

Identification of Business Models of Cryptocurrency Companies in Indonesia (Study Case PT. Indonesia Digital Exchange and PT. Luno Indonesia)



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ABSTRACT: Nowadays Cryptocurrency world is entering “Crypto Winter.” Crypto winter is a period of prolonged low prices pursuant to significant declines. Crypto Winter makes business development of Cryptocurrency companies enter VUCA (volatility, uncertainty, complexity, and ambiguity) where the impact is several Cryptocurrency companies in the world have gone bankrupt. Examples are FTX, Luna, Voyager Digital, Three Arrows Capital (3AC), etc. The bankruptcy of it should be prevented if it has the right strategy in making future company policies. For this reason, it is necessary to identify a business model so that it is more directed in running its business. This research seeks to identify business model of Cryptocurrency companies and identify the aspects that are the strengths of Cryptocurrency companies in Indonesia. The author uses qualitative method with case study in company PT Indonesia Digital Exchange and PT Luno Indonesia. The author will provide interview questions to company representatives to find out the business model of Cryptocurrency companies. From the research results, it is found that a cryptocurrency company business model using business model canvas consisting of nine key elements to map a business such as Key Partnership, Cost Structure, Key Resources, Key Activities, Customer Segment, Value Proposition, Customer Relationship, Revenue Streams, and Channels. The aspects of the business model that are the strength of this cryptocurrency company lie in Customer Relationship, Customer Segment, and Value Proposition. This research provides insights to map business and valuable information in the context of internal company improvement, also offering a foundation for future research.

KEYWORDS: Business Model; Business Model Canvas; Cryptocurrency Company; Crypto; Cryptocurrency Industry.

I. INTRODUCTION

Currently Cryptocurrency world is entering “Crypto winter” stage (Lyman, 2022). Crypto winters is a period of prolonged low prices pursuant to significant declines (Chohan, 2022). The Crypto Winter makes the business development of Cryptocurrency companies enter the VUCA (volatility, uncertainty, complexity, and ambiguity) period (Steffen et al., 2023) where the impact is that several Cryptocurrency companies in the world have gone bankrupt. Examples are Voyager Digital, Luna, Three Arrows Capital (3AC), and the latest is FTX which officially declared bankruptcy on Friday (11/11/2022) (Roy et al., 2023). FTX's bankruptcy also affected 134 affiliated companies which were also declared bankrupt (Roy et al., 2023).

The bankruptcy of this Cryptocurrency company should be prevented if it has the right strategy in making future company policies. For this reason, it is necessary to identify a business model so that the company is more directed in running its business (Amit & Zott, 2012). The business model of each company can have the same product, but the way to approach the market is different. So, the company must be able to identify the best business model for its company to gain success in the future. Business model identification is increasingly important along with technological developments (Chesbrough, 2007). Tools that are often used to identify business models can use Business Model Canvas (BMC) or Creative Business Model Canvas (CBMC). BMC aims to help companies understand and visualize how their business operates and creates value for customers (Fakieh et al., 2022), while CBMC aims to help companies create innovative and creative business models (Carter & Carter, 2019).

The Business Model Canvas (BMC) consists of nine building blocks, each of which is interrelated and useful for creating a business model that can provide new added value in each block designed (Muhammad & Triono, 2023). The Business Model Canvas is divided into nine Key Elements to map a business, such as; Key Partnerships, Key Activities, Value Proposition,

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Customer Relationship, Customer Segment, Key Resources, Channels, Cost Structure, and Revenue Stream (Alam & Triono, 2023). In this study, we will identify business model of cryptocurrency company by using business model canvas like key partnership to find out the partners who have a collaborative relationship with the company, Key activities to find out the activities that must be carried out by the company in order to produce value propositions, maintain customer relationships, reach customer segments, and get revenue streams, Revenue Stream or the source of profit generated by the company from each customer segment (Ferreira, 2015) and Cost Structure or the cost to operate the business model run by the company.

The relevant previous research is used as an empirical study material in research, including research conducted by Muadzan and Nugroho (2021), this research was conducted to find out the description of the business model of the Fintech Crowdfunding company, namely Santara with the Business Model Canvas and provide recommendations for a new Business Model Canvas to be offered to Santara (Muadzan & Nugroho, 2021). This research method uses mixed methods with a concurrent embedded design model. Qualitative data collection techniques by conducting interviews with 5 persons and quantitative by distributing questionnaires to 8 persons at Santara (Muadzan & Nugroho, 2021). The data analysis technique used data reduction, data display, conclusion and SWOT analysis of the questionnaire results using a Likert Scale. The results of this study show that related to strengthening the new business model, where Santara as the research site is advised to add key partners such as foreign Custodian Banks, State-owned Banks and Muslim entrepreneur communities, collaborate with publishers for investment education to customers, accelerate customer complaint services, add offline channels by holding talk shows and seminars for activities, especially investment education, helping MSMEs to reduce the cost of withdrawing dividends from Rp 25,000 per withdrawal, In addition, in the cost structure incurred by Santara there are additions such as additional database server maintenance costs (Muadzan & Nugroho, 2021).

In addition, this business model research was also conducted by Setiawan (2024: 9) identifying that CoinFolks seeks to validate their products using their business model (Setiawan & Ghina, 2024). The results of this validation focus on three aspects of the business model canvas, namely the value proposition related to learning video material, channels in distributing learning video material through the website, and revenue streams related to the price offered and potential sources of income for CoinFolks (Setiawan & Ghina, 2024).

The two studies above have similarities with this research which uses the Business Model Canvas to see how far the business model is carried out. But what is different in this study, researchers want to focus on cryptocurrency-based companies. In this study, researchers will identify the business model of cryptocurrency companies with Business Model Canvas and find out the aspects of the business model that are the strengths of cryptocurrency companies in Indonesia.

II. LITERATURE REVIEW

A. Business Model

Business Model is a form of how companies capture, deliver, and create value (Osterwalder & Pigneur, 2012). business model is an activity of how companies can generate profits from various business activities (Kasali, 2017). The company's business model consists of two parts. The first part includes all actions related to manufacturing, such as designing, manufacturing products, purchasing raw materials, etc. The second part includes all actions related to sales, such as transacting, finding, and studying customers, and delivering products, either goods or services (Krisnawan et al., 2018). Based on the above understanding, it can be concluded that the business model serves as a way for the company to know its position and to know how far the company can capture, create, and deliver the value it can offer to customers. The business model must be able to tell what the value of its customers is, how the company profits in its business, who its customers are, and how the company can provide value to its customers.

B. Business Model Innovation

Business model innovation is a new way to achieve value and gain profit. The goal of business model innovation is to eliminate old methods and offer new solutions to meet customer needs, whether they are new or hidden (Osterwalder & Pigneur, 2012). The power of business model innovation lies in the ability to use intangible resources like knowledge that strategically to provide breakthroughs for business growth that fit into an uncertain environment. This resource can be applied flexibly to achieve higher performance outcomes.

In general, business model innovation is the design and planning of new ways to do business. This is done by improving, refining, and changing existing business processes, both within the company and outside the company, to produce new work processes that have never existed before. The purpose of this innovation is to increase added value for all stakeholders (Amit & Zott, 2012)

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C. Business Model Canvas

Business Model Canvas (BMC) is a tool that helps business owners and decision makers see a company from all available perspectives. The BMC helps them analyse and transform complex business models into simpler ones. Furthermore, these elements are used as the basis for successful planning.

According to the book entitled "Business model Generation," Osterwalder and Pigneur (2012) created a business model canvas framework consisting of nine basic building blocks that show the logic for running a company's business. These blocks consist of four main business aspects: customers, financial viability, offerings, and infrastructure (Osterwalder & Pigneur, 2012).

The canvas organizes the business model into nine segments that are divided into two parts: the left component (logical side) and the right component (creative side). These two parts have different roles. The left canvas serves to make it easier for companies to see the costs incurred or efforts to make cost efficiency through:

1. Key Resources, a block that discusses the assets that the company plans and owns so that a business model can function to realize its value proposition.
2. Key Activities, a block that discusses the activities that the company must do to generate Value Propositions, maintain Customer Relationships, reach Customer Segments, and get Revenue Streams.
3. Key Partnerships, a block that discusses the network of suppliers and partners who establish cooperative relationships with the company so that the business model can work well.
4. Cost Structure, a block that discusses all the costs that arise to run the company's business model.

Meanwhile, the right part of the canvas serves to make it easier for companies to see the creation of an added value that can be offered through:

5. Value Propositions, a block that talks about unique propositions that offer value or benefits offered to customers by a business.
6. Customer Relationships, a block that discusses elements that describe how a business interacts with customers to build and maintain sustainable relationships.
7. Channels, a block that discusses the elements that describe how a business delivers its value proposition to customers and earns revenue.
8. Customer Segments, a block that discusses the various customer groups that a business wants to serve.
9. Revenue Streams, a block that talks about the specific ways in which a company generates revenue from selling products or services to customers.

The nine basic components used in depicting the business model canvas can be seen in the following figure:

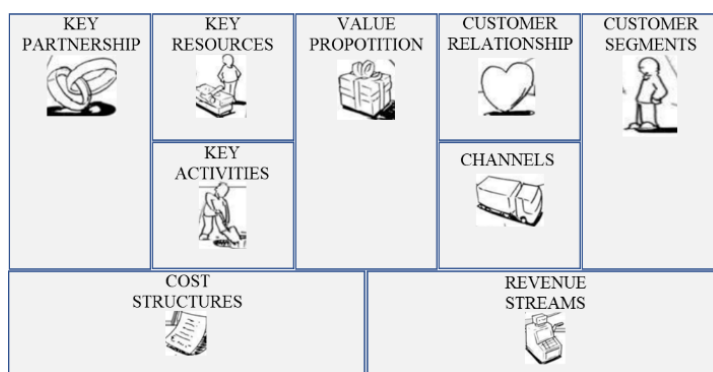


Figure 1. Business model Canvas
Source: Osterwalder and Pigneur, 2012

III. RESEARCH METHOD

A. Type of Research

The purpose of this research is descriptive, to identifying the Business Model of Cryptocurrency Companies in Indonesia. This research uses a postpositivist paradigm with an inductive approach in theory development. The research method used is qualitative method. The research strategy used is a Case Study with the unit of analysis used, is the organizational unit. The objects of this case study research are PT Indonesia Digital Exchange and PT Luno Indonesia. The author's role in this research is Minimal Interference, that is the author does not intervene with the normal activities of the company. The research was conducted in a non-contrived setting, which is carried out in a natural environment where events occur normally. Cross-sectional studies where data is collected only once in a certain period to answer research questions.

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B. Social Situation

Currently there are many companies engaged in the cryptocurrency industry. In this research the authors will conduct research on crypto exchange companies in Indonesia. Currently there are 25 official and legal Crypto Exchanges in Indonesia that trade crypto assets in the physical market of Crypto assets (Bappebti, 2022). Cryptocurrency companies that are currently entering the crypto winter stage need to identify a business model so that the company is more directed in running its business and gaining success in the future. Business Model Canvas itself is one of the strategic tools used to describe a business model and help companies see in more detail how a business or business is run.

The data collection method is carried out using a judgment sampling method, namely a written interview method using sources of information from influential people and stakeholders in organizations and companies. The profiles of the sources and informants who will be interviewed are as follows:

1. The selected Cryptocurrency companies are PT Indonesia Digital Exchange and PT Luno Indonesia.
2. Informants are workers or owners of Cryptocurrency companies
3. Informants have positions of Top-Level Management, Middle Level Management, and low-level management.
4. Informants work at least 1 year in the Cryptocurrency company.

C. Data Analysis

Data analysis is carried out when data collection has been completed within a certain period. The data from the written interviews was then analysed until it could answer the research questions. Activities in data analysis have 3 stages, such as data reduction (data reduction), data presentation (data display), conclusion drawing / verification (Miles & Hubberman, 2014).

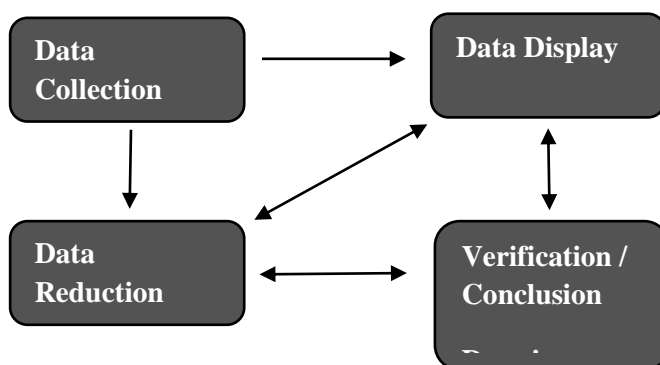


Figure 2. Qualitative Data Analysis

Source: Miles and Hubberman, 2014

1. Data reduction

Data reduction is a separation and selection process that focuses on abstracting, transforming, and simplifying the raw data that comes from written notes in the field (Miles & Hubberman, 2014). The data and reports collected will be entered into the business model canvas (Osterwalder & Pigneur, 2012) and searched for patterns and themes so that the company's business model can be obtained. Therefore, the reduced data will provide a clear picture, and collecting additional data will become easier for researchers.

2. Data display

Data presentation is done after the data is reduced. The purpose of presenting data is to help and understand what happened and plan the next work based on what is known (Miles & Hubberman, 2014). In addition, presenting data also helps researchers in seeing the research as a whole or certain parts. Data is presented like tables and descriptions with narrative text and supporting documents. The activities carried out in this data analysis are:

- a) Tabulate the results of the interview question related to the nine BMC segments, such as Customer Segment, Key Resources, Value Proposition, Channels, Customer Relations, Revenue Streams, Key Activities, Cost Structure, and Key Partnerships.
- b) Fill in the tabulation results on the nine BMC components,
- c) Determine improvement suggestions and company strategies.

3. Conclusion drawing/verification

Conclusions were drawn and then reviewed continuously throughout the research process, especially during the data collection process. This research extracts the essence of several categories of research findings and draws conclusions based on the interviews, questionnaires and documentation that have been conducted (Muhammad & Triono, 2023).

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IV. RESULTS AND DISCUSSION

A. Characteristics of Interviewees

In this study, the object of research studied is Cryptocurrency companies in Indonesia. The companies that became the author's sources were PT Indonesia Digital Exchange (Digitalexchange) and PT Luno Indonesia Ltd. The company representatives who became the author's interviewee in this study were Ms. Annisa Nurfaizah, Digital marketing specialist of PT. Indonesia Digital Exchange and Mr. Aditya Farhan Hasrul, Relationship Manager of PT. Luno Indonesia Ltd.

B. Research Results

In identifying the business model of Cryptocurrency Companies (study case PT. Indonesia Digital Exchange and PT. Luno Indonesia Ltd) The author uses tools like Business Model Canvas by Osterwalder & Pigneur (2012) to identify the Company's business model. Cryptocurrency company Business Model Canvas consists of 9 elements such as:

1. The company's Key Partnerships are BAPPEBTI, ASPAKRINDO, ABI, AFTECH, E-Wallet, ISO, KOMINFO, OJK, Ministry of Trade, and Bank Indonesia
2. The company's Key Activities are Trading/buying and selling crypto assets, Airdrop, NFT Shop, Crypto Pool, Platform Development, and Trading Competition.
3. The company's Key Resources are Exchange Platform, sales system, Investors, Crypto Assets, cash, factory (mining), and competent human resources.
4. The company's Cost Structure is IT Infrastructure, product research, platform commissions, network security and encryption, marketing & promotion, office rent, utilities, office stationery, salaries, benefits, employee incentives, and employee management & welfare.
5. The company's Value Proposition is competitive pricing, unique application features, fast and efficient transactions, cheap fee transactions, user friendly and good accessibility, responsive customer service, secure transactions, various deposit / withdrawal method options, many rewards, and benefits, easy to use platform, daily info, or advice for trading (signal trading), cryptocurrency education services, and easy buy / sell crypto.
6. The company's Customer Relationship is education like academy / learning center, customer support on the website, forum / community, rewards for customer loyalty, monitoring customer satisfaction.
7. The company's Customer Segment is financial institutions, crypto public innovators, academics, entrepreneurs, general public, and high net worth individuals.
8. The company's Channels are Website, Blog, Mobile App, Facebook, Instagram, Twitter, Telegram, Youtube, and Print Media.
9. The Company's Revenue Streams are transaction (trading) fees, spreads, affiliate marketing, and crypto delivery services.

From the (interview protocol) that has been carried out and tabulated into the 9 elements of the Business Model Canvas, the Cryptocurrency Company's business model is found in Figure 3.

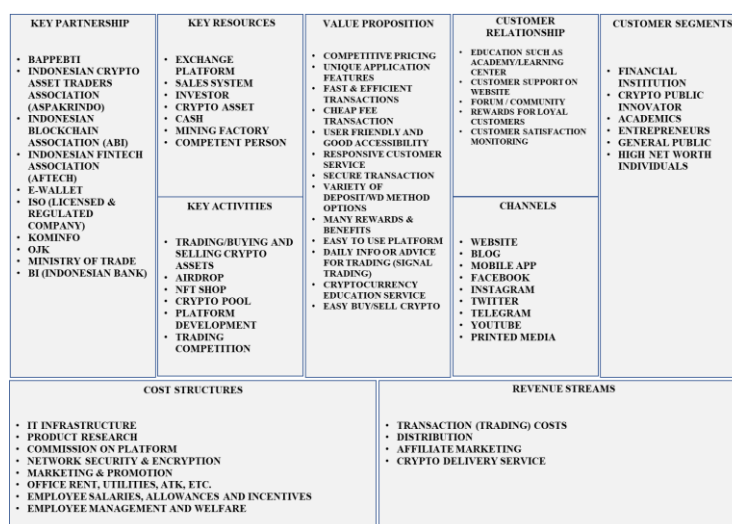


Figure 3. Business Model Canvas of Cryptocurrency Company
Source: Researcher

After the interview protocol that has been conducted at the company PT Indonesia Digital Exchange and PT Luno Indonesia Ltd and the business model that has been identified in Figure 3, the description of the 9 Segment Business Model Canvas by (Osterwalder & Pigneur, 2012) are

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a). Key Partnership

Key partnerships describe the partners and supplier networks that establish cooperative relationships with companies so that their business models can work (Osterwalder & Pigneur, 2012). Cryptocurrency Company Key Partnership in running the existing business model is in table 1.

Table 1. Key Partnership

No.	Item	Key Partnership	
		PT. Indonesia Digital Exchange	PT. Luno Indonesia
1	Optimization And economies of scale	ASPAKRINDO (Indonesian Crypto Asset Traders Association), ABI (Indonesian Blockchain Association)	ASPAKRINDO (Indonesian Crypto Asset Traders Association), ABI (Indonesian Blockchain Association), AFTECH (Indonesian Fintech Association)
2	Risk and uncertainty reduction	BAPPEBTI, ISO (Licensed & Regulated Company)	BAPPEBTI, KOMINFO, OJK (Financial Services Authority), Ministry of Trade, BI (Bank Indonesia), ISO (Licensed & Regulated Company)
3	Acquisition of Certain resources and activities	Digital Wallet	Digital Wallet

Source: Researcher

Based on Table 1, Key Partnerships in Cryptocurrency industry companies tend to reduce risk and uncertainty. A competitive and dynamic business environment makes companies cooperate with government agencies to reduce risk and ensure user security and accountability, to create investor confidence in the Company.

b). Key Activities

Key Activities explain the company's activities that must be carried out to produce Value Propositions, maintain Customer Relationships, reach Customer Segments, and get Revenue Streams (Osterwalder & Pigneur, 2012). Cryptocurrency Company Key Activities in running the existing business model are in table 2

Table 2. Key Activities

No.	Item	Key Activities	
		PT. Indonesia Digital Exchange	PT. Luno Indonesia
1	Production Operation (Production)	Buying and selling crypto assets / trading, research to develop the company's business platform	Buying and selling crypto assets / trading
2	Problem Solving	research to develop the company's business platform	research to develop the company's business platform
3	Platform/ Network	Crypto pool, NFT Shop, Airdrop, Trading Competition	Trading Competition

Source: Researcher

Based on Table 2, Key Activities in Cryptocurrency industry companies tend to be platforms and production where companies more often use platforms as a process of delivering activities to customers. The main key activities in the crypto industry are buying and selling crypto assets / trading. In addition, the company also carries out activities such as research to develop the company's business platform.

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c). Key Resources

Key Resources explain the most important assets that are planned and owned by the company so that a business model can run and function in realizing its value proposition (Osterwalder & Pigneur, 2012). Cryptocurrency Company Key Resources in running the existing business model are in table 3.

Table 3. Key Resources

No.	Item	Key Resources	
		PT. Indonesia Digital Exchange	PT. Luno Indonesia
1	Physical	Factory (Mining), Sales System	Building facilities e.g. office, server network & cold wallet storage
2	Intellectual	Platforms/apps are already copyrighted and patented	Platforms/apps are already copyrighted and patented
3	Financial	Cash, Investors, owning crypto assets earmarked for the company	Cash, Investors, Crypto Assets
4	Human	Master all crypto and trading knowledge	Software Engineer, Blockchain Engineer, Data Engineer, Marketing Operational Compliance

Source: Researcher

Based on Table 3, Key Resources in Cryptocurrency industry companies tend to be financial (working capital) where companies have capital or financial resources like cash, investors, and have crypto assets intended for the company. In addition, the company has a platform / application that already has patents and copyrights in running its business.

d). Cost Structure

The cost structure explains how the company incurs all costs in running its business model (Osterwalder & Pigneur, 2012). The Cost Structure of Cryptocurrency companies in running the existing business model is in table 4

Table 4. Cost Structure

No.	Item	Cost Structure	
		PT. Indonesia Digital Exchange	PT. Luno Indonesia
1	Cost driven	commission and transaction fees on the Cryptocurrency trading Platform, employee costs, such as salaries, benefits, and incentives, infrastructure costs, such as servers, computers, and networks, marketing, and promotional costs, such as advertising, sponsorships, or events, overhead costs, such as rent, utilities, or office equipment costs	commission and transaction fees on the Cryptocurrency trading Platform, employee costs, such as salaries, benefits, and incentives, infrastructure costs, such as servers, computers, and networks, marketing, and promotional costs, such as advertising, sponsorship, or events
2	Value-driven	employee management and employee welfare costs, security, and privacy costs, such as encryption or network security, new product, or service development costs	security and privacy costs, such as encryption or network security, new product, or service development costs

Source: Researcher

Based on Table 4, the Cost Structure in the Cryptocurrency industry company tends to be cost driven where the company creates and maintains the most efficient cost structure possible, for example, such as servers and networks by finding vendors (partners) that are cheap but still safe. The types of costs that exist in the company are listed in table 5.

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Table 5. Type of Costs

No.	Item	Type of Costs	
		PT. Indonesia Digital Exchange	PT. Luno Indonesia
1	Variable cost	overhead costs, such as rent, utilities, or office equipment, employee management costs and employee welfare,	None Yet
2	Fixed cost	commission and transaction fees on the Cryptocurrency trading Platform, employee costs, such as salaries, benefits, and incentives, infrastructure costs, such as servers, computers, and networks, marketing, and promotional costs, such as advertising, sponsorships, or events, security, and privacy costs, such as encryption or network safeguards	commission and transaction fees on the Cryptocurrency trading Platform, employee costs, such as salaries, benefits, and incentives, infrastructure costs, such as servers, computers, and networks, marketing, and promotional costs, such as advertising, sponsorships, or events, security, and privacy costs, such as encryption or network safeguards
3	Economies of scale	None Yet	None Yet
4	Economic coverage	new product or service development costs	new product or service development costs

Source: Researcher

Based on Table 5, Cost Structure in Cryptocurrency industry companies tend to be Fixed costs where the largest costs are in security and privacy costs, such as encryption or network security and infrastructure costs, such as servers, computers, and networks. For now, the company does not have a cost structure at an economic scale because crypto company products tend to provide services for buying and selling crypto so that it does not affect reducing costs by increasing product production.

e). Value Proposition

The value proposition which is the advantage of the company's product describes what combination of products and services can bring benefits and create value for the Customer Segment (Osterwalder & Pigneur, 2012). Cryptocurrency Company Value Proposition in running the existing business model is in table 6

Table 6. Value Proposition

No	Item	Value Proposition	
		PT. Indonesia Digital Exchange	PT. Luno Indonesia
1	Newness	unique application features that are not available in other companies, Rewards & Benefits from the company	services that are more transparent and accountable than other financial institutions, unique application features that are not available in other companies, Rewards & Benefits from companies
2	Customization	the ability to invest and trade Cryptocurrency,	the ability to invest and trade Cryptocurrency,
3	Risk Reduction	offer better security for transactions	risk reduction services and security assurance for users, offering better security for transactions
4	Design	None Yet	None Yet

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5	Brand	None Yet	None Yet
6	Performance	fast and efficient transaction facilities, providing information and education about Cryptocurrency at large, support and access to a network of users and the Cryptocurrency community	the latest innovations in blockchain technology and cryptocurrencies, fast and efficient transaction facilities, providing information and education about Cryptocurrency at large, support and access to a network of users and the Cryptocurrency community
7	Price	Competitive pricing, low cost transaction facilities,	Competitive pricing, low-cost transaction facilities,
8	Cost Reduction	None Yet	None Yet
9	Accessibility	ease of use and good accessibility	ease of use and good accessibility
10	Usability	responsive and friendly customer service, daily advice for trading (trading signals), ease of use of Cryptocurrency in everyday life, various deposit / WD method options	ease of use for novice users, ability to make cross-border transactions easily, responsive, and friendly customer service, daily advice service for trading (trading signals), ease of use of Cryptocurrency in everyday life, various deposit / WD method options
11	Job Completion	None Yet	None Yet

Source: Researcher

Based on Table 6, the Value Proposition in the Cryptocurrency industry tends to usability and company performance where companies have created products in the form of platforms / applications that are easier and more convenient to use and improve products or services that can keep up with the times. For now, the company does not have a Value Proposition in the Design, brand, cost reduction and job completion sections. In this value brand and design there is no added value that can increase the social status for customers who use it. Value brand and design are more suitable for companies in industries other than cryptocurrency, for example the Fashion industry. Cryptocurrency companies in Indonesia currently do not have products that can help customers complete their work and reduce the costs they experience such as for example fees when trading crypto, although these fees are relatively cheap, some cryptocurrency companies in the world such as Binance provide discounts on trading fees if they use certain cryptos so that this can add to the company's value cost reduction.

f). Customer Segment

Customer segment describes a group of people or customers that the company wants to serve or reach (Osterwalder & Pigneur, 2012). Customer Segment is the people who use the company's goods or services and contribute to the company's revenue. Customer Segment of Cryptocurrency companies in running the existing business model is in table 7.

Table 7. Customer Segment

No.	Item	Customer Segment	
		PT. Indonesia Digital Exchange	PT. Luno Indonesia
1	Mass Market (open market)	General Public and Employers	General Public and High net worth individuals
2	Niche Market	None Yet	None Yet
3	Segmented (segmented market)	None Yet	None Yet

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4	Diversified (market diversification)	Public Academics Innovators,	None Yet
5	Multi-Sides Platforms (multi market)	Financial institutions,	None Yet

Source: Researcher

Based on Table 7, the Customer Segment in the Cryptocurrency industry is the mass market. Mass market is a customer segment whose coverage is broad without differentiating customers into special segments (Osterwalder & Pigneur, 2012), this can be seen from the Customer Segment which includes all members of society. The company's approach in segmenting consumers is demographics (income), behavior and psychographics. While geographically the company does not distinguish customers from citizens of any country or city and does not distinguish expertise or experience.

At PT Indonesia Digital Exchange there is a diversified customer segment, such as public innovators, and academics. Public innovators and academics in the crypto industry are involved in various projects, such as developing a more efficient blockchain, creating new tokens, or introducing new security solutions for crypto exchanges. They strive to create a value proposition for society by improving or providing solutions to existing problems in the crypto industry. The company seeks customers from this circle so that research and development can continue, providing literacy to the community, as well as introducing the company's products to another general public. PT Indonesia Digital Exchange also targets a multi-market customer segment, such as financial institutions that are interested in blockchain technology and crypto assets for purposes such as asset management, cross-border payments, and transaction settlement. PT Luno Indonesia targets its customer segment as an open market to simplify operations and marketing strategies so that companies do not need to customize their products or services to meet the needs of smaller or more specialized market segments.

g). Customer Relationship

Customer relationships explain the type of relationship a company wants to build with a specific customer segment (Osterwalder & Pigneur, 2012). Cryptocurrency company's Customer Relationship in running the existing business model is in table 8.

Table 8. Customer Relationship

No.	Item	Customer Relationship	
		PT. Indonesia Digital Exchange	PT. Luno Indonesia
1	Personal Assistance	facilitating discussion and interaction between customers and the company, providing consultation for problems faced by users/customers	facilitating discussion and interaction between customers and the company, providing consultation for problems faced by users/customers
2	Dedicated Personal Assistance	None Yet	None Yet
3	Self Service	educational services in the form of academy / learning center, providing customer support on the company website	provide training or education on product use, educational services in the form of academy / learning center, provide customer support on the company website
4	Automated Service	provide product information that is easy to understand and comprehend	provide product information that is easy to understand and comprehend
5	Co-Creation	monitor customer satisfaction regularly, provide incentives or rewards to loyal customers	monitor customer satisfaction regularly, provide incentives or rewards to loyal customers

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6	Communities	facilitating forums or communities for customers, facilitating interaction between users, and building strong communities	facilitating forums or communities for customers, facilitating interaction between users, and building strong communities
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Source: Researcher

Based on Table 8, the Customer Relationship that Cryptocurrency industry companies want to build tends to personal assistance and self-service where companies want to build relationships based on human interaction and communities where companies use communities as a medium for establishing relationships between companies and customers and relationships between community members. In addition, the company provides the facilities needed by customers to meet their own needs in the form of academy / learning center education services on the website and provides customer support on the company website. Customer relationship companies do not have dedicated personal assistance, this is because the company has provided facilities to build customer relationships with companies and customers with customers in the form of a strong community. In addition, the company has provided consultation for problems faced by users / customers through customer support on the company website.

h). Channels

Channels explain how a company reaches and communicates with its customers to provide the value proposition of the company (Osterwalder & Pigneur, 2012). Channels in Cryptocurrency companies in running the existing business model are in table 9.

Table 9. Channels

No.	Item	Channels	
		PT. Indonesia Digital Exchange	PT. Luno Indonesia
1	Owned Channels	Website, blog, Mobile Platform Company, Facebook, twitter, Instagram, telegram, YouTube	Website, blog, Mobile Platform Company, Facebook, twitter, Instagram, telegram, YouTube
2	Partner Channels	None Yet	Print Media (Newspapers, Magazines, Tabloid, Banners, etc.)

Source: Researcher

Based on Table 9, Channels used in the Cryptocurrency industry tend to Owned Channels where companies use their own channels to convey value directly to customers without intermediaries. The most effective and efficient media for companies to communicate with customers and potential customers is by using social media in the form of Instagram. PT Indonesia Digital Exchange does not have partner channels in delivering value to customers because in addition to reducing costs, the company considers it much more effective and flexible to use owned channels in delivering value to customers.

i). Revenue Streams

Revenue streams show the amount of money generated by the company from each customer group (Osterwalder & Pigneur, 2012). Revenue Streams of Cryptocurrency companies in running the existing business model are in table 10.

Table 10. Revenue Streams

No.	Item	Revenue Streams	
		PT. Indonesia Digital Exchange	PT. Luno Indonesia
1	Asset Sales	None Yet	None Yet
2	Usage Fee	Revenue from Cryptocurrency buying and selling services (Trading), revenue from the value of the difference in the margin of buying and selling Cryptocurrency (spreads), revenue from Cryptocurrency transaction settlement services for businesses,	revenue from Cryptocurrency buying and selling services (Trading), revenue from the value of the difference in the margin of buying and selling Cryptocurrency (spreads), revenue from

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		revenue from Cryptocurrency delivery services	Cryptocurrency delivery services
3	Subscription fee	None Yet	None Yet
4	Loan and lease	None Yet	None Yet
5	License	None Yet	None Yet
6	Commission fee	None Yet	None Yet
7	Advertising	revenue from partner affiliate program	revenue from partner affiliate program

Source: Researcher

Based on Table 10, Revenue Streams in Cryptocurrency industry companies tend to be obtained from Platform usage fees where companies benefit from the use of company services or products. The most revenue comes from revenue from buying and selling Cryptocurrency services (Trading), revenue from the difference in the margin value of buying and selling Cryptocurrency (spreads), and revenue from Cryptocurrency delivery services. To generate revenue in the future, the company continues to innovate in creating unique features on existing exchangers / platforms. For now, the company does not have Revenue Streams on asset sales, subscription fees, loans or leases, licenses, and commissions. Cryptocurrency companies do not have a revenue stream from asset sales because crypto company assets tend to be in digital form while in physical form only offices and supporting facilities. While revenue from subscriptions does not yet exist, even though the company can increase revenue streams if the company adds activities such as creating VIP groups where customers can subscribe and get advantages from the products offered. In addition, the company has also not utilized the potential revenue from crypto loans or leases where these loans can generate interest for the company. The company can also take advantage of potential revenue from licenses and commissions, for example, such as commissions when selling NFT work on the Company's platform.

Aspects that are strengths of Cryptocurrency companies

The aspects of the business model that are the strengths of PT Indonesia Digital Exchange and PT Luno Indonesia lie in Customer Relationship, Customer Segment, and Value Proposition. In the Customer Relationship aspect, the company has built a "customer oriented" system where the company has facilitated forums and communities to interact between the company and customers and among customers. The company also provides customer support and monitors customer satisfaction regularly.

In the Customer Segment aspect, the company's target customer is the mass market, the company does not differentiate customers into special segments. this can be seen from the Customer Segment which includes all members of society. This aspect is the strength of the company where the company does not differentiate its customers. In this Customer Segment, the author suggests that the Company also reach out to Customers who are Multi-Sides Platforms (multi-market), Customers who have different needs and problems but need each other, for example government institutions such as the Director General of Taxes and the Ministry of Finance. For the community this can build public trust and for the government it can improve the economy and revenue from the Crypto tax sector. In addition, the company can also reach Diversified Customers (market diversification), those with different problems and needs, for example academics.

In this aspect of Value Proposition are the advantages possessed by the Company where this is an aspect of strength that allows the Company to compete with similar companies. From the Value Proposition points contained in Figure 4.1 the author suggests that the Company can conduct research to provide a Crypto robot advisor that can assist customers in determining their financial policies. In addition, the company can also add products other than Crypto, for example such as stocks, mutual funds, bonds, and other financial products in one platform for all financial products. So that customers no longer need to look for other companies to meet the needs of the financial products they want.

The business aspects that are the strengths of this Cryptocurrency company must be maintained and improved in the future so that the company can develop and survive in the current VUCA (volatility, uncertainty, complexity, and ambiguity) period.

V. CONCLUSIONS AND SUGGESTION

A. Conclusions

Based on the formulation of research problems and the objectives of this study and based on the analysis that has been carried out, the following conclusions can be drawn from the research results:

1. The Business Model of Cryptocurrency Companies in Indonesia (case study of PT. Indonesia Digital Exchange and PT. Luno Indonesia) is

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- a) Key activities in the cryptocurrency industry companies are ASPAKRINDO (Indonesian Crypto Asset Traders Association), ABI (Indonesian Blockchain Association), AFTECH (Indonesian Fintech Association), BAPPEBTI, KOMINFO, OJK (Financial Services Authority), Ministry of Trade, BI (Bank Indonesia), ISO (Licensed & Regulated Company), Digital Wallet
 - b) Key activities in the cryptocurrency industry companies tend to be platforms and production where companies more often use platforms as a process of delivering activities to customers. In addition, the Company also conducts research activities to develop the Company's business platform.
 - c) Key Resources in Cryptocurrency industry companies tend to be financial (working capital) where companies have capital or financial resources in the form of cash, investors, and have crypto assets intended for companies (Crypto made by the Company). In addition, the company has a platform / application that already has patents and copyrights in running its business.
 - d) Cost Structure in Cryptocurrency industry companies tend to be cost driven where companies create and maintain the most efficient cost structure possible. for example, such as servers and networks by finding vendors (partners) that are cheap but still safe.
 - e) Value Proposition in the Cryptocurrency industry tends to usability and company performance where companies have created products that are easier and more comfortable to use and improved products or services that can keep up with the times. For now, it does not have a Value Proposition in the design, brand and job completion section.
 - f) The Customer Relationship that the Cryptocurrency industry company wants to build tends to be personal assistance, where the company wants to build relationships based on human interaction and communities where the company utilizes the community as a medium for establishing relationships between companies and customers and relationships between community members.
 - g) Customer Segment in the Cryptocurrency industry is a mass market, this can be seen from the Customer Segment which includes all circles of society. The company's approach in segmenting consumers is behavioral, demographic, and psychographic. While geographically the company does not distinguish customers from citizens of any country or city and does not distinguish expertise or experience.
 - h) Channels used in the cryptocurrency industry tend to be Owned Channels where companies use their own channels to deliver value directly to customers without intermediaries. The most effective and efficient media for companies to communicate with customers and potential customers is by using social media in the form of Instagram.
 - i) Revenue Streams in Cryptocurrency industry companies tend to be obtained from Platform usage fees where companies benefit from the use of company services or products. The largest revenue comes from revenue from buying and selling Cryptocurrency services (Trading), revenue from the value of the difference in the margin of buying and selling Cryptocurrency (spreads), and revenue from Cryptocurrency delivery services. To generate revenue in the future, the company continues to innovate in creating unique features on existing exchangers / platforms.
2. The aspects of the model that become the strength of Cryptocurrency Companies in Indonesia lie in Customer Relationship, Customer Segment, and Value Proposition

B. Suggestions

In accordance with the research objectives and conclusions obtained to determine the business model of Cryptocurrency Companies in Indonesia, knowing the aspects of the business model that are the strengths of Cryptocurrency Companies, the following suggestions can be made.

1. Theoretical Suggestions

- a) For academics related to future research on the business model of Cryptocurrency companies, that is by adding more Cryptocurrency company samples in Indonesia.
- b) The Cryptocurrency industry which often experiences crypto winter makes companies enter the VUCA (volatility, uncertainty, complexity, and ambiguity) stage so it is hoped that the next research can add the SWOT Analysis method to assist companies in formulating strategies that use the company's internal strengths, overcome company weaknesses, pursue opportunities, and face threats. In addition, the next research can add the PESTLE Analysis method to help companies understand external factors that can affect company performance such as Political, Economic, Social, Technological, Legal, and Environmental factors so that from the business model that the author has identified using the Business Model Canvas, the company can evaluate and analyse the company's overall business model to anticipate the crypto winter.

2. Practical Suggestions

- a) For business people, the author proposes a business model that the author has made to strengthen the company's business in the future which is found in Figure 4.

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KEY PARTNERSHIP	KEY RESOURCES	VALUE PROPOSITION	CUSTOMER RELATIONSHIP	CUSTOMER SEGMENTS
<ul style="list-style-type: none"> • RAPPRETI • ASSOCIATION OF INDOONESIAN CRYPTO ASSET TRADERS (ASPAKRINDO) • BLOKCHAIN ASSOCIATION OF INDONESIA (ABI) • E-WALLET • ISO LICENSED & REGULATED COMPANY) • INFLUENCER • SELEBRGRAM • MINISTRY OF TRADE • ASSOCIATION FINTECH INDONESIA (AFTECH) • OJK (FINANCIAL SERVICES AUTHORITY) • BI (BANK INDONESIA) 	<ul style="list-style-type: none"> • EXCHANGE PLATFORM • SALES SYSTEM • INVESTOR • CRYPTO ASSET • CASH • MINING FACTORY • COMPETENT PERSON 	<ul style="list-style-type: none"> • COMPETITIVE PRICING • UNIQUE APPLICATION FEATURES • FAST & EFFICIENT TRANSACTIONS • CHEAP FEE TRANSACTION • USER FRIENDLY AND GOOD ACCESSIBILITY • RESPONSIVE CUSTOMER SERVICE • SECURE TRANSACTION • VARIETY OF DEPOSIT/WD METHOD OPTIONS • MANY REWARDS & BENEFITS • EASY TO USE PLATFORM • DAILY INFOOR ADVICE FOR TRADING (SIGNAL TRADING) • CRYPTOCURRENCY EDUCATION SERVICE • EASY BUY/SELL CRYPTO • CRYPTO TRADING ROBOT • PRODUCTS OTHER THAN CRYPTO 	<ul style="list-style-type: none"> • EDUCATION SUCH AS ACADEMY/LEARNING CENTER • CUSTOMER SUPPORT ON WEBSITE • FORUM / COMMUNITY • REWARDS FOR LOYAL CUSTOMERS • CUSTOMER SATISFACTION MONITORING 	<ul style="list-style-type: none"> • FINANCIAL INSTITUTION • CRYPTO/PUBLIC INNOVATORS • ACADEMICS • ENTREPRENEURS/ MERCHANTS • GENERAL PUBLIC • GOVERNMENT INSTITUTIONS • COMPANIES
	<p>KEY ACTIVITIES</p> <ul style="list-style-type: none"> • TRADING/BUYING AND SELLING CRYPTO ASSETS • AIRDROPO • NFT SHOP • CRYPTO MINING • PLATFORM DEVELOPMENT • TRADING COMPETITION • CRYPTO LENDING (P2P LENDING) • CRYPTO CREDIT 		<p>CHANNELS</p> <ul style="list-style-type: none"> • WEBSITE • BLOG • MOBILE APP • FACEBOOK • INSTAGRAM • TWITTER • TELEGRAM • YOUTUBE • GOOGLE ADS • PRINT MEDIA (NEWSPAPERS, Magazines, TABLOIDS, BROCHURES, 	
	<p>COST STRUCTURES</p> <ul style="list-style-type: none"> • IT INFRASTRUCTURE • PRODUCT RESEARCH • COMMISSION ON PLATFORM • NETWORK SECURITY & ENCRYPTION • MARKETING & PROMOTION • OFFICE RENT, UTILITIES, ATK, ETC. • EMPLOYEE SALARIES, ALLOWANCES AND INCENTIVES • EMPLOYEE MANAGEMENT AND WELFARE 		<p>REVENUE STREAMS</p> <ul style="list-style-type: none"> • TRANSACTION (TRADING) FEES • SPREADS • AFFILIATE MARKETING • CRYPTO DELIVERY SERVICE • ADVERTISING & SPONSORSHIP • VIP CLIENT MEMBERSHIP • CRYPTO MINING EQUIPMENT SALES • CRYPTO CONSULTING SERVICES 	

Figure 4. Recommendation for Business Model Canvas on Cryptocurrency Company

Source: Researcher

From the identified Cryptocurrency company business model, the author provides advice & input in the Key Partnership section where the company should be affiliated with Influencers and Celebgrams to introduce the company's products to the general public. In addition, Cryptocurrency Companies can also partner with government agencies such as the Ministry of Trade, OJK (Financial Services Authority), BI (Bank Indonesia), the Indonesian Crypto Asset Traders Association (ASPAKRINDO) which aims to ensure user security and accountability, to create investor confidence in the company.

In the Key Activities segment, the author suggests that the company add business activities in the form of production operations, that is designing and making crypto bots where the purpose of making this crypto bot is as a reference / suggestion for traders to buy and sell crypto. In addition, the author suggests the company to add company activities in the form of problem solving in the crypto credit and crypto loan section. As a crypto commodity asset, it can be a credit product as well as a collateral asset and savings and loans. So that for people who need this product the company can provide it so that it adds to the company's Value Proposition.

In the Channels segment, the author suggests adding several Channels partners to deliver value to customers, such as google ads and advertising companies.

In the Revenue Streams Segment, the author suggests the company to provide VIP Client membership where with this membership the company can add Revenue Streams in the form of selling continuous access to use a particular service. The author also advises companies to sell and rent crypto mining tools to increase Revenue Stream.

- b) For PT Indonesia Digital Exchange and PT Luno Indonesia Ltd, this research can be used as a company guideline in mapping business and useful information in the context of internal improvement

AUTHOR CONTRIBUTION

Rionaldi Alamsyah Kuoki: Writing Entire Paper, Data Collection and Analysis, Editing and Layouting. **Dadan Rahadian:** Conceptualisation and Research Design. **Astrie Krisnawati:** Methodology and Supervision. All Authors have read the final version of the paper.

DECLARATION OF INTEREST

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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