

## THE OPPORTUNITIES FOR INFORMATION TECHNOLOGY UTILIZATION TO STRENGTHEN THE GROWTH OF SMALL AND MEDIUM ENTERPRISES

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**Abstract:** *This paper aims to present the advantages of the use of information technology that supports the growth of small and medium enterprises. The integration of technology represents the base for the business environment to consolidate and to achieve continuous improvement. The study represents the literature review of the primary sources in the field, and it is one of the first papers that gives an overview of the latest essential aspects of the business sector. The main focus of the paper is to explore the opportunities of new technologies for Small Medium Enterprises (SME) in Indonesia. It has the primary objective to highlight the role of information technology integration in gaining competitive advantages on local and international markets. The results of the study conclude that the use of information technology supports small and medium enterprises growth.*

**Keywords:** Numerous Challenges, Global Manufacturing, Small-Medium Enterprises (SME), Information and Communication Technology.

**JEL Code:** L26, O1,

### 1. Introduction

Small and medium enterprises (SMEs) managed to survive the monetary crisis in 1997, even though their growth was slowing down. According to the data published by Worldbank, small businesses grew faster before 1998 than after 1998. Compared to other neighbouring countries, Indonesia is the country that has the most significant percentage of SMEs in the business sector. According to BPS data, in 2014, the number of SMEs in Indonesia was 57.89 million units which represented 98 % of the total number of national businesses. Based on the Indonesian Government data in 2018, the number of entrepreneurs also jumped sharply from 0.24 per cent to 1.56 per cent of the population. However, this number is still far from the target, which should ideally be at least 2 per cent of the population. The Government Statistical Board data also shows that SMEs contribute significantly to providing employment opportunities rates of 96.99 per cent and to GDP formation of 60.34 per cent.

SMEs also contributed to the increase in foreign exchange in the form of export revenues of 27,700 billion \$, representing 4.86% of total exports. Even though in quantity, the number of Indonesian entrepreneurs is significant, in percentage terms the amount is far less than in neighbouring countries: Singapore - seven per cent, Malaysia - five per

cent, and Thailand - four per cent. In comparison, developed countries like the United States and Japan even have more than 10 per cent of the total population.

The nature of the global manufacturing sector and the market products is faced with numerous challenges. High technology provides an opportunity for improving efficiency and effectiveness. SMEs plays an essential role in economic development, and the connection between economic development, information technology and social change is complex. The Internet has a significant impact on the operations of the business, and it is claimed to be essential for the survival and growth of nation's economies. Compared with traditional business, new technologies facilitate increased flexibility, interactivity, secure business transactions that improve interconnection with customers and partners.

## **2. Literature of Review**

### **2.1. Information Technology Supports Competitive Advantage**

Damasevicius (2018) state that Information technology is used to process data, including processing, compiling, obtaining, storing data in various ways to produce quality information. The process is accessible and relevant and can be used for personal, business and government purposes. In the last case, processed data can be considered strategic information for decision making. Lehner (2018) state that the company owns a competitive advantage when using Information technology aspect that gives it the chance to compete with other companies and to increase the market value. It also has a significant impact on increasing profits and raises the company's rating and image.

### **2.2. The Quality of Business Decision Making Changes**

Changes in the business world encourage organizations to rely on the power of information. In this context, it became the new normal for companies to rely their decision on the processed data, which master the competition. Information that is supported by internet technology has helped revolutionize the face of the world economy in such a scale that even experts have not anticipated. Poponi (2020) state that the economy and business activities will strengthen along with the strength of information. Asongu (2020) conclude that information can be optimal if the business environment needs to implement information and knowledge management strategies optimally to improve the quality of decisions, processes, and products or services produced. It also has to focus on harmonious relationships with customers.

## **3. Methods**

The present article represents the Literature Review of the latest sources in a business area with a focus of the Indonesian situation. A literature study is looking for theoretical references that are relevant. The output of this literature study consists of the collection of relevant references to the formulation of the problem. To accomplish this objective, several methods can be taken into account, such as criticizing, comparing, summarizing, and synthesizing literature.

## **4. Results and Discussions**

### **4.1. Result**

*Micro Enterprises* are productive businesses owned by individuals entities that meet the criteria for Micro Enterprises as stipulated in this Law: Asset criteria having the maximum amount of IDR 70 Million and Turnover that doesn't exceed IDR 600 Million. Cravo (2019) state that the Small Business is a productive economic enterprise that is independent and carried out by an individual or business entity that is not a subsidiary or a branch of a company that is owned, controlled, or becomes a direct or indirect part of a medium or large business.

*Medium Business* represents a productive economic enterprise that is independent and carried out by an individual or business entity that is not a subsidiary or branch of a company owned or controlled by a Small or large business. For this category, there is also a limit of the net amount of wealth or annual sales results stipulated in the Law.

The development of Indonesian SMEs in recent years seems to be juxtaposed with startups. As a result of government policies that continue to boost the development of both. The minimum target set in Indonesia for 2020 is 2% of SMEs and 1000 startups (Tantri, 2020). However, not everyone knows that the two indicators are different even though both are pioneering efforts from a brilliant idea of someone who is able to see the business opportunities.

## 4.2. Discussions

The main question related to the topic presented in this article is: *How does the technology change the habits of customers in order to become loyal and help companies to have all the data needed to accomplish their objectives?* This aspect was the subject of several studies. The right information is used to foster a two-way relationship with the target market (Hollebeck & Macky, 2019). The approach to the customer is made by utilizing internet technology to help clients to find out more about their favourite brands. Other tools are represented by brochures and catalogues that are produced with the help of technology. In this way, companies can introduce various new products, services offered by companies to customers and solutions for the various problems faced by clients.

Internet technology that is currently developing with artificial intelligence can be utilized to gain valuable input through customer satisfaction feedback which can improve the quality of products and services for customers, and create new products and services according to changing tastes and customer needs (Putri, 2018 and Hasibuan, 2020). All this information can be accessed from every transaction recorded. Thus, both customers and companies can get to know each other well. As the information about businesses and customers behaviour is now accessible, building a good relationship between these two entities will maintain the loyalty of the clients also (Msuya *et al.*, 2018; Sunday & Vera, 2018).

Technology information enables SMEs to have access to robust business information that leads to organizational effectiveness. These tools are no longer considered as a technical "service", but as a critical resource to enhance the competitiveness of SMEs in any business environment (Abdullah 2018; Bocconcelli, 2018; Neirotti *et al.*, 2018; Lehner, 2018, Baporikar, 2019 and De la Hoz Hernandez *et al.*, 2020). However, there are cases in which SMEs do not have enough expertise in technology. In this situation, using ICT can cause high fixed costs that are difficult to be managed by small companies. These costs include the website design, setting the necessary functions for e-commerce and other associated costs like SEO optimization,

domain fee, hosting fee and AdWords. While the costs associated with deploying advanced ICT technologies for industries and big businesses are not very significant.

These are issues that a broad group of SMEs are not aware of. Digital technologies that could help their business to develop are still unknown and are not used properly in e-commerce (Orser and Riding, 2018). Small and medium companies, due to limitations as low investment, lack of laboratories and limited access to consulting services are facing severe problems in testing new procedures of a business. Moreover, because of the financial insecurity specific to SMEs and the potential risks in e-commerce, many SMEs may be inclined not to assume risks and adopt the traditional ways to do business that are not up to date any more. In this context, the managers tend to adopt a policy of "wait and observed". For many SMEs, there is considerable uncertainty about the opportunities and benefits of ICT adoption, because in many cases, they consider these opportunities still unproven. The minimum consequences development of small and medium companies is to attract investment and create jobs (Santoso and Bukit, 2019). Small companies absorb a lot of labor and work capital turnover is relatively not large. Besides that the resilience of small companies to the crisis is quite high. Hence adopting innovative techniques that involve ICT can optimize the performance of the small and medium companies and can bring critical competitive advantages in essential industries for national economies.

## 5. Conclusions

The integration of information technology in the company's activity can support their growth on the market and assure their continuous improvement. Through a proper innovation environment, small industries can create and develop specific technology adapted to the local conditions. This will lead to an oriented-knowledge strategy for SMEs, which will increase the competitiveness of Indonesian enterprises at an international level.

## References

- Abdullah, A., Thomas, B., Murphy, L., & Plant, E. (2018). An investigation of the benefits and barriers of e-business adoption activities in Yemeni SMEs. *Strategic Change*, 27(3), 195-208.
- Asongu, S. A., Amavilah, V. H., & Andres, A. R. (2020). Business dynamics, knowledge economy, and the economic performance of African countries. *Information Development*, 36(1), 128-152.
- Baporikar, N. (2019). Influence of Business Competitiveness on SMEs Performance. *International Journal of Productivity Management and Assessment Technologies (IJPMAT)*, 7(2), 1-25.
- Bocconcelli, R., Cioppi, M., Fortezza, F., Francioni, B., Pagano, A., Savelli, E., & Splendiani, S. (2018). SMEs and marketing: a systematic literature review. *International Journal of Management Reviews*, 20(2), 227-254.
- Cravo, T. A., & Piza, C. (2019). The impact of business-support services on firm performance: a meta-analysis. *Small Business Economics*, 53(3), 753-770.
- Damaševičius, R. (2018). Application of ICT by Small and Medium Enterprises in Ogun State Nigeria. In *Data Science and Analytics: 4th International Conference on Recent Developments in Science, Engineering and Technology, REDSET 2017, Gurgaon, India, October 13-14, 2017*. Vol. 799, p. 459). Springer.

- De la Hoz Hernandez, J., Caraballo, H. M., Herazo, J. C. M., Orozco, S.M.A., & Silva, J. (2020). Management Model for the Logistics and Competitiveness of SMEs in the City of Barranquilla. In *Marketing and Smart Technologies* (pp. 398-405). Springer, Singapore.
- Hasibuan, M. (2020). Effect of Accounting Information System Effectiveness, Information Technology Utilization and Task Fit On Performance With Work Satisfaction As Moderating Variables In The Education Office. *International Journal Of Public Budgeting, Accounting And Finance*, 2(4), 1-11. Retrieved from <http://ijpbaf.org/index.php/ijpbaf/article/view/217>.
- Hollebeek, L. D., & Macky, K. (2019). Digital content marketing's role in fostering consumer engagement, trust, and value: framework, fundamental propositions, and implications. *Journal of Interactive Marketing*, 45, 27-41.
- Lehner, F. (2018). ICT Skills and Competencies for SMEs: Results from a Structured Literature Analysis on the Individual Level. In *The Impact of Digitalization in the Workplace* (pp. 55-69). Springer, Cham.
- Lehner, F. (2018). IT Capabilities for SMEs: An Analysis at the Organisational Level. In *The Impact of Digitalization in the Workplace* (pp. 125-139). Springer, Cham.
- Neirotti, P., Raguseo, E. & Paolucci, E. (2018). How SMEs develop ICT-based capabilities in response to their environment: Past evidence and implications for the uptake of the new ICT paradigm. *Journal of Enterprise Information Management*, 31(1), 10-37.
- Orser, B. J., & Riding, A. (2018). The influence of gender on the adoption of technology among SMEs. *International Journal of Entrepreneurship and Small Business*, 33(4), 514-531.
- Poponi, S., Arcese, G., Mosconi, E. M., & Arezzo di Trifiletti, M. (2020). Entrepreneurial Drivers for the Development of the Circular Business Model: The Role of Academic Spin-Off. *Sustainability*, 12(1), 423.
- Putri, Y.I (2018). Influence of Information Technology, Reliability and Characterization of Management Accounting System On Managerial Performance With Trust On Technology of Accounting Information Systems As Moderating Variables (Empirical Study In Insurance Companies). *International Journal of Public Budgeting, Accounting and Finance*, 1(3). Available at: <http://ijpbaf.org/index.php/ijpbaf/article/view/86>. Date accessed: 11 may 2020.
- Santoso, M.R., Bukit, R.B. (2019). The determinant factors of automotive industry investment decision in Indonesia. *Junior Scientific Researcher*, 5(1). 3-17.
- Sunday, C. E., & Vera, C.C.(2018). Examining information and communication technology (ICT) adoption in SMEs: A dynamic capabilities approach. *Journal of Enterprise Information Management*, 31(2), 338-356.
- Tantri, W. (2018). Factors Affecting Credit Distribution In Rural People's Bank In Sumatera Utara Province With Return Ratio On Asset As Intervening Variables. *International Journal of Public Budgeting, Accounting and Finance*. 1(3). 1-11. Available at: <http://ijpbaf.org/index.php/ijpbaf/article/view/83>. Date accessed: 11 May 2020.