

Mobile Commerce Model with Cloud Technology to Support SMEs Sales Performance

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Abstract

The development of mobile technology creates great opportunities for the institute to improve the company's performance in the fields of education, transportation, logistics and sales. On the other hand, cloud computing technology increases the cost efficiency of the technology significantly. Thus, the combination of mobile technology and cloud computing creates a new opportunity. SMEs as one of the supporters of the country's economy have limited budgets to improve their performance, especially sales performance. The purpose of this research is to build a mobile commerce model with cloud computing technology to support SME sales. The research method uses a qualitative approach by observing the e-commerce sales of SMEs and the development of mobile technology and cloud computing.

Keywords

Mobile Commerce, SMEs, Cloud Computing

1. Introduction

Mobile commerce (m-commerce) is about buying and selling goods and services through wireless handheld devices (Kale and Mente 2018). It is increasingly becoming popular across the world due to the benefits it provides businesses, especially small and medium-sized enterprises (SMEs) including improving productivity, increasing customer satisfaction, and lowering operational costs. M-commerce is a powerful technology in cutting costs, improving efficiency, and enhancing trade links SMEs. The tremendous benefits of m-commerce for SMEs, however, have not been fully utilized by SMEs in many developing countries (Prasana et al. 2019), (Sujatha and Sekkizhar 2019), (Cranmer et al. 2021)

With some of the explanations above, limited knowledge and budget are the main causes of SMEs not being able to implement mobile commerce. Using cloud computing technology can reduce the budget for implementing mobile commerce. Cloud computing also offers Platform As Application Service (PAAS) and Infrastructure As Service (IAS). So the purpose of this research is to build a mobile commerce model with cloud computing technology for SMEs (Hartono et al. 2020), (Wijaya 2021)

2. Literature Review

Mobile Commerce

Advances in wireless technology increase the number of mobile device users and give pace to the rapid development of e-commerce conducted with these devices (Taneja,2021). The new type of e-commerce transactions, conducted through mobile devices using wireless telecommunications networks and other wired e-commerce technologies, is called mobile commerce (Nakhate et al. 2021)

Due to the special characteristics and constraints of mobile devices and the wireless network, the emerging mobile commerce operates in an environment very different from e-commerce conducted over the wired Internet (Billewar et al. 2021). In terms of business potential, mobile commerce promises many more alluring market opportunities than traditional e-commerce because of its inherent characteristics such as ubiquity, personalization, flexibility, and dissemination. Mobile commerce will likely emerge as a major focus of the business world and telecommunication industry in the immediate future (Anwar et al. 2021).

Cloud Computing

The Greek Myths tell of creatures plucked from the surface of the Earth and enshrined as constellations in the night sky. Something similar is happening today in the world of computing. Data and programs are being swept up from desktop PCs and corporate server rooms and installed in "the compute cloud." (Hartono et al. 2021). Whether it's called *cloud computing* or *on-demand computing*, *software as a service*, or *the Internet as platform*, the common element is a shift in the geography of computation. When you create a spreadsheet with the Google Docs service, major components of the software reside on unseen computers, whereabouts unknown, possibly scattered across continents. (Linet al. 2020), (Poonia and Raja 2021), (Wu et al. 2019)

The shift from locally installed programs to cloud computing is just getting under way in earnest. Shrink-wrap software still dominates the market and is not about to disappear, but the focus of innovation indeed seems to be ascending into the clouds. Some substantial fraction of computing activity is migrating away from the desktop and the corporate server room. The change will affect all levels of the computational ecosystem, from casual user to software developer, IT manager, even hardware manufacturer (Mohammad 2019), (Wilcocks and Lacity 2018), (Chandrakala and Rao 2018).

3. Methods

Figure 1 explain research method. Observations of the SME e-commerce sales process provide inspiration to increase SME sales through mobile technology. Opportunities to use mobile commerce have the potential to increase SME sales. The next step is to identify solutions so that the implementation of SME mobile commerce can be carried out with a low-cost budget. The next stage is to determine cloud computing technology as a mobile commerce implementation solution for SMEs. The final stage of this research is to build a mobile commerce model for SMEs using mobile technology

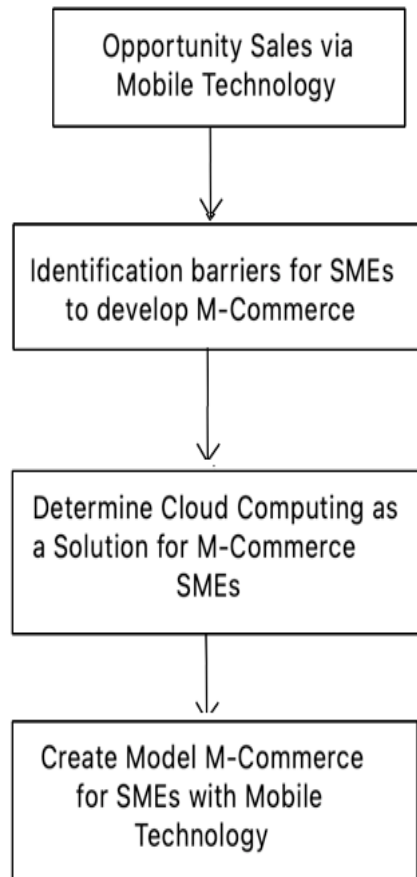


Figure1. Research Method.

4. Results and Discussion

Figure 2 describes the model generated from this research. In the above model there are 3 main parts, namely the customer side, cloud service side and the SMEs side. The customer side describes the customer as a buyer who uses mobile technology. Customers with mobile technology are connected to cloud computing through communication network technology devices such as satellites, access points and others. The second part describes the cloud technology used by IAS or Infrastructure as Service and PAS or Platform As Service. Mobile commerce can be built using Platform as Service where using PAS services can reduce the cost of making a mobile commerce platform. Infrastructure such as servers, databases are services provided by cloud computing that make it easier for SMEs.

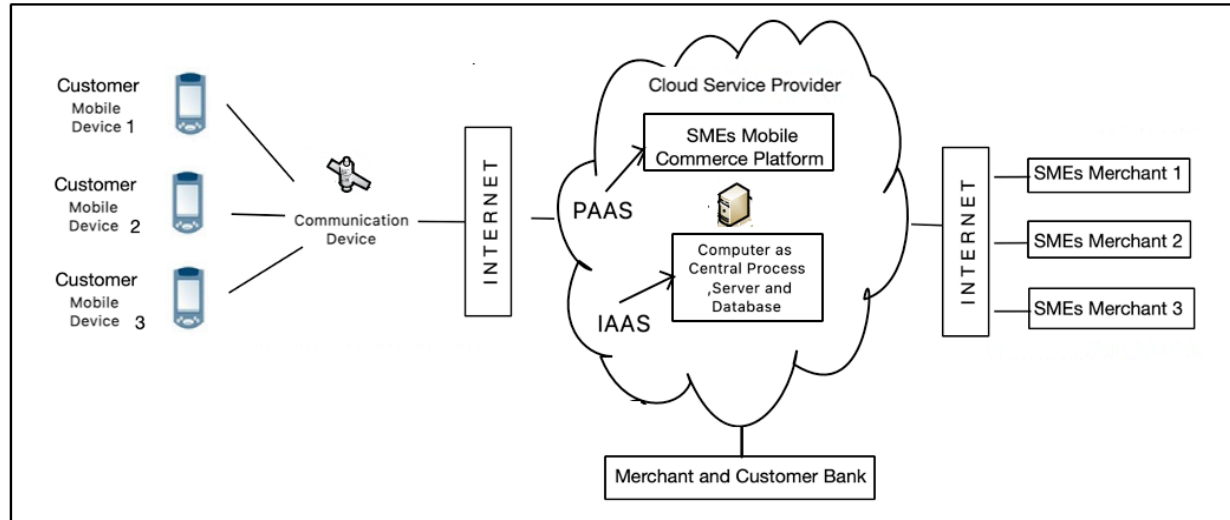


Figure 2. Mobile Commerce Model for SME with Cloud Computing

5. Conclusion

The M-commerce model with cloud computing technology is a solution for SMEs to increase sales through mobile commerce. limited budget for SMEs to build mobile-based applications with cloud computing technology is a solution because the services offered by cloud computing technology with several advantages can be implemented at low costs

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