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RESEARCH ARTICLE

EMPIRICAL INVESTIGATION OF THE FACTORS INFLUENCING BUSINESS PERFORMANCE AMONG WOMEN ENTREPRENEURS IN SMALL AND MEDIUM ENTERPRISES (SMEs): FIRST ORDER STRUCTURAL EQUATION MODELING

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ABSTRACT

The main purpose of this study was to assess the factors that affect the business performance of women entrepreneurs in small and medium enterprise (SMEs). A survey methodology using simple random sampling was carried out, covering the women entrepreneurs that registered under SME Corporation. A structured questionnaire was then distributed to 100 out of 120 women entrepreneurs. In this study, MANOVA was used to examine whether economic factor, social factor, legal/administrative factor and business performance significantly differ among three business sectors (1: Trade, 2: Production, 3: Services). The result was significant, revealed that there are significant difference in economic factor, social factor and business performance among three business sectors stated above. Then, the path analysis in structural equation modeling was employed to examine the effect of economic factor, social factor and legal/administrative factor towards the business performance of women entrepreneurs in SMEs. The results implied that only social factor significantly influence business performance of women entrepreneurs in SMEs. While economic factor and legal/administrative factor were not significantly influence business performance of women entrepreneurs in SMEs at 5% level of significance. Therefore, based on this study, it revealed that only social factor significantly affect the business performance of women entrepreneurs in SMEs.

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INTRODUCTION

Small and Medium Enterprises (SMEs) have been reclassified as companies whose annual turnover is less than RM50 million with workers not exceeding 200 for the manufacturing sector, from the current definition of less than RM25 million in revenue and less than 150 workers. For the services sector, the value threshold has also been raised, with SMEs defined as firms with annual sales not exceeding RM20 million (less than RM5 million at present) or not more than 75 workers (less than 50 currently). This new definition is effective January 1, 2014. The review is right for the present, noting the changing economy, and the new definition means the number of firms classified as SMEs will increase after this. In Kelantan, a large number of women also involved in the SMEs.

Kelantanese women have been known to be independent and actively engaged in daily businesses and commercial activities. (The NIEW Journal, 2011). According to the research that have been done to women entrepreneurs at Tok Bali area, the finding shows that human factors are seen as important for success among woman entrepreneurs in Tok Bali area. Humility, sincerity, hard work and confidence are among the factors that contribute the most for business survival among women in Tok Bali. Apart from that, support from spouse, family members, suppliers and the government will also be contributing factors to their survival. The findings revealed that those who are successful are mainly those who received assistance from the government in terms of finance, training, counseling as well as technical support. The aim of these studies is to investigate the factors that affect the business performance of women entrepreneurs in SMEs in Kelantan.

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Problem Statement: Factors affecting business enterprises performance have been a well research area by scholars for

many years. According to the previous research by (Buttner, 2001; Makhbul, 2011) indicates that several factors influence business performance includes among many others: their professional background, their entrepreneurship capabilities and preferences, cultural and religious beliefs, as well as the technology and micro-environment. However, many more works need to be done to improve the thousands entrepreneurial performances of women who are on their way up with their products. They are facing a considerable number of obstacles and constraints. There are many factors that can affect the business performance of women entrepreneurs. Various research endeavors are also being undertaken to identify factors affecting or influencing the business performance of woman entrepreneurs.

Furthermore, a study made in Malaysia by APEC (1994), shows that the women entrepreneurs in SMEs are facing many challenges in running their business, which are attributed to lack of comprehensive framework in terms of policies towards SMEs development. In addition, there is a lack of skilled and talented workers, which affects the quality of production as well as efficiency, productivity and also the business performance. Looking at the lack of research on women entrepreneurs in SMEs in Kelantan, the researchers felt that it was appropriate for this study. This study will examine the factors that affect the business performance of women entrepreneurs in small and medium enterprise (SMEs). Findings a survey made hopefully give a true picture of the studied phenomenon and help relevant parties to formulate and implement follow-up actions necessary so that business performance can be improved for women entrepreneurs to the global market.

Research Objective

The objectives of this study are:

- To examine whether there are significant difference in economic factor, social factor, legal/administrative factor and business performance among three business sectors (1:Trade, 2: Production, 3: Services).
- To examine whether economic factor significantly influences the business performance of women entrepreneurs in small and medium enterprises (SMEs).
- To examine whether social factor significantly influences the business performance of women entrepreneurs in small and medium enterprises (SMEs).
- To examine whether legal/administrative factor significantly influences the business performance of women entrepreneurs in small and medium enterprises (SMEs).

Research Question

The research questions for this study are

- Does economic factor, social factor, legal/administrative factor and business performance significantly differ among three business sectors (1: Trade, 2: Production, 3: Services)?
- Does economic factor significantly influences the business performance of women entrepreneurs in small and medium enterprises (SMEs)?
- Does social significantly influences the business

performance of women entrepreneurs in small and medium enterprises (SMEs)?

- Does legal/administrative factor significantly influences the business performance of women entrepreneurs in small and medium enterprises (SMEs).

Theoretical Framework

Figure 1 below show theoretical framework with three main hypothesis need to be tested from this study. Firstly this study is conducted to examine whether economic factor significantly influences the business performance of women entrepreneurs in small and medium enterprises (SMEs). Secondly, this study also wants to assess whether social factor significantly influences the business performance of women entrepreneurs in small and medium enterprises (SMEs). Furthermore, this study wants to examine whether legal/administrative factor significantly influences the business performance of women entrepreneurs in small and medium enterprises (SMEs). The main purpose of this study is to examine the factors that affect the business performance of women entrepreneurs in small and medium enterprises (SMEs).

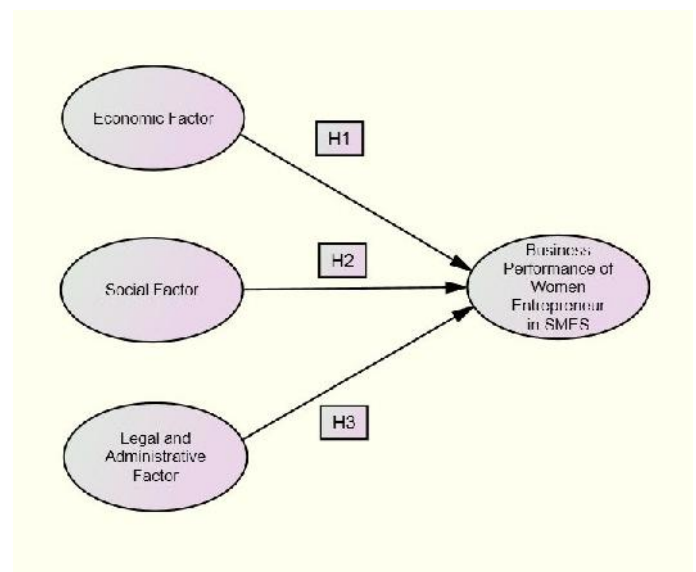


Figure 1. Theoretical Framework

Research Hypothesis

The hypotheses for this study are:

- H₁₁: Economic factor, social factor, legal/administrative factor and business performance significantly differ among three business sectors (1:Trade, 2: Production, 3: Services).
- H₁₂: Economic factor significantly influences the business performance of women entrepreneurs in small and medium enterprises (SMEs).
- H₁₃: Social factor significantly influences the business performance of women entrepreneurs in small and medium enterprises (SMEs).
- H₁₄: Legal/administrative factor significantly influences the business performance of women entrepreneurs in small and medium enterprises (SMEs).

Literature Review

Global Entrepreneurship Monitor (2004), defined Performance as the act of performing of doing something successfully, using knowledge as distinguished from merely possessing it. However, performance seems to be conceptualised, operationalised and measured in different ways thus making cross-comparison difficult. Besides that, Cooper et al. (1998) examined various factors which influence business performance such as: experience, education, occupation of parents, gender, race, age, and entrepreneurial goals. While, Lerner and Hisrich (1997) conducted a study on Israeli women entrepreneurs and categorised the factors that affect their performance into five perspectives, that is, motivations and goals, social learning theory (entrepreneurial socialization), network affiliation (contacts and membership in organizations); human capital (level of education, skills) and environmental influences (location, sectoral participation, and socio political variables).

Thibault *et al.* (2002) suggest that factors influencing business performance could be attributed to personal factors such as demographic variable and business factors such as amount of financing, use of technology, age of business, operating location, business structure and number of full-time employees as important factors in examining the performance as small scale business operators. Other than that, the factors influencing performance was noted in a literature review by Theo *et al.* (2007) to include: individual characteristics, parental influence, business motivation and goals, business strategies, goals and motives, networking and entrepreneurial orientation. Others include environmental factors. Women Entrepreneurs have grown in large number across the globe over the last decade and increasingly the entrepreneurial potentials of women have changed the rural economies in many parts of the world. But this does not mean that the problems are totally resolved. In support of this The Centre for Women's Business Research in the United States as cited in UNECE (2004) and Mahbub (2000) identified that assess to finance, markets, training, networks and policymakers are the following factors that affect women entrepreneurs.

MATERIALS AND METHODS

The target population for this study were the women entrepreneurs that registered with the SME Corporation. A descriptive survey research design was employed in the study to assess the key factors that affect the business performance of women entrepreneurs in SMEs. The reason for using this design is that it enables to describe the different factors that affect the business performance of women entrepreneurs in SMEs. This study used primary sources of data since the data or information for this study originally collected through questionnaire. The questionnaire used for this study consist of 3 sections as shown in Table 1 below. First section in the questionnaire is Section A which is Demographic Profile (9 items), Section B is Factors Affecting Business Performance of Women Entrepreneurs in SMEs (23 items) and lastly Section C is Business Performance (5 items). The technique used was simple random sampling. The reasons for the researcher to choose this technique because of the sampling

frame is exist. The sampling frame for this study is the list of women entrepreneurs involved in small and medium enterprise (SMEs) that registered with the SME Corporation Kelantan. The random numbers was used in order to select a samples. The advantages of using the simple random sampling were highly representative if all subject participate and high generalizability of findings.

Table 1. Summary of Sections in Questionnaire

Section	Title	Item
A	Demographic profile	9
B	Factors Affecting Business Performance of Women Entrepreneurs in SMEs	23
	1) Economic Factor	
	2) Social Factor	
	3) Legal/Administrative Factor	
C	Business Performance	5

This study employed MANOVA to examine whether economic factor, social factor, legal/administrative factor and business performance significantly differ among three business sectors (1:Trade, 2: Production, 3: Services). Moreover, the path analysis in structural equation modeling was used to examine the effect of economic factor, social factor and legal/administrative factor towards the business performance of women entrepreneurs in SMEs.

Analysis and Finding

The results for the reliability analysis, normality assessment, MANOVA, confirmatory factor analysis and path analysis for each hypotheses for this study are shown below.

Reliability Analysis

The Cronbach's Alpha for each component is computed. As shown in Table 2, the values of Cronbach's Alpha are 0.845, 0.931, 0.818 and 0.882 respectively for Economic Factor, Social Factor, Legal/Administrative Factor and Business Performance. It is important to note that all reliability measures have exceeded the minimum value of 0.6 as recommended by Nunnally *et al.* (1994). Thus, it shows all the items in the data used in the study considered reliable.

Table 2. Summary of Reliability Analysis Results

Section	Number of Items	Cronbach's Alpha
Economic Factor	9	0.845
Social Factor	7	0.931
Legal/Administrative Factor	7	0.818
Business Performance	5	0.882

Normality Assessment

The normality assessment for the data need to be examine at hand before proceeding to modeling the structural model. The following table presents the normality assessment for every items involved in the measurement model. The measure of skewness reflects the normality assessment for every item. The measure between -1.0 and 1.0 is considered to be normally distributed and acceptable to proceed with further analysis. Table 3 illustrate the summary for measure of skewness of the variable economic factor, social factor and legal/administrative factor and business performance.

Table 3. Summary for the Measure of Skewness

Items	Skewness	Kurtosis
(BP1)	-.660	.454
(BP2)	-.584	.055
(BP3)	-.794	.249
(BP4)	-.736	-.403
(BP5)	-.715	-.357
(LAF3)	-.649	-.439
(LAF4)	-.925	-.183
(LAF5)	-.647	-.546
(LAF6)	-.739	-.752
(SF1)	-.220	-.939
(SF3)	-.940	-.521
(SF4)	-.701	-.488
(SF5)	-.891	-.454
(SF6)	-.854	-.291
(SF7)	-.904	-.400
(EF9)	-.629	-.169
(EF6)	-.609	-.588
(EF5)	-.787	.300
(EF2)	-.565	-.210
(EF1)	-.492	-.313
Multivariate		120.046

The Table 3 shows that the measure of skewness for all item fall in the range of -1.0 and 1.0, therefore it is considered to be normally distributed and acceptable to proceed with further analysis.

RESULTS

Box's M Test – Assessment of Homogeneity of Covariance across the Groups

The result of Box's M (23.947) as shown in Table 4 below was not significant (p-value=0.319), indicated that the assumption of homogeneity of covariance across the groups was satisfied.

Table 4. Box's M Statistic

Box's M	F-Statistic	p-value
23.947	1.120	0.319

Wilk's Lambda – To Examine whether there is Significant Difference in EF, SF, LAF and BP among Three Business Sectors

As shown in Table 5 below, it revealed that there are significant differences among three business sectors (trade, production and services) for at least one of these four factors (economic factors: EF, social factor: SF, legal/administrative factor: LAF and business performance: BP).

Table 5. Wilk's Lambda Statistic

Wilk's Lambda	F-Statistic	p-value
0.738	3.853	0.000

Univariate ANOVA – To Examine whether Each of Dependent Variables (EF, SF, LAF and BP) Significantly

Differ among Three Business Sectors

The univariate ANOVA results shown below implied that there were statistically significant difference in economic factor (F-statistic=6.918, p-value=0.002), social factor (F-statistic=6.698, p-value=0.002), and business performance (F-statistic=10.840, p-value=0.000) among three business sectors (trade, production and services).

Table 6. Univariate ANOVA Results

Dependent Variable	F-Statistic	p-value
EF	6.918	0.002
SF	6.698	0.002
LAF	2.923	0.059
BP	10.840	0.000

Confirmatory Factor Analysis (CFA): Measurement Model

Confirmatory Factor Analysis (CFA) is a special form of factor analysis. It is employed to test whether the measure of a construct are consistent with the researcher's understanding of the nature of that construct. Figure 2 shows that the last measurement model combining all construct simultaneously. Based on the Table 7 above, the fitness indexes is satisfied since that RMSEA = 0.083, TFI = 0.904, CFI = 0.917 and Chisq/df = 1.689 are achieved the required level.

Table 7. The Summary of Fitness Indexes for Measurement Model

Name of category	Name of index	Index value	Comments
1. Absolute fit	RMSEA	0.083	The required level is achieved
2. Incremental fit	TFI	0.904	The required level is achieved
	CFI	0.917	The required level is achieved
3. Parsimonious fit	Chisq/df	1.689	The required level is achieved

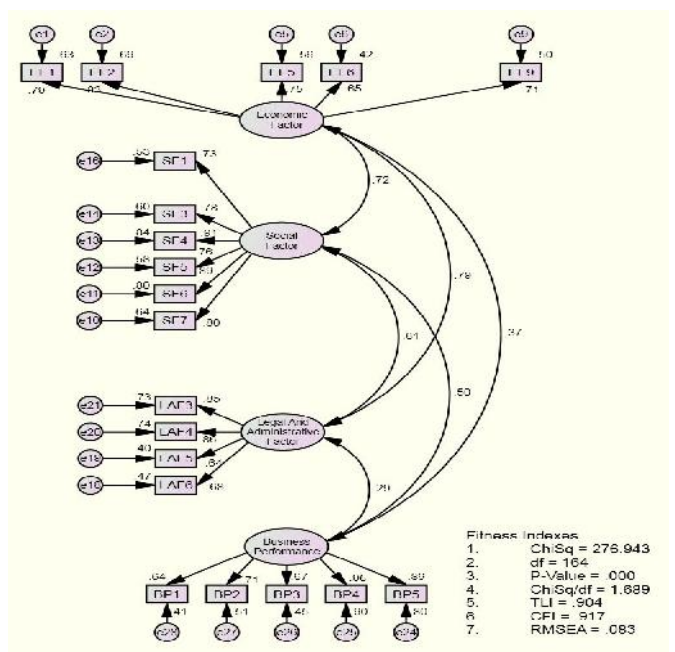


Figure 2. The Last Measurement Model

Structural Equation Modeling (SEM): Structural Model

FIGURE 3 shows that the measurement model is assembled into structural model for further analysis. In this study, there are three hypothesis involved. The first hypothesis is economic factor does provide significant and direct effect on business performance of women entrepreneurs in SMEs. The second hypothesis is social factor does provide significant and direct effect on business performance of women entrepreneurs in SMEs. The third hypothesis is legal/administrative factor does provide significant and direct effect on business performance of women entrepreneurs in SMEs. Table 8 shows that the path analysis for testing the hypothesis involved in the study. Based on the p-value of the path analysis shown below, only social factor have significant and direct effect on business performance of women entrepreneurs in SMEs. While economic factor and legal/administrative factor do not have significant and direct effect on business performance of women entrepreneurs in SMEs, since the p-value for both these two factors are higher than 0.05.

DISCUSSION

The summary of the findings for this study are shown in FIGURE 4 and TABLE 9 below. As mention earlier the main purpose of this study is to examine the factors that affect the business performance of women entrepreneurs in small and medium enterprises (SMEs). To achieve this purpose, this study come out with three hypothesis. The result revealed that, the first and third hypothesis are not supported. Only the second hypothesis is supported. It revealed that, for this study only social factor have significant and direct effect on business performance of women entrepreneurs in SMEs. According to the findings of this research, it can be concluded that economic factor not significantly influences the business performance of women entrepreneurs in Small and Medium Enterprises (SMEs). However, the result revealed that social factor significantly influences the business performance of women entrepreneurs in Small and Medium Enterprises (SMEs). It is also can be concluded that the legal/administrative factor not significantly influences the business performance of women entrepreneurs in Small and Medium Enterprises (SMEs).

Apart from that, there are several recommendation can be made from this study. Since the social factor give an effect towards the business performance of women entrepreneurs, the Ministry of International Trade and Industry should planning and develop the programs required by women entrepreneurs to help them improve their business performance. Other than the Ministry of International Trade and Industry, the SME Corporation also can develop the counseling session towards their women entrepreneurs. Besides that, the Ministry of International Trade and Industry should identifying the training and helping needed by women entrepreneurs to

enable them to improve business performance and enable them to compete both locally and beyond country. In addition, from the open ended questions, most of the women entrepreneurs said that there is lack of promotion and advertisement about their business or product. Apart from this, the Ministry of International Trade and Industry should planning some programs to these women entrepreneurs in order to promote their product to other people. It is also suggested to the future researcher to explore and find another variables in order to gain more insight regarding the factors that affect the business performance of women entrepreneurs in small and medium enterprises (SMEs).

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