

The contingent impact of inter-organization communication on the relationships between market and entrepreneurial orientations and manufacturing SME performance in Malaysia

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Abstract: In any economy worldwide, small and medium enterprises (SMEs) play a major part in helping a country to provide more job opportunities and to develop its economic potential (SME Info., 2010). In Malaysia, in spite of its booming economy regionally (Sambasivan et al., 2009), manufacturing SMEs are still unable to sustain for the long run. Thus, this paper intends to study how the entrepreneurial orientation (EO) and market orientation (MO) affect SMEs in the sector of manufacturing as well as to examine the influence of inter-organization communication in these relationships. In doing this, the researcher has employed a resource-based view theory in which a research model is created and used to evaluate manufacturing SMEs in the fast-developing Malaysia. All data were collected from a total of 117 Malaysian manufacturing SMEs, and the results indicate significant positive effects between entrepreneurial and marketing orientations and non-financial performance although there was no impact found on financial performance. Moreover, inter-organization communication has insignificant contingent effect on the relationships between entrepreneurial and market orientations and business performance in terms of financial and non-financial performance satisfaction.

Key words: Entrepreneurial orientation; Market orientation; Inbound communication; Supplier connection; Inter-organization communication; Business performance; Small and medium enterprises; Business success; Malaysia

1. Introduction

SMEs in Malaysia have a significant position in the country's economic growth (SME Info., 2010). As in most economies worldwide, including Malaysia, SMEs contribute greatly to lowering the rates of unemployment (SME Info., 2010). However, the SME situation in this country is less than ideal because it has been found that 13 percent of businesses started in 2000 were no longer operating within a mere five years (Abdullah et al., 2009). In fact, the success rate of Malaysian SMEs is pegged at only 40% (MDTCA, 2006). In a report by SME Corp. (2012b), a large proportion of all the manufacturing SMEs in existence in the year 2000, i.e. 42 percent, were shut down by 2005. What this implies is that numerous SMEs lack the edge to run long term alongside other competitive businesses (Khalique et al., 2011). This is a crucial problem which needs a practical solution.

Researchers do not always concur when it comes to the factors that contribute to the success of SMEs (Duchesneau & Gartner, 1990). Nonetheless, entrepreneurial and market orientations are regarded as important aspects to SME success as they prevent failure and, essentially, provide survival since EO and MO have been found by several studies to have positive impacts on business performance. EO encompasses the methods, practices and decision-making styles that a manager adopts to act

entrepreneurially. It is usually considered as a type of strategic orientation that a business uses to compete with others. There are three main elements in the entrepreneurial orientation, i.e. innovativeness, pro-activeness and risk-taking (Covin & Slevin, 1989).

MO or market orientation revolves around effectively creating vital behaviors in order to provide buyers with superior value, and consequently, this produces continuous superior performance for SMEs (Narver & Slater, 1990). Similarly to the EO, market orientation also comprises three elements: customer orientation, competitor orientation and inter-functional coordination. One dependent variable, which is firm performance, has typically been utilized in various studies to examine the effects of EO and MO. However, the results have been inconsistent in which EO and MO have either positive, negative or no impact on business performance (Matsuno et al., 2002; Slater & Narver, 2000). Hence, it has been shown by Baron and Kenny (1986) that when the inconsistency is the characteristic in a relationship between both dependent and independent variables, it is crucial to employ a moderation role that could cause that relationship to improve or deteriorate.

In a report recently produced by the National SME Development Council in Malaysia ("Summary SME Masterplan 2012 – 2020"), several causes that could increase the performances of Malaysian SMEs were outlined. Although one of the main factors

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presented was technology adoption (SME Corp., 2012), most research in technology adoption was carried out in advanced countries rather than developing countries, like Malaysia (Saffu et al., 2012). However, even if SMEs lack resources, utilization of technology in their business operations is not a matter to be taken lightly. Thus, this paper aims to produce a concept of contingency effect on EO-MO-business performance relationships.

2. Theoretical framework

Since most past studies which explored the impact of technology adoption were focused mainly on large-scale businesses in advanced countries, it is, therefore, now vital to bridge this gap in literature by investigating the effect of technology utilization on the performance of SMEs (Saffu et al., 2012). This means the lack of research in the relevance of technology utilization for SMEs in developing countries, such as Malaysia, has necessitated this study. In this paper, a resource-based view theory was used to formulate the contingent role of inter-organization communication as a moderator in the relationships between EO, MO and the performance of SMEs. Empirical results from studies investigating the impact of entrepreneurial and market orientations lack consistency, and because of that, this paper proposes that inter-organization communication is the variable that moderates the strength of the relationships between EO and MO and business performance in the Malaysian context. In addition, this is in line with other studies which have tested other factors that affect the relationship between EO and business performance (e.g., Covin et al., 2006).

This paper uses Miller's (1883) concept of entrepreneurial venture that "engages in product market innovation, undertakes somewhat risky ventures, and is first to come up with 'proactive' innovations, beating competitors to the punch" (p. 771). Market orientation, on the other hand, is the culture of the organization in which behaviors for the creation of superior value for buyers is nurtured in order to provide superior performance for the business (Narver & Slater, 1990). The success of SMEs is dependent on its financial and non-financial performance (Kanaan Jebna & Suhaimi, 2013).

Wu et al. (2003) have defined inter-organization communication (inbound communication) as the level of e-business tools availability to share information with suppliers regarding new good productions and other developments inside the business, specific online information about requirements suppliers must fulfill, and inventory and product planning.

According to Ahmad et al. (2011), the indicators of a successful SME company lie in the following aspects: its market share, the rate of its return on investment, turnover of sales, the level of sales growth and customer satisfaction and retention, the owner's sense of self-satisfaction, the company's reputation in terms of a good working environment

and employee satisfaction. All these indicate the degree of an SME's financial and non-financial performance.

3. Moderating effect of inter-organizational communication

The variable with a value which affects the relationship between two factors is known as a contingent variable. Researchers use these moderating variables to test the extent of how well a field is being studied. The influence of EO on business performance with a contingent factor has been proposed as a study by Hafeez et al. (2011). Academicians view the effect of information technology in business performance as a significant point of study. The use of technology, to a lesser or greater extent, is inseparable from the success of an organization. This study suggests that a company's inter-organizational communication could strengthen the relationships between entrepreneurial and market orientations and business performance. In other words, an SME company with a higher level of EO and MO is more likely to achieve success if the aforementioned company employs the use of technology, such as inter-organizational communication.

Inter-organization communication (also known as inbound communication) helps a company to share information with supplier. Connections with suppliers could build to share different information regarding the business such as a list of all items remaining in the stock (inventory information) and product planning, in favor of gaining a greater degree of productive relationship (Kalakota & Robinson, 2003; Wu et al., 2003; Zhu, 2004).

Suppliers are as important as customers are. Actually, suppliers are considered as partners of any business. Suppliers share their businesses the same goal that is to satisfy customers. In other words, when suppliers have knowledge about customer orders, they will try their best to satisfy the businesses' customers, which will benefit them in return to sell more products and raw materials. In addition, suppliers are the main contributor to newly product developed through businesses since they try to have their cutting-edge of innovation in their products (Reiss, 2010). This means building connections with suppliers lead businesses to be more entrepreneurial oriented as suppliers also develop their products in terms of innovation. As a result, inbound communication should strengthen the relationship between entrepreneurial orientation and business performance in SMEs. Fig. 1 shows the proposed research model.

4. Hypotheses

In a research by Baker and Sinkula (2009), it has been found that EO contributes positively to a firm's performance ($r = .61, p < .001$). Likewise, a study done by Hakala and Kohtamäki (2010) on software

industry has yielded the result of the positive outcome of entrepreneurial orientation on company

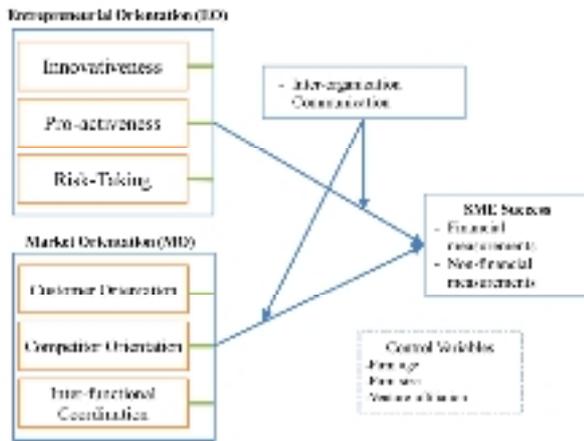


Fig. 1: Proposed Research Model

Performance ($\beta = .24, p < .05$). Additionally, in a separate study by Hafeez et al. (2011), EO has again been proven to be a positive influence on firm performance ($\beta = .242, \text{Sig} = .004$); the data were collected from 100 students of different universities.

H1 (a). A greater entrepreneurial orientation leads to a greater financial business performance.

H1 (b). Similarly, a greater entrepreneurial orientation is, the greater the level of non-financial business performance is.

In recent years, there has been evidence in literature pointing towards the positive effect of MO on business performance (e.g., Li et al., 2008; Slater & Narver, 2000; Voola et al., 2012). When respondents were asked to consider return on net assets, return on assets and return on investment as equivalent in a study done by Narver and Slater (1990), it has been found that market orientation has a positive influence on the profitability of businesses. In yet another research by the same scholars (Slater & Narver, 1994), 117 strategic business units (SBUs) – of which 36 are manufacturing companies from various industries and 81 are forest product companies – were analyzed. All these companies are Fortune 500's largest industrial firms. This study also showed that a positive correlation exists between MO and business performance (i.e., return on asset) ($\beta = .63, p = .01$), in particular how market orientation positively affects the growth of sales ($\beta = .52, p = .01$) and the success of new products ($\beta = .91, p = .001$). Therefore, we are hypothesizing that:

H2 (a). A greater market orientation leads to a greater financial business performance.

H2 (b). Similarly, the market orientation is directly proportional to the non-financial business performance.

5. Moderator effect

Several studies have indicated that EO either provides negative impact or has no effect on business performance. For example, in a study done

by Matsuno et al. (2002), EO showed no substantial influence on market share and percentage of new product sales to total sales, but it had a direct negative impact on the return on investment (ROI) in which ($\beta = -.277, p \leq .05$). Furthermore, in two separate studies by Moreno and Casillas (2008) and Hermann et al. (2010) respectively, EO was found to have no effect on business performance. The study by Hermann et al. (2010) involved 266 Austrian firms, and their findings reveal that although there is a negative link between EO and business performance, it is not a significant relationship. When the relationship between the independent and dependent variables is lacking in consistency, an investigation of a moderation role that could reinforce or diminish the relationship needs to be done (Baron & Kenny, 1986).

H3 (a). Inter-organizational communication increases the effect of entrepreneurial orientation on financial business performance.

H3 (b). Inter-organizational communication increases the effect of entrepreneurial orientation on non-financial business performance.

In two separate studies done by Sandvik and Sandvik (2003) and Bhuian (1997), the relationship between MO and various business performance elements is non-existent. In a study done on the Norwegian hotel industry, Sandvik and Sandvik (2003) found that MO has no relationship with relative price premium, profitability and sales growth. In the same manner, Bhuian's (1997) study on 92 banks in Saudi Arabia has revealed that there is no relationship between MO and return on assets (ROA), sales-per-employee and return on equity (ROE).

However, several studies have verified a positive relationship between market orientation and business performance while some studies have observed a moderating role on this relationship (Ben Brik et al., 2011). As a result, the following hypothesis is derived.

H3 (c). Inter-organizational communication strengthens the effect of market orientation on financial business performance.

H3 (d). Inter-organizational communication strengthens the effect of market orientation on non-financial performance.

6. Methodology

6.1. Data collection

Over 7000 emails were sent out to SMEs in the manufacturing sector in Peninsular Malaysia, 747 responses were received, of which many were incomplete or contain high missing values. Therefore, the final count of answered email-questionnaires which were usable is 117.

With Malaysian SMEs as a target of this study, the low response rate is not unusual. For example, the response rate for a study done by Hilmi et al. (2011) is only 4.1%. However, in order to perform PLS-SEM, the criterion for the minimum sample size should be

equal or more than the highest number of arrows directed from one latent construct to another latent construct in the model multiplied by ten (Hair et al., 2013). In this particular study, the larger number of arrows is eight; therefore, $8 \times 10 = 80$, which fulfils the minimum sample size required for PLS-SEM. Thus, employing 117 responses is adequate for this research.

6.2. Study measures

SME success comprises two dimensions as adapted from Ahmad et al. (2011), i.e. financial performance satisfaction and non-financial performance satisfaction. There are 15 items involved in the scale: 6 for financial and 9 for non-financial. EO items have adapted from Hughes and Morgan (2007), and this scale consists of 11 items. MO scale was adapted from Coley et al. (2010). One of the most widely used scales for the measurement of market orientation is Narver and Slater (1990), which is marked as one of the most implemented scale (Gauzente, 1999). The scale comprises 11 items. Inter-organizational communication is adapted from Wu et al. (2003). The scale consists of 4 items. The following are treated as control variables: firm age, firm size and firm affiliation (Wiklund & Shepherd, 2005).

7. Analysis and results

In this study, Partial Least Square (PLS) Structural Equation Modelling (SEM) was employed to explore the research model utilizing SmartPLS (Ringle et al., 2005). In addition, to find any items with low loading, item reliability was conducted. Low loading items should be excluded according to Chu et al. (2004), and item loading value should exceed 0.5 (Hasan & Ali, 2007).

The entirety of the items were found to have significant main loading 0.6 (Nunnally, 1978). Furthermore, in order to evaluate the convergent validity of the model, average variance extracted (AVE) and composite reliability (CR) were gauged. In Table 1, the main loadings of all variables are greater than 0.5, and every AVE value was more than 0.5 along with CR values greater than 0.6 (Bagozzi & Yi, 1988). However, one item from non-financial performance was deleted as it has shown a cross-loading with financial performance.

Sekaran and Bougie (2010) identified discriminant validity as two or more concepts that are distinct and not correlated to each other. One method to ascertain the discriminant validity of such a construct is Fornell-Larcker. The correlation values of the other constructs should be lower than the squared root of AVE of such a construct. In Table 2, the squared root of a construct is higher than the correlation values of the rest of the constructs, and therefore, it means Fornell-Larcker is fulfilled and discriminant validity is met for the proposed model.

Table 1: Construct validity and reliability

No	Construct	Type	Number of item	Deleted items	Factor Loading	CR	AVE
Entrepreneurial Orientation							
1	Pro-activeness	Reflective	3	None	0.882 0.938 0.919	0.938	0.834
2	Innovativeness	Reflective	4	None	0.929 0.960 0.937 0.913	0.965	0.874
3	Risk taking	Reflective	4	None	0.884 0.942 0.932 0.908	0.955	0.841
Market Orientation							
4	Customer orientation	Reflective	4	None	0.935 0.968 0.920 0.833	0.954	0.838
5	Competitor orientation	Reflective	3	None	0.937 0.843 0.936	0.932	0.822
6	Inter-functional coordination	Reflective	3	None	0.877 0.953 0.934	0.944	0.849
Technology Adoption							
7	Inter-organizational communication	Reflective	6	None	0.865 0.835 0.859 0.800 0.783 0.631	0.913	0.639
Business Performance							
8	Non-financial	Reflective	9	1	0.722	0.937	0.650

	performance				0.784 0.803 0.860 0.841 0.832 0.852 0.744		
9	Financial performance	Reflective	5	None	0.910 0.895 0.891 0.859 0.873	0.948	0.784

7.1. Reliability analysis

Composite reliability was examined so as to assess the consistency of the measurement items. Between composite reliability and Cronbach’s alpha – composite reliability test prioritizes indicators according to their reliability during model

Table 1, all composite reliability values in this research satisfy the cut-off values. Consequently, the measurement items are reliable.

estimation, the former is preferred over the latter (Hair et al., 2012). According to Hair et al. (2011), the value of composite reliability should be greater than 0.7. As shown in

7.2. Assessment of entrepreneurial orientation and market orientation as second order

Table 2: Discriminant validity of construct - Fornell-Larcker criterion

	CP	CS	FP	IOC	IFC	IN	NFP	PR	RT
CP	0.906								
CS	0.731	0.915							
FP	0.090	0.140	0.886						
IOC	0.422	0.435	0.113	0.799					
IFC	0.768	0.624	0.137	0.456	0.922				
IN	0.696	0.692	0.050	0.458	0.660	0.935			
NFP	0.316	0.371	0.575	0.300	0.377	0.362	0.806		
PR	0.606	0.594	0.100	0.493	0.576	0.817	0.329	0.913	
RT	0.533	0.690	0.062	0.297	0.603	0.617	0.338	0.553	0.917

Note: Diagonals (in bold) represent the squared root of average variance extracted (AVE) while the other entries represent the correlations.

FP=financial performance, IN=innovativeness, PR=pro-activeness, RT=risk-taking, NFP=non-financial performance, IOC=inter-organization communication, CP=competitor orientation, CS=customer orientation, IFC=inter-functional coordination

Entrepreneurial orientation and market orientation have three reflective constructs each, i.e. EO: pro-activeness, innovativeness and risk taking whereas MO: customer orientation, competitor orientation and inter-functional coordination. Both EO and MO have been constructed as second order latent variables. Numerous researchers, for example, Miller (1983), have come to an agreement these three concepts, i.e. pro-activeness, innovativeness and risk-taking, are part of entrepreneurial orientation.

Likewise, the fact that market orientation comprises three constructs: customer orientation, competitor orientation and inter-functional coordination has been stated by Narver and Slater

(1990). Battisti et al. (2014) prompted the second order by repeated indicator model while first order factors (which are pro-activeness, innovativeness and risk-taking) were modelled under entrepreneurial orientation as a reflective second order factor. In the same manner, a reflective latent variable known as market orientation which consists of customer orientation, competitor orientation and inter-functional coordination. According to Wetzels et al. (2009), first order indicators are used to assess second order factors. **Error! Reference source not found.** illustrates the reliability and validity of the second order constructs.

Table 3: Summary of construct validity and reliability with entrepreneurial orientation as a second order constructs

No	Construct	Type	Number of items	Deleted items	Factor loading	CR	AVE
1	Entrepreneurial orientation	Reflective	11	None	0.891 0.887 0.856 0.853 0.781	0.955	0.662

					0.845 0.794 0.688 0.780 0.796 0.754		
2	Market orientation	Reflective	10	None	0.808 0.828 0.832 0.825 0.865 0.733 0.889 0.736 0.837 0.816	0.953	0.669
5	Inter-organization communication	Reflective	6	None	0.864 0.835 0.859 0.800 0.783 0.632	0.913	0.639
6	Non-financial performance	Reflective	8	None	0.713 0.779 0.799 0.860 0.841 0.838 0.856 0.748	0.937	0.650
7	Financial performance	Reflective	5	None	0.908 0.887 0.886 0.842 0.894	0.947	0.781

Convergent validity, reliability and discriminant validity were examined again with the second order factors (i.e., entrepreneurial orientation and market orientation). **Error! Reference source not found.** demonstrated reliability and convergent validity where all AVE values exceed 0.5 and CR values are larger than 0.7. Table 5: Summary of path coefficient and hypotheses testing for direct effect

Hypothesis	Path	Path Coefficient	Supported
H1(a)	EO -> FP	0.294	No
H1(b)	EO -> NFP	1.304*	Yes
H2(a)	MO->FP	1.172	No
H2(b)	MO->NFP	1.667**	Yes

***significant at p<0.01, ** significant at p<0.05, * significant at p<0.1, bootstrapping (n=500)
EO = entrepreneurial orientation, FP = financial performance, NFP = non-financial performance

Table 6 showed that Fornell-Larcker criterion satisfies discriminant validity where the square root of AVE is greater than any other variable's correlation value. As a result, this reflects the goodness of measure for the constructs. Figure 2 depicts the final model including the second order factors (i.e., entrepreneurial orientation and market orientation).

In this study, three control variables are taken into consideration to control heterogeneity SMEs in the manufacturing sector. First, the size of the

company (number of full-time employees) was assessed on whether it has any major influence on financial and non-financial performance. With bootstrapping 500 samples was done using the SmartPLS software, and the results reveal that business performance is not significantly affected by the number of full-time employees where T-values were 0.826 for financial performance and 0.256 for non-financial performance (refer to Table 4). Consequently, in this research, company size is immaterial to business performance. In the same manner, the company age, or the number of years of operation was considered to see if it affects financial and non-financial business performance. The T-values, as shown in Table 4, were 0.007 and 0.800; hence, it can be deduced that the company age has no significant effect on both financial and non-financial performance. Also in Table 4, for firm affiliation and financial and non-financial performance relationships have the correspondent T-values 0.533 and 1.054, which indicate that a company's affiliation variable has insignificant impact on business performance.

Hypotheses which are formulated in the research model are the relationships between factors, and these are tested through a structural model (Duarte & Raposo, 2010). With the aim of investigating the statistical significance of the path coefficients, path estimates are determined before bootstrapping is

carried out. According to Sharma and Kim (2013), bootstrapping is considered as a non-parametric test so as to produce statistical inference. In this study, the researcher used bootstrapping with 500 re-sampling to compute the regression coefficient so that any significance in the relationships of the model can be examined. The recommendation by Chin (1998) to estimate a parameter is to conduct bootstrapping with 500 resampling.

Table 4: Results of the control variables

Control Variable	Endogenous Variable1 (FP)		Endogenous Variable2 (NFP)	
	Coefficient	T-value	Coefficient	T-value
Size	0.151	0.955	-0.002	0.012
Age	-0.102	0.638	-0.068	0.366
Affiliation	0.058	0.543	-0.109	0.925

*** significant at p<0.01, ** significant at p<0.05, * significant at p<0.1, bootstrapping (n=500)

Table 5: Summary of path coefficient and hypotheses testing for direct effect

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H2(a)	MO->FP	1.172	No
H2(b)	MO->NFP	1.667**	Yes

***significant at p<0.01, ** significant at p<0.05, * significant at p<0.1, bootstrapping (n=500)
EO = entrepreneurial orientation, FP = financial

Table 7, the results of testing the moderating variable (i.e. inter-organizational communication or IOC) are presented. H2(a), which predicts that inter-organization communication intensifies the effect of entrepreneurial orientation on financial business performance, is unsupported because the t-value is lower than the cut-off value of 1.282 with the significance level of 90%. In the same vein, H2 (b), which states that inter-organization communication enhances the effect of EO on non-financial business performance, is also not supported. In addition, H3(c), predicting that inter-organization communication (IOC) strengthens the effect of entrepreneurial orientation on financial performance, as well as H3(d), stating that IOC strengthens the relationship between market orientation and non-financial performance, are both not supported. Hence, it can be concluded that the four hypotheses, i.e. H3 (a), H3 (b), H3(c) and H3 (d), are not supported.

In conclusion, both direct hypotheses H1 (a) and H1 (b) are not consistent in their results with H1 (a) supported and H1 (b) not supported. This suggests that the stronger entrepreneurial orientation contributes to a greater non-financial business performance. However, that is not the case with financial performance. H2 (a) and H2 (b) also produce varying results. This indicates that market orientation has significant positive effect on non-financial performance compared to its financial performance. With regards to inter-organization communication, that is the moderator variable, all

performance, NFP = non-financial performance

Table 6: Discriminant validity

	EO	FP	IOC	MO	NFP
EO	0.813				
FP	0.088	0.884			
IOC	0.467	0.118	0.799		
MO	0.800	0.143	0.488	0.818	
NFP	0.388	0.580	0.302	0.391	0.806

Note: bold values (diagonals) represent the squared root of AVE while the other values are the correlations
EO=Entrepreneurial orientation, MO=market orientation, IOC=inter-organization communication, FP=financial performance, NFP=non-financial performance

Table 5 illustrates the results of the relationships between EO and financial and non-financial business performance. H1 (a) is not supported as there is a relationship between entrepreneurial orientation and financial business performance. On the contrary, H1 (b), which predicted that there is a positive relationship between EO and non-financial business performance, is supported with T-value=1.304 and =0.206. Likewise, financial performance is not significantly affected by market orientation although there is significant positive effect from market orientation on non-financial business performance (B=0.225, T=1.667). Therefore, H2 (a) is unsupported whereas H2 (b) is supported.

A moderator in this study is represented by inter-organization communication. In the moderating hypotheses (i.e. H3 (a), H3 (b), H3(c) and H3(d)) are unsupported in this study. What this means is the relationships between entrepreneurial orientation and market orientation and business performance (both financial and non-financial) are not affected contingently by inter-organization communication.

8. Discussion

The contribution of small and medium enterprises (SMEs) towards employment and growth cements its position as the backbone of any economy (SME Info., 2010). Numerous studies in the field (e.g., Abdullah et al., 2009; Christie & Sjoquist, 2012; Lasch et al., 2007; Song et al., 2010) have proven that in various countries, such as the United States of America, France, China and Malaysia, the rate of survival and success of new businesses remains low. Yet, reliable figure is not available although the expected failure rate of SMEs is placed even higher at approximately 60% (Ahmad & Seet, 2009; MDTCA, 2006). Even though there is no completely undisputed opinions on the ultimate factors of SME success (Duchesneau & Gartner, 1990), entrepreneurial orientation have been documented as one of the vital elements.

However, as some studies have presented a positive effect on business performance while others have shown either negative or no impact on the aforementioned performance, the empirical results of entrepreneurial orientation and market orientation remain inconsistent. The hypothesis of

this study is that by utilizing a moderator variable, i.e. inter-organization communication, the positive relationships between entrepreneurial orientation and market orientation and SME success (business performance) can be improved. To the researcher's best knowledge, a gap exists in the literature where the role of inter-organization communication is utilized as a contingent factor on the relationships between entrepreneurial orientation and market orientation and SME success.

This study brought to light the findings that entrepreneurial orientation and market orientation significantly and positively influence business performance from the aspect of non-financial performance satisfaction while presenting no significant impact on financial performance satisfaction. Furthermore, inter-organization communication does not cause any significant changes to the relationships between entrepreneurial orientation and market orientation and both financial and non-financial business performance. As a result, inter-organization communication does not play a role of as a contingent factor on the relationships between entrepreneurial orientation and market orientation and business performance.

It might come as an unexpected revelation when H1(a) is not supported when it was proposed that entrepreneurial orientation has a positive effect on financial performance. This finding matches Slater and Narver (2000) when it was found that no relationship exists between entrepreneurial orientation and business performance. This is also reflected in another study by Matsuno et al. (2002) where entrepreneurial orientation has no impact on market share (financial indicator). In spite of these findings, one conceivable explanation is that the effect of EO on financial performance needs time. If this scenario proves to be true, a cross-sectional research like this study is not able to observe the effect of EO on the financial performance.

For Malaysian SMEs, this study has found out that market orientation has no effect on financial performance satisfaction from the perspective of market orientation and business performance relationship H2 (a). However, this outcome is not entirely singular because various studies (e.g., Keskin, 2006; Sandvik & Sandvik, 2003) have also concluded that there is no correlation between market orientation and different financial business performance elements. Likewise, a study by Demirbag et al. (2006) observed that there is no noticeable effect between MO and business performance. Thus, H2 (a) is not supported.

On the contrary, H1 (b) and H2 (b) are supported. This means non-financial performance is significantly and positively affected by entrepreneurial and market orientations, which a noteworthy outcome because EO and MO only seem to have shown an impact only on non-financial performance, but not on financial performance. The possible rationalization is that the relationships between EO and MO and financial performance are

indirect, so that there could be a need to a mediating variable. A sensible approach here is to use non-financial performance as the role of mediation. As a rule, although non-financial performance could be an important indicator for future financial performance, business directors might view non-financial performance as having little value (Prieto & Revilla, 2006). Employing the example of customer satisfaction as a non-financial performance indicator, a satisfied customer could later make large purchases of different products offered by companies with which he or she is satisfied (Prieto & Revilla, 2006). Furthermore, according to Cohen (1988), the significant relationship would be rendered inconsequential if R^2 value, which is 0.040, indicates a weak effect of the independent variables of innovativeness, pro-activeness and risk-taking as a second order variable of entrepreneurial orientation and customer orientation, competitor orientation, and inter-functional coordination as a second latent variable of market orientation. Therefore, the earlier argument of utilizing a mediating variable between EO and MO and financial performance could be supported.

In this study, a resource-based theory is applied with the purpose of discovering the effect between entrepreneurial orientation and market orientation and business performance with the application of inter-organization communication as a moderator. We have found that inter-organization communication with entrepreneurial orientation has no more than a zero role together toward a stronger impact on business performance, and the moderator does not have a strong effect on the link between EO and business success. This means being the supporter of business entrepreneurial and inter-organization communication is insufficient to enhance business performance, and the same principle applies to the situation with market orientation.

There are two assumptions made by Barney (1991) for RBV: (1) resources are distributed in a heterogeneous manner among firms; and (2) the aforementioned resources are immobile. In the view of some researchers, IT capabilities are inadequate in forming a competitive advantage that is sustainable because they are easily imitated and duplicated (Tippins & Sohi, 2003). Nevertheless, there are also other researchers who maintained that IT related resources are valuable in terms of creating a potential

source of competitive advantage (Bharadwaj, 2000).

The value of information technology should not be underestimated, and it is not possible to view IT as a competitive disadvantage (Porter & Millar, 1985). As a matter of fact, according to Forbes, 21 top companies utilize IT as a form of competitive advantage (Columbus, 2013). However, the relationships between entrepreneurial orientation and market orientation and business performance are not affected by the moderating effect of inter-organizational communication.

As SMEs, more often than not, have very limited sources in comparison to large enterprises, this could be the justification for the abovementioned scenario. This study collected data from informants which show that a large proportion (89.7%) of the SMEs is autonomous, i.e. non-affiliated, organizations. What this means is that because an SME is autonomous, it is unable to obtain as many resources as an affiliated firm. Additionally, as 53% of the respondents operate with a full-time staff of

only 16 employees, this indicates that the sample of this study involves many micro businesses, which would then explain their lack in resources based on their liability of smallness (Roepga, 2011).

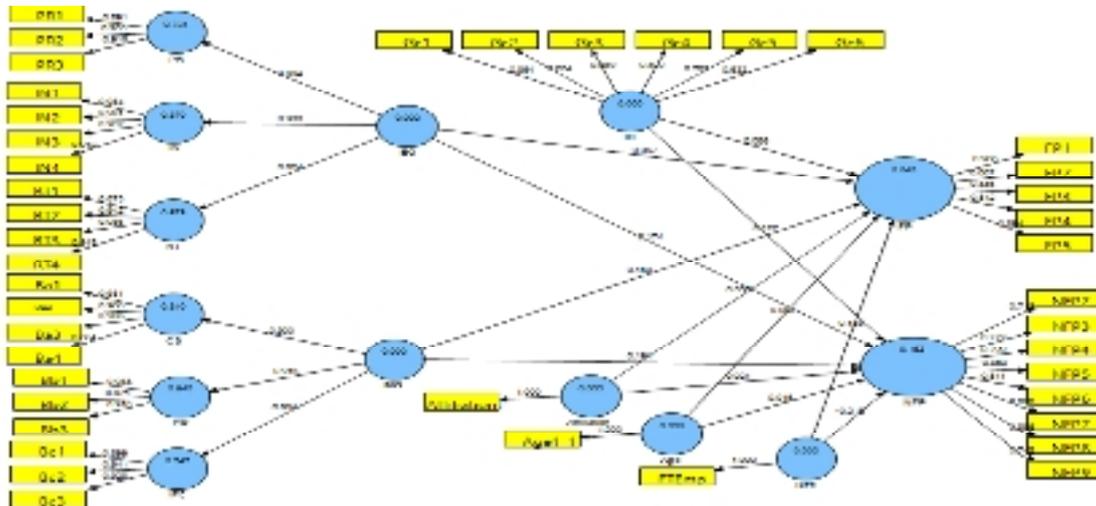


Fig. 2: Final model

Therefore, this limitation on resources could influence the magnitude of EO employment in these companies. To sum up, in order to be innovative and pro-active as well as to make risky decisions, a company depends on the resources available to them in order to produce new products, consider risky decisions, and manufacture innovative goods.

In the same way, market orientation is the foundation of business-culture. For that reason, a substantial amount of time and money is needed for the enhancement of market orientation in terms of satisfying customer needs and wants and taking suitable reactions toward competitors (Slater & Narver, 1994). As stated before, SMEs considered as poor resources; therefore, SMEs might face difficulty to catch all customer needs and wants. In other words, SMEs might not be able to satisfy various customer needs. Therefore, this might require longer time to show its reflection and return on SME performance.

Half of the respondents have no knowledge in technology as 42.2 percent stated that they never attended any formal technology classes. In addition, around half of respondents have attended

technology workshops up to four only; where 29.9 had never attended any technology workshops either. According to Markovi (2008), recent studies in the U.S.A. have shown that business success is affected by the business owner education. This could show why inter-organization communication has shown no effect on the relationships between entrepreneurial orientation and market orientation and business performance as perceiving the technology itself is not enough if they do not have the knowledge how to take advantage of it.

9. Conclusion

The proposal that inter-organization communication has a moderating effect on the relationships between entrepreneurial and market orientations and business performance has been put forward by this study. Despite the fact that EO has been a prevalent subject of investigation in many advanced countries, the same has not been done in developing countries, such as Malaysia (Su et al., 2011; Zainol & Ayadurai, 2011).

Table 7: Moderating effect results

Hypothesis	Relationship	Standardized Coefficient ()	R ² in main effect model	R ² with interaction effect model	Effect size (f ²)	Supported
H3(a)	EO*IOC -> FP	-0.187	-	-	-	No
H3(b)	EO*IOC -> NFP	-0.032	-	-	-	No
H3(c)	MO*IOC -> FP	-0.049	-	-	-	No
H3(d)	MO*IOC -> NFP	-0.197	-	-	-	No

Note: EO=Entrepreneurial orientation, MO=market orientation, IOC=inter-organization communication, FP=financial performance, NFP=non-financial performance

Moreover, studies on the role of market orientation are mostly concentrated on large corporations in comparison to small and medium companies. The primary aim of this paper is the exploration of the lesser known area, i.e. the utilization of inter-organization communication in small and medium enterprises of less-developed nations, with emphasis on inter-organization communication as a moderating variable on the relationships between EO and MO and business performance in Malaysia.

In addition, past studies have largely used a single indicator to measure financial performance (Rauch et al., 2009; Wiklund & Shepherd, 2005), but the researchers in this study applied more complementary indicators to determine financial performance. Moreover, most investigations into the effect of entrepreneurial orientation focused solely on financial performance (e.g., Hameed & Ali, 2011; Sandvik & Sandvik, 2003). There was a study by Keh et al. (2007) which tested the effect of EO on financial and non-financial performance, but it was done on them as a combined single factor. In our study, the test was more specific by carrying it out on financial and non-financial performance separately.

The results of this research strengthen the case of entrepreneurial and market orientations as higher-order constructs in which innovativeness, proactiveness, and risk-taking and customer orientation, competitor orientation and inter-functional coordination are concerned. What this clearly indicates is the responsibility that managers should have in the abovementioned different areas so as to develop entrepreneurial and market oriented businesses. With that, the connections between entrepreneurial orientation and market orientation and non-financial business performance are confirmed. However, it is suggested that EO along with MO might have an indirect influence on financial performance. This presents the opportunity for future research to analyze the relationship between the same orientations and financial performance via the mediating role of non-financial performance.

In conclusion, the relationships between entrepreneurial orientation and market orientation and business performance are not affected by the moderating factor of inter-organizational communication. Albeit what is discussed in literature is inconsistent when it comes to the role of technology utilization as a resource for sustained competitive advantage, it remains certain that the adoption of technology has shaped our present society in the way we operate our businesses as technology has become a part of the products and services offered (Breznik, 2012). In spite of this, the relationships of EO and MO and business performance of SMEs remain unaffected by inter-organization communication.

10. Contribution and future research suggestion

This paper is singular in its nature because it is the first that looks into the complementary effect of EO and MO in Malaysia. Previously, there has only been one other study carried out by Idar and Mahmood (2011), but their work concentrated on the effect of EO on business performance while considering MO as a mediator.

Business performance is evaluated from the point of view of financial and non-financial achievement in this study. An important finding from this is entrepreneurial and market orientations have a significant impact on non-financial performance, but that is not the case with financial performance. Hence, the scope of future studies could include extending this model by using non-financial performance as a mediator between EO, MO and financial performance. This is a viable area of research because EO and MO have shown a significant effect on non-financial performance. Therefore, for a company, customer satisfaction should be priority as customers are more likely to make repeat purchases if they are happy with the service and products.

Ultimately, this paper has brought EO and MO research beyond the tradition of its field where the focus had always been on EO in Western or more advanced economies (Rauch et al., 2009; Su et al., 2011; Zainol & Ayadurai, 2011) and MO on large business organizations. A pioneer of its own, this study investigated the concept of EO and MO applied in SMEs of Malaysia, which is a developing nation.

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