Cloud Computing-Based Point-of-Sales Readiness for Surabaya’s Small/Medium Enterprises

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ABSTRACT

The amplification of Internet technology primarily in cloud technology development is enabling small and medium enterprises (SMEs) to utilize the affordable cost of information technology infrastructure and does not require a tremendous expenditure. Today many SME's ready to implements the Internet in their business processes as well as large-scale enterprise, particularly when the internet users also expanding. The data from http://statista.com illustrated that numeral of internet user in Indonesia rise drastically over the last three years. This research discusses the eagerness of Indonesian SME’s, especially in Surabaya to utilize Point of Sales (POS) application based on cloud computing. The study related to the adoption of the POS done by qualitative research methodology. The completion of this investigation identified the essential factor of POS based on cloud computing adoption which appropriates with IT Users and Entrepreneur’s. The most significant factor in cloud computing adoption for point of sales is security and ease of use. Based on that result this study purpose the POS infrastructure for SME’s in Indonesia especially in Surabaya. 

Key words: POS, SME’s, Cloud, Internet, Adoption

1. INTRODUCTION

The advancement of internet technology facilitates small and medium-sized enterprises (SMEs) to quickly enhance their growth. This enhancement is illustrated by internet data statistics in http://statista.com that show the expansion of business processes and information transfer by SMEs over the last three years. Internet use in Indonesia has increased significantly. Concurrent with the acceleration of web technologies over the last three years has been the innovative technology termed “cloud computing.” Cloud computing permits enterprises of any scale to adopt information technology flexibility under the requirements of their own operating system platform, technology, infrastructure, and application. The flexibility offered by cloud computing presents an advanced solution for SMEs that require such technology but are not able to incur significant expenses for software licenses, hardware, and IT infrastructure. This research aims to determine the Point-of-Sale (POS) requirements for SMEs and their adoption of cloud computing technologies. Furthermore, this study explores an application model that is specific and suitable for SMEs. Cloud computing constitutes an alternative virtualized IT resource, with the advantages of easy implementation and convenience. Cloud computing vendors guarantee the quality of use for the resources to customers and they carried for what they use for organizations; Such resources mean that the organization does not need to invest in in-house IT solutions. The cloud computing service model is based on the premise that the consumer has the means to manipulate their information over the internet according to their current needs [1].

“Cloud computing” describes internet-based IT services that rely on a virtual infrastructure. Using the recent information technologies, cloud computing services facilitate user admittance through a customized service designed to meet the firm’s needs without enormous effort and cost. Cloud services also have an opportunity to shorten the difficulty of information systems, which is a challenge often faced by SMEs [2]. Cloud services enable SMEs to obtain further advantages including expanded business opportunities, lower cost of IT infrastructure, better use of human resources, and enhanced business experience [3]. A notable finding from preceding study is that the cost deduction is not the greatest critical factor for small businesses (SMBs or SMEs) to implement cloud computing. “Ease-of-Use and Comfort” and “Security and Privacy” are the two critical factors for small businesses followed by cost reduction or cost savings. These statements indicate that SMEs are pleased to implement cloud technology due to their ease-of-use, convenience, security, and privacy benefits in addition to diminishing their costs. Factors that considerably affect the embracing of cloud technology are presented in Figure 1[4]. Based on prior research, this research identifies the significant factor for POS-based cloud computing by SMEs in Surabaya and contributes to the literature in this regard. “Point-of-Sale” (POS) refers to a wholesale store, cashier, or the site where transactions occur. Furthermore, POS dictates the hardware and software used for electronic transactions. POS is used in hypermarkets, cafés, hotels, and implicitly by all wholesale business. Most retail POS systems do further than only point-of-sale even for small retailers and many POS systems contain unified bookkeeping, inventory management, procuring demand forecasting, customer relationship management (CRM), service management,