

Dynamic Capabilities for SME's: Ready to Change and Cloud Service Role Toward Digital Business

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ABSTRACT: The company will have dynamic capabilities if the cloud service and readiness to change are excellent. Companies will have high dynamic capabilities if they have the readiness to accept changes in the digital era (readiness to change). This study aims to examine the role of cloud services and readiness to change on dynamic capabilities for SMEs. The research was conducted by survey method. Research data was obtained through a survey of 250 SMEs in Indonesia. The results showed that cloud services and readiness to change for SMEs play a role in Dynamic capability on digital business.

Keywords: Dynamic capability, cloud service, digital business.

1 INTRODUCTION

The digital age is an exciting era for technology and business. In this era, all business sectors change from manual to digitalization in their operations, including the Small Medium Enterprises (SMEs). Digitalization is required to survive and sustainable competitive advantages. The biggest challenge being faced by SMEs is how to increase the accessibility of SMEs to go digital and improve the capabilities of SMEs, so their products can compete with foreign products.

In Indonesia, some SME players already applied digital business for selling their products. Some of the players have their own startup, website, or application. Meanwhile, some of them rely on social media, either Facebook, Instagram, Twitter, WhatsApp, or LinkedIn. Some SME players in Indonesia have skills in technology; unfortunately, they use the computer only as a business tool, not as communication or marketing medium. Digital business application in Indonesia is shown by The global innovation Index 2017, whereby Indonesia was ranked 87th out of 127 countries in digital innovation. The digital innovation here includes digital advertising and communication by the SME players.

Infrastructure is lacking to support digitalization. Only 22% of the population has internet access, and most of them located in Jakarta. It causes a gap in digital business adopted by SMEs. The percentage of website usage in digital business was only 1.3%, whereas 98.7% use non-website dominated by WhatsApp. It needs more effort and investment in Information Communication Technology (ICT) to support SMEs so that it can improve Indonesia's digital economy. (APEC, 2018). By using the internet, SMEs can spread their marketing activity into the international market. It is hoped that SMEs will have a dynamic ability to face the turbulence of the current business environment.

Dynamic capabilities represent a suitable approach for studying the effects of information systems or their specific abilities on organizations (Rialti et al., 2019; Contractor et al. 2016). Utilization of the system is able to analyze big data and can be used to solve various problems related to data (Wamba & Mishra, 2017). Analytic systems and big data can be used as a tool in achieving competitive advantage during environmental turbulence (Akter et al., 2016).

At present, a willingness to deal with organizational change is needed to effectively implement a change

program that can be done through an investigation of an individual's readiness to change (Vakola, 2014). The concept of readiness to change is interesting because employee reactions to change is playing an essential role in every organizational change (Oreg et al. 2011; Bartunek et al. 2006). Besides, the readiness factor is one of the most critical factors involved in initial employee support for change initiatives (Armenakis et al. 1993; Holt et al. 2007).

During the change process, companies should use the cloud for computing needs and blockchain-based cloud services; this is one of the most transformative technologies in the current era (Prasad et al., 2018). Cloud services are usually free; they are inexpensive and have many functions making it suitable for education and business (Wang et al., 2017). Cloud services have attracted much attention from educators and entrepreneurs because these services can facilitate better collaboration so that cloud services can improve performance. In an increasingly complex business system, employee transformation strategies are needed. They are prepared for their new roles, functions, and skills (Gibson et al., 2015).

Based on this description, this study will examine the importance of cloud services and readiness to change toward dynamic capabilities for SMEs.

1.1. *Dynamic Capabilities*

Dynamic capability is defined as the ability of an organization to adapt its changing environment by reconfiguring internal and external processes and resources with existing competencies (Eisenhardt & Martin, 2000; Gaur et al., 2014). The use of dynamic capability theory will enable a researcher to dismantle big data to analyze it and disseminate it to everyone in the organization (Rialti et al., 2019).

Dynamic capability is the agent of evaluation and change. It enables the company to assess what changes are needed for their resource and remain competitive, especially for a changing market environment (Wilden et al., 2013). The absence of dynamic capability can be seen as a threat for a company to maintain its performance, especially in a new and changing environment (Gnizy et al., 2014). Dynamic capability is characterized by long-term patterns of corporate behavior to facilitate adaptation (Zollo & Winter, 2002). Nonetheless, it does not directly affect the company's performance. So it can be concluded that dynamic capability is the ability of an organization to adapt adequately and timely to its environment. Organizations are able to change resources and remain competitive by spreading knowledge to everyone

in the organization in a persistent long-term pattern. Gnizy et al. (2014) stated that dynamic capability could be measured by marketing program adaptation and local integration. While Oliva et al. (2018) measured dynamic capability by the integration of individuals' expertise in the organization, culture, orientation and leadership, and corporate strategies. Other dimensions are markets, technologies, and regulations (Park et al., 2018). Whereas sensing, seizing, transforming were measured by Tallott & Hilliard (2016).

The ability to identify and explore emerging opportunities and new sources of competitive advantages done by Kumar et al. (2018). Whereas, Schilke et al. (2018) measured sensing, learning, integrating, and coordinating capability. Other researchers Hernández-Linares et al. (2018), measured it with strong coordination and competitive response to the rivals (Rehman & Saeed, 2018).

1.2. *Cloud Service*

Cloud service is a model for providing ubiquitous, adequate, and on-demand network access (e.g., servers, networks, storage, applications and services) with minimal effort and service provider interaction (Qadri & Quadri, 2018). Cloud service is an exciting and compelling technological breakthrough that has shown how we work, collaborate, and share knowledge (Mohamed & Pillutla, 2014). All of that is available through the Internet, such as document services (e.g., Google documents) or file hosting services such as Dropbox (Wang et al. 2017), cloud storage, big data, learning machines, and cognitive computing (Prasad et al. 2018). Moreover, cloud service is built from a collection of computers, which are interconnected and virtualized, so that they can provide a set of services that are determined through a Service Level Agreement (SLA). The Cloud Service can provide customers with demand-based computing and storage resources from a remote data center as a utility (Modi & Garg, 2019). Therefore, it can be concluded that cloud service is a set of services that provides network access everywhere, adequate, and on-demand to computing resources that can be configured and available through the technology-based Internet so that it can provide computing service from a remote data center as a utility.

Qadri & Quadri (2018) stated that the influence of cloud services can be measured using the dimensions of On-Demand Self-Service, Internet Accessibility, Pooled Resources, Elastic Capacity, and Usage-Based Billing while Mohamed & Pillutla (2014) stated that the dimensions of the cloud service are

the Systems, semantic protocol layer, and the Virtual machine sub-layer. In addition, other dimensions of cloud service according to several studies include: facilitating conditions, computer self-efficacy, online collaboration, user engagement, industry collaboration, vibrant ecosystem, blockchain technology standardization, regulatory clarity, cost efficiency, energy efficiency, bloat blockchain handling, miner incentives, business case alignment to blockchain capability, sidechains development, blockchain talent pool availability, leadership readiness for a decentralized consensus-based technology, technology investment and maturity, trust on blockchain networks, integration with other cloud services, robust and mature smart contracts platforms, blockchain security and user control on data (privacy), availability, throughput, response time and cost, quality assurance, and enhanced user satisfaction (Modi & Garg, 2019; Prasad et al. 2018; Wang et al. 2017).

Based on research conducted by Wang et al., (2017), it was revealed that their attitudes towards their use mainly determines the intention to use cloud services. Attitudes towards use are influenced by perceived ease of use and perceived benefits. Perceived ease of use is influenced by facilitating conditions, while social influences influence perceived benefits. Furthermore, Qadri & Qadri (2018) concluded stated that cloud service is ideal for e-government systems because it provides adequate cost savings and high availability with ease of operation, has the security needed to maintain confidential information such as user details, value, and so on, which ultimately increases the dynamic capabilities of an organization (Modi & Garg, 2019; Mohamed & Pillutla, 2014; Prasad et al., 2018). As such, based on the results of previous studies, the hypothesis is proposed as follows:

H1: The higher the level of an organization's cloud services, the higher the dynamic capabilities in the organization.

1.3. *Readiness to Change*

Armenakis et al. (1993) defined "readiness" as an individual's beliefs, attitudes, and intentions regarding the extent to which change is needed and the capacity of the organization to successfully change. Therefore, the leadership responsible for change gives instructions to compile a message of change that addresses the five components of readiness: differences, efficacy, appropriateness, primary support, and personal valence (Hemme et al., 2018). Furthermore, Hemme et al. (2018) stated that organizations in implementing and managing change must be prepared if they do not want

their efforts to fail. An individual's readiness to change is a critical success factor because the organization only changes and acts through its members, and even the most collective activities that occur within the organization are the result of the merging of the activities of organizational members (Vakola, 2014).

At the organizational level, readiness to change refers to the joint commitment of members of the organization to implement change and shared beliefs in their collective ability to do so (Budhiraja, 2019). So, it can be concluded that readiness to change is an individual's beliefs, attitudes, and intentions in implementing and managing existing changes. It refers to the collective commitment of members of the organization as a critical success factor based on a shared belief in the collective ability to adapt to change. Dimensions to measure readiness to change in its effect on dynamic capability include leadership, organizational culture, communication, training, measurement, and reward systems (Al-Balushi et al. 2014). Antony (2014) identified five main readiness factors, namely: (1) leadership and vision; (2) commitment and management resources; (3) company strategy; (4) customer focus; and (5) choosing the right people. Other researchers, Ulsan et al. (2018) measured readiness to change using the dimensions: Commitment of managers to change due to new implementations; Commitment of employees to change due to new implementations; Communication of information; Clearly defined (financial) benefits / outcome of quality methods; Clear definition of customer requirements; and Knowledge and training in quality methods. Besides, Vakola (2014) measured the effect of readiness to change by using the dimensions of Core self-evaluations, perceived impact of change, Trust in management, Communication climate, and Job satisfaction. Meanwhile, Budhiraja (2019) stated that the determinants of readiness to change consist of top management involvement, organizational infrastructure, employee attributes, employee attitude, active involvement of employees, development of skill-sets, augmented social interaction, and systematize the change. The research conducted by Chenevert et al., (2019) concluded that readiness to change is related to higher turnover and actual turnover intentions, meaning that the less prepared an individual in responding to change will cause a higher level of absenteeism and turnover. Meanwhile, according to Hemme et al. (2018), readiness to change affects the engagement and dynamic ability of the organization (Ulsan et al., 2018; Vakola, 2014). So, the hypothesis can be formulated as follows:

H2: The higher the level of individual readiness to change, the higher the dynamic capability in the organization.

2 RESEARCH METHODS

The type of research used was explanatory and descriptive. The sampling technique used non-random sampling with a purposive sampling method. 250 SMEs in Indonesia, especially in Central Java involved in this study. The respondents were owners/leaders/managers of SMEs. Other criteria used were that SMEs must have a minimum of 10 employees and used Information technology in its supply chain activities, for example, in the procurement of raw materials, production processes, and product delivery to consumers. The questionnaire was distributed to respondents, and the list of questions was arranged based on a Likert measurement scale of 1 to 5.

Measurements of variables in this research are as follows: Dynamic capability operationally defined as the ability of an organization to adapt adequately and timely to its environment. Whereas the measurement of variables are Sensing capability, adaptive capability, learning capability, networking capability, innovative capability, integrating capability, and coordinating capability (Gnizy et al., 2014). Cloud Service operationally defined as a set of services that provide network access everywhere, adequate, and on-demand to computing resources. Whereas the measurement of variables are internet accessibility, computer self-efficacy, cost and energy efficiency, quality assurance, and enhanced user satisfaction (Modi & Garg, 2019; Mohamed & Pillutla, 2014; Prasad et al., 2018; Qadri & Quadri, 2018; Wang et al., 2017). Readiness to changes operationally defined as an individual's beliefs, attitudes, and intentions in implementing and managing existing changes. Whereas the measurement of variables are organizational culture, organizational infrastructure, commitment and management resources, and communication climate (Al-Balushi et al., 2014; Antony, 2014; Budhiraja, 2019; Uluskan et al., 2018; Vakola, 2014).

Data analysis techniques used in this study was Multiple Regression and can be shown in the following equation: $\text{Dynamic Capability} = \alpha + \beta_1 \text{Cloud} + \beta_2 \text{Readiness} + \varepsilon$

3 RESULTS AND DISCUSSIONS

The test results for each of the research hypotheses can be explained on table 1.

Table 1. Regression Result

Variables	Beta	Prob. Sig. α
Cloud Services	0.329	0.000
Readiness to Changes	0.949	0.000

Table 1 above shows that cloud services has a positive and significant effect. This means that the first hypothesis in this study is accepted. In other words, the hypothesis that Cloud Services affects to dynamic capability is proven. The results of the hypothesis above indicate that cloud services strongly influence dynamic capability on SMEs. Network availability, safe storage and ease of operating a computer will increase Dynamic capability.

Next, it also shows that Readiness to Changes has a significant positive effect on Dynamic capability. This shows that the second hypothesis in this research is accepted. That means "readiness", "attitude," and "intention" of individuals and organizations to change is a reflection of high dynamic capability.

4 CONCLUSION

The Cloud services and Readiness to Change for SMEs have played a role in Dynamic capability in digital business. In the digital era, SMEs have to increase its dynamic capability. Dynamic capability can only be achieved by preparing for any changes in the market environment. In addition, SMEs must be able to take advantage of the latest available technology, such as cloud services.

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