success. Overall, BMC provides a comprehensive overview of how companies create, deliver and capture value. First, in the customer segment, the company focuses on services and solutions specifically designed to meet customer needs by offering innovative technology products. Furthermore, relationships with customers are emphasized to build long-term partnerships and increase customer satisfaction.

In terms of value proposition, the company highlights the advantages of its products through advanced technological features and high reliability. Product distribution is carried out through online and offline channels to achieve a wider market reach. The company's cost structure is mainly related to technological development, marketing, and operations. To ensure sustainability and growth, companies need to manage resources efficiently and continuously innovate.

Key partnerships and key activities show that the company recognizes the importance of collaboration with strategic partners and focus on technology development as one of the key elements in its operations. By understanding this BMC, a company can better navigate its business environment, identify growth opportunities, and address challenges that may arise. By maintaining a focus on customer needs and leveraging its internal strengths, a company can optimize its business model to achieve long-term success.

Suggestions that can be given in this study are:

- a. Suggestions related to the results of this study:
- 1) Hire in-house illustrators

Hiring an Illustrator to be an internal part of the team can be less costly than hiring a freelance illustrator to design product illustrations, especially at the design stage.

- 2) Partner with boardgame publishers
  - Partnerships with boardgame publishers can be a solution for mass production of products. Opinions are certainly reduced because production is borne by publishers so that income will be more for publishers. However, given that publishers also have marketing distribution channels, this can be an advantage over partnerships with publishers.
- 3) Creating social media content in the form of short stories about the world of Kewania
  - By creating interesting content about the world of Kewania, it is expected to increase engagement with customers and attract the attention of the general public about Kewania.
- 4) Establish relationships with educational institutions at the kindergarten & elementary level By establishing relationships with educational institutions, it is hoped that it can increase Kewania's exposure to the intended terrest, parally children, and can also be a teaching aid for teachers to learn about natural
  - to the intended target, namely children, and can also be a teaching aid for teachers to learn about natural disasters. In addition, it is also expected to be a location for playdays with children at the kindergarten or elementary school level.
- 5) Social media monetization potential
  - Social media such as YouTube provide monetization facilities for original content creators who meet the requirements. By meeting these requirements, the content produced can be an additional source of income for Kewania.

ISSN: 2597-4785 (ONLINE) ISSN: 2597-4750 (PRINTED)

- 6) Registration of IPR (Brand, Patent, Copyright, Industrial Design, etc.) for Kewania products and brands according to needs
  - By registering Kewania's IPR, Kewania will be safe in IPR and have legal protection against the possibility of using the same brand or copyright issues.
  - b. Suggestions for further research:
- 1) This research focuses on the innovation of a boardgame product from the basis of product formation, how the business is run, and mapping the readiness of the innovation product. Researchers who want to take on the same topic can explore beyond the focus of this research to complement existing research.
- 2) Researchers can further explore the tastes of Indonesian boardgame fans, the position of Indonesian boardgame products towards foreign products, the general expectations of the Indonesian people towards board games, and so on.
- 3) Further research is expected to complement the things that were missed in this study.

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