

SMEs Business Process Framework to Improve their Performance: Systematic Literature Review IS Perspective

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Abstract

Along with the development of the era of the impact of the higher level of competition, the company is required to improve its performance in order to win the competition. Various methods are used to help companies improve their performance. One way is to create a framework that is a reference for companies to improve the effectiveness and efficiency of their business processes. Some frameworks have been designed to help companies, especially SMEs improve their performance, but some frameworks have limitations. The purpose of this research is to evaluate the SME Framework with information system perspective by analyzing the literature on SME Framework. by knowing the limitations of the existing framework it will be able to design a new framework that is broader in scope. The research method was carried out by analyzing the study of the SME framework from 2001 to 2019. This research has found 49 articles that will be evaluated for their strengths and limitations.

Keywords

SMEs , SLR, Framework

1. Introduction

SMEs is an object of great interest to researchers and academics with a variety of topics related to SMEs because SMEs are one of the economic pillars of a nation. The development of information technology especially the internet is a reason for people who care about SMEs by designing a framework. With the hope that the designed framework can become a consideration for SMEs in applying information technology to support the company's business process [4]. Designing a framework for SMEs is also done by using the approach of commerce technology. This framework is designed to help SMEs use information technology to sell their goods or services. This framework also discusses the supporting infrastructure needed so that SMEs can adopt the technology to increase their sales.[22]

Some researchers are trying to help SMEs by designing frameworks to market the products and services they produce using social media. the emarketing framework designed for SMEs is intended so that SMEs can utilize social media as a marketing tool for their products because SMEs like most people often interact with social media

2. Literature Review

2.1. Information System

Information System is a combination of several interconnected components in an organization that is used to process data into information. The information generated is used by companies to support the company's business processes and all parties associated with the company [1]. Information system consists of 4 components: people, technology, process and data. People in the information system include almost all sections based on management and functional levels, information technology experts, company leaders and others. Human elements in information systems become a very important part because the human element has a crucial role in the successful implementation of information systems.[2]

The second part of the information system is technology including software, hardware and communication technology. Set of activities to achieve tasks Business process management. The third component is a process that is a series of activities with specific tasks to achieve organizational goals. a range of activities carried out to support the company's business processes. The last part of the information system is data which is the material that will be processed into information

2.2. Small And Medium Enterprise

According to Law no. 9 of 1995 the Indonesia Republic: Has a net most Rp. 200,000,000.- exclude passive asset for business premises, are annual sales results of at most Rp. 1,000,000,000, -, Owned by Indonesian and so on [3]` Small and medium-size undertakings (SMEs) are businesses that keep up livelihoods, assets or a number of specialists underneath a certain edge. Each country has its claim definition of what constitutes Small and medium-size undertakings (SME). Certain degree criteria must be met and some of the time the industry in which the company works in is taken beneath thought as well. In spite of the fact that small in degree, small and mid-size ventures (SMEs) play an basic portion inside the economy. They overshadow sweeping firms altogether, utilize huge numbers of people and are for the foremost portion entrepreneurial in nature, making a contrast to shape advancement. (Inayatulloh, 2020

2.3 Model

To explain an object that is difficult to describe directly, a model like TAM model for SME (Inayatulloh ,2020), the block chain model for regional head elections (Inayatulloh ,2020), the CSF Model for SMEs (Inayatulloh ,2020), model for new businesses (Inayatulloh ,2016) and a model for early warning systems for diseases (Inayatulloh ,2015) use to describe the real situation

3. Methods

This research uses a systematic literature approach that aims to evaluate the framework in SMEs .The research was carried out by searching thoroughly from international journal sources which were conducted online. The keywords used are "framework" and "SMEs" or "Small Medium Enterprise". Articles sourced from Elsevier, emeralds, google scholar and others. Based on the search found 48 papers that are relevant to the framework for SMEs.

5. Results and Discussion

Based on the results of the literature review concluded several things :

A. Classification of articles by year

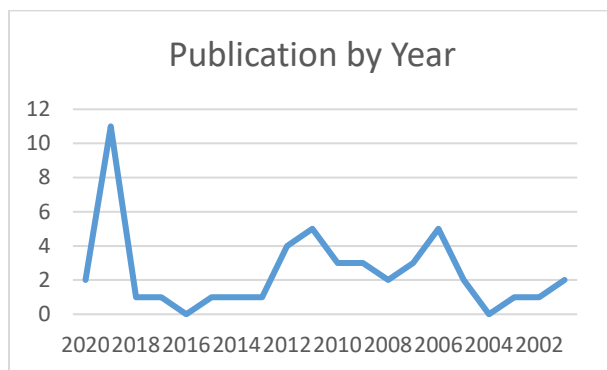


Figure 1. Grouping Paper by Year Publication

Figure 1 explains the grouping of papers based on the year of publication in which the picture shows a significant increase in the number of papers in 2019 and 2020. This graph implies that researchers have a high interest in conducting research on the SME framework.

Table 1. Classification of articles based on frame work

NO	Framework/Title	framework purpose
1	Global strategies for SME-business: applying the SMALL framework[4]	This framework is designed for SMEs in the context of using information technology that is connected to the internet. This framework also presents virtual organizations for SMEs .
2	A framework to assess performance measurement systems in SMEs	The framework is designed to measure SME performance. This framework emphasizes identifying the weaknesses of SMEs and providing alternative solutions.
3	Implementing the Lean Sigma framework in an Indian SME: a case study	This framework is a combination of lean sigma and six sigma. lean sigma focus on the speed of operational management while six sigma is focused on output quality. This framework focuses on reducing waste in the operations of goods or services manufacturing companies
4	A benchmarking implementation framework for automotive manufacturing SMEs	The framework is designed for benchmarking implementation in SMEs that focus on the characteristics of SMEs and Total Quality Management
5	Information technology adoption in SMEs: an integrated framework	This framework is designed for SMEs using information technology adoption theory. The method used is to identify and analyze the existing literature
6	A framework of organizational innovation and outcomes in SMEs	This framework is designed to evaluate the innovation process implemented by SMEs. This framework uses a theory that explains the initial stages of innovation carried out, then the final results and their impact on the company business.
7	Market orientation in the context of SMEs: A conceptual framework	The framework is designed using a market orientation and environmental approach that influences market orientation
8	Inter-Organizational Learning and Strategic Renewal in SMEs: Extending the 4I Framework	The frame is designed using the UKM knowledge approach. External parties such as customers, educational institutions become a source of new knowledge for SMEs. the process of transforming knowledge becomes part of implementing the framework
9	A methodological framework for innovation transfer to SMEs	The framework is designed for the process of transferring technological innovation to SMEs. The framework contains a network architecture with a part called the innovation center
10	Developing the framework for coordination in supply chain of SMEs	The framework is designed by exploring coordination with suppliers to improve supply chains
11	Development of a performance measurement framework for SMEs	The framework is designed to measure the quality of a 5company's business processes that refer to ISO9001
12	Six Sigma implementation framework for SMEs – a roadmap to manage and sustain the change	The framework is designed for the implementation of the Six Sigma concept in SMEs with some adjustments to the needs of SMEs. This framework also complements frameworks that use the concept of Total Quality Management
13	Implementing Responsible Business Behavior from a Strategic Management Perspective: Developing a Framework for Austrian SMEs	The framework is designed using management strategies for SMEs relating to the social environment. This framework also helps SMEs have a competitive advantage.

14	Implementing a balanced scorecard framework in a not for profit SME	The framework is designed for the implementation of a balance score card (BSC) in non-profit SMEs
15	Integrating TAM and TOE Frameworks and Expanding their Characteristic Constructs for E-Commerce Adoption by SMEs	The framework is designed using the acceptance model theory and the theory of perceive behavior
16	Developing a framework for sustainability management in engineering SMEs	The framework is designed to implement ISO 14001 standards in SMEs
17	Start-up patterns of internationalization: A framework and its application in the context of knowledge-intensive SMEs	This framework is designed for the process of internationalization of SMEs towards the global market. This framework presents methods of capturing knowledge for SMEs to have a competitive advantage in the global market
18	A multidimensional framework for SME e-business progression	Framework designed to evaluate and complement the application of ecommerce in SMEs. This framework also presents business motivation and strategy via the internet
19	A Framework To E-Transform Smes In Developing Countries	The framework is designed for the concept of adoption for SMEs for the implementation of information technology. This framework contains the roadmap, the transformation process and alternative solutions to the problems encountered
20	Manufacturing strategy frameworks suitable for SMEs	The framework is designed for the implementation of a manufacturing SME strategy based on an evaluation of an existing framework
21	Performance Measurement System (PMS) In Small Medium Enterprises (SMES): A Practical Modified Framework	The framework is designed for SMEs by integrating enterprise management and SME performance measurement
22	Information system architecture: a framework for a cluster of small- and medium-sized enterprises (SMEs)	This framework contains the IS architecture for SMEs and support for operational to strategic activities
23	Competitive Advantage in Smes: Towards a Conceptual Framework	The framework is designed for SMEs to have a competitive advantage with the role of change agents who have interpersonal expertise
24	Testing a Framework of the Organization of Small Firms: Fast-growth, High-tech SMEs	This framework is designed for SMEs taking into account market conditions and the company's management strategy.
25	Collaborative KM for SMEs: a framework evaluation study	This framework is designed for SMEs by integrating company growth and its relationship with knowledge management
26	Building Business Networking: A Proposed Framework for Malaysian SMEs	The framework is designed for SMEs by building business networks
27	The adoption of electronic data interchange (EDI) technology by Nigerian SMEs: A conceptual framework	This framework is designed for SMEs using the theory of adoption of the use of EDI technology
28	An effective decision-support framework for implementing enterprise information systems within SMEs	This framework is designed for SMEs using the theory of adopting integrated systems
29	Development of a business-to-business critical success factors	This framework is designed for SMEs for the success of relationships between companies

	(B2B CSFs) framework for Chinese SMEs	
30	Social media practices in SME marketing activities: A theoretical framework and research agenda	This framework is designed for SMEs to market SMEs products or services through social media
31	An Innovative Framework Supporting SME Networks for Complex Product Manufacturing	The framework is designed for SMEs to build computer networks and information technology
32	Lean implementation frameworks: the challenges for SMEs	The framework was built for SMEs in implementing Lean based on study literature
33	Towards a framework of the performance evaluation of SMEs' industry portals	This framework is designed for SMEs with 3 main components: knowledge, data and information technology implementation
34	The SME Co-operation Framework: a Multi-method Secondary Research Approach to SME Collaboration	The framework is designed for SMEs by considering 3 main parts: social, management and strategic factors
35	MNE–SME cooperation: An integrative framework	This framework explains the relationship between SMEs and MNEs
36	Integrated green lean approach and sustainability for SMEs: From literature review to a conceptual framework	The framework is designed for SMEs by integrating Green Lean and company business continuity
37	A Framework for Research on Information Technology Governance in SMEs	The framework is designed for SMEs in implementing IT governance
38	Exploring barriers of m-commerce adoption in SMEs in the UK: Developing a framework using ISM	The framework is designed for SMEs in implementing mobile commerce using adoption theory
39	Promoting digitally enabled growth in SMEs: a framework proposal	The framework is designed for SMEs to improve company business using digital technology
40	A new framework to support Lean Six Sigma deployment in SMEs	Framework is designed for SMEs in implementing Lean Six Sigma
41	An Integrated Framework on the Sustainability of SMEs	The framework is designed for CSR SMEs
42	he use of strategy tools and frameworks by SMEs in the strategy formation process	The framework is designed with regard to financial management and business processes of the company
43	Mobile marketing technology adoption in service SMEs: a multi-perspective framework	This framework is designed to identify the factors adopting information technology for SME marketing activities via smartphones
44	Developing a Framework for Assessing Smart Factory Readiness of SMEs and Case Study	This framework is designed to prepare SMEs for the 4.0 industrial revolution
45	Information Security Management Framework Suitability Estimation For Small And Medium Enterprise	This framework is designed for information system security for SME based on an evaluation of an existing information system security framework

46	Conceptual Model for Software as a Service (SaaS) Enterprise Resource Planning (ERP) Systems Adoption in Small and Medium Sized Enterprises (SMEs) Using the Technology-Organization-Environment (T-O-E) Framework	The framework is designed by applying an adoption model with a technological, corporate or organizational approach and the environment
47	Strategizing in the micro firm: A 'strategy as practice' framework	The framework is designed by applying practitioners, practices, and praxis strategies to SMEs, which means the owners, processes and strategy aspects of SMEs
48	Accounting Information Systems (AIS) in SMEs: Towards an Integrated Framework	This framework is designed for SMEs in implementing accounting information systems

Classification of articles based on information system components

The information system consists of 4 main parts: people, technology, process and data. The table below explains the frame based on the complete information system components.

Table 2. Classification of articles based on information system components

No	IS Component	Paper source
1	People	[23][46][47]
2	Technology	[4][4][7][8][9][19][20][22][23][27][31][37][38][39][43][44][45][46][47][48]
3	Process	[4][5][6][8][10][11][12][13][14][15][16][17][18][21][24][25][26][27][28][29][30][32][33][34][35][36][38][39][40][41][42][43][44][45][46][47][48]
4	Data	[27][33]

6. Conclusion

Based on a review of some literature, it can be concluded several things:

1. Research that relates to the SME framework has a significant increase, especially in 2019. This condition shows that when more researchers have a concern for the development of SMEs.
2. Based on the identification and analysis of information system components, most of the research on the SME framework focuses on improving the process while the people component which is the most important part of the information system is only explained in a small part of the research.
3. Future research is expected to design the SME framework emphasizing 4 components of the information system because by maintaining the balance of these components, the SME framework will be more comprehensive

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Biography

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