

Planning E-Marketplace Business Model for Vehicle Rent

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Abstract

Technological advances and the internet are utilized by businesses to run electronic commerce or e-commerce businesses. The increase in Internet users from year to year is very significant, so that the application or migration of business into e-commerce is considered a good opportunity for business people. But the demand of vehicle rental is increasing especially in Bali. However, there have not been many e-marketplace businesses with vehicle rental services as evidenced by the name of e-marketplace vehicle rentals that are still foreign to the ears of the people of Indonesia. This research objective is to analyze and find business target in vehicle rental e-marketplace, create business plan for vehicle rental e-marketplace and create prototype platform for vehicle rental e-marketplace. This research methodology is interview and questionnaires. This research resulting the business model for vehicle rental e-marketplace and prototype platform for vehicle rental e-marketplace.

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Keywords: E-Marketplace; Vehicle Rental; Business Model

1. Introduction

Technological advances and the internet are utilized by businesses to run electronic commerce or e-commerce businesses. According to (Gupta, Khanna, & Sahoo, 2018) consumers prefer to make transactions to e-commerce companies compared to non-e-commerce companies because they are considered better.

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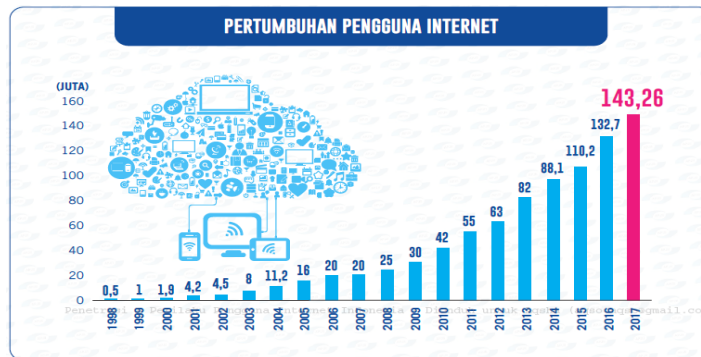


Fig. 1. Internet user growth in Indonesia (APJII, 2017)

Then with the number of internet users in Indonesia which is quite large as many as 143.2 million of Indonesia's population of 262 million which is 54.6 percent of Indonesia's population (APJII, 2017). The increase in Internet users from year to year is very significant, so that the application or migration of business into e-commerce is considered a good opportunity for business people.



Fig. 2. Marketplace demand for vehicle rent in Bali

In addition to e-commerce, the vehicle rental industry also has significant opportunities and has a very rapid development due to the need for car rental which is quite high (Septavia, Gunadhi, & Kurniawati, 2005). In addition, previous research also found that up to 2014 there were more than 5,000 vehicle rental companies which had an investment value of up to 75 trillion rupiah (Wardhana, 2014). Then based on the results of the author's survey of 150 respondents described in Figure 2 found that there are 89 percent of respondents who rent vehicles more than 4 times a year. This shows that the demand for car rental needs is high and proves that the growth of the car rental industry is quite large in Indonesia.

Then many types of online businesses besides regular e-commerce have good opportunities in the online industry. According to (Syuhada & Gambett, 2013), the marketplace in Indonesia is very dependent on the use of social networks where Indonesia itself has a very large number of social networks and makes Indonesia have the potential for a very large online marketplace business. The large number of social networks in Indonesia proves that Indonesia has a good opportunity to run an e-marketplace in the vehicle rental industry.

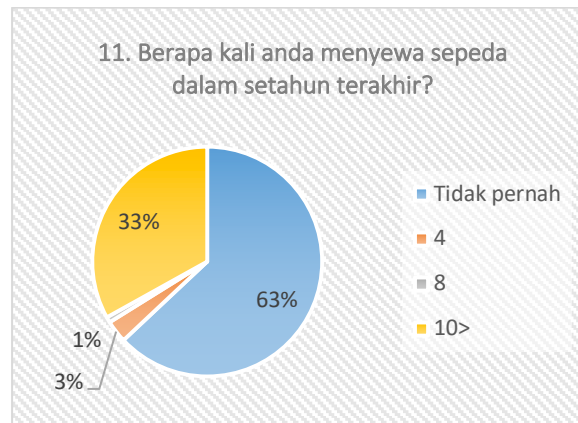


Fig. 3. Frequent of bicycle renting

Fig. 3, shows that there are also demand of renting bicycle as vehicle. The needs of renting bicycle can be for fun or for convenience purpose as well. The decrease of vehicle usage along with people awareness of going green increasing demand of usage and renting bicycle.

But until now there have not been many e-marketplace businesses with vehicle rental services as evidenced by the name of e-marketplace vehicle rentals that are still foreign to the ears of the people of Indonesia. Then the mobile apps platform that provides vehicle rental services in Indonesia is also not so much. This research objective is to analyze and find business target in vehicle rental e-marketplace, create business plan for vehicle rental e-marketplace and create prototype platform for vehicle rental e-marketplace. This research methodology is interview and questionnaires. This research resulting the business model and prototype platform for vehicle rental e-marketplace.

2. Literature Review

2.1. Entrepreneurship

Entrepreneurship is an understanding of different angles in terms of entrepreneurs (Filion, 2011). Meanwhile, according to (Eroğlu & Picak, 2011), entrepreneurship is the practice of starting an organization or revitalizing mature organizations, especially new businesses who want to respond to existing opportunities. In this thesis the definition of entrepreneurship used is a process in which there are functions, activities and actions that are interconnected to build an organization and require research on market share, innovation, teams, managing resources and leadership (College & Zacharakis, 2008).

2.2. Technopreneurship

Technopreneurship is an entrepreneurship that provides hi-tech products or utilizes hi-tech innovatively to provide products and services or both (Fowosire, Idris, & Elijah, 2017). Then according to (Posadas, 2007), the term technopreneurship is broader, namely as an entrepreneur in the field of technology that covers semiconductor technology to personal computer accessories. Based on this explanation, technopreneurship itself can be said as an entrepreneurship process that utilizes or involves technology.

2.3. Porter Five Forces Analysis

According to (Porter, 2008), every company that tries to maintain its existence needs to pay attention to competitive forces that can affect competition in the industry. Five Forces is a tool and the right method in analyzing a business, this method can be used to determine the strength of the company and also the market share that has been done beforehand.

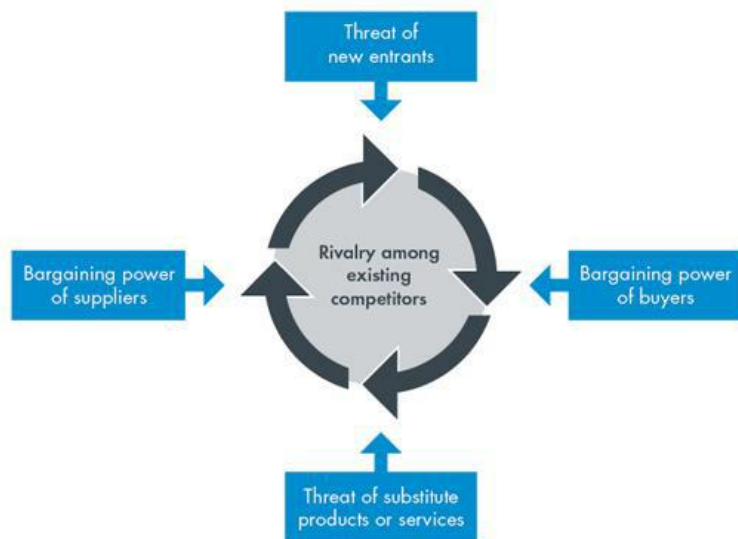


Fig. 3. Porter Five Forces Analysis Diagram (Porter, 2008)

Based on Figure 3 analysis of porter five forces according to (Porter, 2008) used to analyze consists of:

1. **Threat of New Entrants:** an analysis used to see the emergence of new competitors, caused by high market demand. This causes an increase in prices, costs, and investments used to compete.
2. **Bargaining Power of Suppliers:** an analysis to see the strength of supply power by suppliers will be able to provide benefits for the suppliers themselves. Suppliers can provide higher prices, limit product quality and shift costs. That way the price given by industries that supply staples from suppliers must take a small profit. Whereas weak suppliers will make the industry less competitive and increase the profit potential for buyers and increase the profit potential for buyers.
3. **Threat of Substitute Product or Services:** an analysis to see threats from other products that can affect an industry. Replacement products can limit the profitability of the industry, because substitute products will offer lower prices.
4. **Bargaining Power of Buyers:** is a strength analysis in which the ability of customers in pressing businesses to get high quality products. Buyers with large purchasing power can benefit from negotiating prices, thereby forcing prices to fall.
5. **Rivalry Among Existing Competitors:** an analysis of competition with competitors in terms of prices, products, advertisements. Which aims to improve the quality of service. The company must be able to know the direction of its competitors in order to continue to compete in the same market.

2.4. TOWS

TOWS is used as a strategic planning method used for weaknesses, weaknesses, opportunities, and challenges in projects (Tjoe, T. F., & Sarjono, 2010). TOWS analysis provides an overview from the outside so that it can provide a real picture of the external factors such as those related to challenges and opportunities (Ravanavar, G. M., & Charantimath, 2012).

Table 1 Analysis SWOT (Freddy, 2011)

	Internal Strengths (S)	Internal Weaknesses (W)
External Opportunities (O)	SO: "Maxi-Maxi" Strategy Strategies that use strengths to maximize opportunities	WO: "Mini-Maxi" Strategy Strategies that minimize weaknesses by taking advantage of opportunities
External Threats (T)	ST: "Maxi-Mini" Strategy Strategies that use strengths to minimize threats	WT: "Mini-Mini" Strategy Strategies that minimize weaknesses and avoid threats

2.5. Business Model

Sig Sigma is the development of a methodology in the area of Total Quality Management (TQM) which can be regarded as a methodology for pursuing continuous improvement to customer satisfaction, profits that go beyond defects in shortages and suppress improvements in business processes in general (Moosa & Sajid, 2010).

The business model developed by (Yves, 2010) succeeded in changing complex business concepts to become more structured and simpler. With the canvas approach, or the so-called Business Model Canvas. Where there are 9 parts of the business model.

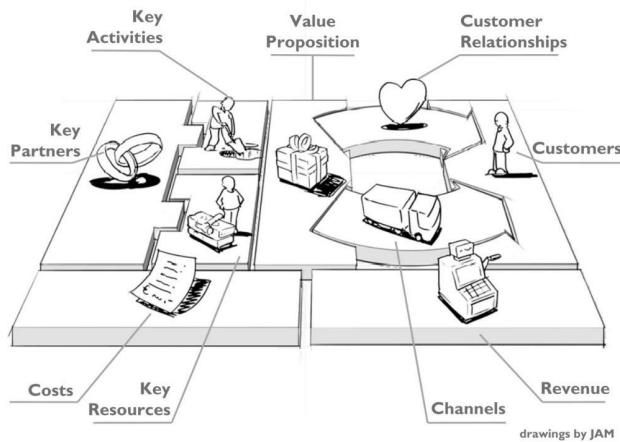


Fig. 4. Model Business Canvas (Yves, 2010)

From the explanation above, there are 9 components that are owned by the Business canvas model, namely:

1. Customer Segments: at this stage, determine the prospective customers we are going to. Consumer segmentation will determine where the company will develop.
2. Value Proposition: describe what products or services the company offers that have advantages or more value that will be given to consumer segmentation. The company has an advantage that will be able to compete with other competitors.
3. Channels: is a means for companies to convey value proposition to consumers. Companies can use media that will be able to reach the intended consumers.
4. Customer Relationship: describes how companies think about the needs of consumers and also establish ties with their customers.
5. Revenue Streams: describes the cash inflow of cash earned by the company from each of its consumer segments.
6. Key Resources: company data sources that can realize value propositions. These resources include people, technology, equipment and advertising.
7. Key Activities: describe the main activities that must be carried out by the company to be able to run its business in order to run well and in accordance with company goals
8. Key Partnership: describes the company's relationship with third parties so that the business model process can run.
9. Cost Structure: describes all types and amounts of costs incurred by companies that arise due to the operation of the business model.

To make a business, both in its planning and design, we need a tool to measure and make good preparation so that the business can be implemented well. Based on previous research, the authors chose the canvas business model as a business model that will be used for business design in this thesis

2.6. E-Marketplace

Marketplace is a container that collects the seller of a product or service in one place, similar to a shopping center or mall. With a marketplace, buyers can easily find the product or service they want by just visiting one place.

E-marketplace, as the name implies, is an electronic-based marketplace that can bring together sellers and buyers through cyberspace. (Brunn, P., Jensen, M., & Skovgaard, 2002) states that e-marketplaces are interactive and electronic-based business community platforms that provide markets that can be used by business people to carry out the Business to Business (B2B) buying and selling process.) and Business to Consumer (B2C).

According to (Brunn, P., Jensen, M., & Skovgaard, 2002), there are 2 types of marketplaces based on the products sold, namely:

- Horizontal Marketplace: A marketplace that sells commodity products that can be reached by many general consumers. For example, such as gadgets, clothing, accessories, and so forth.
- Vertical Marketplace: A marketplace that sells special products that are only used to meet the needs of a company or organization. For example, such as industrial raw materials, iron, steel, and so forth.

2.7. Vehicle Rental

According to the Criminal Code article 1313 an agreement is an act in which one or more people who bind themselves to one or more people. Then proceed by (Pradnyaswari, 2019), where the rental of a vehicle is an

agreement whereby one party binds itself to give the right to the second party to use the vehicle owned by the first party.

3. Methodology

Methodology that are used for this research are literature review and observation using questionnaire and interview. The observation will be performing at Bali, Indonesia area at vehicle rental, bicycle rental, hotel and resort area which will provide renting services.

Researcher will gather information using literature review from previous research to find the idea of this research. After that the researcher will take places at 4 places category to perform observation that will gives the researcher ideas to build this research along with the previous research studies.

4. Result and Discussion

4.1. Business Model Canvas

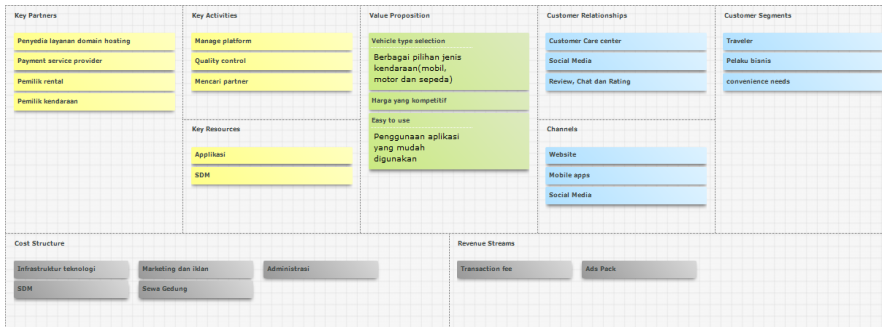


Fig. 5. Business model canvas

After conducting the observation, the author made business model for e-marketplace vehicle rental as showed on figure 5

4.1.1. Customer Segment:

Based on customer findings that have been made, it is estimated that users of the Rentalio application are Age: 20-49 years, Gender: Men and Women, Income: > = 3 million per month, Activities: Vacation, work or daily needs days (attending certain events such as parties / weddings)

4.1.2. Value Proportion:

Based on the results of the questionnaire, Value Proposition to be offered by Rentalio is the choice of various types of vehicles from cars / motorbikes / bikes, competitive and affordable prices, many choices of payment methods and easy ordering with the mobile application.

4.1.3. Channels:

Mobile applications for booking, registration, reviews and promotions. Then also through social media Instagram and Facebook to do promotions. Then through the website to display the company profile.

4.1.4. Customer Relations:

To improve customer relationships, Rentalio provides customer service center services, through social media and live reviews / chat / ratings on the Rentalio mobile app.

4.1.5. Revenue Flow:

Rentalio's business income is obtained through transaction fees obtained from vehicle rentals that have been deducted by rental owner fees and through ad packages obtained from rental owners who want to carry out promotions / advertisements on the Rentalio mobile app.

4.1.6. Main Resources:

Resources to be used by Rentalio are mobile applications and Rentalio's human resources including CTO, marketing, programmer and admin.

4.1.7. Main Activities:

Activities carried out are managing platforms which are activities to ensure the application runs well, quality control which is an activity to ensure vehicles / vehicle owners provide good service and quality, and looking for partners or rental / vehicle owners to be invited to work together related to diversity and product needs

4.1.8. Key Partnerships:

The partners needed by Rentalio are:

Domain hosting service provider Domains for application and domain hosting needs, Payment service providers for transaction needs to be made between vehicle owners and tenants, Rentalio will work with rental owners regarding vehicle providers and promotional needs, Rentalio will work with vehicle owners regarding vehicle providers and promotion needs

4.1.9. Cost Structure:

The breakdown of costs required by Rentalio is: Technology infrastructure related to application development such as server rental, domains and other hardware, marketing and advertising, administration, costs for employee salaries, rent a building.

4.2. Application Architecture

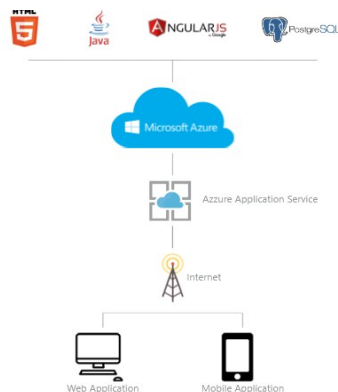


Fig. 6. Application Architecture

The architecture of information system design in Rentalio business will use a cloud which already contains important parts such as; Back-end system: the system will use java language which has advantages in system security and application stability; Front-end system: The system will use HTML 5 and AngularJS to support the website's front end system. The web portal application will be useful to provide store information and details of services provided. In addition, the function of the web portal is as an online promotional media; Database: will use PostgreSql which is an open source database application; Storage: will use Microsoft Azure cloud which is already good in handling storage.

4.3. User Interface

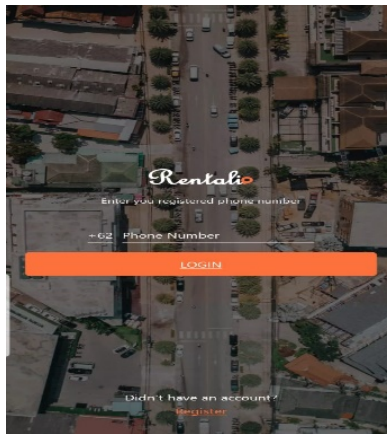


Fig. 7. User interface login page

This page is used for both consumers and rental owners to log into the Rentalio application. This page is the start page when the Rentalio application is opened. On this page there are columns for filling in telephone numbers and a login button and a register button.

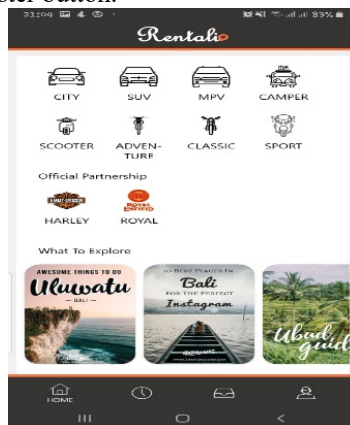


Fig. 8. User interface front page

After logging in, the front page of Rentalio will look like Figure 4.4. This page is used to check promotions and choose the vehicle category that the tenant wants to rent.

Conclusion

The vehicle rental e-marketplace platform helps rental owners to reach a wider market and availability of services 24/7. This service can help consumers in renting a vehicle, facilitate the price comparison process and help consumers adjust the meeting point and facilitate the payment process because there are many payment methods and provide security, comfort and convenience.

Gather feedback from users who will later be analysed to determine the development of features or improvements to existing features so that the Rentalio application is more user friendly. Develop other marketplace businesses, especially those related to vehicle rental. Continue to innovate with feature-rich applications and still maintain its competitive advantage. Expanding the reach so that it can expand the market not only in Bali, but can be for the whole of Indonesia and throughout the world.

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