

Information System Planning In Small And Medium Enterprises

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ABSTRACT

Information system planning is needed because it is part of a company's strategic planning. The planning of this information system strategy is prepared in order to win the competition and the business performance of SMEs will be higher. The purpose of this study is to formulate strategies and describe system objectives, technology architecture to be implemented in SMEs. The method used is the Strategic planning Information System (SPIS) method version of John Ward and Joe Peppard (Ward & Peppard). The results of information technology system planning can be useful for SMEs. How to utilize information properly for their organizations based on these results, SMEs must have the ability to apply information technology so that it becomes an innovation to develop their business.



KEYWORDS

Innovation
Information System Planning
SME
Strategic Management



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1. Introduction

SMEs have a strategic role in shaping a nation, with the presence of SMEs can increase the economic growth of a country [1]. In line with this, it is stated that SMEs have a large contribution in increasing the gross domestic product of a nation [2]. Several studies also explain the importance of the role of information technology in SMEs. Therefore, information system planning is needed as part of the implementation of technology carried out by SMEs [3].

Research conducted by foreign countries proves that the growth rate of entrepreneurship can improve their competitiveness indicators which is likely to be a key factor in reaching the next stage of development. In other words, countries that have positive entrepreneurial factors will have positive competitiveness [4].

In developing countries this level of entrepreneurship can help in transitioning from "managed economies" to "entrepreneurial economies" [5]. Other empirical studies conducted by different countries with different periods reveal that there are different types of relationships between, an economic entrepreneur (factor driven), an efficiency driven factor (efficiency driven), and an innovation driven factor (6).

Small and Medium Enterprises (SMEs) play an important role in the Indonesian economy, because this sector can overcome the problem of equity in income distribution between regions. In addition, SMEs have proven to be able to survive and continue to grow in the midst of a crisis, because in

general this sector still utilizes local resources, be it for human resources, capital, raw materials, to equipment, meaning that most of the needs of SMEs do not rely on imported goods.

Mastery of SME technology is different from the theory of the application of technology that is commonly found in large companies. In general, experts suggest the role of knowledge creation and technology is only applied to large companies, but empirically the application of knowledge creation is found in SMEs [7]. Based on this, it is also stated that technology has a big role in the development of SMEs [8].

Therefore, it is important to plan an information system strategy in SMEs by paying attention to the internal and external aspects of the company so that it becomes a strategy in creating a business [9]. And explained that the implementation of information system strategies can increase the competitiveness of SMEs [10]. Based on theoretical and empirical understanding, an information system strategy plan for Batik SMEs was prepared.

2. Method

The method used in this research refers to the concept of strategic planning proposed by Ward and Peppard. The Ward and Peppard version of the method approach starts from analyzing business conditions and IS / IT investments that have been running and are considered less effective, then analyzing external business conditions so as to increase the competitive advantage of an organization. Analyze whether the utilization of SI / IT is maximized, then compare it with the tendency of the condition of SI / IT used outside. Because sometimes it is less useful for organizations, because it is more focused on technology, not based on business needs [11].

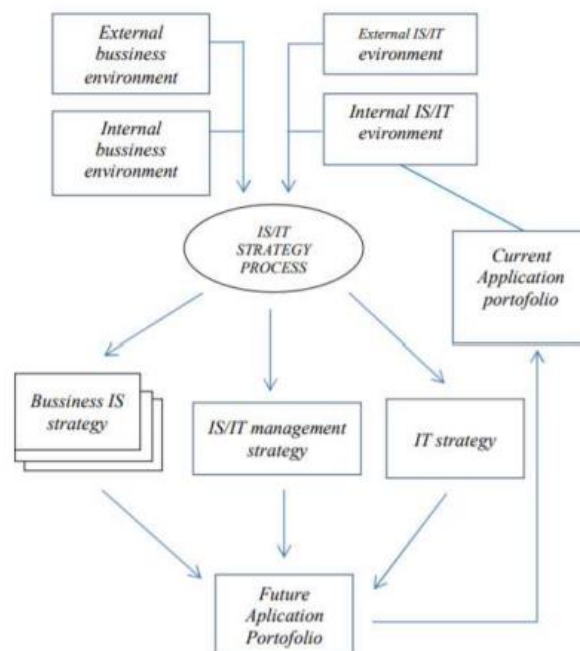


Figure 1. Model Ward and Peppard 1

There are two stages carried out in developing the ward and peppard methods for SME businesses. The first stage is the input stage, namely how to conduct business analysis of Batik SMEs both internally and externally and analyze the resources owned by SI / IT in the Batik SME business and analysis of changes in the SI / IT environment in the field of Batik SMEs. The second stage is

called the output stage, namely the existence of an SI and IT strategy and a management strategy for IS / IT in the field of Batik SMEs.

3. Results and Discussion

Batik UKM is one of the business activities carried out by West Java residents based on the heritage of cultural ancestors that have been passed down from generation to generation which is the attraction of paratourism. In conducting business analysis of Batik SMEs both internally and externally, it is necessary to approach using SWOT analysis. The following are the results of the SWOT analysis mapping of Batik SMEs:

Table 1. SWOT Matrix 1

	Streangths	Weakness
Threats	S-T a. The government encourages the emergence of industrialization of SMEs	W-T a. Consistent in using existing information technology applications b. Always evaluate and monitor
	S-O a. Implement supplier management information system b. Creating more innovative training programs facilitated by the government c. Use of online shops by SMEs	W-O a. Conducting education and training for SMEs on quality batik processing
Opportunities		

Based on the results of the SWOT analysis using IFAS (Internal Factor Analysis Strategic) and EFAS (Exsternal Factor Analysis Strategic) approaches which are then mapped in the grand strategy matrix resulting in the conclusion that Batik SMEs in West Java are in Quadrant I which is categorized as aggressive. This indicates that the growth of written Batik SMEs in West Java has a favorable position for the company. Because it can push back to introduce the use of batik in the community. The strategy of Batik SMEs in West Java must implement and support aggressive growth policies (Growth Oriented Strategy).

This aggressive growth policy is in order to achieve growth, whether in sales, assets, profits or a combination of the three. This can be achieved by lowering prices, developing new products, improving product quality and increasing access to a wider market.

In addition, Batik SMEs in West Java need to conduct portfolio analysis. Portfolio Analysis is used to map existing applications and also future application needs in supporting organizational / company efforts. This mapping consists of four quadrants that have strategic, high potential, key operation and support categories. In this analysis, Batik SMEs are mapped according to the McFarlan Strategic Grid which illustrates the contribution of existing SI/IT will be assessed using four quadrants.

Table 2. Portfolio Application Analysis 1

Strategic	High Potential
-	-
-	User of the website promotion site from the 3rd party
Key Operational	Support

From the results of the analysis of the conditions of the internal, external environment and portfolio applications carried out in the previous stages which describe the current Batik SME SI application. Therefore, the strategic planning of the business and information system of Batik SMEs in West Java for the next few years in order to maintain excellence can be seen in the following table 3 figure:

Table 3. SME Application Portfolio 1

Strategic	High Potential
<ul style="list-style-type: none"> - Socil Media App - Educational promotional apps - eCommerce - eCatalogue - website profil UKM 	<ul style="list-style-type: none"> - Supplier Assessment Application - Officership application
<ul style="list-style-type: none"> - Inventory control application - Accounting Application - Finance and Payroll Applications 	<ul style="list-style-type: none"> - Extension Support Application - Quality Assurance Applications - Asset Manager app - Production scheduling app - Records Management App
Key Operational	Support

4. Conclusion

Based on the results of several strategic planning analyses of information systems in Batik SMEs in West Java that have been carried out, several conclusions can be drawn as follows: The application that may determine the future success of Batik SMEs in West Java is the Supplier Assessment Application, Staffing application. Applications that are useful but do not determine the success used by Batik SMEs in West Java are Decision Support Applications, Quality Assurance Applications, Asses

Manager Applications, Production Scheduling Applications and Records Management Applications. Applications that are currently indispensable in achieving success in Batik SMEs in West Java are inventory control applications, accounting applications, financial and payroll applications, data collection applications and customer data storage.

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