Entrepreneurial Orientation and Effects on Firm Performance on SMEs in Sabah Manufacturing Sector

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ABSTRACT

Entrepreneurial Orientation (EO) has been defined as the strategic orientation, which employed by firms in order to identify ways and creating a specific set of methods through the assistance of various decision making, since numerous ways and practices of entrepreneurial aspects were eventually realized. Hence, this study was conducted based on the phenomenon experienced by a number of manufacturing firms in the State of Sabah, Malaysia, within the context of Small and Medium-Sized Enterprises (SMEs). The EO, moreover, was deemed as a multidimensional construct encompassing two dimensions, namely autonomy and innovativeness. This study employed a quantitative approach as for methodology. In this study, proportionate stratified random sampling was applied. The location of this study involved the area of West Coast Division in the State of Sabah. Meanwhile, the samples were consisted of 175 responses among selected owners and managers of small and medium-sized manufacturing firms. The data analysis was carried out through Partial Least Squares-Structural Equation Modeling (PLS-SEM) techniques by using the SmartPLS 2.0 M3 software. Based on the attributes of EO consisting of autonomy and innovativeness, the results were statistically demonstrated their significant relationships with firm performance. Furthermore, the factor of the government, which plays an important role, as the moderator, was proven a significant in the relationship between autonomy and firm performance, whilst, portrayed an insignificant and non-influential in strengthening the relationships between other EO dimension (i.e. innovativeness) and firm performance.

Key Words: Entrepreneurial Orientation, Firm Performance, Government's Role, SMEs

1. INTRODUCTION

In relation to both developed and developing economies, the manufacturing sectors of Small and Medium-Sized Enterprises (SMEs) possess a vital role in the present business system. Krueger (2012) had posited in a national system with a level of respect to the developing economies and entrepreneurship concept, by stating an opinion of offering an emphasis on the menace, as well as the chances to allow for the achievement of racy entrepreneurial operations and competitiveness. Thus, SMEs ought to be watchful over the entrepreneurial practices, while still stressing on their effect upon the production of the firms, as well as the direction of the firms which can be detected excellently (Wiklund & Shepherd, 2003). Furthermore, SMEs specifically in the manufacturing sectors of Malaysian context is often being a limelight in any discussion. Malaysia trading related to globalization and liberalization are some of the issues that contribute towards the increment of challenges faced by SMEs in the manufacturing sectors. The vivid example can be seen in the State of Sabah, which had been reported to own lower rates of establishment, as compared to the other states in the Peninsular. The State of Sabah was in the eleventh position in the ranking of SMEs manufacturing sector population with 1,382 small and medium-sized manufacturing firms. Viewing the competition from the perspective of the economic standpoint, SMEs possesses a vital task which allows them to enhance their performances by expounding on the sectors of both the state and national levels.

In the context of Sabah's SMEs' performance in the manufacturing sectors, all manufacturers are oriented towards managing their businesses. This is with regard to the context of their entrepreneurship acceptance in dealing for the improvement of their firm performance. Better performing SMEs are relatable to the EO and they have attempted to correlate to enhance their performances (Knight, 2012; Dess et al., 1997). Moreover, this also supported by a study conducted by Zahra and Garvis (2000). This paper attempts to determine the significant relationship between two dimensions of EO (autonomy and innovativeness) and firm performance, and to examine the moderating effect of government's role factor upon the relationship between two dimensions of EO and firm performance of SMEs' manufacturing firms in Sabah. Researchers focus on autonomy and innovativeness because these two dimensions of EO have generally been investigated less frequently in the entrepreneurship literature and that they are distinct concepts with unique relationships to performance outcomes. Thus, investigating several EO dimensions at once may increase accuracy in the depiction of the EO construct (Lumpkin & Dess, 1996; Memili, Lumpkin & Dess, 2010).

2. RESEARCH CONTEXT AND RESEARCH MODEL

This paper constitutes part of a larger research which determines the significant relationship between EO and the firm performance, and scientifically intends to examine the moderating effect of government's role factor on the relationship between EO and firm performance of small and medium-sized manufacturing firms in Sabah (see Figure 1).
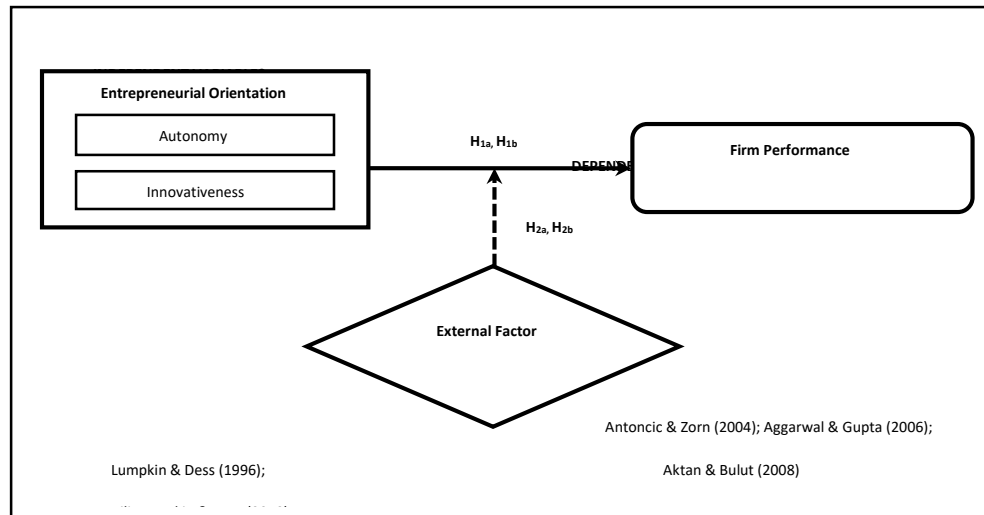

Figure 1: Research Model

EO (independent variables) is a firm-level strategic orientation that captures an organization's strategy-making practices, managerial philosophies, and firm behaviors, which are entrepreneurial in nature. EO has become one of the most established and researched constructs in the entrepreneurship literature (Lumpkin & Dess, 1996; Memili, Lumpkin & Dess, 2010). To be precise, a general commonality among past conceptualizations of EO is the inclusion of autonomy and innovativeness as the core defining aspects or dimensions of the orientation. Moreover, EO has been shown to be a strong predictor of firm performance (Lumpkin & Dess, 1996; Memili, Lumpkin & Dess, 2010). Reviews of the EO literature had indicated that the majority of prior studies has adopted Lumpkin and Dess' perspectives of EO with the combination of autonomy and innovativeness.

As for the firm performance (dependent variable), it has been measured in terms of profitability of the firm and growth. The growth was measured by calculating the average number of employees' increment in the last three years together with the average sales growth in the past three years. Previous researchers had emphasized on sales growth as the common indicator of financial performance. Hence, the respondents measured the performance of the firm on the sales growth for the last three years (Antoncic & Zorn, 2004; Aggarwal & Gupta, 2006; Aktan & Bulut, 2008).

On top of that, this study had been conducted in a way to contribute to the improvement of government's role as a moderator (moderating variable) based on the relationship between EO and firm performance. In this study, the government's role was incorporated as the moderator in order to determine if this construct played a significant role in strengthening the relationship of EO on performance (Dahi, 2012). The above discussion also leads the authors to formulate the following hypotheses:

Hypothesis$_{1a}$: The autonomy dimension of EO has a significant relationship with the firm performance of small and medium-sized manufacturing firms in Sabah.

Hypothesis$_{1b}$: The innovativeness dimension of EO has a significant relationship with the firm performance of small and medium-sized manufacturing firms in Sabah.

Hypothesis$_{2a}$: The government's role is the moderate factor of the relationship between autonomy and firm performance of small and medium-sized manufacturing firms in Sabah.

Hypothesis$_{2b}$: The government's role is the moderate factor of the relationship between innovativeness and firm performance of small and medium-sized manufacturing firms in Sabah.

3. RESEARCH METHOD

The unit of analysis in this study pertaining to all small and medium-sized manufacturing firms in Sabah, Malaysia. The small and medium-sized manufacturing firms are mainly focused on the West Coast Division in the State of Sabah, consisting of one division and seven districts namely, Kota Belud, Kota Kinabalu, Papar, Penampang, Putatan, Ranau and Tuaran.

This analysis applied Partial Least Squares-Structural Equation Modeling (PLS-SEM) techniques by using the SmartPLS 2.0 M3 software in order to investigate the relationship between the independent, dependent and moderating variables. Proportionate stratified random sampling was applied based on 35% (200 samples) as the stratum of 574 populations in the West Coast Division of Sabah. In getting the primary data, self-administered questionnaire was the selected method for this analysis, in addition to the quantitative responses from the respondents which based upon a 5-point of Likert-type scale reply.

3.1. Data Collection

Two hundred self-administered questionnaires were used for data gathering from the respective respondents. A multiple method of data collection was employed, whereby some questionnaires were mailed to the respondents, whilst some were e-mailed and personally administered. The process of distribution and collection of questionnaires was carried out over a period of three months. A total of 175 questionnaires was received and used for this analysis, which defined approximate of 87.5% response rate.

3.2. Construct Validity

Construct validity testifies on how well the results being obtained from the use of the measurement that fit the theories along the designate test (Sekaran & Bougie, 2010). This can be assessed through convergent and discriminant validity. As such, if any, items which have a loading of higher than 0.5 on two or more factors, then they will be deemed to be having significant cross loadings. From Table 1 researchers can observe that all items measuring a particular construct were loaded highly on that construct and loaded lower on the other constructs, thus confirming construct validity.

Table 1: Loadings and Cross-Loading

	AU	FP	GR	IN
AU1	**0.739**	0.297	0.355	0.329
AU2	**0.788**	0.271	0.256	0.327
AU3	**0.716**	0.283	0.155	0.377
FP1	0.314	**0.721**	0.422	0.449
FP2	0.247	**0.685**	0.383	0.401
FP3	0.203	**0.731**	0.465	0.417
FP4	0.289	**0.746**	0.469	0.363
FP5	0.334	**0.777**	0.550	0.423
GR1	0.313	0.405	**0.682**	0.363
GR2	0.261	0.481	**0.769**	0.392
GR3	0.288	0.490	**0.735**	0.437
GR4	0.194	0.456	**0.717**	0.376
GR5	0.208	0.401	**0.685**	0.264
GR6	0.238	0.459	**0.712**	0.317
GR7	0.215	0.434	**0.684**	0.385
IN1	0.343	0.393	0.456	**0.672**
IN2	0.302	0.428	0.354	**0.768**
IN3	0.368	0.405	0.312	**0.746**

Bold values are loadings for items which are above the recommended value of 0.5

3.3. Convergent Validity

As suggested by Hair et al. (2010), researchers had used the factor loadings, composite reliability, and the average variance extracted to assess convergent validity. The loadings for all items exceeded the recommended value of 0.5 (Hair et al., 2010). Composite reliability values (see Table 2), which depicted the degree to which the construct indicators indicate the latent, construct ranged from 0.672 to 0.788 which exceeded the recommended value of 0.6 (Hair et al., 2010). The average variance extracted (AVE) had measured the variance captured by the indicators which relative to measurement error, and it should be

greater than 0.50 in order to justify the construct (Barclay et al., 1995). The average variance which has been extracted, were in the range of 0.508 and 0.560.

Table 2: Results of Measurement Model

Model Constructs	Measurement Item	Loading	CR[a]	AVE[b]
Autonomy	AU1	0.739	0.792	0.560
	AU2	0.788		
	AU3	0.716		
Firm Performance	FP1	0.721	0.852	0.537
	FP2	0.685		
	FP3	0.731		
	FP4	0.746		
	FP5	0.777		
Government's Role	GR1	0.682	0.878	0.508
	GR2	0.769		
	GR3	0.735		
	GR4	0.717		
	GR5	0.685		
	GR6	0.712		
	GR7	0.684		
Innovativeness	IN1	0.672	0.773	0.533
	IN2	0.768		
	IN3	0.746		

[a] Composite reliability (CR) = (square of the summation of the factor loadings)/{(square of the summation of the factor loadings)?(square of the summation of the error variances)}
[b] Average variance extracted (AVE) = (summation of the square of the factor loadings)/{(summation of the square of the factor loadings)?(summation of the error variances)}

3.4. Discriminant Validity

The discriminant validity of the measures (the degree to which items differentiate among constructs or measure distinct concepts) was assessed by examining the correlations between the measures of potentially overlapping constructs. Items should load more strongly upon their own constructs in the model, and the average variance shared between each construct, and its measurements which should be greater than the variance shared between the construct and other constructs (Compeau et al., 1999). As shown in Table 3, the squared correlations for each construct are less than the average variance which has been extracted by the indicators measuring that construct indicating adequate discriminant validity. In total, the measurement model demonstrated adequate convergent validity and discriminant validity.

Table 3: Discriminant Validity of Constructs

Constructs	AU	FP	GR	IN
Autonomy	0.748			
Firm Performance	0.380	0.732		

Government's Role	0.344	0.629	**0.713**
Innovativeness	0.461	0.561	0.511	**0.730**

Diagonals (in bold) represent the average variance extracted while the other entries represent the squared correlations

3.5. Reliability Analysis

The composite reliability values also ranged from 0.773 to 0.878 (see Table 2). Interpreted exactly like a Cronbach's Alpha in order to determine the internal consistency reliability estimate, a composite reliability of 0.70 or greater is considered acceptable (Fornell & Larcker, 1981). As such, researchers can conclude that the measurements are reliable.

3.6. Hypotheses Testing

The validity of the hypotheses postulated, as well as the structural model, had been determined by assessing the path coefficient between two and three latent variables. Based on studies that had been conducted previously, the value of the path coefficients should be about 0.1 in order to explain a specific effect in the model (Hair et al., 2011; Wetzels et al., 2009). When the path coefficient was assessed in Table 4, it had been found that all of hypotheses are supported, with the exception of Hypothesis$_{1a}$. Based on the analysis, the supported hypotheses had projected significant levels at about 0.05, containing expected sign directions (for instance, positive) and path coefficient beta value (β) that ranged between -0.122 and 0.288.

Table 4: Path Coefficients, T-value, and Significant Level for All Hypothesized Paths

Hypothesis	Relationship	Coefficient	T-value	Significance Level	Results
H$_{1a}$	Autonomy -> Firm Performance	0.094	1.881*	0.05	Supported
H$_{1b}$	Innovativeness -> Firm Performance	0.288	4.713**	0.01	Supported
H$_{2a}$	Autonomy * Government's Role -> Firm Performance	-0.122	1.840*	0.05	Supported
H$_{2b}$	Innovativeness * Government's Role -> Firm Performance	0.030	0.075	Insignificant	Not Supported

$**p < 0.01, *p < 0.05$

As indicated by Table 4 and Figure 2, researchers managed to identify a significant relationship between all measurements of the firm's performance (sales growth) and the independent variable - SMEs autonomy ($\beta = 0.094$, $t = 1.881$, $p < 0.05$). In view of this, it may be imperative to infer that Hypothesis$_{1a}$ does have its support. Hence, the performance of firms in small and medium-sized manufacturing in Sabah, was affected by this independent variable. The outcome in Table 4 and Figure 2 showed a significant relationship between the firm's performances and innovation amongst small as well as medium-sized manufacturing firms in Sabah. There is support for Hypothesis$_{1b}$ ($\beta = 0.288$, $t = 4.713$, $p < 0.01$). In view of this, it may be inferred that each firm manages to divert the innovation practices to standards of performance for small as well as medium-sized manufacturing firms in Sabah.

As illustrated in Table 4 and Figure 3, researchers clarified that the government's role factor did play a considerable moderating posit in creating the relationship between autonomy and performance of the firm. Hypothesis$_{2a}$ ($\beta = -0.122$, $t = 1.840$, $p < 0.05$) does have support. That is significant for Hypothesis$_{2a}$, whereby the relationship between autonomy and firm performance was found to be influenced by the government's role factor within small as well as medium-sized manufacturing firms in Sabah. To be concluded, Hypothesis$_{2a}$ is supported.

The results obtained from the research indicated that the government's role factor, nonetheless, did not play a considerable moderating role in the performance of the firm. Conversely, there is not support gained by the Hypothesis$_{2b}$ ($\beta = 0.030$, $t = 0.075$, insignificant). Similarly, government's role might not be moderated positively by the relationship between EO dimension (i.e. innovativeness), and performance of the firm within the small as well as medium-sized manufacturing firms in Sabah.
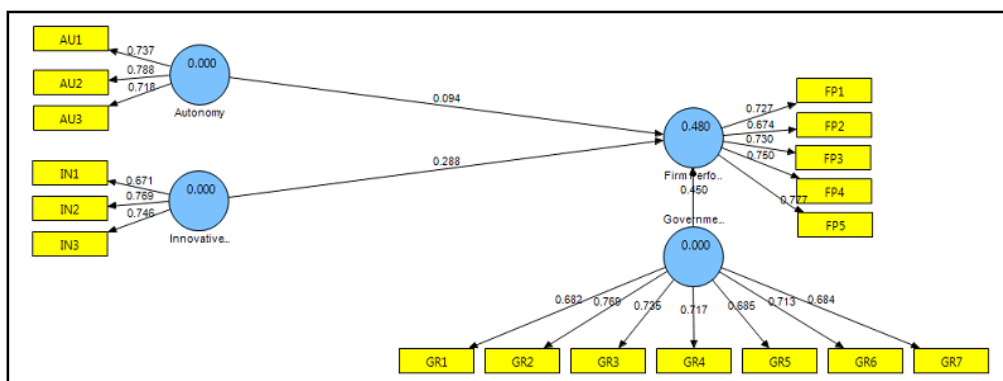

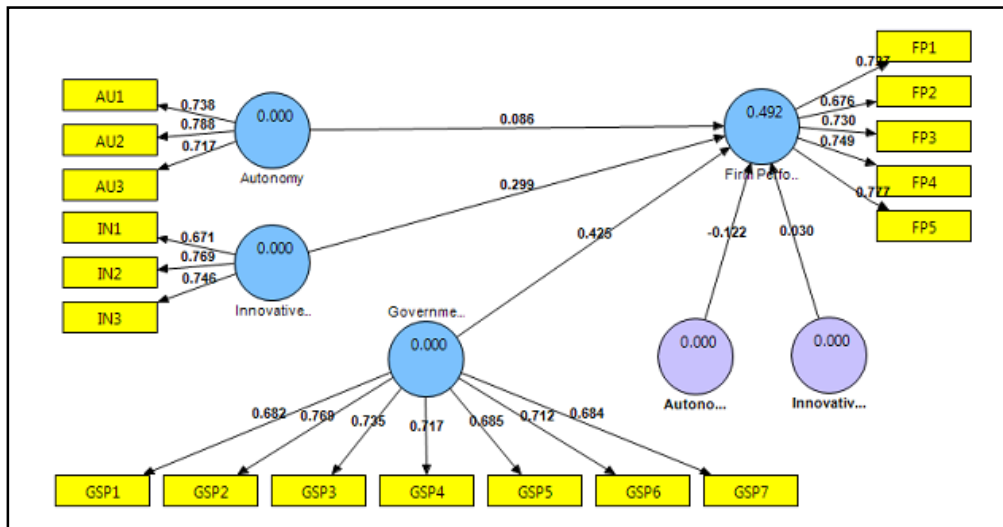Figure 2: Results of the Path Analysis (Before the Existence of Moderator)

Figure 3: Results of the Path Analysis (After the Existence of Moderator)

4. DISCUSSION AND CONCLUSION

The PLS-SEM analysis proved that the autonomy and innovativeness of SMEs displayed a considerable correlation with the performance of firms. This could be attributed to the notion that a large number of firms took part in this study consisted of micro and small firms, thus such organizations are managed in autocratic style for survival reasons (Coulthard, 2007). Throughout this view, it can be concluded that small as well as medium-sized manufacturing firms' performance is largely influenced by the EO, thus the adoption of such elements in the process of strategic planning would enhance growth and firm survival.

Autonomy refers to the ability of decision making and to proceed with actions independently, without any restriction from the organization (Lumpkin & Dess, 1996; Memili, Lumpkin & Dess, 2010). It also reflects the strong desire of a person to have freedom in the development of an idea and in its implementation (Li, Huang & Tsai, 2009). Previous research suggested that autonomy played a significant role for firms in achieving competitive advantage (Coulthard, 2007). Scholars (Lumpkin & Dess, 1996; Memili, Lumpkin & Dess, 2010) argued that to be successful, a firm requires autonomy from strong leadership or creative individuals, without any restriction from the firm's bureaucracy. It had been revealed that, the government had formulated policies which aimed to the developing small as well as medium-sized manufacturing firms in Sabah through provision of government's role. The finding is concurrent with the research conducted by Dahi (2012).

Based on the test results, was all had confirmed and can be concluded that government's role factor did not moderate the effect of the dimension of innovativeness on the performance of a firm. This has

proven that government's role cannot be viewed as a moderating variable due to their zero effect on innovativeness.

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