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LinkAja Business Models Strategy Development Using BMC Approaches

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ABSTRACT

In the first quarter of 2019, there was an increase in the value and the volume transaction on electronic money transactions in Indonesia. The development of electronic money is directly proportional to the high competition of companies engaged in the field of mobile payment. LinkAja is a mobile payment application product that is representative of collaboration between Telkomsel and the number of State-Owned Enterprises (SOEs). One of the keys to success in facing competition is to develop continuously. Therefore, it is necessary to develop the right business model to determine the optimal strategy in developing the LinkAja application business. The objectives of this research are formulating and developing LinkAja business models strategy. This result of this study proposed business model in the form of improvement for each element of its business model including: elements (1) Customer segments: Adding target customers to e-marketplaces and e-commerce, (2) Customer relationships: Developing cooperation with LinkAja competitors, (3) Value Proposition: Developing customer consulting services by providing training for using the LinkAja application, (4) Key Activities: Developing collaboration with partners and competitors, (5) Key Partners: Collaborating with the competitors such as Gopay, OVO, FUND, etc., (6) Key Resources: Using digital budget information systems to facilitate transparency of company budgets, (7) Revenue streams: Upgrading fees for premium services, and (8) Cost Structure: Research costs.

1. Introduction

The financial services industry has been disruptive and transformed into a system with practicality, ease of access, convenience, and economical cost [1]. One of the innovations in the financial services industry that is developing in Indonesia is Financial Technology or better known as FinTech. FinTech activities are closely related to non-cash payments either by banks or by non-bank financial institutions. Non-cash payments include mobile payments, digital wallets, digital currencies, and the use of distributed ledger technology [2]. During the quarter 1 in 2019, non-cash payments in Indonesia using the Card-Based Payment Instrument (CBPI) and Electronic Money (EM) increased from the same period in the previous year [3]. The increase of Nominal Transactions and Transaction Volume on Electronic Money can be seen in Figure 1.

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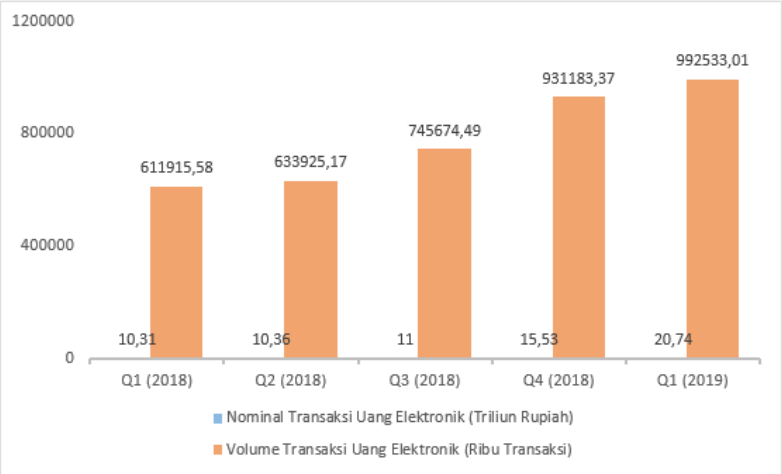

Fig. 1 - Nominal and Volume Development of Electronic Money Transactions in Indonesia

Figure 1 shows the development of electronic money transactions in Indonesia from the first quarter of 2018 to the first quarter of 2019. Nominal electronic money transactions during the first quarter of 2019 reached IDR. 20.74 trillion where it increased at 33.58% compared to the previous quarter at IDR 15.53 trillion. The increase was also followed by the electronic money transaction volume of 992.53 million transactions from 931.18 million transactions in the previous quarter. The increase in nominal and transaction volume was supported by the number of promos given by electronic money companies and the merchants who work with these companies [3]. Based on Figure 1, it can be concluded that the use of Electronic Money (EM) using FinTech in Indonesia is currently developing significantly. These data indicated that EM has high market potential.

Based on the development on nominal and volume of electronic money transactions, FinTech market potential is directly proportional to the high competition of electronic money company. The number of electronic money issuers in Indonesia is 424 in which 127 of them have obtained permission from OJK while 297 others have not obtained permission from OJK. Bank Indonesia (BI) report on October 24, 2019 shows that there were only 39 electronic money issuers that obtained licenses from Bank Indonesia (BI). In addition, according to the research data of iPrice Group and App Annie in 2017 there were ten major mobile payment applications based on the highest number of active monthly users in the last 7 quarters since 2017 on Google Play and iOS. Five of the top 10 applications are applications registered in Bank Indonesia (BI). The applications are shown in Table 1.

Table 1- List of Mobile Payment Applications in Indonesia based on Most Active Monthly Users

Rank	Server-Based Product Name	Transaction Value (%)
1	Gopay	23
2	OVO	58
3	DANA	6
4	LinkAja	1
5	DOKU	<1

Based on Table 1, it can be seen that the number of monthly transactions on the LinkAja application is 1%. A company can be categorized as superior if it has many customers and can also manage the company well. A good company management process can be seen from the condition of the company business model. In the opinion of the Bank Indonesia fintech expert, The LinkAja business model is currently not too dynamic because it does not keep up with market developments and competition for mobile payment applications this time and still needs to be improved. LinkAja is a mobile payment application service that collaborates with several Indonesian State-Owned Enterprises (SOEs) namely PT. Bank Rakyat Indonesia (Persero), PT. National Bank of Indonesia (Persero), PT. Bank Mandiri (Persero), PT. Bank Tabungan Negara (Persero), PT. Pertamina (Persero), and PT. BNI Life Insurance (Perseo), but these collaborations have not yet been able to make LinkAja a leader in the competition of mobile payment application industry sector. LinkAja, which was previously owned by Telkomsel under the name of t-cash, is still unable to complete with the newcomers on Fintech namely Gopay, OVO, and DANA that put LinkAja in the 4th position based

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on the transaction value. A company can be declared superior in market competition if the company has the right competitive strategy [4]. The strategy includes a comprehensive and cohesive marketing strategy to ensure that the product is right on the target market and gets a competitive advantage [4]. In addition to marketing strategies, other development strategies are also carried out by knowing about the business model used by the company. The business model is a basic idea of how organizations/ companies can create, deliver, and get the value related to the activities of the company [5]. Therefore, LinkAja needs to develop an appropriate competitive strategy.

This study also used the study literature of previous studies. The results of the previous research literature studies will be used as a reference for this research. The BMC strategy is used to develop business strategies for developing an Orphanage management application with a SWOT matrix to help analyze the elements of the BMC [6]. The research that explains the development of business strategies for silk weaving business in Wajo Regency shows that BMC is a business model approach that can be simplified from a complex business model to facilitate Indonesian entrepreneurs to identify a business potential [7]. In addition, Prasetyo, Baga, & Yulianti conducted a research on the Rhythm of Empowerment (ROE) Business Development Strategy by using BMC and SWOT as the research methods [8]. Plenter in his research also used BMC with Action Design Research (ADR) to develop electric vehicle charging services that adopt the Peer-to-Peer Sharing and Collaborative Consumption paradigm [9].

2. Literature Study

2.1 Business Model Canvas

Business Model Canvas is a framework that discusses the business model of a company by visualizing it with a canvas containing 9 elements in it that aims to make it easier for people to read the business model. The canvas business model can also be used to evaluate, assess, or change, the business model in order to have an optimal business model. Based on the BMC, researchers can easily analyze the strengths and weaknesses of the business [5]. BMC can be used for all fields of business including non-profit businesses such as in the social sector by developing applications for an orphanage, industrial fields such as the silk industry in Wajo Regency, education fields such as teaching development in vocational high schools, and others. BMC can be further developed into a Creative Business Model.

2.2 State of the Art

Research about LinkAja application development fills the research gap using BMC and SWOT on Fintech company objects, especially for LinkAja application. The recapitulation of the results of literature studies that are reference and relevant to this research can be seen in Table 2. Based on Table 2. it can be concluded that research on Fintech company objects, especially LinkAja using BMC methods combined with SWOT Analysis has not been found. The research found about Fintech using the BMC method, but the object of the research is Fintech in the field of Peer-to-peer Sharing not in the field of mobile Payment.

Table 2 – State of the Art

No	Title	Year	Object	Author	Originality / Value
1	Analysis of entrepreneurship perception and business developmental strategy of silk in Wajo Regency, South Sulawesi, Indonesia	2018	Silk Industry	Kadir, N.	This research combines the two concepts of business development in order to increase the income of a business. The value of this research is the use of Wajo regency South Sulawesi Province as an object in illustrating the development of the business concept [7].
2	The Development of Pantiku Application Business Strategy Using Business Model Canvas Approach	2019	Orphonaes	Wulandari, S., Rendra, M., Alam, P.F., Kusumasari, T.F., Dewi, S.D., & Gustyana, T.T.	This study combines the BMC method with SWOT Analysis to develop a business model for applications in the social field [6].

No	Title	Year	Object	Author	Originality / Value
3	Rhythm of Empowerment Business Development Strategy with Canvas Business Model Approach	2018	Soft Skill Training	Prasetyo, B.B., Baga, L.M., & Yuliati, L.N.	This study uses a combination of BMC and SWOT analysis methods to design future business models for Rhythm of Empowment [8].
4	Repainting the Business Model Canvas for Peer-to-Peer Sharing and Collaborative Consumption	2017	Peer-to-Peer Sharing	Florian, P., Erwin, F., Moritz, H., Friedrich, C., Michael, R.	This study uses BMC to develop services proposed for Peer to Peer Sharing and Collaboration Consumption (P2P SCC) [9].
5	Prototyping Business Models or IoT Service	2016	Internet of Things (IoT)	Ju, J., Kim, M.-S., and Ahn, J.-H.	This research aims to develop a generic business model framework for IoT business through literature analysis and interviews. Testing the proposed business framework using the current IoT company case study [10].
6	Business Model Canvas of Teaching Factory Fashion Design Competency Vocational High School in Yogyakarta	2019	Vocational High School in Yogyakarta	Triyanto, Jerusalem, M., and Fitrihana, N.	This study uses qualitative methods and modeling by means of interviews using BMC elements to describe factory teaching in vocational high school fashion designs [11].
7	Service Logic Business Model Canvas	2017	Service Business Innovation	Ojasal, J. and Ojasalo, K.	This research uses service logic in the business model of thinking so that it instills true customer understanding in every element of BMC [12].
8	The Business Model Canvas as a Platform for Business Information Literacy Instruction	2015	Information Literacy	O'Neill, T.W.	This study fills gaps regarding the use of graphic organizers to differentiate between information sources and help further explore entrepreneurship used by students while developing their business plans [13].
9	SWOT Analysis of Financial Technology in Islamic Banking Financing in Indonesia	2018	Syariah banking	Muchlis, R.	This study uses SWOT Analysis to determine the development of banking applications in utilizing FinTech [15].

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No	Title	Year	Object	Author	Originality / Value
10	SWOT Analysis of the Implementation of Financial Technology on the Quality of Banking Services in Indonesia	2017	Banking	Adhitya, I. & Chrismastianto, W.	This study aims to analyze the SWOT of an implementation of financial technology on the quality of Indonesian banking services [16].
11	Consumer Valuation of Fintech: The case of Mobile Paymen in Korea	2018	Mobile Payment	Ha, J.	This research uses conjoint analysis to define the ideal pair of mobile payment attributes for users and non-users [17].
12	Contemporary Issues in Business and Financial Management in Eastern Europe	2018	FinTech Company and FinTech Organization	Andreva, L. Yu., Epifanova, T.V. Andreeva, O.V., Orobinsky, A.S.	The purpose of this study is to describe the features, factors, and conditions for developing competency-based management for banks and fintech companies [18].

Based on Table 2, known that the originality given to the research conducted by Nuraeni [7] is combines the two concepts of business development in order to increase the income of a business. This research has the value of use Wajo Regency South Sulawesi Province as an object in illustrating the development of the business concept. Wulandari, et al [6] conduct research that combines BMC and SWOT Analysis methods to develop a business model for application in the social field, namely the orphanage. In addition, Prasetyo, Lukman and Yulianti [8] in their research uses a combnation of BMC and SWOT analysis methods to design futurr business models for Rhtym of empowment. Research using BMC was also carried out by Plenter et al [9] to develop services proposed for Peer to Peer sharing and Consumption. The next relevant research was conducted by Ju, Kim, and Ahn in their research uses literature analysis and interviews and testing the proposed business framework using the current IoT company cas study to develop a generic business model framework for IoT. Subsequent Research on BMC was also carried out by Triyanto, Jerusalem, and Fitrihana which aimed at describing teaching in the fashion design factory at the Vocational High School seen from the Business Model Canvas aspect [11]. In addition, Ojasalo, J & Ojasalo, K conducted a research to develop a BMC framework that would orient service logic for the business model of developing "Service Logic". The results of the Ojasalo, J & Ojasalo, K research are modified canvas models of the original Business Model Canvas [12]. O'Neil also conducted a research to illustrate how organizer charts of Canvas Model business can be used as a platform for business information literacy instruction [13]. Carter, M and Carter, C conducted a research to present the Creative Business Model Canvas as a reinterpretation of BMC Osterwalder and CBMC Pigneur for visual artist business planning [14]. In addition to the research on BMC, the research on SWOT and on Fintech also became a literature study for this research. Muchlis in his research used a SWOT analysis to find out the development of applications created by Islamic banking in conducting transaction activities [15]. SWOT analysis was also used in a study conducted by Chrismastianto with the title of SWOT Analysis of Financial Technology Implementation on The Quality of Banking Services in Indonesia [16]. The Research on Financial Technology was also carried out by Ha Jinkyung who conducted a conjoint analysis to determine the ideal pair of cellular payment attributes [17]. Andreeva, Y, et al conducted a research on financial technology as well with the aim to describe the features, factors, and conditions for a competency-based management development system in the bank system and financial technology used by companies for sustainable development [18].

Based on the previous research literature studies that are relevant to the topics of BMC and SWOT, it was found that BMC and SWOT have been widely used in various fields such as in the social field (Orphanage), FinTech business, IoT business, education, business information services and so on. Based on the results of literature studies, it can be concluded that the use of a combination of BMC and SWOT on Fintech objects are limited to be found in previous studies.Therefore, it can be concluded that the scientific contribution given through this research is to fill the research gap regarding the analysis and development of Fintech application business models in mobile payment sector using BMC and SWOT approach to Fintech business objects. This study combines BMC and SWOT approaches to develop Fintech business strategy especially for LinkAja applications. Business Model Canvas is one of the concepts of a simple business model [6]. This business model concept will explain the business strategy to deal with the business problems. The canvas model business process is also assisted with a SWOT analysis to complete the planning process in creating a company business concept strategy. The purpose of this research is to develop a business model for the LinkAja mobile payment application using the Business Model Canvas (BMC) approach and also SWOT analysis to

develop the business model. Based on these objectives, this research begins with: (1) Mapping the current LinkAja application business model; (2) Analyzing the scope of the current LinkAja business model using SWOT Analysis: (3) Formulating and determining strategies for the new LinkAja business model.

3. Research Methodology

This study uses a qualitative method that begins by identifying the problems with financial technology, literature studies, and data collection. The data collection techniques used in this study are observation and in-depth interview respondents who are experts in their fields to get information about the object under study. Sampling needed in qualitative research for depth interviews is by balancing the information needs or description of the experience of the interviewed respondents [23]. The data used in this study are primary data and secondary data.

Primary data were collected through in-depth interview with 12 respondents, among others are 8 LinkAja application users and related parties of LinkAja of 2 respondents namely 1 respondent in the field of community & activation senior associate and 1 respondent in the B2B & B2G specialist. In addition, interviews were also conducted with 2 respondents who were 1 manager of West Java KPwBI economic development division and 1 Executive Analyst (Deputy Director) of KPwBI region West Java who has officiate more than 5 years. While the secondary data collected through Bank Indonesia annual report and data form iPrie group research and AppAnnie regrading the transaction value of the top 10 mobile payment application in Indonesia.

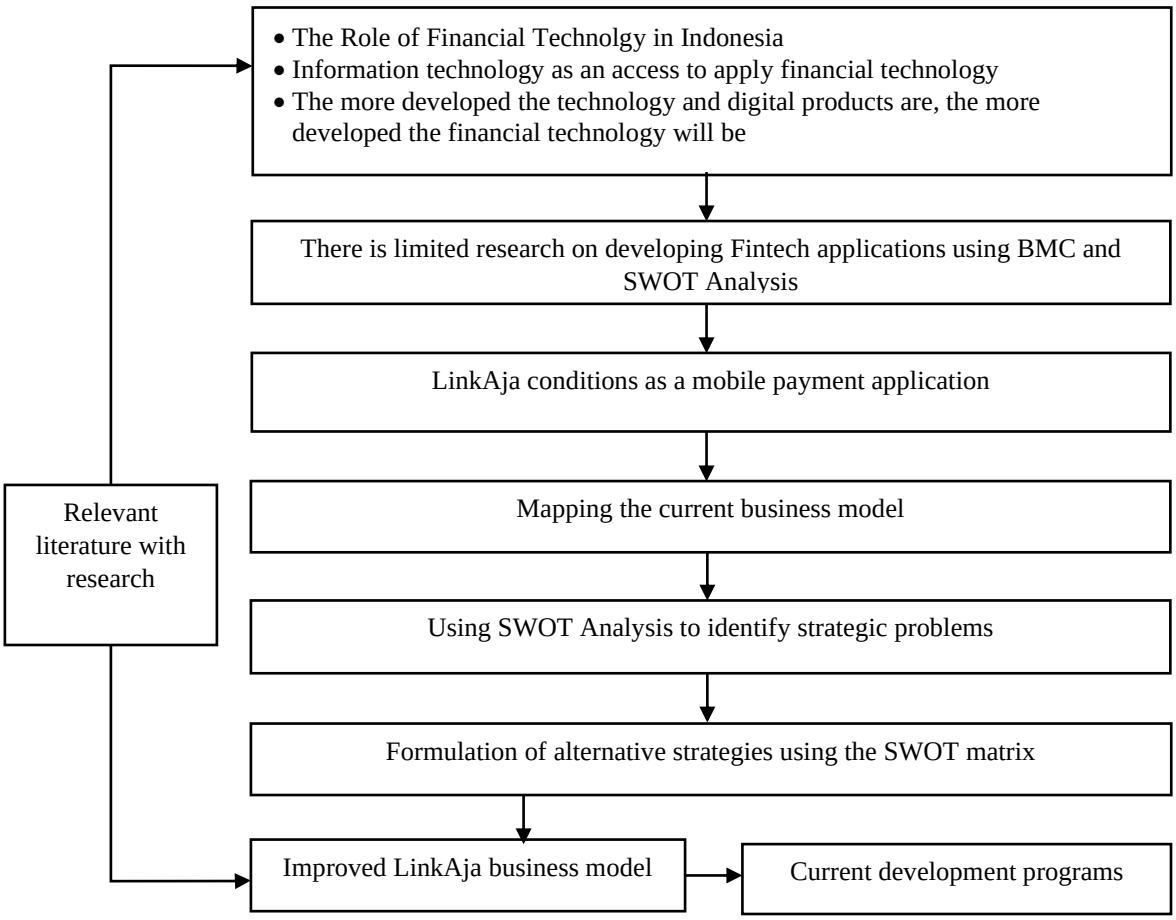

Fig. 2 Research Framework

4. Result and Disccusion

4.1 Mapping of Business Model

The first step in this research is the mapping of LinkAja existing canvas business model. The mapping of the business model is based on observations and interviews with 12 respondents. The existing business model was then taken into consideration in developing LinkAja business strategy. This mapping aimed to identify nine elements of BMC.

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4.2 Analysis of LinkAja BMC

The results of extracting BMC elements in LinkAja will be grouped into 9 structured and illustrated BMC elements as shown in Figure 3.

<table>
<tr>
<td rowspan="2">Key Partners
• Telkomsel (Telecommunication Provider)
• SOEs company: Telkom, Mandiri, BRI, BNI, BTN, Pertamina, Jiwasraya, Danareksa.</td>
<td>Key Activities
• Application development
• Expansion of business partners (merchant acquisition)</td>
<td rowspan="2">Value Proposition
CS – Business Segment
• Facilitating the data collection and transaction process
• Increasing service responsiveness
• Improving customer experience
• Assisting companies in promoting

CS – Consumer Segment
• Facilitating the transaction process
• Having more attractive promotional offers</td>
<td>Customer Relationships
• FAQ
• Customer service
• GraPari
• Sponsored Event</td>
<td rowspan="2">Customer Segments
• Business Segment: Retail Companies, Transportation Companies, Food & Beverages (and SME) Companies.
• Consumer Segment: People who conduct daily transactions (daily use case) using internet access (Electronic Money).</td>
</tr>
<tr>
<td>Key Resources
• Mobile Connectivity
• Analytic Dashboard Application
• Mobile Apps
• Infrastructure</td>
<td>Channels
• Mobile Apps
• Google Play Store
• App Store
• Website
• Social Media</td>
</tr>
<tr>
<td colspan="3">Cost Structure
• VPS Server
• Domain
• Digital Certificate
• Salary
• Marketing Kit
• Legal Cost
• Office Expenses</td>
<td colspan="2">Revenue Streams
• Transaction fee
• Marketing fee (advertising & promotion)</td>
</tr>
</table>

Fig. 3 LinkAja Current Business Model

a) Customer Segments is about how companies choose the most potential customer segments to be selected so that business activities are carried out on target and in accordance with the desired target consumers [5]. LinkAja customer segment is divided into two namely the Business segment and the Consumer segment. Retail Companies, Transportation Companies, and Food & Beverages companies or SMEs are a business segment for LinkAja because they use LinkAja to help customers process transactions and to enhance their customer experience. In measurements made by izzati [24], it was found that the influence of community factors and perception of control also became a factor that influenced users using mobile applications. In addition to the business segment, single consumers such as Telkomsel product users have also become LinkAja target consumers because LinkAja is a T-Cash mobile payment representative which is a collaboration product of Telkomsel and several other SOEs.

b) Channel is a very important aspect related to a relationship between companies and customers [5]. LinkAja mobile payment application uses its marketing channels in the form of Mobile Apps, Google Play Store, App Store, Website, and Social Media.

c) Customer Relationship describes the types of relationships that companies build with specific customer segments [19]. The customer relationship process with LinkAja application is via FAQ (Frequently Asked Question), LinkAja Customer Service, GraPari, and Sponsored Event. Value Proposition is how a company provides the best value to its customers in accordance with the existing value proposition in the company by creating superior customer value, creating highly satisfied and loyal customers, and creating customers who are willing to make a repeat purchase [20].

d) The Value Proposition in LinkAja application is adapted to the Customer Segment (CS). For the CS Business, the Value Proposition implemented consists of (1) Facilitating data collection and transactions, (2) Improving service responsiveness, (3) Improving customer experience, and (4) Assisting companies in promotion. In addition, the Value Proposition of CS Consumer is carried out by (1) Facilitating the transaction process and also (2) Making more attractive promotional offers.

e) Key Activities are a description of the most important things that a company must do so that its business model can work [5]. LinkAja main activities consist of (1) Application development and (2) Expansion of business partners (merchant acquisition). The effort made is the development of applications with LinkAja application attributes that have been found. The process of expanding business partners was carried out so that the spread of LinkAja application users continued to grow.

f) Key Resources are the most critical assets owned by LinkAja application so that they can achieve the goals of the company [21]. Based on the observations of LinkAja application, the critical assets of LinkAja application are (1) Mobile Connectivity, (2) Application Analytic Dashboard, (3) Mobile Apps, (4) and Infrastructure.

g) Key Partners are the supporting partners for LinkAja application. Key Partnership from LinkAja consists of (1) Telkomsel (Telecommunications Provider) and (2) SOEs companies such as Telkom, Mandiri, BRI, BNI, BTPN, Pertamina, Jiwasraya, and Danareksa.

h) Revenue Streams are the revenue generated by the companies from each customer segment [19]. The sources of income identified from LinkAja application are Transaction and Marketing Fees which include Promotion and Advertising.

i) Cost Structure is a representation in the form of money for all activities carried out on a company business model [22]. Expenditures issued by LinkAja application consist of (1) VPS Sever, (2) Domain, (3) Digital Certificate, (4) Salary, (5) Marketing Kit, (6) Legal Cost, (7) Office Expenses.

4.3 SWOT Analysis of LinkAja BMC

The next step after identifying the BMC elements is conducting a SWOT analysis for each BMC element. The SWOT analysis results in Table 3 will be used as a basis for implementing a new business model for LinkAja application.

Table 3 – SWOT analysis results from LinkAja BMC elements

Element	Strength	Weakness	Opportunity	Threat
Customer Segments	LinkAja has a large number of customer bases namely large numbers of Telkomsel users.	Not all Telkomsel users use LinkAja application. Retail companies and SMEs (food & beverages) that become LinkAja merchants are still limited and relatively lower in number compared to competitors.	High retail growth in Indonesia will affect the development of potential markets for LinkAja. An increase of companies or SMEs in the field of food and beverages will support the development of LinkAja application. Consumer behavior that tends to be consumptive and all-round practical, so digital products have opportunities. Increased use of digital products in society.	The widespread growth of retail and F&B companies will affect the growth of Fintech applications, so there will be more fintech competitors in the mobile payment sector for LinkAja.

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Element	Strength	Weakness	Opportunity	Threat
Value Proposition	The ease of use on LinkAja transactions through the application	LinkAja application system is not yet reliable	Current technological developments allow the development of LinkAja applications to grow more quickly	There are similar mobile payment competitors that offer features similar to LinkAja
Channels	The application can be downloaded on various digital platforms Information about LinkAja application can be accessed on various social media	Information and internet network limitations for accessing social media	The use of social media can be accessed using any gadget and can be accessed anywhere Technological developments that enable the use of media with diverse marketing communication channels	There is a threat of cybercrime in Indonesia.
Customer Relationship	Having a relationship with a very broad range because it has collaborated with certain events in order to make it easier for customers to communicate each other with LinkAja	The FAQ in the application is not working well, so the relationship between the customer and LinkAja online is not good enough	Opportunities to get better relationships with customers through events sponsored by LinkAja	There are similar mobile payment competitors that have a good relationship among customers.
Key Partners	The partnership with several SOEs enables LinkAja to have a superior name compared to other mobile payments.	The collaborative process with SOE partners has not been done as fully as possible to form the application desired by the customer	It will get some ideas and innovations from partners.	Lack of partner confidence in the product due to a longer-standing competitor
Key Activities	The main activities on LinkAja are focused on developing LinkAja applications and expanding collaborative business partners.	Application development requires quite a long time and requires quite a lot of resources The problem of coordination among SOEs that own LinkAja System integration between Telkomsel network and SOE service network is not yet perfect	The increase of F&B companies can increase the expansion of business partners for LinkAja applications	Business partners (merchants) are not accustomed to using LinkAja application. Competitor application development is faster than LinkAja

Element	Strength	Weakness	Opportunity	Threat
Key Resources	Mobile connectivity readiness Practical use with mobile apps LinkAja has a large financial capital support and a wide service network that is a service owned by SOEs	The Application Development Team is not yet reliable in developing mobile apps.	There are opportunities to develop and build new infrastructure Development of digital technology that makes it possible to streamline resources	Human resources owned by competitors are more reliable.
Cost Structure	Expenditures released are well identified, so the application implementation can be performed	High marketing costs Using the trend of "money burning strategy" to popularize the digital product	Some partners subsidize the costs for application development The development of digital technology is possible to streamline marketing costs	Unexpected costs in the implementation stage of application development
Revenue Streams	Source of income from transaction costs and also marketing costs such as advertising and promotion	The low understanding of Fintech Mobile Payment users thus requires information regarding the use	The development of social media to carry out marketing activities will increase income on LinkAja application	LinkAja competitors have a similar business model

4.4 Recommendations for Business Model Strategy & Improvement BMC of LinkAja

The SWOT analysis of LinkAja canvas business model is illustrated in the SWOT matrix. A SWOT matrix for LinkAja canvas model can be seen in Table 4 while improvement for BMC LinkAja can be seen in Figure 4. BMC LinkAja Improvement is obtained from the results of SWOT Analysis, these result several alternative strategies were obtained to be used as a basis for BMC improvement and for develop LinkAja application business on each element of the canvas model business block.

1. Customer Segment
   S-O Strategy: **Empowering SOE service networks as a Touch Point of LinkAja transaction** with the consumer behavior that is consumptive and all-round practical makes the products have opportunities and makes the products able to work with e-marketplaces and e-commerce to meet the needs of their customers.
2. Value Propositions
   WO Strategy: **Utilizing the development of technology and digital products for the maintenance of the application system** with the development of digital products and technology and **utilizing marketing activities and events to add partners** to reduce the processes that are not optimal such as FAQs in running applications that have not been good and also to reduce the limited information and internet networks to access social media.
3. Channels
   S-T Strategy: **Utilizing SOE partners to anticipate cybercrime** because LinkAja has partners from several SOEs, so cybercrime can be anticipated.
4. Customer Relationship
   S-O Strategy: **Utilizing and developing partners who collaborate with LinkAja** where partnerships with several SOEs will facilitate LinkAja to get some ideas and innovations from partners and opportunities to build new infrastructure.
   W-T Strategy: **Comparative Study with competitors regarding the application development process** so that the application development carried out by LinkAja is not inferior to other competitors and increases the reliability of LinkAja application system
5. Revenue Streams
   S-O Strategy: **The use of technology in conducting development cost efficiency** by having partners who subsidize the costs for application development.

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6. Key Resources
   S-T Strategy: The use of information technology in managing application development budgets so that LinkAja financial processes can be evaluated transparently.
7. Key Activities
   W-T Strategy: Developing a form of collaboration with competitors to make application activities not only focus on the application development itself but also on cooperation with competitors
8. Key Partners
   W-T Strategy: Adding cooperation partners from other competitors with the number of LinkAja competitors in the same mobile payment sector so that they can benefit each other.
9. Cost structure
   S-O Strategy: Conducting customer surveys (individuals and businesses) to get an idea in the form of application development in accordance with the needs so that to conduct the research requires costs to conduct the research activities.

Table 4 – Matrix SWOT

Internal Factors / External Factors	Strength (S)	Weaknesses (W)
	1. LinkAja has a large number of customer bases 2. Ease of use on LinkAja transactions 3. Applications can be downloaded on various digital platforms 4. Information about LinkAja can be accessed on various social media 5. LinkAja has a network of services and a very broad range 6. Partnership with several SOEs makes LinkAja superior 7. The main activity is focused on application development 8. Mobile connectivity readiness 9. The expenditure component is well identified 10. LinkAja source of income comes from transaction costs and marketing costs	1. Not all Telkomsel users use LinkAja application 2. The number of SME retail merchants is very limited. 3. The application system is not yet reliable 4. Limited internet access to access social media 5. The FAQ is not working well 6. The cooperation process with SOE partners has not been carried out to the maximum extent possible 7. The development time is quite long and requires a lot of resources. 8. The integration of Telkomsel system and network with SOEs is not yet perfect 9. The application development team is not yet reliable 10. High marketing costs 11. Low understanding of Fintech users
Opportunities (O) 1. The high growth of retail and F&B companies affects the potential of LinkAja market 2. Consumptive and practical consumer behavior makes the product have opportunities 3. The increase of digital product use in the community 4. Technological developments that enable the development of applications 5. The ease of use on social media 6. Opportunities to get better relationships with customers through events 7. It will be easy to get some ideas and innovations from partners 8. There are opportunities to build a new infrastructure 9. There are partners who subsidize the costs for application development	S-O Strategy 1. Developing application features to facilitate users in using digital products (S2, S3, S8, O3, O5, O8) 2. Utilizing and increasing the use of technology including digital products and digital payments to simplify the transaction process (S7, O4, O8, O10) 3. Empowering SOE service networks as touch points on LinkAja transactions (S1, S5, O2, O6) 4. Conducting customer surveys (individuals and businesses) to get an idea in the form of application development that suits the needs (S1, S5, S6, O3, O7) 5. Utilizing and developing partners who work with LinkAja (S6, O7, O8, O9) 6. The use of technology in carrying	W-O Strategy 1. Studying consumer behavior as a consideration in developing applications (W1, O1, O2) 2. Utilizing technological developments and digital products to maintain the application system (W3, W9, O3, O4) 3. Utilizing events as a means to better obtain information about customers (W4, W5, O5, O6) 4. Utilizing marketing activities and events to add partners (W2, W8, O6) 5. Add procedures/ training to the development team and users regarding fintech applications (W7, W9, W11, O7)

Internal Factors / External Factors	Strength (S)	Weaknesses (W)
	1. LinkAja has a large number of customer bases 2. Ease of use on LinkAja transactions 3. Applications can be downloaded on various digital platforms 4. Information about LinkAja can be accessed on various social media 5. LinkAja has a network of services and a very broad range 6. Partnership with several SOEs makes LinkAja superior 7. The main activity is focused on application development 8. Mobile connectivity readiness 9. The expenditure component is well identified 10. LinkAja source of income comes from transaction costs and marketing costs	1. Not all Telkomsel users use LinkAja application 2. The number of SME retail merchants is very limited. 3. The application system is not yet reliable 4. Limited internet access to access social media 5. The FAQ is not working well 6. The cooperation process with SOE partners has not been carried out to the maximum extent possible 7. The development time is quite long and requires a lot of resources. 8. The integration of Telkomsel system and network with SOEs is not yet perfect 9. The application development team is not yet reliable 10. High marketing costs 11. Low understanding of Fintech users
10. The development of social media for marketing activities	out development cost efficiency. (S10, O9, O10)	
Threats (T) 1. The large number of fintech competitors in the mobile payment sector 2. There is a threat of cybercrime in Indonesia 3. Lack of partner confidence in the product due to competitors who have been operating longer 4. The development of competitor applications is faster than LinkAja 5. Human resources owned by competitors are more reliable 6. Unexpected costs in the implementation stage of application development	S-T Strategy 1. Utilizing BUMN partners to anticipate cybercrime (S6, T2) 2. Building trust and good communication with the application development team so that application development can be carried out effectively and efficiently (S7, S8, T4, T5) 3. The use of information technology in managing application development budgets. (S9, S10, T6)	W-T Strategy 1. Comparative studies with competitors regarding the application development process (W3, W7, W9, T4, T5) 2. Discussing and planning budget costs for developing applications regularly (W10, W6). 3. Developing a form of collaboration with competitors. (W6, W8, T1, T5) 4. Adding partnerships from other competitors (W6, W8, T1, T3, T5)

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<table>
<tr>
<td rowspan="2">Key Partners
• Telkomsel (Telecommunication Provider)
• SOE Companies: Telkom, Mandiri, BRI, BNI, BTN, Pertamina, Jiwasraya, Danareksa.
• <u>Colaboration with the competitors: Gojek (Gopay), Grab (OVO), DANA etc.</u></td>
<td>Key Activities
• Application development
• Expansion of business partners (merchant acquisition)
• <u>Development of cooperation</u></td>
<td rowspan="2">Value Proposition
CS – Business Segment
• Facilitating the data collection and transaction process
• Improving service responsiveness
• Improving customer experience
• Assisting companies in promoting
• <u>Customer consulting services (providing training on application usage.</u>

CS – Customer Segment
• Facilitating the transaction process
• Making more attractive promotional offers
• <u>Broad transaction service network</u></td>
<td>Customer Relationships
• FAQ
• Customer service
• GraPari
• Sponsored Event
• <u>Developing relationships with competitors</u></td>
<td rowspan="2">Customer Segments
• Business Segment: Retail Companies, Transportation Companies, Food & Beverages (and SME) Companies.
• Business Segment: <u>e-marketplace dan e-commerce</u>
• Customer Segment: People who carry out daily transactions (daily use case) using internet access (Electronic Money).</td>
</tr>
<tr>
<td>Key Resources
• Mobile Connectivity
• Analytic Dashboard Application
• Mobile Apps
• Infrastructure
• <u>Digital Budget information system</u></td>
<td>Channels
• Mobile Apps
• Google Play Store
• App Store
• Website
• Social Media</td>
</tr>
<tr>
<td colspan="3">Cost Structure
• VPS Server
• Domain
• Digital Certificate
• Salary
• Marketing Kit
• Legal Cost
• Office Expenses
• <u>Research cost</u></td>
<td colspan="3">Revenue Streams
• Transaction fee
• Marketing fee (advertising & promotion)
• <u>Upgrade fee for premium service</u></td>
</tr>
</table>

Fig. 4 Improvement BMC of LinkAja

5. Conclusion

The results of this study indicate that LinkAja business model is currently not optimal. The business model of a company needs to be evaluated and also follows the development of technology, Fintech is a dynamic industry because it keeps abreast of technological developments. This makes Fintech company, especially the mobile payment sector, need to develop their products repeatedly and sustainably. Therefore, changes were made in the form of adding elements or activities to the elements of customer segments, customer relationships, channels, value propositions, key activities, key resources, key partners, revenue streams, and cost structures to develop business models of LinkAja. The strategy generated from SWOT matrix consists of 18 recommendation strategies that can be implemented by LinkAja, namely: (1) Developing application features, (2) Utilizing and enhancing the use of technology including digital products, (3) Empowering SOE service networks as LinkAja touch points, (4) Conducting customer surveys to get business ideas, (5) Utilizing and developing cooperation with partners, (6) Using technology in conducting development cost efficiency, (7) Studying consumer behavior as a consideration in development, (8) Utilizing development technology and digital products for application maintenance, (9) Utilizing events as a means to obtain information about customers, (10) Utilizing marketing activities and events to add partners, (11) Adding training procedures to the development team, (12) Utilizing SOE partners to anticipate cybercrime, (13) Building trust and good communication with the developer team, (14) Use of information technology in managing application development budgets, (15) Comparative studies with competitors, (16) Discussing and planning development budgets, (17) Developing forms of collaboration with participants and (18) Adding partnerships from other competitors.

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