Original Research

Information Technology Implementation in SMEs: A Comparison of Indonesia and Malaysia

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Abstract

Objective: The purpose of this study is to compare SMEs in Indonesia and Malaysia regarding the implementation of information technology, especially on the sustainable competitive advantage factors, IT adoption, perceived simplicity, green technology capability, and performance.

Design/Methods/Approach: Survey data are collected from 269 SME leaders and managers SMEs in Indonesia and 241 respondents in Malaysia. The sampling model is purposive sampling while analysis involved a non-parametric test (Mann-Whitney U-test).

Findings: The results show that there are significant differences for the variables SCA, SMEs performance expectation, and IT adoption. There are no significant differences between Indonesian and Malaysian SMEs for the variables of perceived simplicity and green technology capability.

Originality: The paper contributes to the growing research on information technology implementation by using factors within Sustainable Competitive Advantage, IT adoption, perceived simplicity, green technology capability, and performance.

Practical/Policy implication: This finding can encourage SMEs in Indonesia and Malaysia to work together to develop important variables to improve the implementation of information technology to increase competitiveness.

Keywords: Sustainable Competitive Advantage, IT Adoption, Perceived Simplicity, Compatibility, Performance

JEL Classification: M13, O32

1. Introduction

Small and Medium Enterprises (SMEs) currently play an important role in developing the economy, both formal and informal. The existence of several formal sectors is now in demand by a country. SMEs are needed in a country because they can build the economy and create jobs. It is also a country's innovation. In 2015-2020, SMEs in Asian countries contributed an average of 38% of Gross Domestic Product or Manufacturing Value and influenced export trade by 30%. Moreover, it values an average of 98% of all enterprises and 66% of the national workforce.

This study indicates three points. First, SMEs are crucial in ASEAN countries, especially employment or income generation. Second, although the SMEs experienced during the 1997/1998 crisis differed between countries, the assumption that the SMEs in the general weather crisis in 1997/1998 was better than their larger counterparts cannot be verified. Third, the situation for SMEs concerning the primary limitations is more or less similar between countries. They lack technical and managerial capabilities, access to more significant markets, access to finance, skilled workers, and lack of access to information vital to business (Tulus, 2008). SMEs increase incomes, create jobs, alleviate poverty, increase exports, entrepreneurship, industry, and the rural economy. It makes SMEs play an essential role in developing countries (Tulus, 2008).

From a world perspective, it has been recognized that small and medium enterprises (SMEs) play an important role in economic development because they have become a major source of job creation or employment and output growth in developed countries and developing countries. In developing countries, SMEs play an important role because they have the potential to increase income distribution, job creation, reduce poverty, export growth, and develop entrepreneurship, industry, and rural economies (Tulus, 2008). Over the years, SMEs have contributed positively to ASEAN countries. It is evident through the company's share, employment, production, value-added, and GDP. The contribution of SMEs is essential; for example, SMEs dominate the number of companies, which is around 80% -90% of the total number of companies. Provides more than 60% of jobs, especially in the private sector, generating about 50% -80% of total jobs. Contribute about 50% of sales or value-added. Even so, the contribution of SMEs to exports is still around 30% of total exports (Tulus, 2008).

SMEs in Indonesia account for more than 90% of all companies, and hence they are the biggest source of employment (Tulus, 2008). Most SMEs in Indonesia are engaged in the agricultural sector, including livestock, forestry, and fisheries. The second important sector for SMEs is trade, hotels, and restaurants. SMEs in Indonesia do not have the maximum development capacity due to several obstacles: the lack of capital and the ease of technology implementation. More specifically, the development of SMEs in Indonesia, especially in Central Java, will start to grow. In 2020, the growth will be 15%. This shows that SMEs in Central Java have experienced significant growth.

The development of SMEs in Kuala Terengganu has also experienced a significant increase with technological developments that can facilitate their marketing and operational strategies. The supply of communication technology to SMEs only reaches 6.6%, so marketing through technology is not optimal. SMEs play an essential role in Malaysia's economic growth and building social welfare. In Malaysia, 662,939 SMEs operate their businesses, representing more than 97% of the total companies and contributing more than one-third of the total Malaysian GDP. Malaysian SMEs have shown remarkable changes in terms of economic contribution and national employment opportunities (Hussain et al., 2010) (Ali et al., 2017). In general, the problems of SMEs in Indonesia and Malaysia have similarities. The number of SMEs that dominate business in both countries contributes to employment is very high, creates jobs for many residents, and supports the country's economy.

Across ASEAN, digital technology actively transforms industries, enriches lives, and drives progress. ASEAN has the opportunity to advance to the forefront of a dynamic global digital economy as a community. Although still lagging behind other global peers, ASEAN has the potential to enter the top five of the global digital economy by 2025 if all ASEAN members are committed to strengthening their local digital economy (Kearns & Sabherwal, 2006). Digitalization affects the development of SMEs in Indonesia and Malaysia. However, the national cultural context sometimes makes its implementation two different characteristics. It will be more efficient towards digitalization if the human resources or workforce are ready to transform. One of the keys to success in increasing workforce transformation is organizational ambidexterity and agile leadership.

The digital age is an exciting era for business and technology. In this era, all business sectors undergo changes that require digitalization in their operations, including SMEs. They need to adjust to changes, survive, and have a sustainable competitive advantage. The biggest challenge faced by SMEs is how to increase the accessibility of SMEs to go digital and expand the capabilities of SMEs to create products that can compete with foreign products that have flooded Indonesian e-commerce. SCA has become one of the essential purposes of SMEs around the world. It is crucial to consider the strategic sustainability behavior of SMEs from three patterns of behavior: reactive patterns, which determine how firms respond to elements or stimuli from the external environment; anticipatory patterns that describe the company's activities in achieving competitive advantage; and innovation-based behavior patterns that show how companies can adapt to innovation to gain a market advantage (Jonsdottir et al., 2005).

SMEs' reactive and anticipatory sustainability strategy is proven to be the highest strategy that tends to generate innovation because it is a response to external environmental stimuli. In general, the concept of innovation is considered an important ability of SMEs to compete domestically and improve their performance (Moraes et al., 2018). The

perceived ease and simplicity of use is the level of ease associated with using the system (Legris et al., 2003). Extensive research has also provided support for the effect of perceived ease of use on intention to use technology (Legris et al., 2003). The perceived ease of use and the benefits felt together significantly impact people's intentions to adopt the technology (Chen & Chen, 2008). Apart from the ease and simplicity of using the technology, it is also important to know that the new technology being used follows what is needed or is commonly called compatible.

The intensity of adopting information technology practices is extended to organizations by applying information technology to a sustainable development strategy (Y. H. Lin & Chen, 2017). A study (Awa et al., 2017) found a negative and significant relationship between perceived compatibility and technology adoption. This finding contradicts the findings of (May Wang et al., 2017), which show a positive relationship between perceived compatibility and technology adoption. Conversely, the finding contrasts yet other studies that found non-critical compatibility in EDI and ERP adoption (Deng et al., 2020).

The various research gaps that have been described indicate that studies on perceived simplicity, compatibility, and performance expectancy are important variables that need to be re-examined concerning information technology adoption and sustainable competitive advantage. Therefore, based on the background description, this study will examine the comparison of the application of IT adoption, the factors that influence it, and the consequence factors between SMEs in Indonesia and Malaysia. This research aims to conduct a comparative study on efforts towards digitizing SMEs in Indonesia and Malaysia, especially in the context of IT adoption. Comparisons were also made on factors that influence IT adoption, namely, perceived simplicity, compatibility, performance expectancy, and the impact of IT adoption, namely, SCA. This study provides benefits in developing the information technology adoption theory of perceived simplicity, compatibility, performance expectancy, and SCA in SMEs through comparison results between SMEs in Indonesia and Malaysia. The practical benefit is that it provides an understanding and evaluation for SME managers or leaders in Indonesia and Malaysia in applying technology adoption, perceived simplicity, compatibility, performance expectancy, and SCA.

2. Literature Review and Hypotheses Development

2.1. Characteristics of SMEs in Indonesia and Malaysia

The biggest challenge facing SMEs towards digitization is transforming their workforce to change their mindset and work patterns (workforce transformation). In facing the challenges of digital transformation and the need to adopt information technology and ensure competitive business implementation, it is the task of SME leaders to formulate the right strategy (Hess et al., 2019). The effective use of labor is often a critical factor in a company's long-term success over its competitors, especially in highly competitive and technology-driven industries. SMEs are currently considered more innovative and creative in producing simple production tools, equipment, and machines to meet the needs of farmers and producers in the industry, business, construction, and transportation divisions (Tulus, 2008).

In the initial study, several differences in the characteristics of SMEs in Indonesia and Malaysia can be described as follows: SMEs in Malaysia have the following characteristics (Kamal & Flanagan, 2014): the motivation to survive is dominated by one owner and a small number of employees, there is no policy for implementing new technology and training, no preference for job type, accepted construction (no specialization), dominated by one owner, a small number of employees, and influenced by the political scenario. Meanwhile, the characteristics of SMEs in Indonesia are as follows: Having a close relationship with customers (Suryaningrum, 2012), they have not adopted computers too much because they think that they do not need computers to run their business (Nugroho, 2015). Family businesses generally manage SMEs in Malaysia by choosing a management style and having their internal capital to finance their business operations (Zain et al., 2005). The development of SMEs in Malaysia is strongly influenced by political factors in their countries (Kamal & Flanagan, 2014).

The characteristics of the work culture in Malaysia, such as persistence, high loyalty, integrity, and mutual respect between employees, can make it easier for them to build a strategy for their business development. Most of the SME products in Indonesia are marketed domestically with the target of the lower middle class. This is due to the lack of capital from their savings (Omsa, 2017) and their lack of enthusiasm for entrepreneurship (Tulus, 2008). This affects their difficulty in accepting technology in their business for the survival of their business (Nugroho, 2015). The advantages of SMEs in Indonesia are high flexibility so that they can survive in times of economic crisis (The Center for Micro and Small Enterprise Dynamic (CEMSED) and the Center for Economic and Social Studies (CESS) in 2000).

2.2. Sustainable Competitive Advantage (SCA)

SCA can be assessed by analyzing sources of excellence, for instance, the company's market position (Iles, 2008), company supplies (Barney, 1991), or estimating the results of competitive efforts by company performance (such as profitability or market share stability). When competition tends to corporate profitability, high profits can be sustainable if the company has a sustainable competitive advantage. The sustainability of a company's competitive advantage measures the company's long-term performance (Iles, 2008). Sources of competitive advantage are according to the level of durability, for example, market-based advantages and supply advantages (Greenwald, 2005) (Nurcholis, 2020a).

SCA refers to value creation where a company pursues high innovation by encouraging market competition (Pratono et al., 2019).

The introduction of quality products and services can increase business competitiveness. In other words, the competitive advantage needs to be improved by entrepreneurs. These improvements are not always just about profit but also better value for customers (Ratten, 2015). A company is said to have an SCA when implementing a value creation strategy that is not implemented simultaneously by current or potential competitors. Other competitors cannot duplicate the benefits of this strategy (Zainol & Al Mamun, 2018).

Furthermore, (Zainol & Al Mamun, 2018) also stated that the ownership of unique business practices causes some companies to outperform others. Thus, this is the main source of sustainable competitive advantage. So, SCA is a value creation strategy in which a company pursues high innovation by encouraging potential market competition. In contrast, other competitors cannot duplicate the benefits of this strategy. Other researchers say that SCA can be measured using strategic advantages; market share; and ROI (return on investment) (Pratono et al., 2019). The shift in focus from only competitive advantage to SCA reinforces the research (Weerawardena et al., 2007), which notes that SCA must involve providing superior customer value, achieving lower costs over a longer period, and creating superior performance. The study conducted by (Ren et al., 2009, Nurcholis, 2020b) recommended that SMEs should enhance their marketing capabilities to achieve sustainable excellence by innovation and gain deeper insights into consumer needs, wants, and trends. Based on this description, the following hypotheses can be concluded:

H1. There is a difference between the sustainable competitive advantage of Indonesian SMEs and Malaysian SMEs.

2.3. IT Adoption

Adopting IT is an important stage and must be carried out in making investment decisions in a competitive environment. For this reason, the adoption of IT is very appropriate to study (Huang, 2015) (Awa et al., 2017). Information is a tool for achieving competitive advantage; companies want easy technology applications, save costs and time for stakeholders (Awa et al., 2017). Therefore, technology adoption is based on the information and defines the voluntary decision of individuals and/or organizations to accept and/or operationally use it to generate information to solve problems. Furthermore, (Awa et al., 2017) defines a company adopting IT if it uses hardware and software applications to support intra-firm and interfirm operational activities and interfirm interaction, management, and decision-making processes. IT adoption is also understood as various software and hardware used to perform work together with the various functions of information creation, storage, processing, preservation, and transmission of information in various ways.

According to (Eze et al., 2019a), IT adoption is a decision that must be taken from time to time because it is sustainable. IT adoption is related to its emphasis on studying both the technical and social world, which can constantly change its complexity—hindering the widespread adoption of small businesses. In addition, technology adoption includes the use of computers, the internet, and cellular technology, especially the use of applications that can be used to support the daily lives of household members and their relationships with information system stakeholders, for example, companies, public administrations and other households (Ziemba, 2019). Therefore, IT adoption is a decision made by a company to use hardware and software applications to support operational, intra-firm, and inter-firm activities and inter-firm interaction, management, and decision-making processes to support daily operations. According to (Awa et al., 2017), IT adoption can be measured to determine the certainty of companies in using/adopting IT on the dimensions (1) customer service and inventory management, (2) cost reduction and book-keeping, (3) e-trading, e-messaging, and inter-firm alignment, (4) e-mails, FAX, e-catalog, and e-news, (5) e-payroll and e-forms, (6) ordering and managing stocks, and (7) processing of loan credits and banking details. According to (Eze et al., 2019a), IT adoption has dimensions, among others: awareness of multiple contexts; openness to change; shared support; safety and security; integration; ease of use; expandability; managerial time; service quality; customer focus; differentiation; return on investment; competition; adoption cost. Meanwhile, according to (Ziemba, 2019), IT adoption can be measured by the dimensions of ICT outlay, information culture, and ICT management. Based on this description, the following hypotheses can be concluded:

H2. There are differences in IT adoption between Indonesian SMEs and Malaysian SMEs

2.4. Perceived Simplicity

The perception of the simplicity of use is a key independent variable that affects the intention to use a system by knowing how someone believes that using the system will facilitate business (Liu, 2014). Perceived ease of use is generally used to assess whether users accept a system. (Kucukusta et al., 2015) used perceived ease/simplicity of use, perceived usefulness, positive mood, and behavioral intention to assess the acceptance of decision support systems. The perception of the simplicity of use usually refers to users' overall perception regarding the ease and convenience of using the new system (Amin et al., 2014) (Rouibah et al., 2016). Therefore, it can be concluded that the perception of the simplicity of using technology is the extent to which someone believes that using the system will facilitate the business and the convenience of using the new system. According to a study conducted by (Kucukusta et al., 2015), the indicators for measuring perceived simplicity are easy to learn, fewer skill and training effort requirements, and being simple and easy

to follow instructions. (Amin et al., 2014) used the dimensions of easy to learn, proficient in using, and easy to use. Meanwhile, according to (Liu, 2014), using the dimensions of perceived simplicity, including clear and understandable, does not require much mental effort, is easy to use, and is flexible. Based on this description, the following hypotheses can be concluded:

H3. There is a difference in perceived simplicity between Indonesian SMEs and Malaysian SMEs

2.5. Compatibility

Compatibility relates to the consistency of innovation with the adopter's socio-cultural values and beliefs, experiences, and needs (Kaabachi et al., 2019). Compatibility is a direct predictor indicating behavioral intention to adopt new technology. In addition, compatibility is also an antecedent of performance and business expectations (Kuo & Yen, 2009). Customers consider transactions using technology more compatible if they feel the advantages when conducting certain activities (Thomas et al., 2016). Hence compatibility strengthens performance expectations, business expectations, and intention to adopt the technology. It also involves how innovations are consistent with existing consumer influences, cognition, and behavior (De Ruyter et al., 2001). Therefore, it can be concluded that compatibility is the extent to which innovation has consistency following the values and needs of the adopters. The measurement dimensions within the organization are following the study conducted by (Kaabachi et al., 2019) and are matched with all aspects of the job, according to the needs of the organization's culture, suitable for work style, suitable for managing finances. (Mansumitrchai & Chiu, 2012) identified the dimensions of compatibility, including novelty, enables easier transactions, is compatible with lifestyle, and provides convenience. Meanwhile, another dimension is compatible with tasks related to a bit of effort, consistent with company values (Mengyue Wang & Li, 2017), consistent with lifestyle, and compatible with current needs (Lai & Chang, 2011). (J. Lin et al., 2011) show the impact of perceived compatibility on initial trust in mobile brokerage services and the intention to adopt them. Perceived compatibility is positively associated with attitudes and adoption of internet banking technology (Al-ajam & Nor, 2013) (Mansumitrchai & Chiu, 2012). Therefore, that based on these previous studies, the following hypothesis can be formulated:

H4. There is a difference in green technology capability between Indonesian SMEs and Malaysian SMEs

2.6. Performance Expectancy

(Rahi & Ghani, 2019) defined performance expectations as the level at which an individual believes that using the system will help him gain benefits in job performance. Performance expectations in the context of internet banking use are defined as the level at which a person believes that internet banking will help him benefit in performing banking tasks (Rahi et al., 2018). In addition, performance expectations are defined as an individual's understanding of the benefits of using technological innovations that produce better results (Ratten, 2015). Performance expectations refer to individual perceptions that IS, facilitates task completion (Morosan & Defranco, 2016). Strictly speaking, in various task environments, performance expectations were found to influence the intention to use the IS system (Thomas et al., 2016). So it can be concluded that performance expectations are the level at which an individual believes that using a new system will help him gain benefits in job performance, make it easier to carry out tasks, and ultimately provide better results. (Morosan & Defranco, 2016) revealed that performance expectations significantly influence behavioral intention to adopt online banking. (Rahi & Ghani, 2019) also revealed that performance expectations have a direct influence on users' intentions to adopt internet banking. The evidence of a significant effect between performance expectations on behavioral intention to adopt internet banking is also proven by other researchers (Martins et al., 2014) (Thomas et al., 2016) (Foon & Fah, 2011). Therefore, the following hypotheses can be derived:

H5. There are differences in performance expectancy between Indonesian SMEs and Malaysian SMEs

3. Methods

3.1. Respondents

Respondents in this study are company leaders or middle managers in Small and Medium Enterprises (SMEs). Middle managers are expected to understand the company's condition and provide the right information. The sampling technique uses the non-random sampling technique with the purposive sampling method. The criteria used as a reference for sampling in this study, namely, SMEs who become respondents, have a minimum of 10 employees, and use information technology in their supply chain activities, for example, in the procurement of raw materials, production processes, and delivery of products to consumers. Primary data sources are data obtained from the first source of information so that a researcher can collect the relevant data for his research (Emmanuel & Ibeawuchi, 2015). To compile primary data, research assistants give questionnaires to owners/leaders/managers because they have a strategic position in making decisions regarding information technology adoption. The criteria for SMEs selected as samples in this study are based on development and adoption (SME Corporation Malaysia, 2018), (BPS/Central Bureau of Statistics, 2017), and (Indonesian State Regulation No. 20, 2008). In addition, Central Java and Kuala Trengganu were selected as target populations because these areas have the potential to develop small businesses based on creative industries.

The method used to collect data in this study is to use a questionnaire. A questionnaire or questionnaire is a technique of collecting data through a list of questions that are asked in writing to a person or group of people to get answers or responses and information needed by researchers. The questionnaire can be in the form of closed and open questions (Håkansson, 2013). The advantages of using a questionnaire are that it can get many data in a relatively short time, it takes a little energy, and the respondent can answer freely without the influence of others. Questionnaires were distributed directly to respondents, namely owners or managers of SMEs. Respondents were given two weeks to answer the questions. Furthermore, the results of the questionnaires that have been answered are tabulated as the basis for data analysis.

3.2. Data Analysis

The first stage in data analysis is to test the validity and reliability. Validity was tested using factor analysis. Meanwhile, reliability was measured using Cronbach's alpha. The second test uses the SPSS program. In the next stage, test the differences between the variables in the study and the variable indicators using the difference test (SPSS). The different test is intended to help answer the existing problem by knowing whether there is a difference between the variables and indicators in SMEs in Indonesia and Malaysia.

3.3. Variables and Indicators

The indicator used to measure perceived simplicity consists of four indicators; flexibility, the requirement of skill and training effort, easy to learn, clear, and understandable (Amin et al., 2014) (Kucukusta et al., 2015) (Liu, 2014). Another dimension is related to knowing how far the role of compatibility in technology adoption in this study uses four indicators, novelty, compatible with new systems and working procedures, according to the needs of the organization culture, and consistent with company values (Kaabachi et al., 2019) (Lai & Chang, 2011) (Mansumitrchai & Chiu, 2012) (May Wang et al., 2017).

Referring to the results of previous studies, there are five dimensions to measure how much performance expectation affects the adoption of information technology, namely: reduce operational costs, increase efficiency, enhance the effectiveness, improve the quality of customer relationships, and improve performance to reach new consumers (Morosan & Defranco, 2016) (Rahi et al., 2018) (Ratten, 2015). Meanwhile, measure IT adoption consists of five indicators, customer service; information culture; cost reduction; safety and security; and ease of use (Awa et al., 2017) (Ziemba, 2019) (Eze et al., 2019a). The last variable, SCA, consists of four indicators: relationship competency, strategic advantages, market share, and cost minimization (Pratono et al., 2019) (Zainol & Al Mamun, 2018). Participants were asked to rank all items on a 5-point Likert-type scale, ranked from 1 (strongly disagree) to 5 (strongly agree). The questionnaire is divided into four sections with 22 questions: descriptive company data, perceived simplicity, compatibility, IT adoption, performance expectancy, and SCA.

Table 1. Reliability Test

Variable	Indonesia (α alpha)	Malaysia (α alpha)
SCA	0.815	0.643
IT adoption	0.794	0.792
Perceived simplicity	0.961	0.891
Green technology capability	0.934	0.767
SMEs performance	0.934	0.804

Table 1 shows the level of reliability of the research variables. The results show that the reliability value of research variables on Indonesian SMEs is between 0.794 to 0.961. Meanwhile, the reliability values for SMEs in Malaysia ranged from 0.643 to 0.891

Table 2. Test of Indicators Validity

Indicators	Extraction		Component Matrix	
	Indo	Malaysia	Indo	Malaysia
S1	,779	,751	,598	,550
S2	,816	,708	,577	,545
S3	,645	,665	,588	,544
S4	,642	,448	,650	,565
TS	,985	,955	,752	,789
IT1	,652	,511	,751	,602
IT2	,589	,605	,684	,558

IT3	,684	,625	,600	,520
IT4	,624	,619	,225	,494
IT5	,703	,616	,591	,604
TIT	,986	,963	,736	,754
PS1	,979	,636	,751	,680
PS2	,989	,568	,723	,608
PS3	,856	,610	,831	,611
PS4	,952	,517	,775	,640
PS5	,979	,568	,751	,671
PS6	,989	,509	,723	,591
PS7	,856	,378	,831	,567
PS8	,952	,494	,775	,566
PS9	,952	,535	,775	,620
PS10	,979	,517	,751	,615
PS11	,989	,588	,723	,628
PS12	,856	,555	,831	,591
PS13	,952	,615	,775	,594
TPS	,996	,984	,931	,932
GT1	,826	,544	,768	,555
GT2	,907	,604	,745	,586
GT3	,706	,557	,726	,582
GT4	,705	,627	,756	,596
GT5	,907	,671	,745	,612
TGT	,988	,970	,840	,817
SME1	,630	,567	,728	,594
SME2	,766	,547	,765	,628
SME3	,861	,554	,714	,507
SME4	,879	,618	,701	,576
SME5	,683	,678	,625	,543
SME6	,879	,646	,701	,591
TSME	,992	,986	,812	,805

Table 2 shows the validity values of the indicators in the variable IT adoption, perceived simplicity, compatibility, performance expectancy, and sustainable competitive advantage for SMEs in Indonesia and Malaysia. The results indicate that all research indicators have extraction values above 0.5.

4. Result and Discussion

4.1. Result

Respondents in this study were small and medium enterprises (SMEs) in Indonesia and Malaysia. Participating Indonesian SMEs totaled 269 units or 66% of the number of respondents who were given a questionnaire. Meanwhile, the Malaysian SMEs that participated in this study were 241 units or 71% of the respondents. The three largest numbers of SMEs respondents in Indonesia consist of the clothing industry, the furniture industry, and the batik industry. Meanwhile, the number of SMEs in the top three respondents in Malaysia consisted of the food industry, the printing industry, and the clothing industry. The average number of employees for Indonesian SMEs is 11.36 people, while those in Malaysian SMEs are 10.56 people (Table 3).

Table 3. Description of Respondents

	Indonesia		Malaysia	
Type	**N**	**%**	**N**	**%**
Food	35	0,13	46	0,19
Beverage	12	0,04	26	0,11
Clothes	40	0,15	33	0,14
Shoes	30	0,11	15	0,06
Electrical	30	0,11	22	0,09
Meuble	40	0,15	25	0,1
Printing	30	0,11	34	0,14
Drugs	12	0,04	14	0,06
Batik	40	0,15	26	0,11
Total	269		241	
Average	11.36		10.56	

Table 4 shows the results of data normality testing on research variables in SMEs in Indonesia and SMEs in Malaysia. The results show that all variables' significance value (2-tailed) is 0.000. These findings indicate that all research variables are not normally distributed. The next step is to test the differences in research variables between SMEs in Indonesia and SMEs in Malaysia using the non-probability test.

Table 4. Normality Test

	t	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
				Lower	Upper
S_I	82,68	,000	18,19	17,76	18,62
S_M	109,24	,000	16,28	15,98	16,57
IT_I	82,68	,000	18,19	17,76	18,62
IT_M	92,47	,000	19,71	19,29	20,13
PS_I	93,54	,000	51,58	50,49	52,67
PS_M	114,30	,000	52,41	51,51	53,32
G_I	78,07	,000	19,38	18,89	19,87
G_M	82,63	,000	19,29	18,82	19,75
SME_I	96,45	,000	24,38	23,88	24,87
SME_M	89,07	,000	23,43	22,91	23,95

Table 5 shows the results of different tests between variables for SMEs in Indonesia and Malaysia. The test was performed using the non-parametric test (Mann-Whitney U-test). The results indicate three research variables whose results show significant differences between SMEs in Indonesia and SMEs in Malaysia, namely: sustainable competitive advantage, SMEs performance, and IT adoption. Meanwhile, the variable perceived simplicity and compatibility did not have a significant difference.

Table 5. Results of Hypothesis Test

Null Hyphothesis	**Test**	**Sig.**	**Decision**
The distribution of S_IM is the same across categories of S_group	Independent-Samples Mann-Whitney U Test	0,000	Reject the null hyphothesis
The distribution of PS_IM is the same across categories of S_group	Independent-Samples Mann-Whitney U Test	0,296	Retain the null hyphothesis
The distribution of G_IM is the same across categories of S_group	Independent-Samples Mann-Whitney U Test	0,644	Retain the null hyphothesis
The distribution of SME_IM is the same across categories of S_group	Independent-Samples Mann-Whitney U Test	0,002	Reject the null hyphothesis
The distribution of IT_IM is the same across categories of S_group	Independent-Samples Mann-Whitney U Test	0,000	Reject the null hyphothesis

The significance level is 0,05

4.2. Discussion

The development of SMEs in Malaysia is strongly influenced by political factors in their countries (Kamal & Flanagan, 2014). SMEs can even survive by contributing to the country's per capita income by 33.1% (Department of Statistics, Malaysia, 2015). Increasing business development strategies, SME owners try to adopt technology as much as possible even though there is no policy for implementing new technology and training from the authorities. Business owners with one owner with few employees dominant have the awareness that the implementation of digitalization can improve the performance of their companies and be able to compete at the global level. The characteristics of the work culture in Malaysia, such as persistence, high loyalty, integrity, and mutual respect between employees, can make it easier for them to build a strategy for their business development. In Indonesia, SMEs are growing rapidly, contributing to the country per capita income of 57%. This value is very large, but many business owners experience many challenges. Currently, business training has been implemented by many UKM owners. SMEs' owners and employees have a close relationship with customers (Suryaningrum, 2012), which certainly makes it easier for them to market their products. Most of the SME products in Indonesia are marketed domestically with the target of the lower middle class. This is due to the lack of capital from their savings (Omsa, 2017) and their lack of enthusiasm for entrepreneurship (Tulus, 2008). This affects their difficulty in accepting technology in their business for the survival of their business (Nugroho, 2015). The advantages of SMEs in Indonesia are high flexibility so that they can survive in times of economic crisis (AKATIGA, the Center for Micro and Small Enterprise Dynamic (CEMSED), and the Center for Economic and Social Studies (CESS) in 2000).

The informal sector that plays a significant role in these countries must be transformed into the formal sector through financial inclusion. In achieving this goal, SMEs in the formal sector must be established. The economy can grow if jobs are created to reduce poverty. In addition, basic needs and community empowerment can be made (Ali et al., 2017). SMEs number in a unit is enormous, particularly small enterprises (SMEs) and micro enterprises (MIEs) are generally dissipated all through country territories. In this manner, they may have unique neighborhood importance for the rustic economy. In being populated to a great extent by firms that have significant business development capability, their turn of events or development can be incorporated as a significant component in the strategy to make work and create pay. This mindfulness may likewise clarify the developing accentuation on the job of these ventures in rustic advancement in non-industrial nations.

The study results indicate that IT implementation is an important phenomenon at SMEs, considering the role of IT is very important in achieving company success. The success of IT implementation is certainly greatly influenced by many factors, such as ease of use of IT. IT can reduce operational costs and increase efficiency and effectiveness. It is very important that IT can improve the quality of relationships with consumers. This finding aligns with the research results that indicate that IT implementation is determined by technological, organizational, and environmental factors (Awa et al., 2017).

Meanwhile, the results of this study also support previous research, which states that 14 determinants influence IT adoption at different stages based on actor-network theory (ANT) (Eze et al., 2019b). The three main factors influencing it are ease of use, managerial time, and customer focus. The research findings reveal that the ICT adoption is well described by the ICT outlay, information culture, ICT management, and ICT quality, where sustainability becomes broader, including ecological, economic, socio-cultural, and political sustainability. However, the ICT quality, ICT management, and information culture variables have a significant impact on sustainability. In contrast, the ICT outlay does not have a significant impact on sustainability (Ziemba, 2018).

This study also indicates the importance of cooperation in the management of SMEs between Indonesia and Malaysia, especially in the field of IT implementation, given that SMEs in both countries have an important role in absorbing labor and contributing to improving welfare. IT has provided a common view between Indonesia and Malaysia, especially in increasing sustainable competitive advantage, the role of IT in reducing operational costs, increasing efficiency, enhancing the effectiveness, improving the quality of customer relationships, and improving performance to reach new consumers. However, from the research results, two variables are not significant, namely perceived simplicity and green technology capability. This finding indicates the importance of each country to adopt IT implementation to make a higher contribution to the performance of SMEs.

5. Conclusion

Small and medium industries that participated in this study consisted of the food, beverage, clothes, shoes, electrical, furniture, printing, drugs, and batik industries. Indonesia's top three industry respondents include the batik, clothes, and furniture industries. Meanwhile, the largest SMEs in Malaysia include food, clothes, and beverage. The results showed that three variables had significant differences between SMEs in Indonesia and Malaysia of the five research variables. The three variables are a sustainable competitive advantage, information technology adoption, and SMEs performance.

Meanwhile, the perceived simplicity and green technology capability variables did not have a significant difference between Indonesian and Malaysian SMEs. There are similarities between SMEs in Indonesia and Malaysia in achieving sustainable competitive advantage through indicators of relationship competency, strategic advantages, market share,

and cost minimization. In the field of IT adoption, there are similarities in the two countries, especially in customer service indicators; information culture; cost reduction; safety and security; and ease of use. Meanwhile, the similarity in the performance of SMEs is carried out with indicators of reducing operational costs, increasing efficiency, enhancing the effectiveness, improving the quality of customer relationships, and improving performance to reach new consumers.

This paper only compares Indonesia and Malaysia, so it is necessary to develop comparisons with other countries in Asia, America, or Europe. The variables used are limited to IT adoption, perceived simplicity, and green technology capability, so adding or using other variables such as technology acceptance, ease of use, and others is necessary.

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Author Contribution

Author 1: Develop research topic ideas and articles, draft proposals, analyze, investigate, and develop research methodologies. Author 2: reviewing and editing, data validation. Author 3: Review and edit, process data, and analyze data.

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Conflict of interest declaration

The authors certify that they have NO affiliations with or involvement in any organization or entity with any financial interest (such as honoraria; educational grants; participation in speakers' bureaus; membership, employment, consultancies, stock ownership, or other equity interest; and expert testimony or patent-licensing arrangements), or non-financial interest (such as personal or professional relationships, affiliations, knowledge or beliefs) in the subject matter or materials discussed in this manuscript.

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