Cloud Computing For Development Smes S-Commerce Layer

Endang Supriyati, Mohammad Iqbal, Tutik Khotimah, Tri Listyorini

Abstract: The purpose of this study is to develop the SME market online cloud-based hosting, promoting small businesses, especially SMEs using information technology without a large investment. Cloud Computing offers many opportunities and could help companies to improve their business and use technology more efficiently. Cloud computing can often help ease this burden by enabling SMEs to access services that they might not have the money or resources to implement or support on their own. We study the factors of social commerce design with application environment and human capabilities. SMEs as one of the country's economic pillars facing double insistance among SME products domestic and foreign products. One way to increase sales was by promotion. Promotions were able to increase sales with a short time, reward for those who shop in the promotion timeframe. Social marketing combined product, price, place and promotion to maximize product sales. Then social-commerce(s-commerce) must be added promotional features. In this study developed a promotional feature in e-commerce for SMEs. So people interested to visit and interested to buy. The results of s-commerce design and applications with the contribution of promotional features.

Keywords: social commerce, promotion feature, cloud computing, SME

1. INTRODUCTION

Turning to the digital commerce world, a SMEs goes up one level higher. Not just a matter of promotion, SMEs owners can know their target market, how sales, including also control the payment system. For that, an SME must have a website or a site that is comprehensive enough to accommodate these needs. SMEs must move to follow the market in order to be exposed. SMEs are the driving base of creative industries that help drive economic progress. As the economic empowerment efforts, the SMEs take advantage of the digital world in accordance with the times. Cloud computing is an emerging new computing paradigm for delivering computing services. Cloud services SMEs can avail of opportunities that allow them to compete in an innovative ICT environment, and give a level playing field required to succeed in business. Cloud computing can often help ease this burden by enabling SMEs to access services that they might not have the money or resources to implement or support on their own. Many organizations may employ cloud computing solutions as part of their overall business strategy, allowing them to focus on their core business. The researchers began to be interested in s-commerce, they began to examine the problems of s-commerce ranging from business applications to business strategy. For example, the relationship between consumer intentions to buy with the construction of s-commerce. The existence of web 2.0 technology with social media and social networking, has led to a new platform for s-commerce. Users use s-commerce construction for trading activities that ultimately increase trust and intention to buy [1][2][3]. SMEs should be helped to acquire the relevant strategic skills as quickly as possible to remain ahead of the competition by using latest technologies such as Cloud Computing for business and learning because most of them would like to use Cloud services [4-5] A combination of aggressive government initiatives for cloud computing adoption and an increased emphasis in SMEs boosted the country’s potential and attractiveness for cloud computing solutions[6]. The great promise of Cloud Computing is the immediate access to enterprise grade software and next generation Information Technology solutions enables SMEs anywhere to expand their market reach, delivery and service, and customer interaction.

To build s-commerce there are two ways: (1) entering e-commerce into social media platform, (2) incorporating social media into e-commerce site. There are several features for s-commerce, some important features are comment fields to respond to other people's comments and provide product reviews, social features for users to socialize and commercial features for users to shop [7]. By observing the need to use after shopping, it allows for common features in s-commerce that are individual, conversation, community, commerce and management level features. S-commerce is not only a shopping site but also oriented to two-way communication. Which allows users to express themselves, share information with other users [8][9][10]. One traditional way to promote their goods but had a very large effect is word of mouth. They instantly will promote the online store to friends and those closest to them. It will become more and more known as a trusted store that provides the best service to buyers. Social media cannot be separated from society today. Promotion in social media is very important and influences on online stores and selling products [11][12][13]. Social marketing seeks to develop and integrate marketing concepts with other approaches to influence behaviours that benefit individuals and communities for greater social good. Behavioural changes are promoted to the user with advertising, interpersonal relationships, social media, email and more. A necessity on social marketing to develop new marketing models better than commercial and traditional marketing [14].

2. METHODS

Cloud computing Benefits for SMEs are: rapid elasticity, On-demand self service, broad network access, resource pooling and measured service. The types of cloud computing services used for s-commerce applications are: (1) Software as a service (SaaS) with public services namely email (gmail, Yahoo Mail, etc.), social networks (Facebook, Twitter and others) and many more, (2) platform as a service (PaaS) that provides rental services for operating systems, networks, database engines, application frameworks and others. In PaaS services, users are only applications that are made without the need to think about internet services. (3) Infrastructure as a service (IaaS) can be used to meet IT infrastructure needs. Services SMEs could offer to their clients could be a combination of Business Services, Application Software Services, Infrastructure Services, Integration and Development Services – Figure 1. Cloud Services for SMEs should be offered in such a way that users will find it easy. There are many opportunities and advantages for SMEs in
using Cloud Computing. Many of the same functions can be performed faster and more efficiently by using modern IT infrastructure and software than traditional in-place data centers. As a result, Cloud computing is likely to be an attractive option for many SMEs, particularly in the current global economic crisis, due to its flexible cost structure and scalability.

In this research, there are steps: (1) adding a promotional feature in a layer of commerce to establish trade prototype of the social order to validate the design of the proposed model and design principles that are relevant, (2) The design process and the principles of the two categories of social commerce (example, based on e-commerce and social networking). Our contribution is an add feature promotion (fig. 1) at commerce layer. In this layer added promotional features. Promotion is a campaign activity of a product or service with marked giving incentives or rewards to be able to stimulate the market to take immediate action to buy immediately. Promotions are held with a certain time limit (example, one week, 1 month or the other). After the promotion period expires then the offer returns to normal. The hope is to increase sales quickly. The difference between advertising and promotion is that the ad has no time limit, while the promotion always has a grace period that is applied as a tool of stressing. The results of the ads cannot be measured exactly, while stronger promotions encourage the purchase of a product.

The basic principle in building s-commerce there are 4 layer (fig. 2) that is Individual, Conversation, Community and Commerce [15][16][17][18]. The Individual Layer has features: personal profile, content profile, and activity content. The individual layers are used to display personal profiles, hobbies, interests and so on about a person's personal. This layer builds social experience and highlights interesting social information. Layer Conversation has features: information sharing, content creation notification, topic focus, and social content presentation. Layer conversation is used for communication between users, two-way communication. From this layer acquisition of information can be achieved by displaying user activity. The third layer is Community that has features relationship, connection, and community support. This layer serves to build a useful community for mutual support in making decisions, connecting people with friends and renewing social activities to maintain relationships within the community. The Commerce Layer is the outermost layer. These four layers do not have to be all. To be sure in building s-commerce there must be e-commerce and social networking (from technology we 2.0). The s-commerce features also adjust, if not required then it may not display certain features. S-commerce cannot be separated with social marketing, social networking related. Social marketing focus on users wants and needs, aspirations, lifestyle and freedom of choice [14]. There are 4 components that must be considered in social marketing (table 1).

### Table 1. Four component social marketing

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product</td>
<td>Product user behavior will affect other users to adopt ideas and behaviors.</td>
</tr>
<tr>
<td>Price</td>
<td>Prices social marketing with regard to fees to be paid</td>
</tr>
<tr>
<td>Place</td>
<td>Channel where users communicate with each other</td>
</tr>
<tr>
<td>Promosi</td>
<td>Ratings can be delivered through many media: e-mail, social media and more</td>
</tr>
</tbody>
</table>

3. RESULTS AND DISCUSSION

This development resulted in the application of s-commerce for SMEs, the SMEs can register to this site then offers his wares. There are four layers developed in this model the commerce layer, conversation layer, community layer and individual layer. The most fundamental thing in s-commerce is their e-commerce, products to sell, the interaction of buyers and sellers, buyers content provides product reviews and ratings.

A. Commerce Layer

This commerce layer is most important in s-commerce, these features create a trusted environment where friends, family and acquaintances contribute content to the referral and sale of goods and services through positive feedback, negative reviews, reviews, and testimonials about the experience they are in the past & present.
Fig. 3 (a.) Home page and promotion feature (b.) Product category

Fig. 3a. an initial view the site and to provide promotional information. Online promotions allow promoting products without any limitation of time or place. In this way do not need to pay such as promotions or conventional marketing. Online promotions make it possible to get customers even without having to spend a penny. Fig. 2b, there is a list of categories that are produced. There is agribusiness, industrial embroidery, garment, bags and others. Social media icons are also displayed, so they can connect to social media as advertisements, reviews and ratings.

B. Conversation Layer and Community Layer
The conversation layer is important and there should be. When a company is interested in building a community then there must be a feature of conversations, individuals, products, brands should be more attention.

Conversation (Fig. 5) deals with interactions among users, which essentially supports them in building communities of equal interest, conveying their opinions in real time, encouraging intense interaction among participants. Trade conversation becomes the main way in which people deal. In this form other than participants to discuss, users can also provide reviews about the goods purchased. So it can provide a reference for other users.

C. Individual Layer
Individual layer is inner layer, but commerce layer is outer layer. In this layer, presenting a clear and correct information to identify the participants, such as real names and photos of participant.

The application (Fig. 4) also shows related products. This feature offers products that buyers may be interested in purchasing other items. The related product is intended to be purchased in addition to the goods the customer sees. Simply click the check box to place products in the shopping cart. SMEs as sellers can post an ad, then contact the interested prospects directly, either via HP, email, chat (which is specified in the ads)

Fig. 4 (a) Product Notification (b) Related Products

The application (Fig. 4) also shows related products. This feature offers products that buyers may be interested in purchasing other items. The related product is intended to be purchased in addition to the goods the customer sees. Simply click the check box to place products in the shopping cart. SMEs as sellers can post an ad, then contact the interested prospects directly, either via HP, email, chat (which is specified in the ads)

Fig. 6a. New member form (b) user profile form
In Fig. 6 (a), a new user must pass registers, for the user's personal data. The function of this register is for authentication. This function serves as system security. Because authentication is a process of proving a user's identity upon entering a system. Then the validation process usually uses the name and password of a user who will be used as a marker (verification) whether a person is a person entitled to enter into the system. Fig. 8 (b) is the user profile form, constituting the user's personal data. This form contains name, address, e-mail and others. By using s-commerce, prospective buyers will be more and more. And their tendency to buy bigger, because influenced reviews and ratings provided by other buyers. A SMEs should have its own website (online store), there are many benefits: (a) the online store itself for your business, SMEs will have complete control over the website. SMEs can make any promo program and can design the website according to his taste. (b) SMEs requires a domain name for its online store website. The domain name will be the identity of the online store, it will help branding in the online realm. (c) Selling through an online store will help customers recognize and remember online stores, making it easier for customers to make further purchases. (d) Customers will be more confident and feel safe shopping at privately owned online stores. (e) it will be easier to "nurturing customer" or provide 'special treatment' such as ease payment process, give promo or special discount, and this will make it easier to please customers and get more loyal customers.

4. CONCLUSION
Social commerce is increasingly drawing the attention of practitioners and academics. The website offers a number of features to support social interactions while shopping online. The social features of the website stood out not only in making online shopping more enjoyable, but also contributing to the purpose of making online discoveries of products online. Promotion features on the comer layer will greatly help SMEs s-commerce to increase sales. By having its own s-commerce eat SMEs have complete control. It is risky to build a business and rely entirely on the place or website of others (Facebook, Marketplace, Forum).

Acknowledgement
This research received grant from the Directorate General of Higher Education through HIBER (hibah bersaing) 2017

References