

Cross Border SMIEs: Malaysia and Indonesia



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Moha Asri Abdullah, Rizal Yaya, Dzuljastri Abdul Razak



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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

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Cross Border SMEs: Malaysia Indonesia
Editor MOHA ASRI ABDULLAH, RIZAL YAYA, DZULJASTRI ABDUL
RAZAK
Design JOKO SUPRIYANTO

UMY PRESS, May 2020
First Print
UMY Press, Universitas Muhammadiyah Yogyakarta
Jalan Brawijaya, Tamantirto, Kasihan, Bantul, Yogyakarta 55183
Telpon : +62.274-387656 pesawat 159

Cross Border SMEs: Malaysia Indonesia
Editor Moha Asri Abdullah, Rizal Yaya, Dzuljastri Abdul Razak,
16,5 x 24 cm, XII + 284 hlm
Yogyakarta, UMY PRESS 2019

ISBN 978-623-91682-8-5



Preface

Much have been written in various forms with respect to Micro, Small and Medium Enterprises (MSMEs). In spite of this, a compilation of works on “cross border SMEs”, especially between Malaysia and Indonesia, has still not been made available to the public. Prior to addressing the issue at hand, let us look at what we mean by MSMEs for Malaysia and Indonesia? Micro, Small and Medium Enterprises (MSMEs) have been defined differently in both countries. So far, there has not been a unified definition that is accepted by all. In Malaysia, SME Corp, a coordinating body on SMEs, refers to micro size SMEs as companies with sales turnover of less than RM300,000 and employees less than five. However, for small size SMEs in the manufacturing sector, it refers to companies that have sales turnover between RM300,000 and RM15 million and employees between 5 and 75 people, while in the services sector it is described as companies that have sales turnover between RM300,000 and RM3 million, and employees between 5 and 30 people. As for medium size SMEs, in the manufacturing sector, it includes companies with sales turnover between RM15 million and 50 million, and

employees between 75 and 200 people. However, in the services sector, companies that have sales turnover between 15 million and RM 20 million and employees between 30 and 75 people are already considered as medium size SMEs. In Indonesia, MSMEs are defined as those enterprises which have full time employment of less than 100 employees with a substantial proportion of them consisting of micro enterprises with not more than five full-time employees.

Elsewhere in these two nations, SMEs are much regarded as “unsung heroes” as they play significant economic and social roles by offering new job opportunities, lowering unemployment rate, increasing competition and productivity, and providing substantial benefits to the economy of the two countries, Malaysia and Indonesia alike. The SMEs in both the neighboring nations are considered to be the backbone of the modern-day economy. Thus, it is far from being a surely not a “fish bone” anymore. The importance of this segment is undisputed. For instance, a total of 98.5 percent of the Malaysian business establishments are SMEs. In 2017, these businesses were responsible for 37.1 percent of the country’s GDP, 66 percent the total employment of the country, and 17.3 percent of the total Malaysian export. The annual growth of these SMEs’ contributions towards the GDP, employment and export are 7.2 percent, 3.4 percent and 7.9 percent respectively. A more or less similar example can be illustrated for the Indonesian counterpart. The importance of MSMEs in the Indonesian national economy has been well noted. There are more than 56.8 million MSMEs establishments and they consist of approximately 99.9 percent of the total number of enterprises. It can be further emphasized that within MSMEs, microenterprises seem to be more dominant compared to small and medium enterprises. It covers about 98.7 percent, while small and medium enterprises represent only about 1.13 percent and 0.09 percent respectively.

Having those figures are insufficient as there is a yawning gap between the needs, demands and policy responses in SMEs that often dampen their prospects. The recent economic turbulence has only added to SMEs' problems. In this regard, SMEs in both nations have also been struggling for the improvement in the cost reducing industries by providing relatively lower prices which bring transformation to the industrial structure and development of new markets along with large and multinational corporations (MNCs). SMEs directly and indirectly assist and facilitate growth, multiply and replicate into sufficient mass across industries and sectors. Starting in the late 70s and early 80s, SMEs have started to become more innovative and flexible in terms of reducing cost, technology adoption and diversification of products. Hence, it becomes imperative for us to ensure that SMEs, which are facing one of the toughest times in the industrial history, are strongly supported by the relevant stakeholders; governments, financial agencies, institutions and associations.

Realizing the need to leverage further on the development of small and medium enterprises (SMEs) in these two brotherly countries, Malaysia and Indonesia, a small group of scholars/researchers from IIUM, UMY, UNIDA Gontor and UNISSULA have collaboratively embarked on a little-known project known as the Research Matching Grant Schemes (RMGS), International Islamic University Malaysia (IIUM), Project ID: RMGS 17-001-0027. After a successful Malaysia-Indonesia Workshop on SMEs in 2019, that was conducted to present all the RMGS findings, a subsequent effort is to compile the selected-relevant papers in the form of a book to enable the knowledge and the latest findings to be shared with the public at large. Thus, the book, "Cross Border SMEs: Malaysia and Indonesia", is put forward as an extension of a compilation of works designed to foster the status, growth, progress and development of SMEs, espe-

cially in Malaysia and Indonesia. Such an effort has not been made elsewhere.

In view of this, we would like to extend our appreciation to the Research Management Center (RMC) of the International Islamic University Malaysia (IIUM), the research centers of *Universitas Muhammadiyah Yogyakarta (UMY)*, Universitas Darussalam (UNIDA) Gontor, and Universitas Islam Sultan Agung (*UNISSULA*) for undoubtedly giving us the opportunity by providing research grants under RMGS. The grants from our respective institutions enabled us to generate and integrate these research papers into an edited book. Therefore, special thanks and the flagship's appreciation to those who have contributed their papers and their efforts and unquestionable support which have eventually led to this edited book.

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PROFILE OF MSMEs IN EAST JAVA: CHALLENGES AND PROSPECTS

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ABSTRACT

This chapter aims to explore further information about the background, the profile of the MSME's sector in East Java. The identification results can be utilized in various ways: policy formulation, identify problems MSMEs, mapping of a strategy to build competitive advantage for MSMEs. This chapter applied a quantitative approach and the data collection techniques used are survey methods using questionnaires. Data analysis techniques are a descriptive statistical test. The sample used is mostly MSMEs in East Java (according to) the number of samples used by 250 respondents. This chapter shows that the profile of MSME business actors (key players) in East Java can be viewed from the perspective of gender differences, MSMEs were dominated by respondents' female spouses surveyed. Based on the aspect of Marital Status, MSME is dominated by married respondents with a percentage of 81.6%, Based on the aspect of age distribution, SMEs are dominated by respondents aged 40-49 years, with a percentage of 37.6%. Based on the aspect of Education Level, East Java MSME was dominated by respondents with high school level education with a percentage of 62.8%. Based on the aspect of ownership of expertise (what do you mean?) before entrepreneurship, MSME with the same percentage, the respondents already have expertise in entrepreneurship and some do not have expertise before becoming entrepreneurs. Based on the aspect of the number of full time workers in their business, East Java MSME has only one worker in their business operations, with a percent-

age of 40.8%. Based on the aspect of income, MSME has amassed between 11 million and 50 million per year with a percentage of 28.4%. Based on the aspect of the duration works carried out, MSMEs has been working for more than 10 years, with a percentage of 55%. Based on the aspect of Total assets in business, MSME has assets of 500 thousand - 50 million with a percentage of 67,2%. Based on the aspect of the establishment of the business, East Java MSME entrepreneurs set up businesses in 2011 to 2018 with a percentage of 61.2%. Based on the aspect of the form of the business entity , East Java MSME has individual / private business entities, with a percentage of 60%. Based on the aspect of the type of business sector, MSMEs entrepreneurs are worked in the trade and services sector, with a percentage of 38.4%.

KEYWORDS: Profile of MSMEs, East Java, Micro Small and Medium Enterprise

1.0. INTRODUCTION

Indonesia is the 15th largest country in the world, with a total population of 265 million people in 2018 (Central Bureau of Statistics) which consists of 133.17 million men and 131.88 million women. With a huge population, Indonesia has advantages and disadvantages in many sectors, both in terms of education, economy and health. Concerning the economy, the prevailing situation in Indonesia is supported by multiple business sectors including agriculture, trade, industry, mining, transportation, MSMEs and various other sectors. The MSMEs sector is a sector that provides an excellent opportunity for the Indonesian population in terms of providing employment. Also, according to the Central Bureau of Statistics (BPS), the MSME sector is a sector that contributes greatly and plays a vital role in the economic growth of Indonesia. Based on this fact, it was concluded that the majority of Indonesian people involved worked in the field of MSMEs, both small, medium and large scale.

The MSMEs sector has been a pillar of the economy in Indonesia

and can contribute 60.34% to the country's gross domestic product (GDP), creating employment for nearly 108 million Indonesians. GDP is the amount of added value produced by all business units in a particular country or is the sum of the value of final goods and services produced by all economic units. It can be interpreted that MSMEs are one of the advantages of a country, especially Indonesia, that can help alleviate unemployment and enhance the economy of Indonesia. With these conditions, it is a mandatory task for the government, institutions and other parties to support the development of MSMEs in all regions in Indonesia, one of which is the East Java province, which has the second largest population among all the provinces in Indonesia.

In the effort to develop MSMEs, both government, institutions and other parties can contribute through various programs in education, training, financial assistance, entrepreneurship assistance and other development programs. In supporting this, the profile and characteristics of MSMEs in East Java are needed to determine the model of MSME development seen in various aspects.

Departing (digressing somewhat) from the explanation above, the research problem will revolve around the profile of the MSME sector in East Java. The formulation of research problems is as follows: "What is the profile of the MSMEs sector in East Java?". In general, the objective to be achieved from this research is to explore further information about the background and the profile of the MSME sector in East Java, with the hope that results can be utilized to identify various matters, namely, policy formulation, MSMEs problems, and strategy mapping that are expected to be used to build competitive advantage for MSMEs as a sector that has an important role for the Indonesian economy (Ascarya, 2007)

2.0. THEORETICAL REVIEW

Definition of Micro, Small and Medium Enterprises (MSMEs)

There are few forms of businesses run by the community in Indonesia, starting from the micro, the small and the medium scale. According to Law No. 20 of 2008, “A company can be classified as MSMEs. It is the effort in terms of productive economic activity that stands alone, managed by one or owned by a small group of people or business entities with a certain amount of wealth and income “. Most forms of business are classified as informal businesses because the operations of such entities do not have any business licenses or official operational letters from the government.

It can be understood that what is meant by a micro-scale business is an economic activity carried out by individuals or business entities or households that produce goods and services with the intention to trade with a maximum total asset of 50 million and a maximum income of Rp. 300 million - Rp2.5 billion per year, with approximately ten employees. Furthermore, a small-scale business is a type of business that has total assets > IDR 50 million - IDR 500 million and income from operations is > IDR 300 million with a number of employees of approximately 30 people. Next is the medium-scale businesses which are run by the community with a total asset of > Rp500 million and earning > Rp2.5 billion - Rp50 billion per year and having an employee base of up to 300 people. There is also a large-scale business that can be viewed as a creative economic venture undertaken by a business entity that includes the national business state and private property, joint ventures, and which have assets of > Rp 10 billion with earnings of > 50 billion.

Profile of MSMEs

It has been proven that the MSMEs business is a business sector

that has the largest contribution to the Indonesian economic development. MSMEs has a proportion of 99.99% of the total business sectors in Indonesia or as many as 56.54 million perpetrators(???). Among the different sectors contained within the MSME business sector are Agriculture, Animal Husbandry, Forestry and Fisheries, Mining and Excavation, the Processing Industry, Trading, Hotels and Restaurants, Transportation and Communication and a few other service sectors.

The business profile carried out by MSMEs businesses can be classified into a few criteria which include : Kinds of business, Education Level, Income, Gender, Age of business actors, Status, Religion, Character of the law, and Business sectors.

3.0. RESEARCH METHODOLOGY

The design that is the object of this research is the profiling of the micro, the small and the medium enterprises (MSMEs) in the East Java province. This research is targeted in East Java because the concentration of MSMEs is as much as 9.59 million, which in addition, contributed to the domestic Gross Regional Product (GDP) of 74.36% in 2018 in the province of East Java. This research was conducted to investigate the type of profiles of MSMEs in East Java, and the results can be used as significant data in developing various policies for developing business needs..

The approach used in this research is quantitative and the data collection techniques used are survey methods with questionnaires given to respondents.. The population in this study are all entrepreneurs of MSMEs in East Java, while the sample used is 250 respondents, mostly from MSMEs in East Java.

This research used nonprobability sampling together with purposive sampling technique from MSMEs in the business areas ranging

from culinary, transport to trade sectors. The determination is based on the number of East Java MSMEs who engage in those areas rather than those who are from other areas of businesses. The data analysis technique used is the Descriptive Statistics Test.

4.0. RESULTS AND DISCUSSION

4.1. The General state of MSMEs in East Java

East Java is one of the provinces in Indonesia, with an area of 47,922 km² and with a total population of 39.29 million people, consisting of 19.4 million male and 19.9 million female, which are equivalent to 49.3% and 50.63% respectively from the total population.

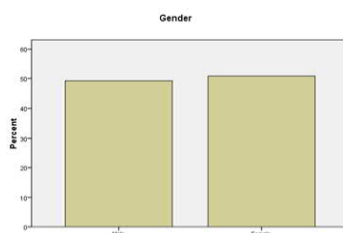
The National economic census data stated that the number of MSMEs in East Java was 9.59 million, with 4.61 million MSMEs engaged in the non-agricultural sector and 4.98 million MSME engaged in the agricultural sector. East Java contributes 14.85% to the National Gross Domestic Product.

4.2. Research Results

The results of this chapter will present the profile of MSMEs in East Java province with informants, who are MSMEs actors in the culinary, trade and transportation fields with as many as 250 of them.

TABLE 2.1. GENDER

		FREQUENCY	PERCENT	VALID PERCENT	CUMULATIVE PERCENT
Valid	Man	123	49.2	49.2	49.2
	Women	127	50.8	50.8	100.0
	Total	250	100.0	100.0	



NUMBER OF RESPONDENTS BASED ON GENDER

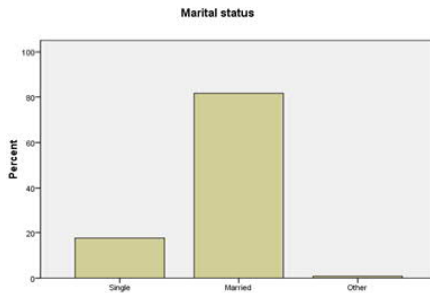
It can be seen from these results that MSMEs in East Java is dominated by businesses which are being run by females with a percentage of as much as 50.8%, with the remaining 49.2% from the business people who are males.

NUMBER OF RESPONDENTS BASED ON MARITAL STATUS

The number of respondents according to their marital status can be seen in the results of the following percentages: Respondents from the MSMEs businesses in East Java with single status accounted for 17.6%, whereas the married ones/and the ones with get married status as much as 81.6%, and respondents with more status by 8%.

TABLE 2.2. MARITAL STATUS

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	44	17.6	17.6	17.6
	Married	204	81.6	81.6	99.2
	Others	2	.8	.8	100.0
	Total	250	100.0	100.0	

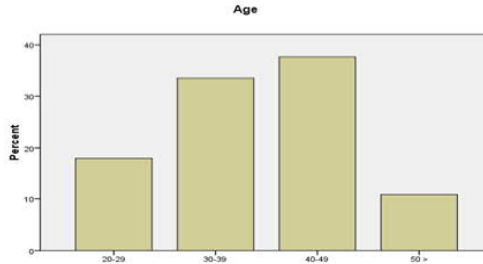


THE NUMBER OF RESPONDENTS BASED ON THE AGE DISTRIBUTION.

The respondents from MSMEs businesses, show that most respondents were in the age group of 40-49 years with a percentage of 37.6%, followed by the age group of 30-39 years at 33.6%, and respondents from the age group of 20-29 years assessed at 18%, while the the age group of 50 years or more is measured at a percentage of 10.8%.

TABLE 2.3. AGE

		FREQUENCY	PERCENT	VALID PERCENT	CUMULATIVE PERCENT
Valid	20-29	45	18.0	18.0	18.0
	30-39	84	33.6	33.6	51.6
	40-49	94	37.6	37.6	89.2
	50 >	27	10.8	10.8	100.0
Total		250	100.0	100.0	



NUMBER OF RESPONDENTS BASED ON THE EDUCATION LEVEL

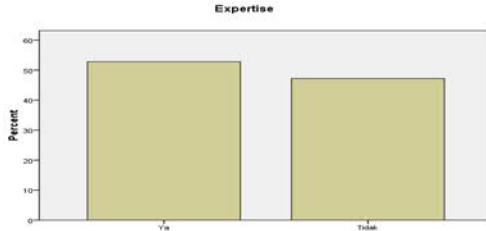
The number of respondents in East Java MSMEs business actors according to their level of education can be seen in the following percentages. Most MSMEs practitioners are secondary school graduates or high school graduates (equivalent) at 62.8%, followed by business people with an elementary school education at 16.8% and Bachelor graduates or equivalent with a percentage of 14%. The rest are Diploma graduates at as much as 3.6% and postgraduate at as much as 1.6%. The last is business actors (participants with a non-formal education background) at 1.2%.

NUMBER OF RESPONDENTS BASED ON EXPERTISE BEFORE ENTREPRENEURSHIP

The results of the research on the respondents as MSMEs business operators indicate that the percentage of respondents who have expertise in entrepreneurship before going into entrepreneurship is 52.8% and the percentage of respondents who stated that they do not have expertise in entrepreneurship is 47.2%.

TABLE 2.4. EXPERTISE

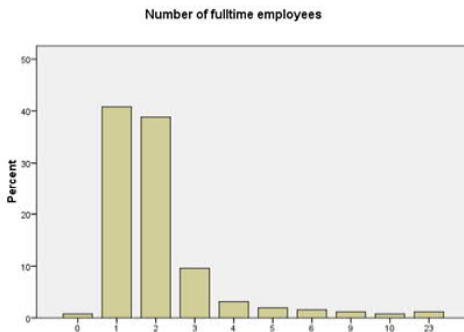
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	132	52.8	52.8	52.8
	No	118	47.2	47.2	100.0
	Total	250	100.0	100.0	



THE NUMBER OF RESPONDENTS BASED ON THE NUMBER OF FULL-TIME WORKERS IN THEIR BUSINESSES.

The results showed that 40.8% of MSMEs businesses has one full-time worker working with them, 38.8% has two workers working in their businesses and the rest being businesses with 3 or more workers.

FIGURE 2.1. NUMBER OF FULL-TIME EMPLOYEES

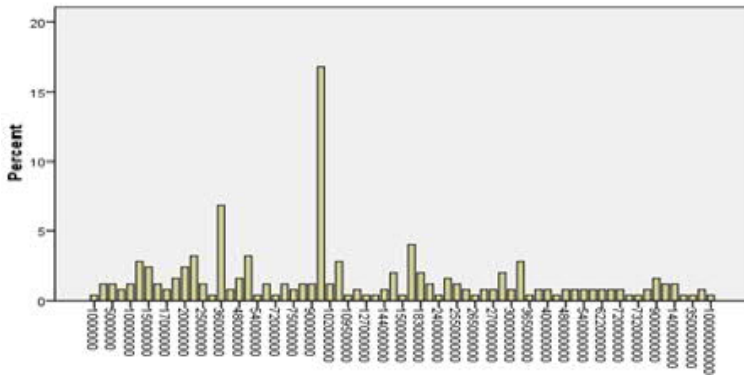


THE NUMBER OF RESPONDENTS BASED ON TOTAL INCOME

Data obtained at the time of the study shows that the amount of annual income generated by respondents was approximately Rp. 1 million - 10 million per year which is as much as 4.8 %, income between 11 million and 50 million per year was 28.4 %, while the income of MSMEs, which is between 51 million - 150 million per year

is at 32.4%. Income between 151 million - 500 million per year is at 22.8% and the rest are MSMEs with income above 500 million per year with a percentage of 11.6%.

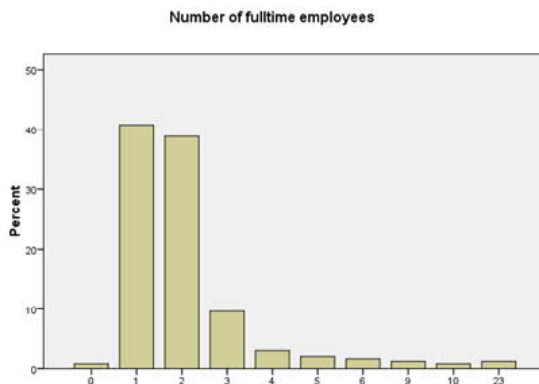
FIGURE 2.2. ANNUAL INCOME OF MSMEs



THE NUMBER OF RESPONDENTS BASED ON DURATION OF WORK

Based on the results of the chapter, the lengths of time spent trying to be a part of East Java MSMEs are as follows: the length of businesses that was most often done were businesses built for approximately 3 years which are as much as 14%, then 13.6% of businesses have a duration of about 1 year and 13.2% of businesses were built in about 2 years. The rest were businesses which were built for more than ten years with the largest percentage of 55%.

FIGURE 2.3. NUMBER OF FULL-TIME EMPLOYEES



THE NUMBER OF RESPONDENTS BASED ON THE NUMBER OF ASSETS IN THE BUSINESS

The results of the chapter showed that the East Java MSMEs businesses have total assets of between IDR 500 thousand- 50 million with a percentage of 67,2 %, while the number of MSMEs assets is between 51 million and 100 million with a percentage of 25.2%, and the remaining 7.6% are MSMEs businesses having total assets of 500 million to 10 billion.

FIGURE 2.4. TOTAL ASSET VALUE

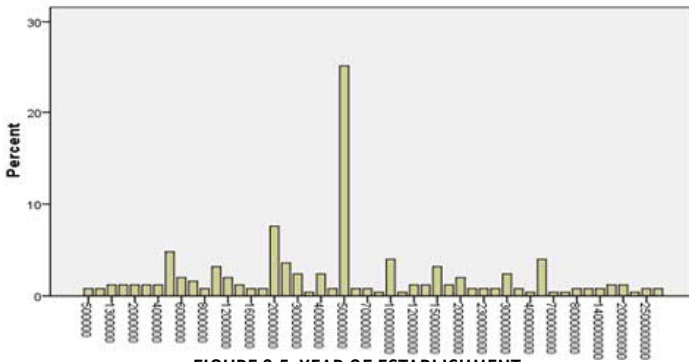
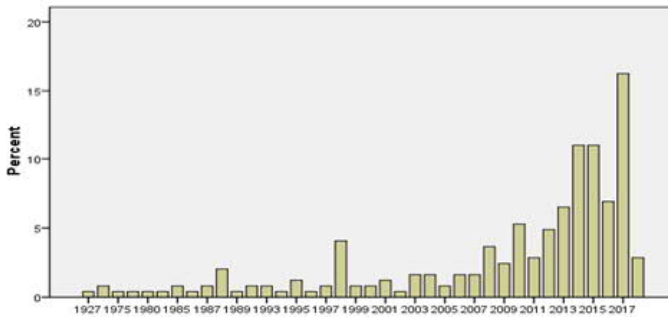


FIGURE 2.5. YEAR OF ESTABLISHMENT



THE NUMBER OF RESPONDENTS BASED ON THE YEAR OF BUSINESS ESTABLISHMENT

The results show that the respondents established their businesses from 1927 to the present day, with the difference, among others, which

were built between 2000 and 2010 which is as many as 20.8%, while the MSMEs which were built between 2011 to 2018 were as many as 61.2% and the remaining 17.2% is the East Java MSME businesses that were built before 2000.

THE NUMBER OF RESPONDENTS BASED ON THE FORM OF BUSINESS ENTITY

The results show that 60% of the businesses that were run by the respondents of MSME entrepreneurs in East Java were individual / self-owned businesses, then 8.4% were limited liability businesses (PT), of which 7.6% were businesses in partnership (CV), as much as 5.2% were businesses in the form of cooperatives and the remaining 16, 8% were in the form of businesses with other legal entities.

FIGURE 2.6. FORM OF BUSINESS

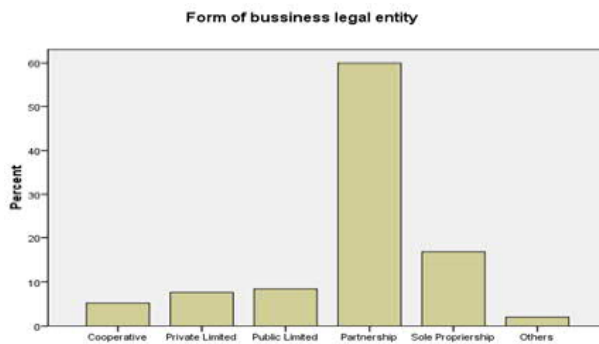
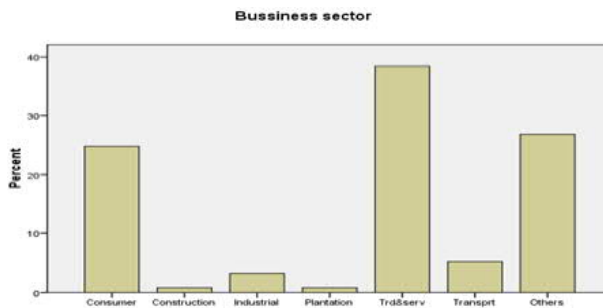


FIGURE 2.7. BUSINESS SECTOR



THE NUMBER OF RESPONDENTS BASED ON THE BUSINESS SECTOR

Based on the results of the research, 38.4% of the MSME business sectors were in the business of trade and services, then 24% of the businesses were in providing consumer goods, 26.8% were in other fields, and the rest were in the fields of transportation, industry, construction and agriculture.

5.0. DISCUSSION

From the results of research conducted on the MSME players in East Java, there are 12 important variables that can be used to describe the profiles of the MSMEs. The twelve variables studied included respondent differentiation based on: Gender Differences, Marital status, Age Distribution, Education Level, Ownership of expertise before entrepreneurship, Number of full-time workers in their businesses, Income, Duration of work by the Respondents, Number of assets in their businesses, Year of business establishment, Kinds of business entity and Business Sectors.

The following will discuss the variables mentioned above one by one so that the results can be used in decision-making by the various parties.

1. Characteristics of MSMEs in East Java by Gender

The results showed that 50.8% of East Java MSMEs are females and 49.2% of the business people were males . It can be concluded that the majority of MSMEs in East Java is currently dominated by women: this is supported by data from the Central Statistics Agency that the population of East Java is as big as 50.63% and dominated by female residents, which suggests that there is a huge potential for women to involve themselves as business participants in the field of MSME.

2. Characteristics of East Java MSME actors based on marital status

From the results of research related to marital status, it is known that East Java MSME respondents who are married are 81.6%, while those who are single are 17.6% and respondents with other status are rated at 8%. It can be concluded that MSME actors are dominated by business people who have a family which means that respondents have a responsibility to support their families through entrepreneurship. While single-status respondents run MSME businesses for various reasons such as limited job vacancies, they are the ones who also come from the category of those who have completed school or dropped out of school. There are also those who want to earn more income to help their family. This is in accordance with the previous research conducted by Riat Aziz, (2016) in an earlier study which stated the same reasons for informal businesses? doing such businesses.

3. Characteristics of East Java MSME actors based on age distribution.

37.6% of the MSME players in East Java are between 40-49 years old, and as much as 33.6% are MSME actors aged between 30-39 years. In addition, business is also carried out by the age group of 20-29 years who account for 18% and there are 10% of business people who are older than 50 years. It can be concluded that MSMEs in East Java are dominated by people who are in the productive-age group with the largest percentage of business people aged between 40-49 years and there are those aged 30 to 39 years. This illustrates that in this productive age, respondents are required to produce and meet the economic demands of the family, while at the age of 20 to 29 years, which is the second largest percentage of business people, they are the ones who are motivated by the fact that this age is the age of

adolescence and college students who may continue their studies. Most recently, business people above 50 years accounted for the smallest percentage, which suggests that this is an unproductive age to work in the MSME entrepreneurial sector.

4. Characteristics of East Java MSMEs based on the education level

The results showed that the majority of MSMEs in East Java are dominated by people with a secondary school level education or are high school graduates rated at 62.8%. In addition, business is also carried out by many people with an elementary school education level which accounted for 16.8% of the respondents. The rest are MSME respondents who have successfully gone through the education levels of a Bachelors degree or equivalent, Those with Diploma qualifications and also those who have a background in non-formal education accounted for 20.4%. It can be concluded that the majority of MSME participants (key players) are people with a high school level of education and those without a bachelors degree or a diploma. These findings suggest that the education level of MSME entrepreneurs in East Java is generally low.

5. Characteristics of East Java MSME actors based on expertise ownership before entrepreneurship

The results showed that 52.8% of East Java MSMEs stated that they had expertise in entrepreneurship and the remaining 47.2% had no expertise in entrepreneurship. Looking at these comparisons, they do not have many differences and as such can be concluded that the number of MSME participants who have expertise before entrepreneurship and who do not have the expertise before entrepreneurship are balanced.

6. Characteristics of East Java MSMEs based on the number of full-time workers in their businesses

The research shows that the majority of MSMEs which are run by one worker accounted for 40.8%. The MSMEs run by two workers has a percentage of 38.8%, and the remaining 20.4% are the ones run by three or more workers. It can be concluded that the efforts made in MSMEs are mostly by small scale businesses with one worker as the owner and also the operator of the business.

7. The characteristics of East Java MSMEs based on total income

Based on the research, MSME in East Java has an annual income of 11 million to 50 million per year which is equivalent to 28.4%, revenue of 151 million - 500 million per year which has a percentage of 22.8%, and the rest are MSME businesses with an income of 500 million per year with a percentage of 19.2%, and businesses with an income of Rp. 1 million - 10 million per year with a percentage of 11.6%. The results of the research conducted showed that the benefits obtained from the respondents varied. The majority of East Java's MSME income is dominated by micro-enterprises, with revenues of 11 million to 50 million per year. This condition can be said to be feasible for MSME players where the level of capital expended is not too large.

8. Characteristics of East Java MSMEs based on the duration the businesses have been successfully run

Based on the research, the majority of the East Java MSMEs, has been successfully run for more than 10 years, with a percentage of 55%. In addition, the percentage of businesses which have been successfully run for about 3 years is 14%, and the rest are MSME busi-

nesses that have stayed operational in about 1 to 2 years with a percentage of 26.8%. It can be concluded that the majority of the MSME respondents are successful in running their businesses for more than 10 years. This is because the respondents were able to run their businesses well and have benefited from being able to meet the demands of the economy. One of the reasons is that the respondents were well aware of their inability to compete with large scale businesses in their competitive markets. Therefore they chose to maintain their current scale of business and were able to be successfully competitive in their respective market segments. There were also new businesses which established themselves as MSMEs between one to three years, due to the lack of formal jobs in the country as well as in other parts of the world. As such, the respondents chose to engage in informal businesses such as businesses in the sectors of MSME.

9. Characteristics of East Java MSME players based on the number of assets in the business

Based on the research, MSME players who have assets of IDR 500 thousand - 50 million are assessed at a percentage of 67.2%. In addition, MSMEs that have total assets of 51 million to 800 million have a percentage of 25.2%; the rest are MSMEs which have total assets between 500 million and 10 billion with a percentage of 7.6%. It can be concluded that the majority of MSMEs in East Java have assets of 500 thousand - 50 million.

10. The characteristics of East Java MSME based on years of business establishment

Based on the research, the majority of businesses run by MSME were established between 2011 and 2018; namely, 61.2% in percentages and businesses that built in 2000 to 2010 were 20.8%, and the

remaining 17.2% were long-term efforts, which were built before the year 2000.

11. Characteristics of East Java MSMEs based on the form of a business entity

The results from the research showed that 60% of businesses were run by individuals / self-owned businesses, and 8.4% were in the form of limited liability companies (PT), 7.6% were in the form of partnership (CV), and 5.2 % of businesses were in the form of cooperatives and the remaining 16.8% were in the form of businesses which had other legal forms. It can be concluded that the majority of East Java MSME businesses are private businesses. This is because many businesses are established independently without cooperation with other parties and traditional business entities which are mostly illegal.

12. Characteristics of the East Java MSMEs undertaken by the business sector

The results of the chapter indicate that 38.4% of the businesses run by the East Java MSME are in the field of trade and services. The remaining 26.8% are in the sectors of transportation, industry, construction and agriculture, and 24% of the business focus is about providing goods for consumers. It can be concluded that the majority of businesses carried out by MSME are businesses in the field of trade and services. This is because these businesses are easy to run and are needed by consumers every day, so they have a great chance to be successful in running them.

6.0. CONCLUSION

Based on the results of the research, it can be concluded that:

1. The profile of MSME business players in East Java can be viewed from several aspects, namely: Gender Differences, Marriage Sta-

tus, Age Distribution, Education Level, Ownership of expertise before entrepreneurship, Number of full-time workers in their business, Income, Duration of Respondents, Number of assets in business, Year of business establishment, Form of business entity and Type of business sector.

2. From these various aspects, it can be concluded that:
 - a. Based on the aspect of Gender differences, the East Java MSMEs are dominated by female respondents, with a percentage of 50.8%.
 - b. Based on the aspect of Marital Status, the East Java MSMEs are dominated by married respondents with a percentage of 81.6%,
 - c. Based on the aspect of age distribution, the East Java SMEs are dominated by respondents aged 40-49 years, with a percentage of 37.6%.
 - d. Based on the aspect of Education Level, the East Java MSMEs are dominated by respondents with a high school level education with a percentage of 62.8%.
 - e. Based on the aspect of ownership of expertise before entrepreneurship, the East Java MSMEs have the same percentage, namely the respondents already have expertise in entrepreneurship and some do not have expertise before venturing into business..
 - f. Based on the aspect of the number of full-time workers in their businesses, the East Java MSME with only one worker in their business operations, accounts for 40.8%
 - g. Based on the aspect of income, the majority of the East Java MSME has income between 1 million and 50 million per year with a percentage of 28.4 %.
 - h. Based on the aspect of duration (duration of work?), the East

Java MSMEs have been successfully run for more than 10 years, with a percentage of 55%.

- i. Based on the aspect of total assets in a business, the majority of the East Java MSMEs have assets of 500 thousand - 50 million with a percentage of 67.2%.
- j. Based the aspect of the establishment of the business, the majority of the East Java MSMEs entrepreneurs have set up businesses from 2011 to 2018 with a percentage of 61.2%.
- k. Based on the aspect of the form of the business entity, the majority of the East Java MSMEs have individual or private business entities, with a percentage of 60%.
- l. Based on the aspect of the type of business sector, the majority of the East Java MSME entrepreneurs are in the trade and services sector, with a percentage of 38.4%.

SUGGESTIONS

1. Further research is expected to be carried out to develop a more accurate respondents' profiles with a broader scope by using more multiple aspects.
2. Further research is also expected to use more respondents to be able to describe the MSME's situation more accurately.
3. Future studies are expected to be carried out to develop discussions on various business areas that have not been included in this chapter.

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CAPACITY BUILDING FOR SMEs: Realizing the Training Gap Amongst SMEs in Malaysia

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ABSTRACT

Small and medium enterprises (SMEs) contribute a significant portion to the economic pie both in the developed and developing countries. The development and growth of SMEs in Malaysia has significant impact on social development, boosting productivity and increasing employment. Training is one of the issues and challenges faced by SMEs studied by previous researchers. Studies also find training as one of the potential tools for capacity building of SMEs. Hence, to ensure the sustainability of the SMEs, an understanding of their training status is worth studying. This chapter identifies the background of SMEs in Malaysia, provides an indicator on the training requirements and the type of training received by SMEs in different fields. The survey was conducted using structured questionnaire that involved questions regarding the type of training received and needed by SMEs in different fields of business. A total of 344 respondents were surveyed and then analyzed using descriptive statistics as well as SPSS software. More than half of the respondents did not have any prior business experience. Training gap was measured by looking into the differences between the training received and the training requirements of SMEs. From the analysis and observation, a significant training gap was revealed among the SMEs in terms of what they have received and what they require currently as well as in the future. This

difference was further confirmed by 't-test'. A significant correlation was found between the training received and the training requirements of SMEs. Higher training requirements were associated with higher training received. The majority of the respondents required training in all the mentioned fields in both current and future times. It was also found that there was an increase in the training requirements compared to what they received. This finding supports the training gap and correlation realized in this chapter.

KEYWORDS: *Capacity, Training, Gap, SMEs*

1.0. INTRODUCTION:

Small and medium enterprises (SMEs) contribute a significant portion to the economic pie both in the developed and developing countries in terms of employment and GDP, and as well as economic growth. The development and growth of SMEs in Malaysia has significant impact on social development, boosting productivity and increasing employment in national, regional and global markets. According to a report by Bank Negara Malaysia, Feb 2016, SMEs and Micro SMEs contributed to 43.5 percent of total employment and are responsible for 57.8 percent of total new jobs created. In Asia, 98 percent of the business establishments are SMEs with a total of 62 percent employment and 42 percent GDP contribution. The sector is an important economic agent for most of the economies, based on its GDP contribution, share of total employment and share of total exports. The government of Malaysia has implemented several assistance programmes for SMEs to establish themselves and has provided them a conducive environment. This layout of assistance by the government includes many training programmes for SMEs building their capacity to contribute more to the economy of the country. The study by Bowen et. al. 2009 conducted in Nairobi, Kenya shows that about 60 percent of the SMEs experience failure within a few

years of their operation because of not having training in different fields of business. This finding was also found in an earlier study by Longenecker (2006). Training requirement is one of the factors responsible for SMEs' success. The SME Masterplan 2012-2020 emphasized on training programme to develop human skills in entrepreneurship to better adapt to changes in the economy and technology. The report stated three shortcomings in the Malaysian SMEs in terms of their human capital development. These include a mismatch between supply and demand of human resources and lack of industry perspective in the curriculum, low utilization of existing training, and non-competitive rewards and benefits.

There are great financial benefits for firms if their employees are competent in their jobs. To achieve this goal, training is an important activity. From the literature review many studies have been found that emphasize the importance of training for the employees as well as managers for any business organization including SMEs. A number of studies were also found focusing on the factors that affect or influence SMEs which have received training and their business performance. However, no study has investigated the training gap amongst the SMEs in terms of what they require and what they receive. It is important to realize the level of gap to know if the training demand has been met by the existing training programmes provided by different institutions in Malaysia. Measuring this gap will also determine the efficiency and quality of the training programmes. The objectives of the chapter are to identify the type of training received by SMEs, investigate the training requirements in different fields of SMEs, realize the training gap among the SMEs, and to recommend policies that would address the training gap strengthening the capacity building of SMEs.

The following research questions were formulated for this particu-

lar study. If the respondents (SMEs) had received training from any private sector, 1) What type of training they did receive? 2) What are the different fields of business they received training for? 3) What are their current and future training requirements in the different fields?, 4) What are the training gaps in terms of receiving training and training requirements? and 5) Is there any relationship between the variables?

The following sections of this paper include the literature review on challenges in training and training as capacity building for SMEs followed by the development of a research framework. Then it states the methodology used in this chapter followed by the presentation and explanation of the findings. After that there is a brief discussion on the findings. Finally, the paper concludes the results providing recommendations and scope for future research and for policy makers.

2.0. CHALLENGES IN TRAINING CONFRONTED BY SMES

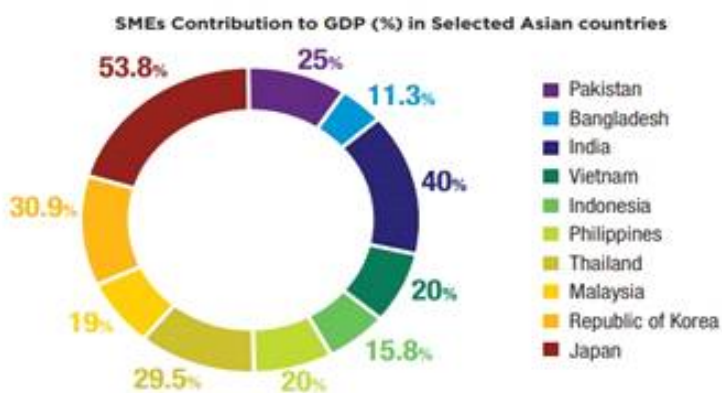
Issues and challenges faced by SMEs have been studied by many researchers and more studies being conducted across the world. It is crucial to identify the challenges faced by SMEs as they have a significant contribution to the economy of many countries. According to a report by the Asian Development Bank Institute 2015, 19 percent of the GDP in Malaysia and about 54 percent in Japan was contributed by SMEs. This contribution was significant in other Asian countries as well. (Figure-1).

To solve the challenges faced by SMEs, it is important to understand the real contributing factors to local SMEs' excellent performance. According to Daisy K. M. H. (2011), SMEs face challenges in developing potentially powerful strategies for them to set a successful future direction. Developing training programmes by looking into the

business through the lens of entrepreneurs can help them to face such challenges. The chapter also found that despite the existence of numerous government assistance programmes, SMEs still encounter a variety of problems in their operations. The Generalized System of Preferences (GSP) is insufficient and is not delivering enough towards developing and strengthening local SMEs in Malaysia.

Innovation is a big challenge for entrepreneurs and also essential to be competitive in the to improve competitive advantage and create more opportunities. Several factors including 'learning by training' was found to have the highest impact on the degree of novelty of innovation by established SMEs (Amara, Landry, Becheikh, & Ouimet, 2008).

FIGURE 6. 1 SMEs CONTRIBUTION TO GDP (%) IN SELECTED ASIAN COUNTRIES



Source: SMEs Internationalization and Finance in Asia, Asian Development Bank Institute, 2015

Source: *SMEs Internationalization and Finance in Asia, Asian Development Bank Institute, 2015*

The challenge is also faced by policy makers and training institutes while provisioning training for SMEs. One of the many barriers towards the provision of training is the negative attitude of the owners found by Panagiotakopoulos (2011). Similar finding was reported by earlier studies (Kotey and Slade 2005, Matlay 1999) where training was found to be perceived by the SME managers as an unaffordable

luxury, subsidiary business activity, and non-profitable investment in short-term.

In general, problems encountered by SMEs are caused by the internal and external environments, such as lack of capabilities and resources, poor management, low technology, competition, economics, technology, socio-cultural, and international factors (Hashim, 2000). This finding was supported by an earlier study where, in addition to the internal and external factors, the economic crisis was mentioned as a big challenge to business operation (Ghosh and Kwan, 1996). The chapter also found poor skills and economic crisis adding to the difficulties in assessing financial assistance or funding to overcome the shortage of capital in expanding businesses of SMEs. Proper training in respective fields can be an effective method for capacity building of SMEs to overcome such issues.

While reviewing issues of training in different fields of business faced by SMEs, the field of e-commerce (ICT) has attracted the attention of many researchers. To cope up with the world of technology and remain competitive, being technology savvy is a must for SMEs. However, SMEs also face many challenges in ICT. For example, Internet security has been regarded as the key to e-commerce diffusion (Alam *et al.* 2004; Mukti 2000; Udo 2001). A number of studies (Limthongchai and Speece 2003; Kendall *et. al.* 2001) have also found security issue as one of the major barriers in developing E-commerce. To adopt E-commerce information safety, it is essential for the company to have integrity of the entire system (Alam *et al.* 2004). A similar study conducted by Beale (1999) revealed that the reluctance among many consumers to embrace e-commerce is basically centered on the concerns over security issues and lack of confidence in the current set-up of e-commerce.

Education provides knowledge and plays a significant role as it

helps the SMEs know the many aspects of management such as finance, marketing, accounting and other disciplines and their importance in business. Chee (1986) and Moha Asri (1996), in their study found that most of the SMEs do not have higher levels of education in Malaysia.

3.0. A REVIEW OF TRAINING AS CAPACITY BUILDING FOR SMES

Training and development are important aspects for any organization to accelerate skills, knowledge and efficiency of human resources through certain initiatives and policies (Marchington and Wilkinson, 2012). There are great financial benefits for firms if their employees are competent in their jobs. To achieve this goal, training is an important activity. Therefore, it is important to know how to implement and monitor the right training which is vital to any SME business. The study, "Benchmarking Training Best Practices of Malaysia SMEs (2012)" explains the significance of training for capacity building of SMEs that includes business benefits of improving the staff 's skills, staying competitive, improving employees' core employability skills, and new business opportunities. The study also explains 33 best practices that could be applied to improve core skills and how it can fit into the business strategy, and training programmes provided by the government. Training is also required because skill shortage is a mismatch between the supply of people with particular skills and the demand for people with those skills (Malaysia Masterplan 2012-2020).

Training employees in business has also been found to be effective in capacity building in many studies. For example, Baron (2003) in his study found many SMEs have experienced downfall because of having a workforce that has poor skills, and limited training that are not

managed effectively. Similar findings show that SMEs also lack training in human resource management (HRM) because they have poor understanding on the importance of HRM practices (Hornsby and Kuratko, 2003; Saleh and Ndubisi, 2006; Ahmed et al, 2011).

Training is one of the ways in which firms, in particular the SMEs, can build the competency and skills needed to overcome their weaknesses and disadvantages. According to a study, "Benchmarking Training Best Practices of Malaysia SMEs", published by the Ministry of Human Resources Malaysia (2012), it is more difficult for the SMEs to recruit and retain good quality employees as the larger firms attract the talents away with higher salary, incentive performance pay and perks. Smaller firms and enterprises are thus at a disadvantage when dealing with these challenges. The study highlighted the need to manage training in a systematic manner for capacity building of SMEs.

The study also recommends that training must be tailored to real needs and working environments. Delivery must be flexible in terms of content, timing and form of delivery. The standard framework should be able to be broken into units with short periods of instruction (SME Corporation Malaysia).

Boseli *et.al.* (2001) has reviewed a number of findings pertaining to training and capacity building of human resources. He notes that training has a positive impact on the relationship between management and the other employees. More importantly, investment in training resulted in higher profits (Kalleberg and Moody, 1994). Meanwhile Delaney and Huselid (1996) found that training practices affect perceived organizational performance positively. Similar result was found by Harel and Tzafrir, 1999. Training was also found to be positively related to perceived profits, market share and investments in the near future (Verburg, 1998).

For an organization to be successful, Ayadurai and Ahmad (2006) believe that the entrepreneur must possess characteristics which are: innovative, creative, farsighted, right attitude in business dealing, never give up attitude, having knowledge in business, business-minded, able to work long hours, having good networking and a host of contacts, independent, as well as resilient.

Improving such characteristics can increase the capacity of SMEs which can be possible by providing proper training. Rose, Kumar, and Yen (2006) in their study suggested some similar success factors such as personal initiative, promotion of products and services, understanding market needs, and examining customer feedback. Besides that, innovation was also indicated as one of the key elements of success (Sinha, 2003) and there is significant relationship between distinctive capabilities and innovativeness on the performances of SMEs (Man & Wafa, 2007).

SMEs need training for flexible solutions in terms of local delivery, duration and timeliness to encourage both business and their employees to undertake training activities (Johnson and Gubbins, 1992; Beaver and Lashley, 1998).

Training requirements by SMEs in different fields of business was also addressed by Khalique et. al., (2011). They found that SMEs in Malaysia lack skills in marketing techniques, exporting, branding, customer loyalty, and they also lack good contacts with other local and international enterprises.

In line with the concern for training needs of SMEs, Moha Asri (1996), in his study, states that the reason for management problems among SMEs is mainly because of not having good knowledge and professional training. Most SMEs do not engage in R & D activities. Even though there are several tax incentives to support R & D activities, only a small fraction operates using the technological frontier.

3.1. Existing Training Programmes for SMEs in Malaysia

Training programmes for SMEs have been made available in many agencies by different ministries in Malaysia. Some of the policy agencies provide training for SMEs in Malaysia and this includes SME Corporation Malaysia (*SME Corp. Malaysia*) which was established to meet the need for a specialized agency that provides technical and advisory support to promote further development of SMEs. The National Productivity Center (NPC) is another agency that provides training on supervising skills, management, and development of entrepreneurs.

Bumiputras (the indigenous people of Malaysia) received special attention of the government of Malaysia. A center named the Malaysian Entrepreneurial Development Center (MEDEC) was established in 1975 so that they can start their own business ventures. Bumiputras can also receive training on entrepreneurship, counselling and advisory services from Majlis Amanah Rakyat (MARA) established in 1960.

Training for the SMEs in the agricultural business and the farmers are provided by the Small Business Development Center (SMDC) at University Putra Malaysia (UPM) which is also the Agriculture University of Malaysia.

The Entrepreneur and Skills Development Center (ESDC) was established by the Federation of Malaysian Manufacturers (FMM) in 1991 to provide training on knowledge and technical skills for member companies. Other agencies that provide technical skill programmes are- The Center for Instructor and Advanced Skills Training (CIAST), Forest Research Institute Malaysia (FRIM), Palm Oil Research Institute Malaysia (PORIM), Food Technology Division (FTD), Youth Training Centers (YTCs), and Institute of Training Institutions (ITIs).

3.2. Research Framework:

From the literature review it was observed that many studies had addressed the issues and challenges faced by SMEs regarding training. The essence of training was also realized from previous studies, and the existing training programs in Malaysia was identified as well. To achieve the objectives of the chapter the following research framework was conceptualized.

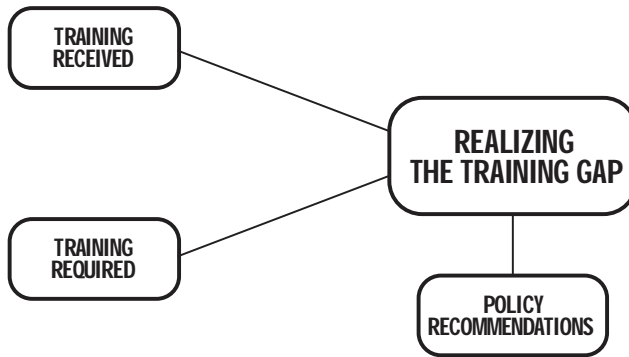


FIGURE 6. 2: CONCEPTUAL FRAMEWORK OF THE STUDY

4.0. METHODOLOGY:

This research employs quantitative research with limited quantitative techniques. Before this is realized, secondary information from relevant literature review was used. In addition, primary data of the research was made available from a face to face questionnaire survey. The respondents were basically SME owners/managers in the area of Klang Valley, Malaysia. In this relation, a random sampling technique was used to obtain this part of the data. The questionnaire was designed in such a way to comply with the objectives of the chapter. It has a number of components relating to the profiles of owners/managers and SMEs in addition to specific capacity building questions. A total of 344 respondents' data was collected. Six enumerators were appointed to conduct the survey and the whole survey was

monitored periodically to maintain the accuracy and validity of data collection. In order to practically realize this, a set of questionnaires was designed which were then administered to respondents in Malaysia. Data collected were then analyzed using descriptive statistics as well as the SPSS software. Some abbreviations used in presenting the findings are TR (Training Received), CTR (Current Training Requirement), and FTR (Future Training Requirement). A reliability test was done to see the internal consistency of the data.

TABLE 6. 1: BACKGROUND OF THE RESPONDENTS

		FREQUENCY	PERCENT (%)
1.	Gender:		
	Male	229	66.6
	Female	115	33.4
	Total=	344	100.0
2.	Marital Status		
	Single	78	22.5
	Married	258	75.0
	Others	8	1.5
	Total=	344	100.0
3.	Age	Frequency	Percent (%)
	20-29 Years	71	22.6
	30-39 Years	115	33.4
	40-49 Years	111	32.3
	50 Years and above	47	13.7
	Total=	344	100
4.	Education:	Frequency	Percent (%)
	Non-formal education	3	.9
	Primary school	8	2.3
	Secondary School	144	41.9
	Diploma	72	20.9
	First Degree/Equivalent	93	27.0
	Postgraduate degree	21	6.1
	Total=	343	99.7

5.0. FINDINGS AND DISCUSSION:

To achieve the objectives of the chapter, the findings are divided into four categories. Firstly, the background of SMEs was understood by looking into their personal characteristics and business backgrounds. Secondly, the training status of SMEs was realized by observing a few aspects, which are, - whether they had received training from any

private sector, type of training they received, the different fields of business they received training for, and their current and future training requirements in the different fields. The third category of findings was to reflect the third objective of the chapter which is to realize the training gap. This was presented by comparing the finding found in terms of training received and the training requirements. And finally, the findings of reliability test were presented followed by the results of 't-test' and 'linear correlation statistics'.

5.1. BACKGROUND OF SMES

To find out the personal characteristics of the respondents, the following background information was elicited from the respondents: gender, marital status, age and education. From Table 1 it can be observed that about 67 percent of the respondents were male, and 75 percent of the respondents were married. The age categories of 30-39 and 40-49 years old constituted 32 and 33 percent respectively and the respondents who were 50 years and above comprised 13.7 percent only. The results also showed that only 27 percent of the respondents had a first degree/equivalent certificate. However, 6.1 percent of the respondents also had a postgraduate degree.

Information on the business background is important and this information was elicited by asking the respondents about their business expertise, years of establishment, and if there was any family member in the business working on a full-time basis. Table 2 shows that about 55.0 percent of the respondents did not have any prior business expertise. The number of years of business expertise possessed by those who had this expertise ranged from 1 to 5 years. Number of years in business by SMEs was found from 0 to 55 years and about 75 percent of them have been in business from 1 to 15 years. On average, respondents had 2 of their family members working as full-time staff in their business with a maximum number being '7'.

TABLE 6. 2: BUSINESS BACKGROUND OF THE SMES

Prior to Business Expertise						
	Frequen- cy	Percent (%)	Mean	Maxi- mum	Mini- mum	Std. Dev.
Had experience	153	44.5	1.57	5 Years	1 year	0.676
Did not have experience	190	55.2				
Total=	343	99.7				
Number of Years in Business						
Less than 1 year	2	.6	9.93	55	0	9.27
1 to 15 years	258	75.0				
16 o 30 years	74	21.5				
31 to 40 years	7	2.0				
More than 40 years	3	.9				
Total=	344	100.0				
Number of family members working full time in your business						
Minimum			Maximum		Mean	Std. Dev.
0			7		2	1.31

5.2. TRAINING STATUS OF SMES

Training status of SMEs was observed to understand the capacity level of the SMEs in the market by investigating if they have received training from any private sector. The type of training received (vocational, on the job, training college, and others) was also investigated for the SMEs which said that they received training from the private sector. Training status was further investigated to measure the capacity of SMEs by looking into the different fields of business (accounting, finance, business plan, technology etc.) in which they received training. Finally, to improve this capacity of SMEs, an investigation was done to see if there is any training gap. To measure this gap, it was needed to look into the current and future training needs of the respondents.

5.2.1. Training Received by SMEs:

When SMEs were asked if they had received training from any private sector, about 60 percent of them responded positively. The SMEs which received training from any private sector was further investigated by asking them about the type of training they received.

It was found that about 63 percent of them received on the job training. The rest had vocational, training in college, and other types of training. See Table 6.3.

TABLE 6. 3: TRAINING BY THE PRIVATE SECTOR * TYPE OF TRAINING RECEIVED CROSSTABULATION

Training Received by private sectors	Type of training received				Total
	Vocational	On the Job Training	Training College	Others	
	Frequency	43	130	16	18
Percentage	20.8%	62.8%	7.7%	8.7%	60.1% of total 344 respondents

TABLE 6. 4: FIELDS OF TRAINING RECEIVED BY THE RESPONDENTS

TYPE OF TRAINING	FREQUENCY	PERCENTAGE	MEAN	STD DEVIATION
1. Accounting	101	31.3%	1.55	0.306
2. Motivation	147	45.5%		
3. Business plan	214	66.3%		
4. Feasibility Study	111	34.4%		
5. Finance	173	53.6%		
6. HRM	119	36.8%		
7. ICT	147	45.5%		
8. Leadership	136	42.1%		
9. Marketing & Promotion	202	62.5%		
10. Operation/ Manufacturing	201	62.2%		
11. R&D	81	25.1%		

5.2.2. Fields of training received by the respondents:

The SMEs were asked about the 11 different fields of business pertaining to the training received. More than 60 percent of the respondents reported that they had training on business plan, marketing and promotion, and operations/manufacturing. Table 4 also shows that the percentage of the respondents who received training on motivation, leadership, ICT, was around 45 percent. The lowest percentage of training the SMEs received was below 30 for accounting and R&D. However, about 54 percent of the SMEs stated that they received training in finance.

5.2.3. Training requirements by SMEs:

Requirements for training in different fields by SMEs was observed in two different phases. Firstly, the requirement during the survey i.e. current requirements. Secondly, training requirements in the same fields, but in the future, i.e. future training requirements.

Current Requirements:

Table 5 shows that around 60 percent of the respondents had a current requirement in all categories except training on sustainability and green technology. The other respondents were either not sure about their requirements or did not have any current training requirements.

TABLE 6. 5: CURRENT TRAINING REQUIREMENT

Current Training Requirements	Frequency	Percent	Mean	Std. Deviation
1. Finance	186	59.6%	3.279	1.1894
2. Human Resource	192	61.5%	3.326	1.0927
3. Information Technology	172	55.1%	3.358	1.1543
4. Marketing& International Business	183	58.7%	3.451	1.0402
5. New Product Developments	194	62.2%	3.461	.9989
6. Operational Management	197	63.1%	3.483	1.112
7. Quality Development	205	65.7%	3.576	.9353
8. Research, Development& Innovation	192	61.5%	3.535	.8996
9. Sustainability and Green Technology	149	47.8%	3.387	.8037
10. Accounting	195	62.5%	3.549	.8692

Future Requirements:

An increase in the percentage of the respondents was observed in terms of their training requirements from current to future. More than 70 percent of the respondents had future training requirements on all categories except Sustainability and Green technology. However, the percentage of respondents increased from 47 percent to about 62 percent for training on sustainability. The other respondents did not have any future training requirements, or they were not sure (see Table 6).

TABLE 6. 6: FUTURE TRAINING REQUIREMENT

Future Training Requirements	Frequency	Percent	Mean	Std. Deviation
1. Finance	207	75.8%	3.245	1.4941
2. Human Resource	205	75.1%	3.254	1.4110
3. Information Technology	211	77.3%	3.303	1.4754
4. Marketing & International Business	215	78.8%	3.422	1.2569
5. New Product Developments	197	72.2%	3.378	1.2132
6. Operational Management	214	78.4%	3.390	1.3312
7. Quality Development	192	70.3%	3.462	1.0574
8. Research, Development & Innovation	197	72.2%	3.483	1.0186
9. Sustainability and Green Technology	169	61.9%	3.443	.8730

5.3. REALIZING THE TRAINING GAP:

Training gap was measured by comparing the two sets of data. Firstly, future requirements of the SMEs which received or did not receive training from any private sector. The cross-tabulation analysis presented in Table 7 shows that about 73 percent of the respondents who received training from different private sectors, required training in the future. On the other hand, more than 58 percent of the respondents who did not receive training, also required training in the future. Almost all the respondents were reasonably sure if they require or do not require training in the future.

The second way of realizing the training gap was by comparing both the current and future training requirements of SMEs in the five fields of training where they had already received training in. It was found that more than 50 percent of the respondents who received or did not receive training in the above-mentioned fields, required training in the same field both currently and in the future. The maximum requirement was in HRM, OM, and R & D in which around 70 percent of the respondents received training and around 50 percent of those who did not receive training in the respective fields. See Tables 8 & 9.

From Tables 7, 8 & 9 it can be seen that there is a difference between training received and training requirements of SMEs as the percentage of training requirement is much higher than the percentage of training received by them.

A reliability test analysis was run against all scaled items of the questionnaire. The minimum acceptable value for Cronbach's alpha is 0.70. However, the findings show that the minimum values were 0.850 and 0.949 for training received and training requirement respectively. The findings presented in Table 10 indicates a high level of internal consistency for the scale used in this chapter.

TABLE 6. 10: RELIABILITY STATISTICS

Research questions	Particulars	Cronbach's Alpha	Items
What are the training requirements and type of training received by SMEs?	Training received by the respondents	.850	11
	Current and future training requirements by the respondents	.949	21

Before looking into the relationship between the variables used in the study, a paired sample t-test (Table 11) was run to confirm that the differences found from Table 7, 8 and Table 9 were significant. From the analysis it was found that there is a significant average difference between training received (TR) and current training requirement (CTR), and also between TR and future training requirement (FTR). In both cases the p value found was less than 0.05 and the calculated t-value was much higher than the tabulated t-value. However, there was no significant average difference between CTR and FTR. This finding implies that SMEs needed the same amount of training currently as well as in the future which was significantly different from the training they received.

TABLE 6. 7: TRAINING RECEIVED AND FUTURE TRAINING REQUIREMENT

Training by Private sector	Future training requirement		Total
	Did not require	Required	
Training received	40	106	146
	27.4%	72.6%	100.0%
Did not receive training	79	116	198
	39.9%	58.6%	100.0%
Total	119	222	344
	34.6%	64.5%	100.0%

TABLE 6. 8: CROSSTABULATION BETWEEN RECEIVED TRAINING AND CURRENT TRAINING REQUIREMENTS IN DIFFERENT FIELDS

Fields of training		Current Training Requirement	
		Frequency	Percent
Finance	Received	99	57.7
	Did not receive	87	50.9
Human Resource Management (HRM)	Received	81	68.1
	Did not receive	111	49.3
ICT Application	Received	79	53.7
	Did not receive	93	47.2
Operation Management (OM)	Received	129	64.2
	Did not receive	68	47.6
Research and Development (R&D)	Received	57	70.4
	Did not receive	135	51.3

TABLE 6. 9: CROSSTABULATION BETWEEN TRAINING RECEIVED AND FUTURE TRAINING REQUIREMENTS IN DIFFERENT FIELDS

Fields of training		Future Training Requirement	
		Frequency	Percent
Finance	Received	109	63.4
	Did not receive	98	57.3
Human Resource Management (HRM)	Received	87	73.7
	Did not receive	118	52.4
ICT Application	Received	88	60.3
	Did not receive	123	62.4
Operation Management (OM)	Received	133	66.2
	Did not receive	81	56.6
Research and Development (R&D)	Received	58	71.6
	Did not receive	139	52.9

TABLE 6. 11: PAIRED SAMPLES TEST

		Paired Differences		t	df	Sig. (2-tailed)
		Mean	Std. Deviation			
1	Training Received (TR) and Future Training Requirement (FTR)	1.80	1.126	29.6	343	.000
2	Current Training Requirement (CTR) and Future Training Requirement (FTR)	.056	.829	1.2	343	.208
3	Training Received (TR) and Current Training Requirement (CTR)	1.85	.852	40.4	343	.000

Finally, to see if there is any correlation between company background and their capacity building, Pearson correlation statistics were used. A significant but moderate or below moderate correlation was found between education and training received, current training requirements, and future training requirements. It was also realized that there is a significant correlation between future training requirements and training received, and current training requirements at 1 percent level of significance. Education and the number of years in business showed a negative significant correlation with training received which means they tend to decrease together.

TABLE 6. 12: CORRELATION

		Education	Years in business	TR	FTR
TR	Pearson Value	-.454**	-.228**	1	-.190**
	Sig.	.000	.000		.000
CTR	Pearson Value	.349**		-.297**	.597**
	Sig.	.000		.000	.000
FTR	Pearson Value	.260**			1
	Sig.	.000			
**. Correlation is significant at the 0.01 level (2-tailed).					

5.4. DISCUSSION

The majority of the respondents, almost 70 percent, were male which indicates a low level of women involvement in entrepreneurship. Most of the employees in SMEs did not have higher level of education (degree and postgraduate) which showed a significant rela-

tionship between their received training and requirements of training. Education can play a significant role to influence SMEs receiving training and deciding their training requirements. This finding is in-line with the study by Chee (1986), and Moha Asri (1993). All SMEs, regardless of their background and company size, required and received training in their business as company background and size did not show any significant relationship with training received and training requirements. The essence of training, which was significant, can be observed by looking into the future training requirement of both the respondents who received and did not receive training. SMEs needed training in all the fields to strengthen their capacity as entrepreneurs. This increased training requirement in different fields found in this chapter justifies the literatures reviewed on training as capacity building for SMEs. The most demanded trainings were marketing and international business, operation management, ICT, and R&D. This finding also supports the studies by Khalique et. al. (2011), Moha Asri (1996) and Alam et al. 2004. As the SMEs lack skills in effective HRM (Saleh and Ndubisi, 2006; Ahmed et al, 2011) and many of them have experienced downfall for this (Baron, 2003), an increasing demand in HRM training has been observed in this chapter as well. The necessity of building capacity of SMEs was realized by observing the gap between training received and training requirements where requirements increased significantly.

6.0. CONCLUSION:

The study was conducted in the greater Klang valley in the state of Selangor in Malaysia involving 344 respondents. From the profiles of the SMEs a low level of women involvement was found where more than half of the respondents did not have any prior business expertise. Education was found to be an important factor to deter-

mine both training received and training requirements of SMEs. Most of the employees in the SMEs did not have higher level of education which showed a negative correlation with training received. To achieve second objective of the study, it was realized that more than 60 percent of the respondents received training from the private sector and the majority of them received the type of 'on the job training'. The reasons for not having much training from other sources should be investigated. There should be more training on Accounting and R&D and they should be made available for the SMEs, since the SMEs reported these two areas as the lowest type of training received. A higher training demand by SMEs implies their need for training in all categories as future requirements. It was also found that the type of training received by the SMEs was significantly associated with training requirements. This finding from this study implies that there is a need to develop and provide more training programs for SMEs to identify their appropriate training requirements. Further study can be conducted in other states of Malaysia on broader aspects. The main objective of the study was achieved by identifying a significant gap between training receives and training requirements. It was observed that SMEs still need training in the fields they have already received training. In fact, the requirement increased for both the current and future needs. Thus, the increased demand in training can be realized by observing the gap between training received and the training requirements. There could be two reasons. Firstly, SMEs found training very effective for their business and required more training or most of the respondents had new employees who required training in different fields. Secondly, the training received by the SMEs was not effective or good enough which made them to demand more training in the same fields. Training is one of the most effective tools and widely used method for capacity building of an organization.

The government of Malaysia and other private agencies have implemented several training programs for SMEs in Malaysia. The training gap found in this chapter implies that the existing training programs could not meet the requirements of SMEs. Or, the programs are not effectively implemented. Another reason for increased requirement could be inaccessibility to existing training programs. Further study should be conducted to investigate all these reasons to define the training gap found in this chapter appropriately. More training programs should be developed by the policy makers and implemented. Policy makers should focus on the most required training areas of SMEs and develop training programs and policies accordingly.

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Training Needs: How SMEs Increase Their Competitiveness Study from Small Medium Enterprises in the Yogyakarta Special Region”

Taufik Akhbar, Susilo Nur Aji Coko Darsono, Mohamed Asmy Bin Mohd Thas Thaker, Hendar, and Fajar Surya

ABSTRACT

This chapter aims to describe the readiness of SMEs in Yogyakarta Special Region Province facing global challenge in business in the future. Training is one method to ensure that business players of SMEs are ready to increase competitiveness. This chapter used qualitative research design and utilized questionnaire. Data for Small Medium Enterprises in Yogyakarta were collected from Small Medium and Enterprise Bureau. The findings of this chapter showed that in today’s prevailing conditions, SMEs mostly need training in management aspects because of the lack of knowledge in management. Most of the business players realize the need for training to increase their competitiveness in the future, not only in the management aspects for business processes, but also for the improvement of quality and the application of green technology in facing the Industrial Revolution.

KEYWORDS: training, competitiveness, small medium enterprises

1. INTRODUCTION

The growth of Small Medium Enterprises (SMEs) in Indonesia has increased dramatically. This fabulous trend has been predicted to

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Determinants of Small Medium Enterprises (SMEs) Competitiveness in The Global Market”

Susilo Nur Aji Cokro Darsono, Taufik Akhbar, Khairunisah Ibrahim, Dhika Amalia, and Hendar

ABSTRACT

The challenges faced by Small medium enterprises (SMEs) are growing rapidly and pushing the firms to improve their competitiveness to enhance the levels of productivity and the existence in international markets. Global challenges, open market competition and information technology development are the barriers and opportunities they may take advantage of, to be winners in the dynamic global markets. To that end, a survey was carried out in Yogyakarta Province, Indonesia. This chapter aims to identify the key success factors that influence the competitiveness of SMEs in the globalization era through the challenges that will be faced in the near future. Principle Component Analysis was applied to determine the structure of relationships between many variables in the form of components. Components formed are random quantities that previously cannot be observed, measured and determined directly. This chapter contributes to the theoretical and managerial implications on SMEs competitiveness. The main results found that the three components which determined the SMEs competitiveness are Knowledge Based Resources, Business Performance, and Operational Effectiveness and Innovations.

KEYWORDS: Competitiveness, Global Market, Principle Component Analysis (PCA), Small Medium Enterprises (SMEs)

INTRODUCTION

The challenges faced by small medium enterprises (SMEs) to compete in the global market are growing and changing rapidly. As open market and digital platforms become highly pervasive and powerful for companies to export and import the products and raw materials with low prices. While, in the midst of domestic competition protected by the government, SMEs must be dealing with global competition in the form of market integration across countries with minimum restriction. (the 1st sentence is not complete, something is missing, the 2nd sentence is also not complete) Many regional or multilateral economic collaborations, such as the ASEAN Economic Community (AEC), the Asia-Pacific Economic Cooperation (APEC) and the Organisation of Islamic Cooperation (OIC) and have been growing so fast and pushing the economy to be more open (Rahadi, 2016). On the other hand, the development strategies for SMEs are still confronted with small value added for products and the quality of services and also for the contribution towards export. Hence, the competitiveness of SMEs should be the main concern for improvement as successful improvement will lead SMEs to enhance the levels of productivity and the existence in the international markets (Sultan, 2014).

Regional and multilateral economic collaborations become a threat if SMEs in Indonesia are not ready to compete with producers from other countries, and hence many SMEs will be in bankruptcy due to inefficiency, lower quality of the products and unskilled human resources (Egbu, Hari, & Renukappa, 2005; Peña-Vinces, Acedo, & Roldán, 2014). This issue becomes of particular concern due to the biggest number of people in the middle class income in Indonesia as the potential customers for foreign markets. In line with the rise of Indonesian GDP per capita, currently there are more than 50 million

people categorized as middle class income (Setiawan, 2017). The middle-income class is continuously growing every year, which creates high demand for goods and services.

SMEs are confronted with challenges to be the leader in the domestic market in the midst of abundant competitors from overseas. Consequently, SMEs must be capable business of becoming entities with high competitiveness by solving all particular issues, such as limited capital, technology, and skilled and innovative human resources (Sultan, 2014). Enhancing the quality of products may become the owner's consideration to maintain business performance (Hsu, Chang, & Luo, 2017). Otherwise, those challenges will be turned into a threat if SMEs in Indonesia are not be able to fulfil the market needs and will be eliminated from the contest arena, namely free market competition.

The increase in competitiveness is not only supported by physical infrastructures, financial capital and high technology development, but also the knowledge capital. Knowledge will not be depleted when it is used, but it is expanded and open to further growth, refinement and marketability (Egbu et al., 2005). In the dynamic market era, SMEs are required to explore new opportunities to adapt to the global changes that may occur in the near future while exploiting their abilities to meet current demands (Valaei, Rezaei, Khairuzzaman, & Ismail, 2017). SMEs are innovation drivers and shrewd companies that represents the basic economy of developed countries. In addition, SMEs have a high growth effect on developing countries because of the high levels of flexibility and agility to practise learning strategies more easily (Singh, Garg, & Deshmukh, 2009).

Besides, the trend in online shopping can be a threat to SMEs' products in Yogyakarta as the technology grows more rapidly. The online business does not need large spaces, production areas, and many

employees because of drop shipping method which they use. So, they only need computer or mobile phone to sell their products. Based on the scenario of challenges and opportunities for SMEs to compete globally, this chapter aimed to address the following research questions: What are the key success factors of SMEs competitiveness in the global market? However, there is dearth of literature on the determinants of SMEs competitiveness to compete in the global market. This chapter aims to identify the key success factors that influence the competitiveness of SMEs in the globalization era through the challenges that will be faced in the near future.

The rest of the paper is organized as follows. The next section reviews the literature in the field. The third section describes the data and the methodology applied to analyse the data. Results are provided in section four. Further implications, conclusions and future research opportunities appear in the final section.

SMALL MEDIUM ENTERPRISES COMPETITIVENESS

Small medium enterprises (SMEs) have an important role on economic growth in developing countries (Aboelmaged, Administration, & Emirates, 2018; Gonçalves, Ferreira, Ferreira, & Farinha, 2018; Kurniawati & Yuliando, 2015; Olawale & Garwe, 2010). SMEs contribute to creating more job opportunities, social impact and stabilization of an economy. The contribution of SMEs is difficult to sustain in this VUCA era (Vulnerability, Uncertainty, Complexity and Ambiguity) without high competitiveness. Competitiveness of SMEs consists of many aspects that are related to performance, knowledge management, human resources, financial capital, technology, social aspects and the environment (Egbu et al., 2005; Hsu et al., 2017; Joensuu-salo, 2018; Singh et al., 2009; Yoshino & Taghizadeh-hesary, 2016).

Improving the performances of SMEs can be recognized through the internationalization process. The ability to be global firms has become a competitive necessity for many SMEs. The SMEs' internationalization strategy has become an important issue, since usually SMEs are having limited resources and lack international experience (Joensuu-salo, 2018). A. Solano Acosta et al (2018) stated that SMEs must be proactive in making visits abroad and establishing contacts with suppliers and customers in international markets, as a way to improve business performance. Beside internationalization, the efficiency in the use of resources and the value creation can be done through cost reduction and this has an impact on social and environment (not clear) (Jaca, Ormazabal, & Prieto-sandoval, 2018).

Structurally, most of the SMEs are typically informal organisational structures that are often weak in terms of financing, training, planning and learning due to limited resources whereas those aspects were very important for improving the competitiveness. The learning process and applying the knowledge for the business are hard to realized. Egbu et al. (2005) stated that knowledge must be identified, captured, stored, mapped, disseminated, created and used effectively to create many benefits for the business. Valaei et al. (2017) also found that knowledge, learning, and the related process had relationship with the innovation process in a SMEs business process. Firms need to be an active learner on economy, market conditions, technology and others (not clear) to survive in competitive markets. Learning facilities and the environment need to be provided for all management and employees (Did you mean 'management employees'?) that will stimulate timely knowledge creation, assimilation and knowledge transfer.

The performance of SMEs may depend on how effectively SMEs allocate their scarce resources and use their network to speed up the business cycles. According to Lin et al. (2016), network relationship

has a positive impact on firm performance. The behaviour of the network is task-orientation and seeks to deepen the relationship. In addition, Hsu et.al (2017) stated that the improvement of SMEs' competitiveness can be done through creating effectiveness in the business process by incorporating the management performance. Thus, based on this finding, manufacturing SMEs are able to develop effective strategies to achieve a sustainable company.

Innovations must be done by the firms in order to be sustained. SMEs need to have appropriate methods and implement new innovations to drive the growth of survival acts and create the competitive advantage, as well as create high competitiveness (Phuangrod, Lerkiatbundit, & Aujiaponpan, 2017; Radziwon & Bogers, 2018). Commitment to learn, to meet new customers, knowledge transfer and supporting new staff are having positive relations with innovations. The interactions in small markets which are not dominated by foreign firms provides SMEs with limited exposure to outside innovations (Odlin, 2018). Then, firms should favour innovativeness, be open minded with new experiments and support new ideas and practices, including the entrance into new markets.

DATA AND METHODOLOGY

Research on SMEs' competitiveness was conducted through the collection of primary data in Yogyakarta from January 2018 to June 2018. The sample size for this research is 300 respondents from the owner/manager of Small Medium Enterprises in many sectors, categories and regions in the Yogyakarta province. Three sources of SMEs covering Sleman, Bantul, Kulon Progo and the City of Yogyakarta were used to determine the sample size. The instrument used in this research was the questionnaire that consisted of 17 questions. The questionnaire comprised structured questions that used a five-point

Likert scale questions which enabled respondents to indicate their opinions on various challenges of SMEs to compete in the global market in the near future.

In this chapter, we applied principal component analysis (PCA) to identify the structure of relationships between many variables in the form of component or latent variables. Components formed are random quantities that previously cannot be observed or determined directly. The principal component analysis is often used to overcome the unobserved components by grouping variables that are highly correlated into principal components. These grouping must satisfy certain mathematical and statistical conditions (Mackiewicz & Ratajczak, 1993; Zhu, 1998).

TABLE 10. 1 CORRESPONDING QUESTIONS ABOUT CHALLENGES FACED BY SMES REGARDING GLOBAL MARKET COMPETITION AND COLLECTED VARIABLES

No	Challenges of SMEs	Variables	
1	Creating competitive advantage	X1	CompetitiveAdv
2	Economic Fluctuations	X2	EconFluct
3	Environmental concern	X3	EnvironConcern
4	Finance difficulties	X4	FinDifficulties
5	Foreign product competition	X5	ForeignCompt
6	Lack of Information Communication and Technology (ICT) Development	X6	ICTDev
7	Lack of Knowledge and skills in finance and accounting	X7	KnskFinAcc
8	Lack of Knowledge and skills in marketing	X8	KnskMarketing
9	Lack of Knowledge and skills in technology	X9	KnskTech
10	Lack of Knowledge and skills in research & development	X10	KnskResearchDev
11	Maintaining margins (Profit)	X11	Margins
12	Operational Cost	X12	OpCost
13	Online sales competition	X13	OnlineComp
14	Production cost	X14	ProdCost
15	Recruiting staff	X15	RecrStaff
16	Retaining Staff	X16	RetainStaff
17	Uncertainty of market direction	X17	UncertainMarket

RESULTS

Small Medium Enterprises in Yogyakarta

Small Medium Enterprises are growing rapidly in the millennium era compared to the previous era. Based on the field research in Yogyakarta, we found that 194 SMEs was established in the year 2001 – 2016, 69 businesses in the year 1990 – 2000 and 32 SMEs were established in the year 1940 – 1988. The SMEs in Yogyakarta consists of various sectors, such as construction, industrial, plantation, property, technology, trading and services, consumer goods and transportation. Consumer goods, and trading and services sectors were sectors that had the highest number of SMEs with 40.8 % and 39.8% respectively. The legal form of SMEs in Yogyakarta was mostly in the form of sole proprietorship with 93.9% from total respondents of SMEs in Yogyakarta, while partnership, cooperative and private limited companies only comprised of 3.2%, 1.1% and 1.1% respectively. This means that production, marketing and distribution in SMEs were mostly done by themselves and not in a big team. The data also shows that only 2% of the SMEs have 6-15 full-time employees, while 67.6% of the SMEs have 1-5 employees and around 30.5% of the SMEs did not have any full-time employee.

Principle Component Analysis

An exploratory Factor Analysis or Principle Component Analysis (PCA) was employed to analyze the interrelationships among the questions that were used to characterize the determinants of the SMEs' competitiveness. Each question was added as a new variable, as presented in Table 1.

TABLE 10. 2. KMO AND BARTLETT'S TEST FOR GLOBAL CHALLENGES TO SMES COMPETITIVENESS.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.900
Bartlett's Test of Sphericity	Approx. Chi-Square	1952.184
	df	91
	Sig.	.000

TABLE 10. 3. TOTAL VARIANCE EXPLAINED

Total Variance Explained						
Comp	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.438	45.984	45.984	3.704	26.455	26.455
2	1.308	9.340	55.324	2.846	20.327	46.783
3	1.099	7.849	63.173	2.295	16.391	63.173
4	.828	5.915	69.089			
5	.714	5.100	74.188			
6	.559	3.993	78.181			
7	.529	3.776	81.958			
8	.493	3.523	85.481			
9	.461	3.291	88.772			
10	.402	2.869	91.641			
11	.366	2.616	94.256			
12	.343	2.447	96.703			
13	.257	1.835	98.538			
14	.205	1.462	100.000			

Extraction Method: Principal Component Analysis.

The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy to examine the appropriateness of factor analysis compares the linear correlations between variables with their corresponding partial correlations. It can be used to determine the factorability of the matrix as a whole. Thus, fulfilling the minimum required score between 0.5 and 1.0 for conducting an appropriate Factor Analysis. Barlett's test of large and significant sphericity. (Please check these 2 sentences.) To ensure the use of PCA, the Barlett test of Sphrecity and KMO test of appropriateness were carried out accordingly (Table 2). The results of the KMO measure of sampling adequacy was 0.900 which indicates that there are sufficient items for each component. The result of Barletts's test at 1952.18 with the significant level at 0.000

indicates that the data were appropriate for the aim of PCA. These two tests support the appropriateness of the principal component analysis technique.

Extraction Method: Principal Component Analysis.

To extract the factors, Principal Component Analysis (PCA) was adopted using the Kaiser criterion for factor retention. This criterion establishes that only components with an eigenvalue above 1 must be retained in the final solution since they explain many variables. As Table 3 (Eigenvalues and cumulative variance associated to principal components) clearly shows, this decision led to the utilization of three components that have eigenvalue scores greater than one account for 63.173% of the total variance. These three main components were constructed by 14 significant variables. Based on the rule of PCA only components that have Eigen values greater than one should be in the model. Each component constructed from the variables which explained by the factor solution (average of communalities) that must be above 0.5. So, a variable that has average of communalities score below 0.5 was deducted from the model. There were three variables that were out of the model and these variables were Environmental Concern (X3), Recruiting Staff (X15) and Uncertainty of Market Directions (X17).

The Varimax algorithm was used to perform an orthogonal rotation to transform the components into factors that envisaged the improvement of factor interpretation. Table 4 shows that the rotated component matrix allocating variables to factors is overall straightforward. The first component has an Eigen value of 6.438 and the percentage of variance is 45.984%. Component one consist of four variables as follows: Finance & Accounting knowledge and skills (X7), Technology, Research & Development knowledge and skills (X9),

Marketing knowledge and skills (X8) and Information Communication and Technology development (X6). The variables that has the highest loading factor is Finance & Accounting knowledge and skills with a score of 0.808 while the other variables include Technology, Research & Development knowledge and skills (X9) 0.803, Marketing knowledge and skills (X8) 0.756 and Information Communication and Technology development (X6) 0.723, respectively. The common pattern of the variables characterizes this component, since the variables are associated with knowledge, which come from the most ability needs to compete in global market. (Not clear) Hence, it can be said that component 1 is a global representation of Knowledge Based Resources.

TABLE 10. 4 COMPONENT MATRIX AFTER ORTHOGONAL ROTATION

Rotated Component Matrix				
Variables		Component		
		1	2	3
X7	KnskFinAcc	0.808	0.062	0.286
X9	KnskTech	0.803	0.301	0.077
X8	KnskMarketing	0.756	0.295	0.213
X6	ICTDev	0.723	0.219	0.258
X14	ProdCost	0.588	0.455	-0.050
X12	OpCost	0.507	0.477	0.170
X2	EconFluct	0.111	0.813	0.115
X4	FinDifficulties	0.365	0.710	0.137
X1	CompetitiveAdv	0.199	0.664	0.384
X5	ForeignCompt	0.395	0.623	0.308
X16	RetainStaff	-0.061	0.168	0.756
X10	KnskResearchDev	0.272	0.041	0.732
X13	OnlineComp	0.303	0.306	0.629
X11	Margins	0.444	0.252	0.537

The second component has an Eigen value of 1.308 and variance of 9.340%. Component 2 consists of 6 variables, with Economic fluctuations (X2) having the highest loading factor (0.813). This is followed by financial difficulties (X4) with loading factor of 0.710, competitive advantage (X1) 0.664, foreign product competition (X5) 0.623,

operational cost (X12) 0.477 and production cost (X14) 0.455. These variables are related to the internal and external economic factors of SMEs challenges. Therefore, this component is called Business Performances

The last component has Eigen value of 1.099 and variance of 7.849%. There are four variables that construct component 3, and they are Retaining Staff (X16), Research & Development knowledge and skills (X10), Online sales (X13) and Margins (X11). The variables with the highest loading factor is Retaining staff (0.756) and followed by others 0.732 (X10), 0.629 (X13) and 0.537 (X11), respectively. Fierce competition forces SMEs to be more innovative, creative and effective in running their businesses to survive and win in the global market competition. Therefore, one can say that these variables associated with the Operational Effectiveness and Innovations.

Furthermore, this research found that there are three main components which determined SMEs' competitiveness in the global market and they are (1) Knowledge Based Resources, (2) Business Performances and (3) Operational Effectiveness and Innovations (see in Table 5).

TABLE 10. 5. COMPONENTS ASSOCIATED WITH SMES COMPETITIVENESS

Component	Name	Construct Variables
1	Knowledge Based Resources	Finance & Accounting Knowledge & skills Technology Knowledge & skills Marketing Knowledge & skills Information Communication and Technology Development
2	Business Performance	Production Cost Operational Cost Economic Fluctuations Financial Difficulties Competitive Advantages Foreign Competitions
3	Operational Effectiveness and Innovations	Retaining Staff Research & Development Knowledge & Skills Online Sales Competition Margins

IMPLICATIONS

Theoretical Implications

The relationship of these challenges to competitiveness is established via Principal Component Analysis set out in Table 4. There are 14 variables which significantly construct the three principle components of SMEs' competitiveness. These three principal components are Knowledge based resources, Business performances and Operational effectiveness & innovations

Knowledge based resources is the most important component of SMEs' competitiveness. Lack of knowledge in finance, accounting, marketing, technology, global market and will have negative effect on competitiveness. In this era of industrial revolution, there is rapid development of knowledge, and transfer of knowledge can be done from everywhere and there are many ways to access free education and training. Therefore, in order to improve SMEs' competitiveness, Indonesian SMEs should give serious attention to knowledge development at all different levels. Investment in self-development should not be overlooked as it is also important like the physical investment. The use of knowledge and skills in advanced technology will lead to better business performance than the non-users in the global market. The automation of processes and market research are top ranking priorities in terms of investment for the Indian auto components sector (Singh et al., 2009). However, development of knowledge and skills in many sectors are very crucial for SMEs in order to improve their competitiveness in the global market competition. The amount of money spent on investment in knowledge development will not depreciate in value but, in fact, will expand further opportunities and business escalation (Egbu et al., 2005). Firms must always learn new things and update their knowledge because learning is the proper response to uncertainty.

Business performances is the second component of SMEs' competitiveness. It is constructed by economic fluctuations, financial difficulties, competitive advantages, foreign competition, production cost and operational cost variables. Facing the vulnerability, uncertainty, complexity and ambiguity (VUCA) conditions, make SMEs to struggle to maintain and also increase their business performances. Some variables such as economic fluctuations and foreign competition are external variables that cannot be controlled by the business while other variables such as financial difficulties, creating competitive advantages, reducing production and operational cost are internal variables that can be controlled. However, in real situations, it is also difficult to control the internal variables because it might be affected by external variables (Hsu et al., 2017). Hence, in increasing business performance, SMEs need to prioritise on the improvement of internal business performances variables.

Operational effectiveness and innovations is the last component that constructs the competitiveness of SMEs to survive in its business in the rapidly changing global market and its fluctuations. In creating margins to get high profits, firms are not able to sell the products at very high prices because the imported goods will replace them with affordable prices. Thus, firms need to be more effective at the operational level and always innovate to create efficient products. Innovations become the main agenda for SMEs to survive, and firms must do many innovations in many sectors, not only in production and operation, but also in the distribution and sales. However, to gain the best ideas on innovations, firms must do research and development process that cannot be ignored. However, to foster creativity and innovation, SMEs also have opportunities to use their learning capabilities to remain competitive.

Managerial Implications

Financial & Accounting (X7), Technology (X9), Marketing (X8) and ICT Development (X6) are the critical variables that construct Knowledge based resource component. In fact, the firms have to deal with uneasy challenges, particularly when they are confronted with globalization and the digital era. On the other hand, the world has been changing as we enter new situations full of volatility, uncertainty, complexity, and ambiguity (VUCA). This condition takes place due to rapid technological growth in the world nowadays, which may have impact on SMEs. Thus, the only appropriate way to face this condition is by learning and updating knowledge and skills on financial aspects and accounting to manage the cash flows and create good financial management. Having good skills in technology is the value added for SMEs to compete with millennial firms. Applying appropriate advance technology creates high efficiency and leads to better business performance. An excellent marketing knowledge and skills has high impact and gains more customers and earns more income.

In the following three years, business owners think that the hardest challenge for entrepreneurs of SMEs in Yogyakarta are financial difficulties (X2) and economic fluctuations (X4) both in the domestic and the global markets. Therefore, to reduce the financial difficulties SMEs need more financial capital through credit from banks or fresh funding from investors. However, it is not easy, and SMEs must have good performances in business and financial records.

Retaining staff (X16) is another important variable for SMEs. This relates to how to keep well performing employees while confronted with final products from overseas in the context of free trade policy with regional and multilateral economic agreements. It is plausible that well performing employees will move to other workplaces with higher salaries. Considerable inflows of goods from Malaysia, Thai-

land, and Vietnam also have impact on more variations for consumer choice with lower prices. This condition must be having impact on strict competition with products from SMEs' entrepreneurs, particularly in terms of price and quality, which in turn reduces the sales of business firms. Hence, the owners of SMEs must be concerned with the welfare of their staff. Having a loyal staff is not easy, but loyal staff facilitate business.

CONCLUSIONS

SMEs play a significant role in economic development in developing countries. They create more job opportunities, generate income for the society and increase more creativity. Accordingly, in the midst of global economic situations that is full of VUCA and the Internet of Things era, SMEs must fight to show its existence and become sustainable business. Therefore, this research has conducted the survey on challenges faced by SMEs in Yogyakarta in the near future. (Did you mean 'recently'?) The challenges were transformed into variables to construct the main components of SMEs' competitiveness that will assist the firms to survive and compete in the dynamic open markets.

This chapter has provided the theoretical contribution in terms of the determinants of SMEs' competitiveness which consists of three main components, namely, Knowledge Based Resources, Business Performances and Operational Effectiveness and Innovations. Thus, based on this finding, SMEs are able to develop effective strategies to improve their competitiveness. Learning new skills and updating knowledge as part of the important components in effectiveness will result in high performance in business.

Another contribution is with respect to the managerial contribution. SMEs should be concerned with improving the knowledge and

skills in finance and accounting to create good financial management. Firms also must learn and apply appropriate advanced technology to gain high efficiency in business performances. Research and development in SMEs' business cycle must be initiated from now on to give rise to such aspects as innovation in products, management, and technology.

Furthermore, SMEs need to establish an institutional framework and organizational capacity that reflect SMEs' variations and feedback to enforce the implementation of competitiveness components. Great prospects are expected from the competitiveness.

Despite all the efforts developed by the research team, as a consequence of some missing answers, the sample size obtained was still sufficient to perform Principle Component Analysis technique. In fact, this seemed to be a proper decision, but still need to be upgraded, since it cannot see the weight of its relationships. Future empirical studies on the current issue could use Structural Equation Modeling to get the best results for the factors that influence SMEs' competitiveness.

ACKNOWLEDGEMENTS

The support of the Universitas Muhammadiyah Yogyakarta, Indonesia in funding this chapter is gratefully acknowledged. The authors would like to thank the journal's anonymous reviewers for their recommendations for improving this paper.

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