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Review

# The Rise of ASEAN SMEs: How to Successfully Enter the Global Market

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Abstract: The aims of this paper are 1) to explore the type of industry of SMEs that can survive for more than 5 years in ASEAN, and 2) to analyze the success factors of SMEs in ASEAN to be able to survive for more than 5 years. This paper employs a qualitative method, with a literature review and meta-analysis. From 2007 to 2017, data was extracted from Google Scholar, Emerald Insight, Sage Pub, and EBSCO databases. There are 14 factors that influence the success of SMEs in the main sectors, 20 factors in the manufacturing sectors, and 14 factors in the service sectors, depending on the type of industry. For instance: eCommerce, technology, and social media, international oriented, good management system, government support, working condition /environment, skill and competency labour/owner, market penetration/selection, policy, organizational performance, and characteristics, networking with government /supplier / customer, networking with government /supplier /customer, planned /strategy (business /market /operational /organizational). The findings of this literature review reveal several important factors that are critical to the success of SMEs in competing with other industries and can be developed for a longer period.

**Keywords:** SME competitiveness; SMEs successful indicators; meta-analysis; SMEs ASEAN; global market strategy

### 1. Introduction

Small and Medium Enterprises (SMEs) are widely considered to be the core of many economies due to their significant contributions to employment, innovation, and economic expansion. The International Council for Small Business (ICSB) estimates that SMEs make up more than 90% of all enterprises globally and are responsible for more than 50% of all jobs. It has been demonstrated that SMEs may generate new jobs globally and can take on up to 60% of all employment. During the 2008 financial crisis, SMEs globally developed quickly and were able to boost economic growth to exceed 40% of national income (GDP).

In the European Union, SMEs contribute to approximately half of the EU's GDP and more than half of its total value-added. According to The Commission of The European Communities (*Official Journal L 124*, 20/05/2003 *P. 0036 – 0041*), Micro, small, and medium-sized enterprises (SMEs) also include businesses that employ fewer than 250 people and have an annual turnover of less than EUR 50 million and/or an annual balance sheet total of less than EUR 43 million. Based on European Commission (EU recommendation 2003/361), almost 100% of EU businesses are micro, small, and medium-sized enterprises (SMEs).

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According to the SMEs strategy of the European Union, Europe's 25 million small and medium-sized enterprises (SMEs) are the backbone of the EU economy. They employ approximately 100 million people and account for more than half of Europe's GDP (European Commission, 2020). During all actions carried out within the framework of the strategy, SMEs must be kept in mind as the primary driving force of innovation in different ecosystems (European Commission, 2021). Similar to the European Union, the proportion of SMEs in the USA is extremely high. The United States were small businesses. It is worth highlighting that, according to American regulations, an SMEs in the United States can employ up to 1.200 employees [1].

SMEs occupy an important part of the commercial form and backbone of the Asian economy [2–4]. At The Association of Southeast Asian Nations (ASEAN) level, more than 96% of existing companies are in the form of MSMEs and contribute to the GDP of each country in the range of 30%-50% [5]. Small businesses play an important role in market opportunities and product development and take advantage of the development of new technologies [6]. SMEs are judged to be better at dealing with crises than large companies, although they are still affected [7].

SMEs are an important part of the Indonesian economy, accounting for approximately 60% of the country's GDP and employing approximately 97% of the workforce, making them the largest contributor to GDP in Indonesia. The existence of SMEs can also help the national economy. The total GDP of SMEs increased from Rp. 2,107,868.10 to Rp. 4,869.561 billion between 2007 and 2012. With such a large contribution, SMEs are gaining the attention of the government as one of the measures in making policies related to a country's economic development. One of the efforts made by the government through the Ministry of Cooperatives and MSMEs is to encourage the growth of 6 million new business units in Indonesia between 2005 and 2009. Around 5.3 million new business units are predicted to grow naturally in existing economic sectors, while 700,000 new business units are directed at knowledge and technology-based business sectors as well as sectors capable of increasing productivity and competitiveness of the national economy [8]. The government has tried to reduce SMEs because these companies are expected to play an important role, not only in job creation, GDP formation, and export development, but also mainly to develop women entrepreneurs, especially in rural areas [9].

SMEs are the starting point for a large company's labyrinth, so their growth must be encouraged and pursued. To be able to continue to grow large, there are several variables that contribute to the achievement of small and medium-sized enterprises, as well as various causes of a SME's failure to develop. These factors are usually related to what industry SMEs will run. Research by [10] shows that almost 50% of SMEs cannot survive more than 5 years due to poor performance and a lack of competitive strategies to organize their business. The key to the success of small and medium-sized enterprises in Indonesia is largely determined by the characteristics of the owner/entrepreneur and the business strategy implemented [11]. Failures that occur are generally caused by inadequate capital, tight competition, and a lack of ability to manage businesses [5]. Also, regions with a solid connection to small businesses will find success in both national and international industrial competition [12]. In addition, the high growth rate of SMEs creates high competition, which is aided by the free market era, which creates an increasing number of competitors among SMEs from within and outside the country.

ASEAN Economic Community (AEC) is a form of agreement between ASEAN countries to establish a trade area in order to increase economic competitiveness by making ASEAN a world production base and creating regional markets for approximately 500 million people [13]. As a result, the determinants of SMEs' success are becoming increasingly diverse, and there is still a scarcity of research that specifically discusses the factors that determine the success of SMEs to survive in the free market era and can be used as benchmarks for SMEs in Indonesia.

Furthermore, this technological era has both positive and negative consequences for SMEs. SMEs can easily enter the international market, but competition is increasing, and only a few industries can afford to survive until now. The goal of this study is to investigate ASEAN SMEs that can survive for 5 years or more in order to use them as case studies and comparisons for SMEs in Indonesia. The specific goal of this research is to discover differences in the characteristics of SMEs

in ASEAN, investigate the type of industry from SMEs, and analyze the success factors of SMEs in ASEAN to ensure long-term survival. The following are the primary research questions:

RQ1: What industries can survive in the market for more than 5 years?

RQ2: What are the indicator keys for SMEs to successfully survive in the market?

# 2. SMEs Definitions and Its Challenges

In ASEAN countries, Small and Medium Enterprises (SMEs) face several challenges that can stymie their growth and sustainability. Addressing these issues frequently necessitates SMEs taking a strategic approach to their operations and seeking assistance from government programs, industry associations, and business consultants. SMEs can increase their chances of success and contribute to the growth and development of their local economies by addressing these challenges. In general, the challenges faced by SMEs in ASEAN countries are nearly identical, with only a few exceptions. Here are some of the most significant challenges confronting SMEs in ASEAN countries.

Out of all developing countries, Indonesia has one of the highest SMEs turnover rates in the world based on World Bank report (2011). The majority of MSEs in Indonesia are in retail commerce, handicrafts, footwear, automobile and motorbike repair and maintenance, food and beverages, tobacco, and textiles/garments. This contrasts with MLEs, which are primarily found in medium- to high-technology-based industries that demand medium- to high-skilled people as well as a large amount of capital, such as electronic goods, motor vehicles, chemical products, communication, and construction [14].

Research conducted by [14] also found several restrictions impede the development of MSMEs in Indonesia. These limits may range from area to region between industries, or between individual businesses within an industry. Certain obstacles, however, are shared by all MSMEs, including limited access to money, business, knowledge, technology, and trained personnel; challenges in marketing and obtaining raw materials; and government policies or regulations that can create an unfavorable business' environment. Energy rules, such as fuel and power rates, or import limitations on raw materials, for example, have a considerable impact on MSMEs' production costs, and hence on their price competitiveness and profit. According to [15], the challenges that Indonesia faces are lack of capital, skills, and technology; competition barriers, access to finance, electricity prices, future technologies, inefficient in cost of production, economic forces, human resources management, production process, selling limitation, and raw material scarcity [16]; low grade of commodities or productions, limited human core competencies, marketing constraints, capital investment constraints, no surveillance, and overlapping programs [17].

Research conducted by [18] observed research in one of traditional clothes production, Batik in two areas, Java and Outside Java. The results showed that the rise of the batik printing market poses the greatest threat to Java's batik SMEs. Meanwhile, batik SMEs outsides of Java are unable to secure raw materials. Some batik SMEs in Indonesia have used open innovation, which has the potential to improve their company performance. However, due to a lack of skills and the involvement of other stakeholders, more small SMEs do not implement open innovation.

Malaysian SMEs are concerned about their long-term viability, competitiveness, and efficiency due to issues such as financial constraints, a lack of information and knowledge, capability, and capacity [19]. Research conducted by [20], Based on the data of ten respondents, five common factors on the involvement of rural Malay youth in herbal entrepreneurship were identified: (1) behavior and thoughts, (2) lack of competitive nature of sustainable development, (3) lack of entrepreneurship development, (4) absence of collaboration and connectivity, and (5) government assistance and novel drug policy on herbal entrepreneurs. The study concluded with the reason to minimize rural herbal entrepreneurs and join as an infancy stage of small medium enterprise groups. [21] mentions recession, global sourcing barriers, low productivity, a lack of managerial qualities, a lack of capital, trouble accessing management, technology, and a significant regulatory load as challenges for SMEs in Malaysia. In addition, access to distribution, human resources, and market attractiveness are main research focus by [22].

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Since the third Covid-19 wave reached Thailand in late March, around 70 to 80 percent of small to medium-sized firms (SMEs) have been suffering from a lack of money, and 100,000 may close permanently. According to [23], (1) a lack of process innovation and alliance modeling, as well as goal, lack of consistency and the existence of unknown partners at the project level (2) Inadequate data systems, time restraints, and a shortage of funds at the firm level, as well as goal restructuring, reduction of partners' efforts, and project numerosity and heterogeneity, are major barriers to project execution. (4) Finally, the most recurring barriers in the cross - cutting phase of control and oversight are insufficient management control mechanisms at the firm level and bureaucratization at the project level.

MSMEs account for approximately 99.5% of all registered businesses in the Philippines, employing over 63% of the working population [24]. Financial literacy, savings culture, and technology adaptation are all critical factors in the internal and external business environments that contribute to the success of resilient MSMEs [24]. In contrast, unsuccessful MSMEs faced financial difficulties and a lack of online presence [25].

Previous research by [26] identified five issues confronting SMEs in northeastern Thailand: 1) government and public policy support; 2) financial support; 3) knowledge capital; 4) labor; and 5) marketing. While, financial constraints, outdated technology, unstable markets, and increasing competition, among other things, pose significant challenges to SMEs in Vietnam. Asiaecon research in 2013 found out these difficulties were exacerbated in Vietnam during the 2009-2012 economic downturns, as evidenced by the fact that 7,000 SMEs were dissolved, and 3,000 SMEs ceased production [27]. Meanwhile, digital technology, human resources, investments, and access to finance are challenges faced by Brunei Darussalam [28]. According to [29] found that digital technology and entrepreneurship education should be taught in every level of education in Brunei Darussalam in order to attract the interest of youth in developing SMEs.

There is only a limited literature that discusses SMEs challenges in low-income countries such as Laos, Cambodia, and Myanmar. The following are some of the findings of research that has been conducted in these countries. In Laos, SMEs also face similar challenges like access to finance, technology, investment, and business services [30]. Moreover, Laos also faces policy and government regulations [30], skill management and capacity building [31]. Data conducted by World Bank also shows a few challenges, including limited access to finance, the activities of informal competitors, and power disruptions.

As a low-income country, Cambodia encounter a number of obstacles, including market access, low productivity, a lack of trained and competent workers, a lack of innovation, and a complicated and very expensive registration procedure. The Cambodian government provides little tangible assistance to SMEs, inadequate financial support, as well as a lack of clear regulation, and lack of technology [32]. Open Development Data (2021) add competing through international and regional market expansion as a challenge along with obtaining financing. While, according to research conducted by [33] in Yangon, Myanmar, there are 3 main focuses for SMEs, for instance: access to credit, access to public services, and access to electricity.

Each country in ASEAN has different definitions and criteria for SMEs. In Indonesia, this explanation is regulated by Law number 20 of 2008 concerning micro, small and medium enterprises. As for what is meant by a small business, it is a productive economic entity that operates independently and is managed to carry out by individuals or business entities that are not subsidiaries or branches of companies owned, controlled, or a part of, either directly or indirectly, by Medium or Large Enterprises.

A small company is classified as having a net worth of more than Rp. 50,000,000 to Rp. 500,000,000, excluding land and buildings where the business is located, or having annual sales results of more than Rp. 300,000,000.00 to Rp. 2,500,000,000. Meanwhile, Medium Enterprises are productive economic businesses that operate independently and are run by individuals or business entities that are not subsidiaries or branches of companies that are owned, controlled, or become part of either directly or indirectly by Small Businesses or Large Businesses with total net assets or annual sales proceeds as defined in the Law on Medium Enterprises Criteria, namely having a net worth of

more than Rp. 500,000,000 to Rp. 10,000,000,000 excluding land and buildings for business premises or having sales proceeds ranging from Rp. 2,500,000,000 to Rp. 50,000,000,000.

Meanwhile, SME Corporation Malaysia separates SMEs into two categories (SME Corporation); [34]: first, manufacturing, other manufacturing services, and agroindustry. Second, services, primary agriculture, and information and communication technology. For the first category, the criteria for small businesses are businesses that have a turnover of between RM 300,000 - RM 15,000,000 with a total of 5 employees to less than 75 people. While the criteria for medium-sized businesses have a turnover of RM 15,000,000-50,000,000 with workers totaling 75 to 200 people. The second category has a smaller size criterion, namely small businesses with a turnover of RM 300,000 RM 3,000,000 and workers as many as 5 people to less than 30 people, while medium businesses have a turnover of RM 3,000,000 RM 20,000,000 as many as 30 people up to under 75 workers. According to [35], the total number of SMEs registered with various ministries over the last decade could range from 10,000 to 30,000 in Malaysia. Small and medium enterprises (SMEs) are the most diverse type of company establishment in Malaysia, with a focus on general commerce, raw materials, agriculture, and manufacturing.

Singapore is one of the countries in the world with the most developed Small and Medium Enterprises (SMEs). SMEs account for nearly half of Singapore's per capita GDP. SPRING, a government agency that assists businesses in becoming more innovative and competitive, manages MSMEs in Singapore. The criteria for SMEs according to SPRING are businesses that have 30% local equity and have fixed productive assets under SGD 15,000,000 with the number of employees in service companies not exceeding 200 people.

Thai Ministry of Industry divides SMEs into four broad categories based on the number of workers and the value of fixed assets (excluding land) as stated in the law issued, year, 2002. First, manufacturing with the criteria for the number of workers for small businesses not more than 50 people and fixed assets below 50,000,000 Baths, and 51-200 workers with fixed assets above 50,000,000 to 200,000,000 Baths for medium-sized businesses. Second, the service industry with the same number of workers and fixed assets as the manufacturing industry for SME criteria. Third, the wholesale industry with fewer employees, namely under 25 people with fixed assets below 50,000,000 Baths for small businesses, and 26 to 50 employees and fixed assets above 50,000,000 to 100,000,000 for small businesses, and medium businesses have 16 to 30 employees with fixed assets above 30,000,000 to 60,000,000 Baths.

The definition of SMEs is slightly different in the Philippines. This country defines SMEs as small businesses, so the definition is not based on industry classification but on total assets (exclusive land) and the number of employees. According to the National Statistics Office and Small a Medium Enterprise Development Council (SMEDC) Philippines, SMEs are businesses that have assets under Php 100,000,000 and have fewer than 200 employees. The division of each category is as follows: small business has 10-99 workers and assets ranging from 3,000,000 Pesos to 15,000,000 Pesos. While medium business has 100-199 workers and assets ranging from 15,000,000 Pesos to 100,000,000 Pesos.

Brunei Darussalam is ASEAN's smallest and second highest-income country, with a population of only around 423 000 people (ASEC, 2017) and the second smallest territory after Singapore, Brunei Darussalam has a gross national income per capita of Intl \$83.170 in purchasing power parity (World Bank, 2016). The governmental sector employs a sizable proportion of the population, accounting for 47.7% of the labor force in 2014 (ILO, 2017). The Brunei Darussalam Entrepreneurial Development Center distinguishes the definition of MSMEs through the number of employees, namely all businesses that have less than 100 employees. Small businesses have 6 to 50 employees, while medium businesses have 51 to 100 employees.

According to Decree No.90/2001/ND-CP Vietnam, SMEs are businesses that have an investment value of fewer than 100M Dongs and several employees under 300 people. Vietnam divides this definition category into two, namely trade and service industries, and other industries besides these two industries. In trade and services, small businesses have criteria for capital below 10 M. Dongs and 10 to 50 workers, while medium-sized businesses have a capital of 10 billion and 50 million.

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Dongs with workers 50-100 people. For other industrial categories, the number of workers owned by small businesses is 10-200 people and capital are below 20M. Dongs, as well as 200-300 employees and 20M - 100M.Dongs capital for medium businesses.

Myanmar is made up of several ethnic groups, and the country's geographical location has historically made the political situation unstable [36]. Based on the Central Department of Small and Medium Enterprises Development, Myanmar divides SMEs into two categories, namely manufacturing and service industries. For manufacturing, small businesses have 10 - 70 employees and capital investment are under 500,000,000 Kyats. Medium-sized businesses have a workforce of 70 150 people and a capital investment of 500,000,000 to 1,000,000,000 Kyats. In the service industry, the criteria for small businesses are 10-50 workers and a capital investment of under 200,000,000 Kyats, while medium-sized businesses have 50-100 workers and a capital investment of 200,000,000 - 500,000,000 Kyats.

In Laos, SMEs' Promotion and Development Office divides the definition of SMEs based on the number of workers, annual turnover, and asset value. Small businesses have a workforce of 5 to 19 people, an annual turnover of under 400,000,000 Kip, and an asset value of under 250,000,000 Kip. For medium-sized businesses, the number of employees is 20 to 99 people, the annual turnover is below 2,000,000,000 Kip, and the asset value is 1,200,000,000 Kip.

According to Open Development Cambodia (2020), the Cambodian government defines SMEs as belonging to one of three sectors: agriculture, industry, and services and trade, with the conditions of each sector requiring the number of employees as well as the quantity of turnover and assets. Cambodia through the General Department of SMEs and Handicrafts categorizes small businesses for businesses that have 11 to 50 workers with an initial capital of USD 50,000 USD 250,000. Meanwhile, medium-sized enterprises have 51 to 100 employees with initial capital from USD 250,000 to USD 500,000. According to Open Development Data, in 2010, 37 percent of small businesses were registered, 70 percent in 2020, and 80 percent in 2025. In 2010, 72 percent of medium-sized businesses were registered, 80 percent in 2020, and 95 percent in 2025. Simultaneously, 93% of major businesses were registered in 2010, 100% in 2020, and 100% in 2025.

The definition of SMEs varies in each country, depending on the size of the country's economy. This study did not compare the criteria and definitions from each of these countries but was limited only to the discussion of the journal literature that will be used as data in achieving research objectives.

### 3. Materials and Methods

Various studies have been conducted in recent years by researchers to examine the role of SMEs in various regions and industries in order to identify factors that SMEs can use to enter international markets and compete globally. Table 1 shows some of the previously reviewed literature studies that can be used as a guide for this study.

<b>Table 1.</b> Previous research	ch of key success SME	s (source: processe	d data by authors).
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Author (Year)	Country	Key Success
		- Digital transformation (technology,
(Hossain et al. 2022)	Dan ala da ala	digital marketing, innovation)
(Hossain, et. al., 2022)	Bangladesh	<ul> <li>Critical dynamic, resilient strategy</li> </ul>
		model
		- Social CRM (along with technology,
[15]	Global	incorporate strategic planning process, people,
		and components of change management
	Australia, Canada, Finland	d, - Owners' characteristics (international
	Italy, Japan, Germany,	experience, prior export knowledge, age, prior
[16]	Spain, US and the UK.	contacts, education, gender, Entrepreneurial
	China, India, Russia, Brazil, Orientation Theory, managerial experience,	
	Algeria, Syria, Bulgaria,	commercial experience, expectancy, valence for
	Tunisia and Turkey,	exporting, personal values, migration

	Subsaharan Africa with Ghana	background, representations, self-efficacy, opportunity recognition, perceived behavioral control, export stimuli, rigidity)  - Firm resources (innovation, productivity, size, ICT, technology, R&D, finances, Entrepreneurial Orientation Theory, product quality, families "Socio-Emotional Wealth; Social Capital Perspective; Stewardship Theory; agency theory")  - Environmental factors (local formal networks, local informal networks, international networks, spatial concentration, domestic competition, national and international laws, institutions, bank support,
(Ferreira de Araújo Lima, et. al., 2020)	Europe	market development  - Financial RM  - Enterprise RM  - Project RM  - Strategic RM  - Supply chain RM
[18]	Global	- Social media
(Machado, et.al., 2020)	Global	- Environmental (Collaboration, increased knowledge, and the development of responsible behavior)
[20]	Global	<ul> <li>Management leadership</li> <li>Knowledge development</li> <li>Entrepreneurial orientation</li> <li>External networks</li> <li>Innovation</li> <li>Organizational rigidity</li> <li>Technological intensity</li> </ul>
[21]	Global	<ul><li>Finance,</li><li>Firm performance,</li><li>Employment,</li><li>Capital investment</li></ul>
(Costa, et. al., 2016)	Global	<ul> <li>Internal (entrepreneurial orientation of the decision-maker and foreign language proficiency)</li> <li>External factors (networks and relationships)</li> </ul>
[23]	Brazil	- Eco-innovation
[24]	Global	- Technology adoption - Open innovation
[25] (Crovini, et. al., 2021)	Africa Global	<ul> <li>International entrepreneurial behavior</li> <li>Risk management</li> <li>Risk culture</li> <li>Entrepreneurial behaviors</li> </ul>
[27]	Global	<ul><li>Technology</li><li>Cost organizational.</li><li>Government regulations</li></ul>
[28]	Global	<ul> <li>Digitalization</li> <li>Leadership for sustainability</li> <li>Organizational culture and mental states</li> <li>Culture for sustainability</li> <li>Environmental sustainability</li> <li>Digitalization for sustainability</li> <li>Digitalization integrated into culture</li> </ul>

[29]	Europe, Australia, the USA China, Korea, Taiwan, Turkey, India, and Iran	-	Inter-organizational collaboration (IOC) vation
[30]	Developing countries	-	Global value chain
(Grooss, et. al., 2022)		-	Digitalization
(G10088, et. al., 2022)	Global	-	Technology
		-	Human capital
[32]	Netherlands	-	Technology
[33]	Global	-	Design management

According to Table 1, there is a lack of research for SMEs in ASEAN countries. The research focuses primarily on developed countries and some developing countries, such as India, Taiwan, China, and African countries, among others. As far as we know, this will be the first paper that uses a literature review to analyze competitive strategies in ASEAN countries. Figure 1 depicts the generated key success indicator for SMEs based on previous research.

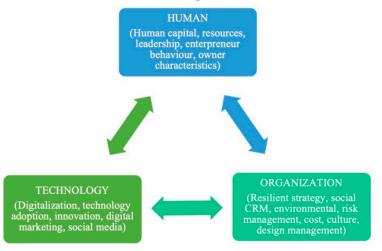


Figure 1. The key successful indicators (generated from previous research)

### 3.1. Meta-analysis

A meta-analysis is a research method that analyzes data from primary studies. The primary study analysis results are used to accept or support the hypothesis and reject or cancel the hypothesis proposed by several researchers [34]. This method extracts data from several similar research results to obtain the information needed for analysis. Meta-analysis in research is a study of several research results in similar problems [35].

Meta-analysis is used for quantitative research as a form of research review, Meta-analysis is used to show various quantitative methods for literature review. The goal of meta-analysis is to reduce the amount of data by summarizing data from various sources and assisting in the planning and direction of research. It also helps to check ridge consistency, streamlines existing data, ensures generalization, explains data inconsistencies, and quantifies data. In addition to improving risk estimation accuracy through the use of explicit methods [36].

The use of meta-analysis as an exact research method [37,38] and non-exact meta-analysis has several advantages for using literature review [39]. The first is its quantitative nature. The standard narrative of a literature review consists of finding comments from various works, whereas meta-analysis allows for a quantitative evaluation of the desired effect. Second, it allows the researcher to standardize the effect under study for the country being observed, the analytical method used, the control variables used, the sample chosen, and so on. It not only helps to explain the wide range of variation in research findings across studies, but it also allows for a comparison of the merits of various research methods, designs, data, and country-specific contexts. Third, it allows for the

inclusion of any paper from anywhere in the world that meets the predetermined criteria. This eliminates the opportunity for assessors to make subjective decisions and avoids significant selection bias. The reliability and quality of these papers are then tested with a meta-analysis framework [40].

### 3.2. Research Design

The data in this study is secondary data derived from existing research that has been reviewed and grouped based on criteria determined using the meta-analysis method; the research was obtained from the results of online journal literature studies related to the topic to be analyzed.

Meta-analysis was used in this study to conduct a literature review. The formulation of the problem to be reviewed is the first stage of this meta-analysis. The most difficult step in the problem formulation stage is identifying the research topic because it involves identifying the questions that the meta-analysis will answer [41]. The problem to be solved at this stage is related to the success factors of SMEs and industries that can survive. A literature search method was used to collect this problem from journals available online at Google Scholar, Emeraldinsight, Sagepub, and Ebsco using the search keywords "SMEs" or "Small and Medium Enterprises". Typical criteria for determining whether a topic is 'ripe' for meta-analysis include: (1) the topic's significance in a specific area of research; (2) the topic's relevance to at least one constituency; (3) the presence of different findings in the literature; and (4) the number of empirical findings or studies that can be synthesized [41]. After getting the related journals, they will be grouped again based on predetermined criteria.

The journals obtained will be extracted and categorized based on the following criteria: the year the journal was published and the country where the research was conducted. The year of publication of the journal is taken within the last ten years, from 2007 to 2017, and is still relevant today. Following that are ASEAN and non-ASEAN countries. This grouping was formed as a result of the increased growth of SMEs in ASEAN countries in recent years. Several countries' growth rates outpace Indonesia's.

The second grouping is based on data that has been collected and then analyzed and reviewed one by one by dividing it into two parts, namely the success factors of SMEs and the industrial sector that can last for a longer period of time. This industrial sector classification is based on data from the IDX (Indonesia Stock Exchange), which is divided into 9 sectors that are divided into three major sectors, namely the main sector, manufacturing, and service sectors. Agriculture and mining are the two most important industries. Second, basic and chemical industries, as well as the multi-industrial sector and the consumer products' industry, are all part of the manufacturing sector. Third, service sectors include property, real estate and building construction, infrastructure, utilities and transportation, finance, trade, services, and investment.

### 4. Results

From 2007 to 2017, a total of 198.197 research articles with the keywords "SMEs" or "Small and Medium Enterprises" were found in the literature search results. 24.400 articles were discovered through a Google Scholar search. Meanwhile, Emerald Insight, Sage Pub, and EBSCO searches yielded 20.037, 17.867, and 135.893 articles, respectively. The first grouping is accomplished by categorizing articles published in journals (a total of 164.380 in total), while the remainder are from sources other than journals (books, proceedings, and conferences). The only articles that will be reviewed are those from journals. There are 13.755 open access journals out of a total of 164.380 journals. The following step is to categorize the countries where the research is being conducted, namely ASEAN and non-ASEAN. A total of 132 research journals were published in ASEAN member countries. Furthermore, we searched for journals relevant to the topic to be reviewed based on the title and abstract, and we found 67 journals in total. The findings of these 67 journals were examined to determine the factors: success factors in SMEs and industry type. See the activity flowchart in Figure 2 for more information.

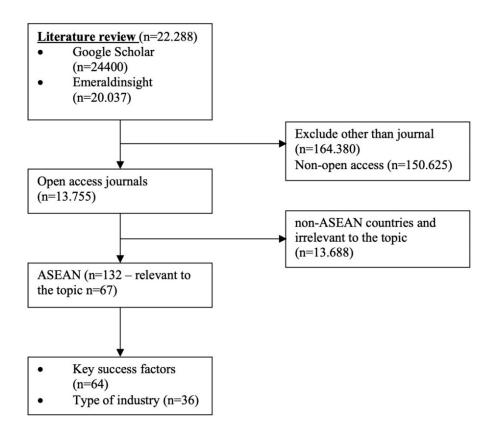


Figure 2. PRISMA model result (source: processed data by authors).

There were 67 peer-reviewed journals that discussed the factors that help SMEs survive and expand into the global market. These variables range from funding and operational factors to marketing and human resource factors. The following are some of the most discussed factors: Human resource competence is discussed in 19 journals by both workers and business owners. The same number also discusses how to reach a larger market by utilizing technology, e-commerce, and social media. In addition, 18 journals discuss the strategies used by these businesses, such as business strategy, operations, and market. Table 2 shows a detailed review of the key success factors' results.

Table 2. Key success factors of SMEs based on industry in ASEAN countries.

V and Conserved Frankers	Industry			
Key Success Factor	<b>Primary Sector</b>	Manufacture	Service	
Ecommerce, technology, and social media	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	
International oriented	$\sqrt{}$	$\sqrt{}$	$\sqrt{}$	
Good management system	V	$\sqrt{}$	$\sqrt{}$	
Government support	V	$\sqrt{}$	$\sqrt{}$	
Working condition/ environment	$\sqrt{}$	$\sqrt{}$	V	
Financial/ Fund support		$\sqrt{}$		
Skill and competency labour/ owner	V	$\sqrt{}$	V	
Market penetration/ selection	$\sqrt{}$	$\sqrt{}$	V	
Policy	$\sqrt{}$	$\sqrt{}$	V	
Innovation	V	√		
Creativity		√		
Organizational performance and	ما	ما	ما	
characteristics	V	V	Ŋ	
Networking with government/ supplier/	ما	ما	ما	
customer	٧	٧	٧	

Leadership	√	V	V
Planned/ Strategy (business/ market/	2	2	ما
operational/ organizational)	٧	V	V
Branding product/ name		$\sqrt{}$	
Packaging		V	
Quality product		$\sqrt{}$	
Motivation			V
Product development		V	
Organizational readiness	√	V	√

About 36 research journals discussed industries that have dominated local and global markets and have succeeded in developing their businesses. Industries that can survive in Thailand, there are ceramic and furniture industries, tourism, Thai silk, wooden toys, manufacture [42], fashion, and garments. Malaysia, namely food industry [43–46], wood-based products, services [47], and herbal [48], also manufacturers [49–51]. Likely, the tourism sector can survive in Laos. While in the Philippines, there are wholesale and retail, as well as manufacturing. Then Indonesia has a creative industry [52], food industry, retail, manufacturing, handmade shoes, and textile industry [53].

The result shows there are 21 key factors to support SMEs to survive and to reach successfully into global market. In the primary sector, this affected by 14 factors namely: ecommerce, technology [50], and social media, international oriented [45], good management system, government support [48], working condition/environment, skill and competency labour/owner [48], market penetration, selection, policy [48], innovation [46], organizational performance and characteristics [48], networking with government/supplier/customer [48], planned/ strategy (business/ market/ operational/ organizational) [48], and organizational readiness.

The manufacturing industry has the most success factors, which is around 20 factors from 21 factors. This left only one factor that is not include in this industry, that is motivation. The other factors are: ecommerce, technology, and social media [51], international oriented, good management system [42], government support, working condition/environment [53], financial/fund support [49], skill and competency labour/owner, market penetration, selection, policy [42], innovation [52], creativity [52], organizational performance and characteristics, networking with government/supplier/ customer [53,54], planned/ strategy (business/ market/ operational/ organizational) [52], branding product/name, packaging, quality product [54], product development, and organizational readiness.

A total of 14 factors are indicators of success for an industry that sells services as its main product, consist of: entrepreneurial [47], ecommerce, technology, and social media, international oriented, good management system, government support, working condition/environment, skill and competency labour/owner [55], market penetration/orientation [47], selection, policy, organizational performance and characteristics, networking with government/supplier/customer, networking with government/supplier/customer, planned/strategy (business/market/operational/organizational), motivation, and organizational readiness.

This success indicators are different for each country; it depends on the economics growth that can be measure by GNP per Capita (as seen in Table 3). For the develop country as in Singapore, this success measure by some factors namely: ecommerce, technology and social media, international oriented, good management system, government support, financial/fund support, skill, and competency labor/owner, innovation, networking with government/ supplier/ customer [56], quality product, and organizational readiness.

Table 3. Key success factors of SMEs based on GDP rate per capita each country in ASEAN.

	Countries		
Key Success Factor	High-Income	Middle-Income	Low-Income
	Country	Country	Country

Ecommorco tochnology and social		Malaysia,	
Ecommerce, technology, and social media	Singapore	Thailand,	
		Indonesia	
International oriented	Singapore		
Good management system	Singapore		
Government support	Singapore		
Working condition/ environment		Vietnam, Malaysi	a
		Thailand,	
Financial/ Fund support	Singapore	Philippines,	
Thancial, Fund support	Singapore	Malaysia,	
		Indonesia	
Skill and competency labour/		Malaysia,	
Skill and competency labour/	Singapore	Thailand,	
owner		Indonesia	
		Thailand,	
Market penetration/ selection		Malaysia,	Cambodia, Laos
		Indonesia	
		Thailand,	
Policy		Philippines,	Laos
•		Vietnam	
		Malaysia,	
Innovation	Singapore	Thailand,	
		Indonesia	
Creativity		Malaysia	
Organizational performance and		Malaysia,	
characteristics		Thailand	
Networking with government/	Singaporo	Malaysia,	
supplier/ customer	Singapore	Thailand	
Leadership		Malaysia	
Planned/ Strategy (business/			
market/ operational/		Malaysia	
organizational)			
Prop ding product/ name		Malaysia,	
Branding product/ name		Indonesia	
Packaging		Malaysia	
Ovality made deat	Cinaanara	Thailand,	
Quality product	Singapore	Indonesia	
Motivation			Cambodia, Laos
Product development		Malaysia	
Organizational readiness	Singapore		

Meanwhile, there are more successful factors in middle-income country than in develop country, like Indonesia, Malaysia, Thailand, Philippines, and Vietnam, for instance: ecommerce, technology and social media [51,57–59], working condition/environment [60], financial/ fund support [48,61,62], skill and competency labor/owner [48,55,63], market penetration/selection, policy [42,48,60], innovation [46,59,64,65], creativity [46,55], organizational performance and characteristics [48,63,66] networking with government/supplier/customer [48], leadership [55,67], planned/ strategy (business/ market/ operational/ organizational) [42], branding product/ name [43,65], packaging, quality product, and product development [64].

On the contrary, Laos and Cambodia as low-income countries have several successful indicators that are: market penetration/ selection, policy, and motivation. Some indicators that exist in both high-income and middle-income countries are ecommerce, technology, and social media, financial/

fund support, skill and competency labour/ owner, innovation, networking with government/ supplier/ customer, and quality product. Whereas, for middle-income dan low-income countries have market penetration/ selection, and policy as the same factors.

### 5. Discussion

From the results, it can be concluded that successful indicators that should be used by all industries in general are ecommerce, technology and social media, international oriented, good management system, government support, working condition/environment, skill and competency labor/owner, market penetration/selection, policy, organizational performance and characteristics, networking with government/supplier/customer, planned/ strategy (business). The results obtained are grouped into 6 sections, for instance: technology, government support, human resources, organizational performance, environmental, and network. This overview can be seen in Figure 3.



Figure 3. Proposed key success of the future SMEs in ASEAN (source: processed data by authors).

Ecommerce, technology, and social media are indicators of success in every industrial sector, especially in developed and developing countries because these factors are able to expand marketing and sales to national and international levels. In addition, Because of the increasing number of individuals who use internet technology, in particular social media, technology has become more popular and is being used by businesses to expand with low promotional costs. E-commerce not only increases sales, broaden market share, saves money, and utilizes fresh opportunities for business, but it also statistically significant improvement with dealers and affiliates [68].

The e-commerce factor also has an important role in the success of an SME entering the global market, but it is not the main factor. In Thailand, SMEs are the exporters, before getting to know technology is also able to develop their products for export. By adopting e-commerce, the opportunity to develop more widely, is even greater, although not all SMEs have implemented it due to limited human resources capable of operating the technology [69]. In addition, skills and competencies are needed from the human resources involved in the business, both owners and existing workers. This is a factor, also for all industrial sectors in developed and developing countries.

Every year, SMEs undergo changes, as evidenced by the journals discussed in this chapter (see Figure 4). The number of journals that discuss one factor in that year demonstrates this development trend. The journal's focus in 2007 was on the discussion of finance, capital, and business funding. Funding is critical for SMEs to continue operating and developing their businesses. The following year, 2008, the topic was still finance, but with the addition of government support and policy. Furthermore, the distinguishing trend was observed in several journals discussing organizational performance factors and business characteristics in 2009. Proactive companies prioritized the following factors for exceptional performance: (i) Achieving the needs of customers; (ii) Close working connections between management and staff members; (iii) Regionalization; (iv) Leadership;

and (v) Availability of financial and technical resources and assistance. Pay close attention to the following dynamics and strategic thrusts: (a) strong market orientation and relevant capability; (b) effective management; and (c) effective communication. (1) Strong managerial commitment and support; (2) Strong corporate capability and management cohesion; and (c) Access to a broad support network and resources (i.e., Networking) [70].



Figure 4. Indicators development of SMEs from 2007 to 2017

Network, market orientation, product development, and packaging were the factors that influenced the development of SMEs from 2010 to 2012. In 2013, the discussion on human resource factors, skills, and competencies of workers and business owners became an important factor for SMEs to develop and survive in a competitive environment. Business actors and their employees must possess several competencies, which include four aspects of human resource competence: skills, expertise, problem-solving, and adaptability [71]. In 2014, branding became a differentiator from previous years because what consumers are looking for this year is a creative and innovative brand, so naming a product and giving it a brand becomes important. Technology, e-commerce, and social media development, as well as increased innovation, characterized the years 2015 to 2017.

SMEs face a variety of challenges, including limited access to finance, a shortage of skilled labor, and regulatory barriers. They do, however, have significant growth and innovation potential, and governments and policymakers around the world are increasingly recognizing this and implementing policies to support their development. Finally, market access is another significant challenge faced by SMEs in ASEAN. SMEs in ASEAN often struggle to penetrate new markets due to trade barriers and lack of information about export opportunities. This limits the growth potential of SMEs and hinders their competitiveness. Support for SMEs achieves more than just economic goals such as ongoing economic development, improved economic linkages, competition development, and consumer market fulfillment.

## 6. Conclusions

The goal of developing these SMEs is to help them grow and become an important part of the Indonesian economy. The findings of this literature review reveal several important factors that are critical to the success of SMEs in competing with other industries. Aside from that, it obtains a clear picture of which industries can be developed for a longer period of time in order to survive in the global market. With this knowledge, it is hoped that Indonesia will be able to seek and apply these indicators to all new and existing SMEs in order to accelerate their development. With similar characteristics to other ASEAN countries, it is hoped that this success indicator can be considered, and that both SMEs and the government can collaborate in realizing the progress of each endeavor.

The findings suggest that the key strategies to enhance the competitiveness of SMEs in ASEAN are improving access to finance, technology, and innovation, strengthening institutional support, and enhancing market access. Access to finance can be improved by developing alternative financing options such as venture capital, crowdfunding, and peer-to-peer lending. Governments and development agencies can also provide financial incentives to encourage banks and financial institutions to lend to SMEs. Technology and innovation can be improved by providing training and advisory services to SMEs to help them adopt new technologies and develop innovative products and services. Governments and development agencies can also provide grants and subsidies to SMEs to invest in research and development.

**Supplementary Materials:** The following supporting information can be downloaded at: www.mdpi.com/xxx/s1, Figure S1: title; Table S1: title; Video S1: title.

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### References

- 1. S. Kadir and J. M. Shaikh, 'The effects of e-commerce businesses to small-medium enterprises: Media techniques and technology', 2023, p. 050078. doi: 10.1063/5.0110893.
- 2. B. Suprapto, H. A. Wahab, and A. J. Wibowo, 'The implementation of balance score card for performance measurement in small and medium enterprises: Evidence from malaysian health care services', *The Asian Journal of Technology Management*, vol. 2, no. 2, pp. 76–87, 2009.
- 3. N. Yoshino and F. Taghizadeh-Hesary, 'Analysis of credit ratings for small and medium-sized enterprises: Evidence from Asia', *Asian Dev Rev*, vol. 32, no. 2, pp. 18–37, 2015.
- 4. N. Yoshino, F. Taghizadeh-Hesary, P. Charoensivakorn, and B. Niraula, 'Small and medium-sized enterprise (SME) credit risk analysis using bank lending data: An analysis of Thai SMEs', *Journal of Comparative Asian Development*, vol. 15, no. 3, pp. 383–406, 2016.
- 5. T. M. Iskandar, N. H. Hassan, Z. M. Sanusi, and Z. M. Mohamed, 'Board of Directors and Ownership Structure: A Study on Small and Medium Enterprises (SMEs) in Malaysia.', *Jurnal Pengurusan*, vol. 49, 2017.
- 6. J. Carlos Pinho and E. Sampaio de Sá, 'Personal characteristics, business relationships and entrepreneurial performance: Some empirical evidence', *Journal of Small Business and Enterprise Development*, vol. 21, no. 2, pp. 284–300, 2014.
- 7. A. Berry and L. Perren, 'The role of non-executive directors in UK SMEs', *Journal of Small Business and Enterprise Development*, vol. 8, no. 2, pp. 159–173, 2001.
- 8. E. Sulistyowati and N. S. Lestari, 'Faktor-faktor penentu keberhasilan usaha kecil dan menengah (UKM) Di Kota Yogyakarta', *Jurnal Maksipreneur: Manajemen, Koperasi, Dan Entrepreneurship*, vol. 6, no. 1, pp. 24–36, 2016.
- 9. T. Tambunan, 'Entrepreneurship development: SMES in Indonesia', *Journal of Developmental Entrepreneurship*, vol. 12, no. 01, pp. 95–118, 2007.
- 10. J. A. Parnell, Z. Long, and D. Lester, 'Competitive strategy, capabilities and uncertainty in small and medium sized enterprises (SMEs) in China and the United States', *Management Decision*, vol. 53, no. 2, pp. 402–431, 2015.
- 11. E. Sarwoko, 'Kajian faktor-faktor penentu keberhasilan small business', *Jurnal Ekonomi Modernisasi*, vol. 4, no. 3, pp. 226–239, 2008.
- 12. D. P. Nasution and I. Lubis, 'The development of demand for small and medium industries in Indonesia', *Development*, vol. 4, no. 10, 2019.

- 13. T. R. Valentina and R. E. Putera, 'ASEAN Economy Community (AEC) Indonesian Politic of Trade in Contending with the Simple Market Based Production', *Researchers World*, vol. 7, no. 1, p. 82, 2016.
- 14. M. R. Hossain, F. Akhter, and M. M. Sultana, 'SMEs in Covid-19 Crisis and Combating Strategies: A Systematic Literature Review (SLR) and A Case from Emerging Economy', *Operations Research Perspectives*, vol. 9, p. 100222, 2022, doi: https://doi.org/10.1016/j.orp.2022.100222.
- 15. S. Yasiukovich and M. Haddara, 'Social CRM in SMEs: A Systematic Literature Review', *Procedia Comput Sci*, vol. 181, pp. 535–544, 2021, doi: https://doi.org/10.1016/j.procs.2021.01.200.
- 16. M. Y. Haddoud, A.-K. E. Onjewu, W. Nowiński, and P. Jones, 'The determinants of SMEs' export entry: A systematic review of the literature', *J Bus Res*, vol. 125, pp. 262–278, 2021, doi: https://doi.org/10.1016/j.jbusres.2020.12.017.
- 17. P. Ferreira de Araújo Lima, M. Crema, and C. Verbano, 'Risk management in SMEs: A systematic literature review and future directions', *European Management Journal*, vol. 38, no. 1, pp. 78–94, 2020, doi: https://doi.org/10.1016/j.emj.2019.06.005.
- 18. N. K. Wardati and M. ER, 'The Impact of Social Media Usage on the Sales Process in Small and Medium Enterprises (SMEs): A Systematic Literature Review', *Procedia Comput Sci*, vol. 161, pp. 976–983, 2019, doi: https://doi.org/10.1016/j.procs.2019.11.207.
- 19. M. C. Machado, M. Vivaldini, and O. J. de Oliveira, 'Production and supply-chain as the basis for SMEs' environmental management development: A systematic literature review', *J Clean Prod*, vol. 273, p. 123141, 2020, doi: https://doi.org/10.1016/j.jclepro.2020.123141.
- 20. M. Saunila, 'Innovation capability in SMEs: A systematic review of the literature', *Journal of Innovation & Knowledge*, vol. 5, no. 4, pp. 260–265, 2020, doi: https://doi.org/10.1016/j.jik.2019.11.002.
- 21. R. Kersten, J. Harms, K. Liket, and K. Maas, 'Small Firms, large Impact? A systematic review of the SME Finance Literature', *World Dev*, vol. 97, pp. 330–348, 2017, doi: https://doi.org/10.1016/j.worlddev.2017.04.012.
- 22. E. Costa, A. L. Soares, and J. P. de Sousa, 'Information, knowledge and collaboration management in the internationalisation of SMEs: A systematic literature review', *Int J Inf Manage*, vol. 36, no. 4, pp. 557–569, 2016, doi: https://doi.org/10.1016/j.ijinfomgt.2016.03.007.
- 23. D. A. de Jesus Pacheco, C. S. ten Caten, C. F. Jung, H. V. G. Navas, and V. A. Cruz-Machado, 'Eco-innovation determinants in manufacturing SMEs from emerging markets: Systematic literature review and challenges', *Journal of Engineering and Technology Management*, vol. 48, pp. 44–63, 2018, doi: https://doi.org/10.1016/j.jengtecman.2018.04.002.
- M. Madhavan, S. Wangtueai, M. A. Sharafuddin, and T. Chaichana, 'The Precipitative Effects of Pandemic on Open Innovation of SMEs: A Scientometrics and Systematic Review of Industry 4.0 and Industry 5.0', *Journal of Open Innovation: Technology, Market, and Complexity*, vol. 8, no. 3, p. 152, 2022, doi: https://doi.org/10.3390/joitmc8030152.
- 25. N. Zahoor, Z. Khan, M. Meyer, and B. Laker, 'International entrepreneurial behavior of internationalizing African SMEs Towards a new research agenda', *J Bus Res*, vol. 154, p. 113367, 2023, doi: https://doi.org/10.1016/j.jbusres.2022.113367.
- 26. C. Crovini, G. Ossola, and B. Britzelmaier, 'How to reconsider risk management in SMEs? An Advanced, Reasoned and Organised Literature Review', *European Management Journal*, vol. 39, no. 1, pp. 118–134, 2021, doi: https://doi.org/10.1016/j.emj.2020.11.002.
- 27. O. Zide and O. Jokonya, 'Factors affecting the adoption of Data Management as a Service (DMaaS) in Small and Medium Enterprises (SMEs)', *Procedia Comput Sci*, vol. 196, pp. 340–347, 2022, doi: https://doi.org/10.1016/j.procs.2021.12.022.
- 28. C. Isensee, F. Teuteberg, K.-M. Griese, and C. Topi, 'The relationship between organizational culture, sustainability, and digitalization in SMEs: A systematic review', *J Clean Prod*, vol. 275, p. 122944, 2020, doi: https://doi.org/10.1016/j.jclepro.2020.122944.
- 29. N. Zahoor and O. Al-Tabbaa, 'Inter-organizational collaboration and SMEs' innovation: A systematic review and future research directions', *Scandinavian Journal of Management*, vol. 36, no. 2, p. 101109, 2020, doi: https://doi.org/10.1016/j.scaman.2020.101109.
- 30. M. B. Epede and D. Wang, 'Global value chain linkages: An integrative review of the opportunities and challenges for SMEs in developing countries', *International Business Review*, vol. 31, no. 5, p. 101993, 2022, doi: https://doi.org/10.1016/j.ibusrev.2022.101993.

- 31. O. F. Grooss, M. Presser, and T. Tambo, 'Surround yourself with your betters: Recommendations for adopting Industry 4.0 technologies in SMEs', *Digital Business*, vol. 2, no. 2, p. 100046, 2022, doi: https://doi.org/10.1016/j.digbus.2022.100046.
- 32. J. Coenen, R. Fraanje, S. Limonard, and M. Zijderveld, 'Lessons-learnt on articulating and evaluating I4.0 developments at SME manufacturing companies', *Procedia Comput Sci*, vol. 217, pp. 238–247, 2023, doi: https://doi.org/10.1016/j.procs.2022.12.219.
- 33. V. Carneiro, A. Barata da Rocha, B. Rangel, and J. L. Alves, 'Design Management and the SME Product Development Process: A Bibliometric Analysis and Review', *She Ji: The Journal of Design, Economics, and Innovation*, vol. 7, no. 2, pp. 197–222, 2021, doi: https://doi.org/10.1016/j.sheji.2021.03.001.
- 34. F. X. Sugiyanto, 'Peningkatan Daya Saing Ekonomi Indonesia', *Jurnal Dinamika Ekonomi & Bisnis*, vol. 1, no. 1, 2004.
- 35. M. Subchiawan and D. Rahmawati, 'META-ANALISIS PENELITIAN TECHNOLOGY READINESS DI INDONESIA', *Jurnal Profita: Kajian Ilmu Akuntansi*, vol. 9, no. 8, pp. 47–69, 2021.
- 36. S. Gopalakrishnan, S. Padhyegurjar, and P. Ganeshkumar, 'Systematic reviews and meta-analysis', *JK Science*, vol. 15, no. 1, p. 48, 2013.
- 37. E. Palupi, A. Jayanegara, A. Ploeger, and J. Kahl, 'Comparison of nutritional quality between conventional and organic dairy products: a meta-analysis', *J Sci Food Agric*, vol. 92, no. 14, pp. 2774–2781, 2012.
- 38. J. M. Cooper *et al.*, 'Effects of reduced tillage in organic farming on yield, weeds and soil carbon: Meta-analysis results from the TILMAN-ORG project', *Building Organic Bridges*, vol. 4, pp. 1163–1166, 2014.
- 39. T. D. Stanley, 'Wheat from chaff: Meta-analysis as quantitative literature review', *Journal of economic perspectives*, vol. 15, no. 3, pp. 131–150, 2001.
- 40. A. Matysiak and D. Vignoli, 'Fertility and Women's Employment: A Meta-analysis: Fécondité et travail des femmes: une méta-analyse', *European Journal of Population/Revue européenne de Démographie*, vol. 24, pp. 363–384, 2008.
- 41. A. H. Kirca and A. Yaprak, 'The use of meta-analysis in international business research: Its current status and suggestions for better practice', *International Business Review*, vol. 19, no. 3, pp. 306–314, 2010.
- 42. T. Naipinit, S. Kojchavivong, V. Kowittayakorn, and T. P. Na Sakolnakorn, 'McKinsey 7S model for supply chain management of local SMEs construction business in upper northeast region of Thailand', *Asian Soc Sci*, vol. 10, no. 8, pp. 35–41, 2014, doi: 10.5539/ass.v10n8p35
- 43. A. R. Hamdan, J. H. Yahaya, A. Deraman, and Y. Y. Jusoh, 'The success factors and barriers of information technology implementation in small and medium enterprises: An empirical study in Malaysia', *Int J Bus Inf Syst*, vol. 21, no. 4, pp. 477 494, 2016, doi: 10.1504/IJBIS.2016.075257.
- 44. C. H. Ong, S. Md. Salleh, and R. Z. Yusoff, 'The role of emotional and rational trust in explaining attitudinal and behavioral loyalty: An insight into SME brands', *Gadjah Mada International Journal of Business*, vol. 18, no. 1, pp. 1 19, 2016, doi: 10.22146/gamaijb.9285.
- 45. N. A. Ismail and O. Kuivalainen, 'The effect of internal capabilities and external environment on small- and medium-sized enterprises' international performance and the role of the foreign market scope: The case of the Malaysian halal food industry; [Der Effekt von internen Kompetenzen und dem externen Umfeld auf den internationalen Unternehmenserfolg von KMU und die Moderator-Beziehung der geografische Reichweite: der Fall der Malaysischen Halal-Lebensmittelindustrie]', *Journal of International Entrepreneurship*, vol. 13, no. 4, pp. 418 451, 2015, doi: 10.1007/s10843-015-0160-x.
- 46. J. L. K. Yew and E. T. Gomez, 'Advancing tacit knowledge: Malaysian family SMEs in manufacturing', *Asian Economic Papers*, vol. 13, no. 2, pp. 1–24, 2014, doi: 10.1162/ASEP\_a\_00275.
- 47. W. M. N. bin W. M. Nasir, A. Al Mamun, and J. Breen, 'Strategic orientation and performance of SMEs in Malaysia', *Sage Open*, vol. 7, no. 2, p. 2158244017712768, 2017.
- 48. K. Chandra Paul, A. Hamazah, B. Abu Samah, I. Arif Ismail, and J. Lawrence D'Silva, 'Rural Malay involvement in Malaysian herbal entrepreneurship', *Asian Soc Sci*, vol. 10, no. 2, pp. 202–208, 2014, doi: 10.5539/ass.v10n2p202.
- 49. C. R. Isa, Z. Saleh, and N. S. Sapiei, 'A Survey On Financial and Management Accounting Practices Among Small and Medium Enterprises in Malaysia', *Asian Journal of Accounting Perspectives*, vol. 1, no. 1, pp. 13–25, Dec. 2008, doi: 10.22452/AJAP.vol1no1.2.
- 50. T. Ramayah, O. Mohamad, A. Omar, and M. Marimuthu, 'Technology adoption among Small and Medium Enterprises (SME's): A research agenda', *World Acad. Sci. Eng. Technol. J*, vol. 53, pp. 943–946, Jan. 2009.

- 51. F. Chan, R. M. Yusuff, and N. Zulkifli, 'Barriers to Advanced Manufacturing Technology in small-medium enterprises (SMEs) in Malaysia', in 2nd International Symposium on Technology Management and Emerging Technologies, ISTMET 2015 Proceeding, 2015, pp. 412 416. doi: 10.1109/ISTMET.2015.7359069.
- 52. T. Murni, 'The Effect of Entrepreneurial Orientation to Low Cost Strategy, Differentiation Strategy, Sustainable Innovation and Performance of Small and Medium Enterprises (Studies at Batik Small and Medium Enterprises in East Java Province, Indonesia)', European Journal of Business and Management, vol. 9, no. 20, pp. 137–153, 2017.
- 53. Hasyim, Sahyar, and Mahmud, 'Isolating mechanism as a mean to improve performance of SMEs', *European Research Studies Journal*, vol. 20, no. 3, pp. 594 612, 2017, doi: 10.35808/ersj/731.
- 54. V. Sitabutr and P. Pimdee, 'Thai Entrepreneur and Community-Based Enterprises' OTOP Branded Handicraft Export Performance: A SEM Analysis', *Sage Open*, vol. 7, no. 1, p. 2158244016684911, Jan. 2017, doi: 10.1177/2158244016684911.
- 55. L. Quan, 'Perceptions of leadership competencies and the acquisition of them by CEOs in vietnamese small enterprises', *Asian Soc Sci*, vol. 11, no. 4, pp. 17 25, 2015, doi: 10.5539/ass.v11n4p17.
- 56. J. C. N. Wee and A. Y. K. Chua, 'The peculiarities of knowledge management processes in SMEs: The case of Singapore', *Journal of Knowledge Management*, vol. 17, no. 6, pp. 958–972, 2013, doi: 10.1108/JKM-04-2013-0163.
- 57. Y. Dirgiatmo, 'Analysis of the potential use of social networking for the success of strategic business planning in small and medium-sized enterprises', *Mediterr J Soc Sci*, vol. 6, no. 2S2, pp. 233 245, 2015, doi: 10.5901/mjss.2015.v6n2s2p233.
- 58. S. Kit Yeng, A. Osman, Y. Haji-Othman, and M. Safizal, 'E-commerce adoption among small and medium enterprises (SMEs) in Northern state of Malaysia', *Mediterr J Soc Sci*, vol. 6, no. 5, pp. 37–43, 2015, doi: 10.5901/mjss.2015.v6n5p37.
- 59. N. A. Aziz and N. A. Omar, 'Exploring the effect of Internet marketing orientation, Learning Orientation and Market Orientation on innovativeness and performance: SME (exporters) perspectives', *Journal of Business Economics and Management*, vol. 14, no. SUPPL1, pp. S257–S278, 2013, doi: 10.3846/16111699.2011.645865.
- 60. D. T. P. Hoa and N. V. Khoi, 'Vietnamese small and medium-sized enterprises: Legal and economic issues of development at modern stage', *Economic Annals-XXI*, vol. 165, no. 5–6, pp. 128 132, 2017, doi: 10.21003/ea.V165-26.
- 61. S. H. Mokhtar and Z. M. Ashhari, 'Issues and challenges of microcredit programmes in Malaysia', *Asian Soc Sci*, vol. 11, no. 26, pp. 191 195, 2015, doi: 10.5539/ass.v11n26p191.
- 62. B. B. Edrak, B. Gharleghi, B. C. Yin Fah, and M. Tan, 'Critical success factors affecting Malaysia' SMEs through inward FDI: Case of service sector', *Asian Soc Sci*, vol. 10, no. 16, pp. 131–138, 2014, doi: 10.5539/ass.v10n16p131.
- 63. A. Suroso and A. I. Anggraeni, 'Optimizing SMEs' business performance through human capital management', 2017.
- 64. M. Fadhilah and Andriyansah, 'Strategic implementation of environmentally friendly innovation of small and medium-sized enterprises in Indonesia', *European Research Studies Journal*, vol. 20, no. 4, pp. 134 148, 2017, doi: 10.35808/ersj/880.
- 65. I. A. Gisip and A. Harun, 'Antecedents and outcomes of brand management from the perspective of Resource based view (RBV) theory', *Mediterr J Soc Sci*, vol. 4, no. 10, pp. 432–438, 2013, doi: 10.5901/mjss.2013.v4n10p432.
- 66. K. Na-Nan and S. Ngudgratoke, 'Relationship among personality, transformational leadership, percerived organizational support, expatriate adjustment, and expatriate performance', *International Journal of Business and Administrative Studies*, vol. 3, no. 4, p. 120, 2017.
- 67. X. Le Ng, S. L. Choi, and K. Soehod, 'The effects of servant leadership on employee's job withdrawal intention', *Asian Soc Sci*, vol. 12, no. 2, pp. 99 106, 2016, doi: 10.5539/ass.v12n2p99.
- 68. K. Y. Sin, A. Osman, S. N. Salahuddin, S. Abdullah, Y. J. Lim, and C. L. Sim, 'Relative advantage and competitive pressure towards implementation of e-commerce: Overview of small and medium enterprises (SMEs)', *Procedia Economics and Finance*, vol. 35, pp. 434–443, 2016.
- 69. P. Ueasangkomsate, 'Adoption e-commerce for export market of small and medium enterprises in Thailand', *Procedia-Social and Behavioral Sciences*, vol. 207, pp. 111–120, 2015.

- 19
- 70. B. C. Ghosh, T. W. Liang, T. T. Meng, and B. Chan, 'The key success factors, distinctive capabilities, and strategic thrusts of top SMEs in Singapore', *J Bus Res*, vol. 51, no. 3, pp. 209–221, 2001.
- 71. P. Dullayaphut and S. Untachai, 'Development the measurement of human resource competency in SMEs in upper northeastern region of Thailand', *Procedia-Social and Behavioral Sciences*, vol. 88, pp. 61–72, 2013.

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