

The Development of Indonesia Small Medium Enterprise (SME) Rating and Review Portal

Fredy Jingga and Natalia Limantara

Bina Nusantara University, Jakarta 11480, Indonesia
fjingga@binus.edu, nlimantara@binus.edu

Abstract

This research motivated by the number of SME that growth rapidly year by year in Indonesia. As one of the developing country, Indonesia SMEs, contribute a huge portion of Indonesian Gross Domestic Product (GDP). In order to support and empower the SMEs, Indonesian SMEs need the touch of technology, the aim of this paper is to know clearly about the right requirement and the behavior of prospective users in Indonesia SMEs. The result of this research is the business model of Indonesia SMEs Rating and review portal and applications development using the use case diagram modeling and Entity relationship diagram to explain the database development regarding the applications. Method used to develop the business model in this paper is business model canvas by Alexander Osterwalder and Yves Pigneur and modeled using Use case Diagram.

Keywords: *Business Model, Analysis, Design, Small Medium Enterprise, rating, review*

1. Introduction

In Indonesia Small Medium Enterprises (SMEs) playing strategic role in the development of national economic, that shown in the portion of (Gross Development Product (GDP) that contribute by the SMEs. SMEs contributed to National GDP about 57.94% (or equal to IDR 4.303.571,5 Trillion) and it increased to 59.08% (or equal to IDR 4.869.568,1 Trillion) in 2012 [5].

Moreover related to Indonesia's export performance, in 2010 Indonesian SMEs contribute IDR 175.894,9 billion (Equal to 15.81%) to national export performance and IDR 187.441,82 billion (equal to 16.44%) in 2011 [5].

Those number shown a big growth in Indonesia SMEs, according to (Salim, 2013), Indonesian SMEs grew as much as 2.41% from total 55.206.444 units in 2011-2012.

In order to support and empower Indonesian SMEs, There are five main features of the development policies for SMEs that stated by the Minister Counselor at the Indonesian Embassy in Ankara, Turkey Mr. Hanif Salim [5] during the 1st Meeting of the Committee for Economic and Commercial Corporation of the Organization of Islamic Cooperation (COMCEC) Trade Working Group at Ankara, Turkey. The five main features of the development policies for the SMEs are:

- a) Improvement of access to technology,
- b) Improvement of access to finance,
- c) Improvement of access to market,
- d) Technology diffusion and commercialization scenarios through business incubation, and
- e) Provision and creation of conducive environment to support new business ventures, *etc.*

To support the improvement of access to technology, Sarosa had done early research regarding the adoption of Internet technology [6]. It stated that the adoption of research innovation result is a social process. A social process means that the adoption of innovation needs the Key Actor to tries to impose his view on the problems and his version of the solutions to other actors by building a network of human and non-human actors network [6].

Under the current policies and the adoption behaviors of research innovation, this research aim for the right and clear technology requirement and the understanding of the prospective users in Indonesian SMEs Internet Technology Environment.

2. Materials and Method

2.1. Small Medium Enterprises (SMEs)

The definition of SMEs varies among the countries [8]. Usually it defines by the number of employees, capital invested, sales, and the production capacity. Table 1 defines the numbers of employee element of SMEs' definitions in the ASEAN member countries.

Table 1. Employees Number Element of SMEs' Definitions in the ASEAN Member Countries [8]

Country	Employee ¹⁾
BRN	99
IDN	100
MYS	150
PHL	199
SGP	199
THA	200
VNM	200
MMR	<200 ²⁾
KHM	<200
LAO	99

Note: 1) the Maximum number of employees 2) depends on sector

Even using the number of employees, definition of SMEs could be varies among ASEAN countries. Hence the definition used in this research is Indonesian SMEs that employed not more than 100 Employee.

2.2. Business Models

Business Models describes the rationale of how an organization creates, delivers, and captures value [4].

2.3. Business Model Canvas

To Describe the business models, Osterwalder & Pigneur believe it can be best described through nine basic building block that shown in Figures 1 [4].



Figure 1. Nine (9) Building Blocks of Business Model Canvas [4]

Each building block explains how we do things in business. Those 9 Building blocks explain as follow [4]:

1. Key partnerships are describing about the relationship with other organization, supplier or certain individual for company's development in business.
2. Key activities are describing about the business activities from the start to the ending. Example: milk product, in key activities, it will explain about the processing to get the milk to package the milk.
3. Key resources are describing about the stuff or any resources that will be needed in business process.
4. Value propositions are describing about the product or service advantages for the customers that make sure the customer to consume it.
5. Customer relationships are describing about how to serve the customer satisfaction such as providing customer services or automation services and etc.
6. Channels are describing about how to introduce the product or service to the customers, so the product or service will be known well in society.
7. Customer segments are describing about the customer classifications. Within the classifications, you can start thinking about new product / service or upgrade product / service that suitable within the classifications.
8. Cost structures are describing about the way that suitable for the business between price driven model and value driven model. Price driven model is a model that the cost will be tried to push as cheap as possible to compete the competitor.
9. Revenue streams are describing about the way how the income come in such as asset sale, rent, or *etc.*

2.4. Use Case Diagram

Use Case Diagram show the interaction between system and the key actors. It is an UML Diagram that shown the interaction between actor and the pieces of functionality known as use case [7]. Use case diagram capture the system and subsystem behavior [3]. Use case diagram used to demonstrate the functionality provided by the system and show several ways to communicate with the users who will be using the systems for several functions [2].

An actor could be a human, a computer system, or some executable process. A use case is a coherent unit of externally visible functionality provided by a classifier (called the subject) and expressed by sequences of messages exchanged by the subject and one or more actors of the system unit [1].

2.5. Method Used in the Research

The method used in this research is qualitative method: (1) Basic data collection from the SME's business owner questionnaires and from the SME's Prospective Customers. From the questionnaires we got the Indonesia SME's condition and opportunities. (2) Direct observation of Indonesia SMEs business process, to understand the requirement of Indonesia SME's Business Owner and prospective customers to know the best technology that suits the stakeholders.

3. Preliminary Research

3.1. Prospective SMEs Questionnaire Results

To understand the SMEs Technology environment in this research, we conduct a questionnaire to the member of several SME Unions in Indonesia. From the questionnaire we got 155 respondents with these following results:

- a) More than 50% Union's Members is High School Graduated.
- b) The category of SMEs is services provider.

- c) Mostly they know about Internet and they know about social media such as Facebook, twitter, Kaskus, etc.
- d) 63% of the member know how to use computer, but none of them using internet to increase their SMEs capacity.
- e) No promotion had been done through the Internet. Usually SMEs done promotion through the radio or *worth to mouth* marketing.
- f) The main challenge faced by SMEs is the marketing process that need a lot of time to let their prospective customer to know them.

3.2. Prospective SMEs Customer Questionnaire Results

After understand of Prospective SMEs, we did another survey with 189 Respondents through the Internet to understand the requirement of the people on the Internet environment whether the SMEs could fetch in or not.

The questionnaire's result conclude:

- a) Mostly the Social Media user (Prospective buyer for SMEs), buy things online this shown from 53% shown that they barely buy from online shop once a month.
- b) 35% of Users shown that they meet problem with the local online SME shop.
- c) 62% of the Internet user also shown that they afraid of being cheated by the seller in this case the online SMEs.
- d) 74% People interest to give Rating and Review to the online SMEs.
- e) 84% shown their support if there is a place or a community to rate and review the Online SME Shop that available online.

4. Indonesia SMEs Rating and Review Portal

The requirement between Indonesian SMEs that showing the need of a place to promote their products and services, and from the requirement of the prospective online buyer or in this case the users on the Internet. We would like to suggest creating a portal where both of prospective Online SME Shop Owner and the Internet users could gather, and rate each other.

4.1. Business Model Canvas

To better shown the business values of the Indonesian SMEs Rating and Review Portal, Figures 2 shows the business model canvas of the business.

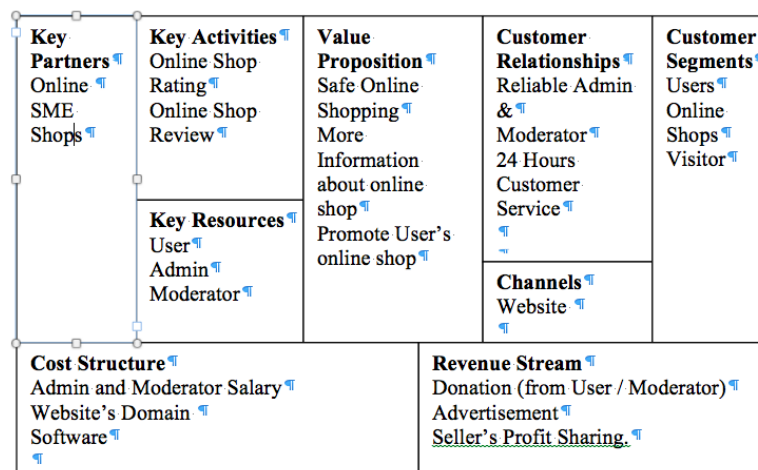


Figure 2. Business Model Canvas of Indonesia SMEs rating & review Portal

4.2. Design of Indonesia SME Rating and Review Portal

To get the features details of the portal, we tried to create the use case diagram. The use case diagram let us know the actor interact with which piece of functionality of the system [1]. Figure 3 shown the use case diagram of Indonesia SMEs rating and review portal:

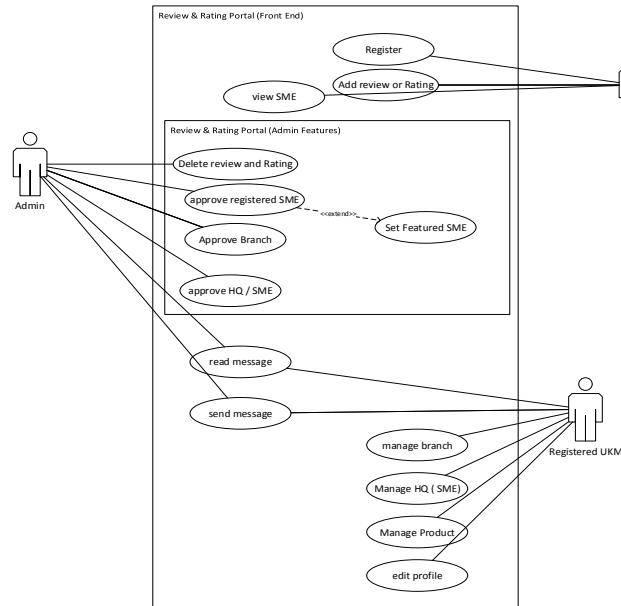


Figure 3. Use Case Diagram for Indonesia SME Rating and Review Portal

In the Figure 4 Illustrate the Database Design of Indonesian SME Rating and Review Portal.

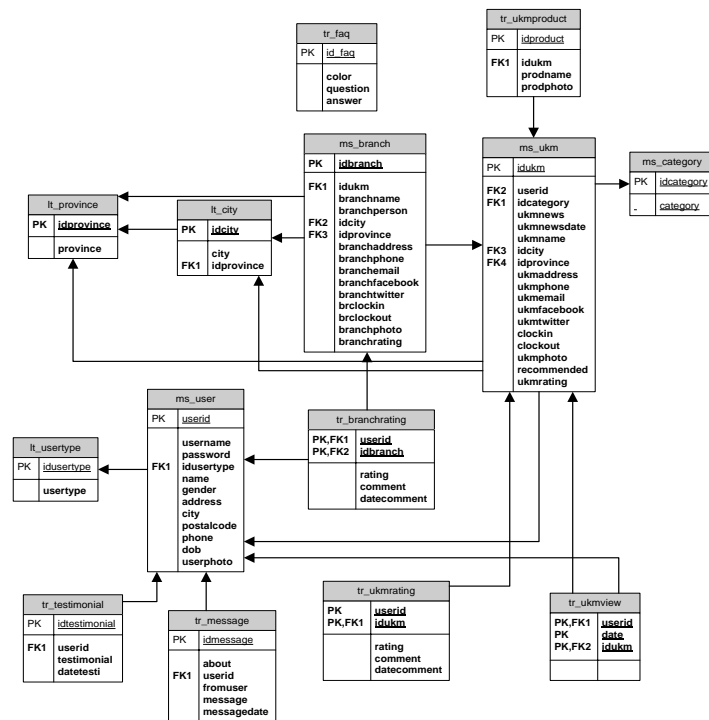


Figure 4. Entity Relationship Diagram for Indonesian SME Rating and Review Portal

In the Figure 5, 6 and 7 shows some example of User Interface of Indonesia SME Rating and Review Portal.

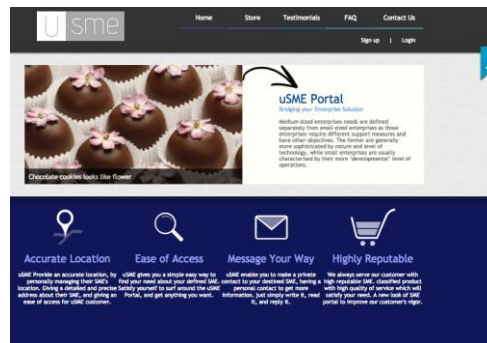


Figure 4. User Interface for Homepage

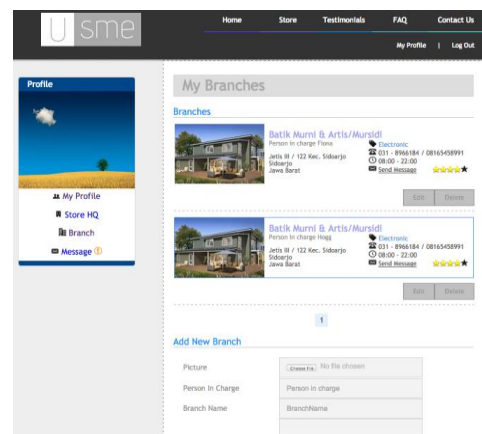


Figure 5. User Interface for Manage Branch

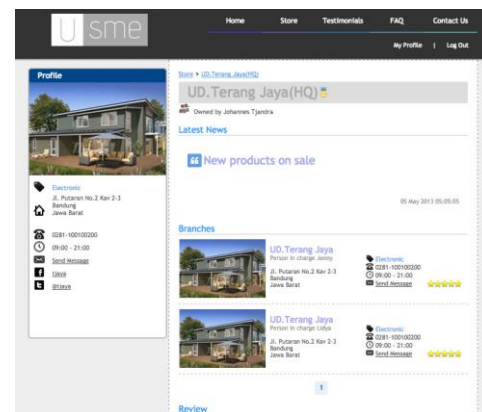


Figure 6. User Interface for view SME

5. Conclusion

The Development of Indonesia Small Medium Enterprises (SMEs) Rating and Review Portal Research fetch between the requirements of prospective Online SMEs, and the prospective Online Buyers. Those shown the touch of technology need to fill the gap by building the network of human and nonhuman. This portal also could help the prospective online buyers from frauds that always happened in the current business model of online SMEs.

Business Model Canvas could be used to shown the business value of your company. And the canvas could be used to become the strategy to design the Indonesia SMEs Online Rating and Review Portal. To connect between the business model and the prospective system, we could use the Use case diagram to show the interaction of actors and the piece of the functionality inside the business which shown in the building blocks in canvas.

Further Research could be done in planning the implementation of the portal to get more attractiveness in the market.

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