

Research Article

Comparison of the business sustainability perception of Malaysian manufacturing SMEs

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Abstract

The objective of this study is to determine the comparison of business sustainability practices according to demographic profile of manufacturing SMEs. The model of the survey is a descriptive survey model. There are 22 items on business sustainability that formed a part of a questionnaire using a five-point interval scale. Data were gathered from 168 respondents who were chosen by purposive sampling. A survey form was used as the data-gathering tool in the study. The data analysis in the study was conducted by using SPSS 23 package software. In the data analysis, descriptive statistics, Mann-Whitney U and Kruskal Wallis H Tests were used. It was discovered that economic sustainability practices have statistical differences between gender and industry. In regards to social and environmental sustainability, there were no statistical differences according to demographic profile, except for age group and industry. This study helps to increase understanding of manufacturing SMEs about business sustainability.

Keywords:

Sustainability, SME, Manufacturing, Malaysia

1 Introduction

In the global economic situation, sustainability has become essential for all organizations to foster the balance of economic, social and environmental goals (Gupta,

Dangayach, Singh, Meena & Rao, 2018). Sustainability must be viewed as an important strategy of organization (Matinaro, Liu, Lee & Poesche, 2019). However, only economic dimension is receiving more attention in business organisation (Chardine-Baumann & Botta-Genoulaz, 2014). The economic profits of business activities have improved prosperity and living conditions globally; however, it leads to environmental destruction and social inequality directly and indirectly (Sullivan, Thomas & Rosano, 2018). Current study by Gong, Simpson, Koh and Tan (2018) showed that many environmental destructions occurred and it was estimated that more than half (60 per cent) of the environments have been corrupted globally. These problems are affecting sustainability as a whole where it is difficult to sustain prosperity and achieving healthy well-being of people and communities (Abdullah, Abu Bakar, Mohd Jali & Ibrahim, 2017).

This is an important issue to be widely discussed. They have been actively looking for new innovative solutions to be implemented in the aim to minimize negative impacts of human activities on the environment and at the same time enhancing the health of societies in which they live while generating profit. To deal with the environmental shift trend, organizations are required to create new strategy which is no longer optional but it is necessary and important to all organizations alike (Ray and Grannis, 2015).

This study is significant in developing contexts due to the SMEs contribution as the driver of the national economy (Aboelmaged & Hashem, 2019; Mohd Yusoff, Omar, Kamarul Zaman, & Samad, 2019). Moreover, SMEs in Malaysia are the dominant representing 98.5 per cent of total establishments (National SME Development Council, 2017). This big number is definitely an important driver to the national economic growth. Besides, SMEs contributed more than 37.1 per cent of national GDP in Malaysia which contributed about 66.0 per cent of the employment rate (National SME Development Council, 2017). Filling these gaps seems to be very important for SMEs policies (Moilanen, Østbye & Woll, 2014).

Besides, the manufacturing SMEs context is chosen for study setting for four reasons. First, SME in the Malaysian manufacturing sector comprised of 47,698 Malaysian SMEs being dominant at 97.14 per cent of the total manufacturing establishment in the country (National SME Development Council, 2017). Second, manufacturing industry is one of the biggest contributors to the Malaysia economy; and it is also the highest contributor to the environmental degradations Yong et al. (2019). Third, the environmental degradation have been concerned by many previous scholars who claimed on the high demand for sustainable practices in manufacturing sector (Diabat, Govindan, 2011; Hussain, Rigoni & Orij, 2018). Lastly, Cai et al. (2019) highlighted that the implement of innovation to fulfil the environmental pressure particularly in manufacturing sector towards green transformation is an urgent task due to the large amount and wide distribution of energy consumption.

Hence, the motivation of this study derives from the above facts that the business sustainability approach is still new and at it is in the embryonic stage in Malaysia; a developing country. Hence, this study is aimed to identify whether the business sustainability practice differs between sectors in manufacturing industry.

The paper is organised as follows. First, the literature of business sustainability is reviewed and presented. Second, explanations of the method used in this study are

provided. Third, results are presented and last but not least, the results of the study are discussed.

2 Literature Review

2.1 Business Sustainability

The term 'sustainability development' was first introduced in a report entitled the limits of growth published in 1972 (Gunilla, 2014). The study was later reproduced in the Brundtland Report in 1987, and then further published in the World Commission on Environment and Development (WCED) in 1989 (Borim-de-Souza et al., 2015). The report defined the sustainability of present development without ignoring the needs of future generations. This definition is widely used by many scholars due to its flexible and it is easy to understand (Prugh, 2003).

Sustainability development is multi-dimensional as it incorporates society, protection of natural resources and environment to achieve economic performance and balance between present and future (Kelly, Sirr & Ratcliffe, 2004). For other scholars, sustainability development is viewed as: preservation of genetic diversity, maintenance of environmental process and sustainable use of ecosystems and species (Tisdell, 1988); balancing the needs for present and future generations (Chichilnisky, 1996); development as a proactive strategies implemented by the organizations to achieve stakeholders' objectives with the concern of future generation needs (Bansal & DesJardine, 2014).

Bansal and DesJardine (2014) defined sustainable development as the proactive strategies implemented by an organisation to achieve its stakeholders' objectives while considering the needs of the future generation. In other words, sustainability aims to achieve three performance goals, which are economic, social, and environmental, all at the same time (Sartori et al., 2014). Meng (2015) argued that the term 'sustainability' generally touches on balancing and sustaining the wellbeing of people. Besides, sustainability does not only focus on the three above-mentioned aspects but is also linked to corporate social responsibility (Kopnina, 2017) and moral issues (John & Narayanamurthy, 2015).

From business perspectives, sustainability is described as the ability of business to have better understanding of the needs of their stakeholders and provide solutions to their needs to enhance better performance cooperation (Epstein & Buhovac, 2011) comprising three main dimensions namely economic, social and environmental (Choi & Ng, 2011; Sheth, Sethia & Srinivas, 2011).

3 Methodology

3.1 Survey and data collection

The target sample in this study is the SMEs in manufacturing sector. In Malaysia, SMEs in the manufacturing sector are organizations that employ not more than 200 full time employees and has an annual sales turnover of not exceeding RM50 million. The

list is taken from the Federation of Malaysian Manufacturers (FMM) Directory 2017 as a sampling frame. Survey questionnaires and purposive sampling were used to select the study sample from the owners or top managers.

A total of 840 questionnaires were distributed to the target respondents to get the minimum sample size of 341 as suggested by Krejcie and Morgan (1970). The total responses obtained are 176 respondents. However, eight sets of questionnaires were incomplete and were removed from further analysis. A total of 168 valid questionnaires with response rate of 20.95 per cent were included for final analysis.

3.2 Measurement

Business sustainability comprised of three dimensions. Respondents were requested to rate organization’s performance based on integration of economic (6 items), social (6 items) and environmental (10 items) aspects with the total number of 22 items. These items were adopted from Chow and Chen (2012). The measurement scales were measured on a 5-point Likert scale which ranged between (1) strongly disagree to (5) strongly agree. Table 1 illustrates the measurement used in this study.

Table 1: Summary of Key Constructs, Sources of Questions and the Number of Items

Variable	Dimension	No of Items	Source
Business Sustainability	Economic	6	Chow and Chen (2012)
	Social	6	
	Environmental	10	

3.3 Data Analysis

In the study, the data analysis was conducted by using the SPSS 23 package software. In the data analysis, descriptive statistics, Mann Whitney and Kruskal Wallis tests were conducted. Mann-Whitney U test is used in determining the differences between two samples and its significance is determined according to the “Z Normal Distribution” statistics. Kruskal Wallis test is used for determining the difference between three or more samples, and the “X²” distribution is utilized.

4 Findings

It was determined that 76.2% of the respondents were male, 37.5% were between 36-45 years old, 61.3% has Bachelor’s degree, 61.3% were Chinese, 51.8% having between 151-200 employees, 31.0% had operated more than 20 years, 61.9% were managers, 34.5% were from electrical or electronic industry and 50.6% were from Selangor.

In the analysis of the Business Sustainability Scale, it was observed that the mean values were above 3. This indicates that respondents are generally satisfied with the business sustainability practices. Additionally, the highest mean value is social sustainability with 3.75 while the lowest mean value is of economic sustainability with

3.26.

Table 2: Findings Regarding the Business Sustainability Scale

	Minimum	Maximum	Mean	SD
Economic	2	5	3.26	0.747
Social	2	5	3.75	0.657
Environmental	2	5	3.73	0.641

In Table 3, it was determined that there were statistically significant differences of economic sustainability perception according to gender. As for age, it revealed that there were statistically significant differences in social and environmental sustainability perception and not for economic. In term of race, the findings also found that there were significant differences on environmental sustainability. Interestingly, the findings also revealed that all dimensions of business sustainability have significant differences according to industry. However, contrary with educational level and position, there were no statistical difference on the business sustainability perception among respondents.

Table 3: Comparison of business sustainability according to Demographic Profile

Characteristics	Mean \pm Std Deviation		
	Economic	Social	Environmental
Gender			
Male	3.30 \pm 0.776	3.71 \pm 0.658	3.75 \pm 0.646
Female	3.13 \pm 0.637	3.85 \pm 0.652	3.67 \pm 0.630
Z	1.9888	1.521	0.590
p	0.047*	0.128	0.555
Age			
Less than 25	3.83 \pm 0.451	3.88 \pm 0.250	3.90 \pm 0.271
25-35	3.19 \pm 0.778	3.47 \pm 0.628	3.46 \pm 0.648
36-45	3.26 \pm 0.672	4.02 \pm 0.699	4.00 \pm 0.627
46-55	3.10 \pm 0.817	3.65 \pm 0.439	3.60 \pm 0.507
More than 55	3.56 \pm 0.736	3.62 \pm 0.676	3.70 \pm 0.639
χ^2	5.560	19.228	19.157
p	0.235	0.001*	0.001*
Level of Education			
Sijil Pelajaran Malaysia (SPM)	3.67 \pm .	4.00 \pm .	3.90 \pm .
Diploma	3.50 \pm 0.844	3.76 \pm 0.640	3.58 \pm 0.736
Bachelor Degree	3.21 \pm 0.735	3.75 \pm 0.639	3.76 \pm 0.627
Master Degree	3.40 \pm 0.730	3.75 \pm 0.682	3.80 \pm 0.661
PhD	2.67 \pm 0.000	4.67 \pm 0.000	3.60 \pm 0.000
Others	2.50 \pm 0.333	2.88 \pm 0.250	3.00 \pm 0.000
χ^2	14.087	13.458	10.431
p	0.015	0.019	0.064
Race			
Malay	3.41 \pm 0.652	3.83 \pm 0.783	3.80 \pm 0.662

Characteristics	Mean \pm Std Deviation		
	Economic	Social	Environmental
Chinese	3.21 \pm 0.810	3.70 \pm 0.602	3.73 \pm 0.628
Indian	3.05 \pm 0.559	3.74 \pm 0.651	3.69 \pm 0.609
Others	3.33 \pm 0.289	3.72 \pm 0.192	2.83 \pm 0.404
χ^2	0.337	0.832	2.171
p	0.736	0.406	0.030*
	Position		
Director	3.19 \pm 0.950	3.46 \pm 0.832	3.97 \pm 0.774
General Manager	3.50 \pm 0.554	3.74 \pm 0.458	3.70 \pm 0.509
Manager	3.16 \pm 0.737	3.81 \pm 0.620	3.73 \pm 0.636
Assistant Manager	3.50 \pm 0.934	3.75 \pm 0.408	3.57 \pm 0.423
Executives	3.67 \pm 0.569	3.92 \pm 0.637	3.88 \pm 0.623
Others	3.27 \pm 0.610	3.25 \pm 1.054	3.21 \pm 0.696
χ^2	9.434	7.783	7.579
p	0.093	0.169	0.181
	Industry		
Food/Beverages	3.22 \pm 0.403	3.61 \pm 0.486	3.47 \pm 0.626
Electrical/Electronics	3.22 \pm 0.735	3.86 \pm 0.722	3.87 \pm 0.650
Machinery/Engineering	3.22 \pm 0.903	3.44 \pm 0.559	3.60 \pm 0.553
Metal/Metal Products	3.19 \pm 1.039	3.56 \pm 0.601	3.73 \pm 0.541
Petrochemical/Chemical	3.29 \pm 0.250	4.21 \pm 0.498	4.05 \pm 0.520
Paper/Printing/Publishing	3.26 \pm 0.682	3.67 \pm 0.476	3.68 \pm 0.678
Plastic/Plastic Products	5.00 \pm 0.000	5.00 \pm 0.000	5.00 \pm 0.000
Wood/Wood Products	3.73 \pm 0.417	3.97 \pm 0.560	3.84 \pm 0.443
Rubber Products	3.26 \pm 0.417	3.94 \pm 0.656	3.61 \pm 0.772
Palm Oils Products	2.00 \pm 0.000	3.50 \pm 0.000	3.20 \pm 0.000
Packaging/Packaging Materials	2.83 \pm .	3.17 \pm .	4.00 \pm .
Textile/Clothing/Bag/Shoes	3.13 \pm 0.075	2.87 \pm 0.075	3.18 \pm 0.045
Household/Housewares	3.17 \pm 0.000	3.50 \pm 0.000	3.90 \pm 0.000
Pharmaceutical/Cosmetics/Toiletries	3.00 \pm 0.943	3.42 \pm 0.118	3.15 \pm 0.354
Others	3.22 \pm 1.295	4.06 \pm 918	3.53 \pm 0.850
χ^2	21.718	34.200	32.261
p	0.010*	0.000*	0.000*

*Indicates that p-value less than 0.05

5 Discussion

The practice of business sustainability among manufacturing SMEs in Malaysia remains to be studied. Hence, this study fills the gap to examine the practice of business sustainability comprised of three main elements namely economic, social and environmental. Three primary conclusions are derived from the findings. Firstly, in terms of economic sustainability, the results revealed that there were no statistical differences according to demographic profile except for gender and industry. In regards to social and environmental sustainability, there were no statistical differences according to demographic profile except for age group and industry. This is supported by previous research which mentioned that environmental sensitive companies are

more aware on environmental impact in their business operation (Branco & Rodrigues, 2008; Buniamin, Alrazi, Johari, & Abd Rahman, 2011).

6 Conclusion

As for conclusion, many organizations were actively looking for new innovative solutions to go green to be implemented to achieve business sustainability. Hence, this study intends to better understanding whether there are statistical differences in the perception of business sustainability in manufacturing SMEs according to personal demographic. The business sustainability practice should be paid attention according to industry due to their context are different. From that, an effective action can be implemented. It is believed that the business sustainability is very important as it contributed to tourism industry where it can attract many international investors and tourists to visit the country.

7 References

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