

*Full Length Research Paper*

# Market orientation and new product performance: The mediating role of product advantage

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Accepted 5 May, 2010

**This study examines the relationship between market orientation and new product performance in Malaysian property industry. The study also investigates whether the mediating factor of product advantage strengthens the relationship between market orientation and new product performance. 88 new products from 22 property companies (14.87%) out of 148 companies in Sabah Malaysia participated in the study. The findings show that market orientation directly influenced new product performance in the property industry while the mediating factor of product advantage proves to strengthen the relationship between market orientation and new product performance. This study has highlighted practically the importance of market preferences in introducing a new project or product. To literature, the study has supported previous studies on new product performance especially in developing countries such as Malaysia. Managerial implications are also discussed.**

**Key words:** Market orientation, product advantage, new product performance, property industry.

## INTRODUCTION

It is known that new product success is a crucial business consideration for both small and large firms. In the last forty years, few studies have emphasized customer preferences. For example, Myers and Marquis (1969) found that new products are more successful if they are designed to satisfy perceived market/customer needs than if they are developed simply to take advantage of a new technology. After that, Rothwell et al. (1974) concluded that product success was primarily related to five factors: Understanding of user needs; attention to marketing and publicity; efficiency of development; effective use of outside technology and external scientific communication; and seniority and authority of the managers responsible for the development of the product. Other empirical evidence shows that market orientation has a positive relationship with new product success (Slater and Narver, 1994a; Pelham and Wilson, 1996; Baker and Sinkula, 1999). They also acknowledges that market-oriented-firms developed products with greater advantage over the competition because product advantage is the number-one factor affecting new product performance (Henard and Szymanski, 2001).

However, very few of studies recognize the notion that market orientation is a part of a firm's culture (Narver and Slater, 1990) and the process by which certain means are achieved (Kohli and Jaworski, 1990).

There are a number of remarkable studies that emphasized the market orientation and new product performance relationship (Slater and Narver, 1994a; Pelham and Wilson, 1996; Baker and Sinkula, 1999; Ramaseshan et al., 2002) which found a strong support for the basic proposition that market orientation influences the overall performance of new products. In Malaysia, other than studies done by Ng (2002) and Azaze-Azizi and Izyanti (2009), there is a lack of research on new product performance. This critical area has received less attention by academic researchers in Malaysia. This paper aims to investigate the relationship between market orientation and new product performance in the property industry. The role of product advantage as a mediating role on market orientation and new product performance relationship is also considered.

## LITERATURE REVIEW

### Market orientation

Market orientation is the implementation of the marketing

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concept which is offering products or services that based on customer needs and wants (Kohli and Jaworski, 1990). West and Ford (2006) noted that in the early 1990s, companies needed to pay equal attention to both customers and competitors, that is, to adopt market orientation. But how significant is the adoption of market orientation on a firm's performance? There are various empirical studies that discussed this issue. For example, Kohli and Jaworski (1990) found that market orientation provides a unifying focus for the effort and projects of individuals which would lead to superior performance.

A study by Narver and Slater (1990) suggested that market orientation has, in some cases, a substantial positive effect on profitability. Armstrong and Collopy (1996) claimed that the development of competitor-oriented objectives is detrimental to profitability and, therefore, firms should look beyond their competitors when setting objectives, and focus directly on profit maximization. Both studies strongly confirm that profit maximization is the ultimate objective of market orientation practice. Hult (1998) discussed on the five dominant market orientation paradigms.

### **Decision-making perspective**

Shapiro (1998) conceptualized the market orientation concept as a "decision-making process" where the focus is on the management of the firm to be strongly committed to share information interdepartmentally and practise open decision-making between functional and divisional personnel: It's far more than the cliché; getting close to the customer; the term market oriented" represents a set of processes touching all aspects of the company.

### **Market intelligence perspective**

Kohli and Jaworski (1990) focused on market intelligence (internal and external) in implementing the marketing concept: Market orientation is the organization-wide generation of market intelligence pertaining to current and future customer needs, dissemination of the intelligence across departments, and organization-wide responsiveness to it.

### **Behavioral perspective**

Narver and Slater (1990) argue that market orientation involved behavioral aspects such as customer orientation, competitor orientation, and inter-functional coordination in a firm's effort to implement the marketing concept: Market orientation is the organizational culture that most effectively and efficiently creates the necessary behaviors for the creation of superior value for buyers

and, thus, continues superior performance for the business.

### **Strategic perspective**

Rueke (1992) emphasized the development and execution of a business unit strategy as the main organizing activity of a market orientation (drawing from the works by Kohli and Jaworski, 1990; Narver and Slater, 1990). The level of market orientation in a business unit is the degree to which the business unit obtains and uses information from customers, develops a strategy which will meet customers' needs, and implements that strategy by being responsive to customer needs and wants.

### **From the customers' perspective**

Deshpande et al. (1993) went back to earlier works in marketing and suggested that market orientation is the same as customer orientation: Customer orientation is the set of beliefs that puts the customer's interest first, while not excluding those of all other stakeholders such as owners, managers, and employees, in order to develop a long-termed profitable enterprise.

Being market oriented is more than just being customer-led. It requires full support from the organization's top management to be implemented in the long term and, indeed, may need a complete change in an organization's culture. Market orientation refers to the organization-wide generation of market intelligence through decision support systems, marketing information systems, marketing research efforts, dissemination of the intelligence across company departments, and organization-wide responsiveness to the changes taking place in the environment (Kohli and Jaworski, 1990). There is a large body of literature dedicated to studying whether marketing orientation results in superior organizational performance. A study done by Azaze-Azizi and Lzyanti (2009) found that there was an impact of strategic orientation (customer, competitor, technology and interfunctional coordination) on new product development among Malaysian manufacturers.

Several studies have verified a strong link between marketing orientation and performance (Greenley 1995; Matsuno et al., 2002), while other studies did not support a direct positive relationship between performance and market orientation (Jaworski and Kohli, 1993; Han et al., 1998). Therefore in this study, the effect of market orientation and new product performance will be examined.

### **Market orientation and new product performance**

The role of market orientation as an antecedent of organization performance has been extensively investigated in various contexts (Langerak et al., 2004; Desphandé

and Farley, 2004; Voss and Voss, 2000). However, studies concerning the market orientation–new product performance relationship are less common; despite the strategic importance and the high failure rates of new product introduction (Langerak et al., 2004). In contrast, recent study by Hsieh et al. (2008) found that market orientation indeed moderate the relationship between product advantage and new product performance.

The performance of a new product can be defined as the success of the products or services in fulfilling customers' requirement which will contribute into high or low sales generation. Hence, it is widely accepted that the short term performance of a new product will be measured based on its demand, that is, sales. The most successful way to develop new products is to emphasize on needs which consumers may not even be aware that they have (Narver et al., 2004). That is, in developing new products a business relies solely on what customers say that they want in a new product. Narver et al. (2004) also suggests that by paying special attention to what customers do, as opposed to what they say, is the key to the successful development and marketing of a new product.

There are a few works which discussed about the relationship between market orientation and new product performance. For example, a study by Ramaseshan et al., (1999), shows a strong positive relationship between market orientation and the overall performance of new products. Langerak et al. 2004, found that market orientation only influences new product performance through product advantage and the proficiency in launch tactics. Another study done by Wei and Morgan (2004) indicated that an effort to improve firms' new product performance is by enhancing the flow and utilization of market intelligence.

### **Product advantage and new product performance**

Product advantage is defined as the benefit of using that product compared to other similar products (Langerak et al., 2004). It also refers to the benefits that customers get from the new product (Calantone and Di Benedetto 1988). Rogers (1983) proposed that product advantage, compatibility, trialability and observability are related positively to adoption, whereas, complexity and perceived risk are related negatively to adoption (Gatignon and Robertson, 1985). Henard and Szymanski (2001) and Montoya-Weiss and Calantone (1994) suggested that product advantage consistently appears as the most important product characteristic in explaining the adoption and success of the new product.

A study by Pattikawa (2006) on understanding new product project performance revealed that 22 variables have a significant relationship with new product project performance, of which only 12 variables have a sizable relationship including market orientation and product

advantage. Besides that, Atuahene-Gima (1995) has proven a strong positive relationship between market orientation and new product's market performance. In addition, market orientation is also shown to have a strong positive effect on product advantage and found to be an important factor in the success of new product. This is slightly consistent with Hsieh et al. (2008) which mentioned that market orientation indeed moderates the relationship between product advantage and new product performance, either as a whole or in respect of different types of product performance. However, the role of product advantage as a moderator has not been explored in new product performance.

Li and Calantone (1998) stated that previous researchers suggested new product attributes, such as new product quality, reliability, newness, and uniqueness, which provide a concrete picture of a firm's ability to meet customer's needs. Other studies suggest that differences between alternatives on the important attributes provide direct evidence of advantage (Day and Wensley, 1988). Besides that, Song and Parry (1997) reviewed measures of product advantage adopted in previous research and found a significant positive relationship between the level of new product success and measures of product competitive advantage, such as the presence of unique features, relatively high product quality and the ability to reduce consumer costs or enable the consumer to perform a unique task. On new product development, empirical studies by Cooper (1983, 1992) and Edgett et al. (1992) provide evidence that new product advantage leads to superior product performance. Thus, the importance of product advantage to influence new product performance is also crucial to determine the company's success.

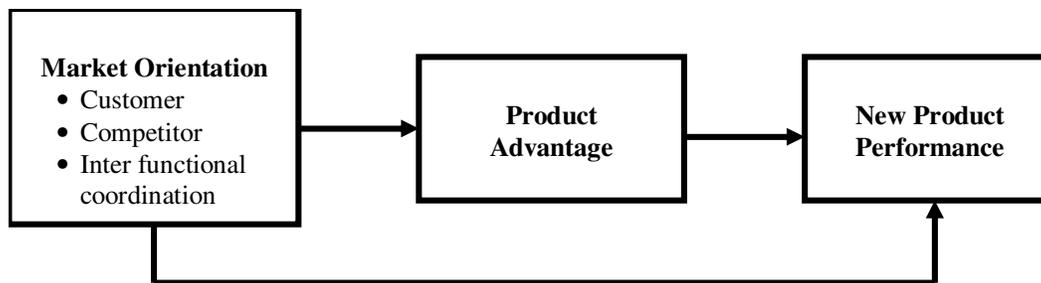
This paper concentrates on the role of product advantage in linking between market orientation and new product performance.

### **RESEARCH FRAMEWORK AND HYPOTHESES DEVELOPMENT**

In this study a new framework is proposed to conceptualize the relationship between market orientation and new product performance and the intervening role of product advantage as presented in Figure 1.

#### **The relationship between market orientation, product advantage and new product performance**

It is known that market orientation has a significant relationship with new product development. Bennett and Cooper (1981) stated that some researchers have suggested that a strong market-oriented culture may lead to imitations and to marginally new products, relating to Tauber's (1974) contention that a market orientation



**Figure 1.** Framework of the relationship between market orientation and new product performance.  
Source: Authors.

inherently is biased toward the development of “me-too” products. It is also important to note the contribution of market orientation in determining the competitive advantage. For example, listening too closely to customers can constitute a barrier to commercializing new technology and can lead to less competitiveness (Christensen and Bower, 1996). Nevertheless, there is a strong conceptual and empirical evidence that a market-oriented culture enhances the creation of superior value for customers in relation to competitors (Slater and Narver, 1998, 1999).

The role of product advantage is also important to furnish the relationship between market orientation and performance of new products. Calantone and Di Benedetto (1988) refer product advantage as the benefits that customers get from the new product. Besides that, the influence of a market-oriented culture on product advantage is a subject of debate (Lukas and Ferrell, 2000). It is probable that market orientation is not an individual factor which contributes to product advantage. Through Langerak et al. (2004) it has been suggested that market orientation only influences new product performance through product advantage and the proficiency in launch tactics.

No doubt that market orientation leads to customer satisfaction and of course a repeat business, which also implicitly acknowledges that market-oriented firms develop products with greater advantage over competition (Atuahene-Gima, 1996). Products with a greater competitive advantage offer more innovative features with greater quality to customers. These products should provide greater returns to the developing firm for a given level of product development investment.

In terms of adoption of new products, Gatignon and Roberson (1985) suggested that the complexity and perceived risk are related negatively to the adoption of new product, but Rogers (1983) proposed that product advantage, compatibility, trialability, and observability are positively related to adoption. This point is also supported by a few studies that mentioned that product advantage has been consistently shown as the most important characteristic in explaining the adoption and success of the new product (Henard and Szymanski, 2001;

Montoya-Weiss and Calantone, 1994). Previous research suggest that product competitive advantage provides a concrete picture of a firm’s ability to meet customer needs. Several researchers have found product competitive advantage to be significantly associated with product success and market performance (Song and Parry, 1997; Li and Calantone, 1998; Im and Workman, 2004; Langerak et al., 2004 for reviews of the concept and associated empirical studies). Thus, it is hypothesized that:

H<sub>1</sub> (a): There is a relationship between market orientation and product advantage in the property development industry in Malaysia.

H<sub>1</sub> (b): There is a relationship between product advantage and new product performance in the property development industry in Malaysia.

H<sub>1</sub> (c): Product advantage mediates the relationship between market orientation and new product performance.

### **The relationship between market orientation and new product performance**

There are few works that discuss about the relationship between market orientation and new product performance. It was established that there is a positive relationship between market orientation and new product performance (Ramaseshan et al., 1999) and that this relationship is also mediated through product advantage and the proficiency in launch tactics (Langerak et al., 2004). In addition, Wei and Morgan (2004) suggested that, to improve firms’ new product performance is by enhancing the flow and utilization of market intelligence. Moreover, all studies do not lead to the same conclusive link. For example, Subramanian and Gopalakrishna (2001) show an impact of market orientation on new product performance, whereas, no significant link was found by Langerak et al. (2004). These seemingly contradictory results that have stimulated several studies concerned with the finding of moderators of the relationship (Atuahene-Gima, 1995; Baker and Sinkula, 1999; Gatignon and Xuereb, 1997; Slater and Narver, 1994

and as such it is hypothesized that:

H<sub>2</sub>: There is a relationship between market orientation and new product performance.

## RESEARCH METHODS

In this study, three types of variables were measured namely, independent, intervening and dependent variables. The measured outcome or dependent variable in this study is new product performance. The independent variable is market orientation and the intervening variable is product advantage. In order to measure the relationship between market orientation, product advantage and new product performance, a set of questionnaire was developed based on previous research to measure these variables. Data were collected from Managing Director, Marketing and Sales Manager or the Marketing and Sales Executive of the property developer firms, who were the right persons to be surveyed because these people have better knowledge of their new projects and directly involved with the project performance. The unit of analysis in this study is the new product/project introduced by the property developers in Sabah, East State of Malaysia. Sabah was chosen as a first state because there have been no abandoned housing projects in Sabah for the past twenty years based on 2009 report by Sabah Housing and Real Estate Association. This is consistent with previous studies which were used product as a unit of analysis (Zirger and Maidique, 1990; Rodriguez et al., 2007). The property developers registered under Sabah Housing and Real Estate Developers Association (SHARED) and other major property developers that have been in operation for at least three years were considered as the population. All firms in the sample fulfill an additional criterion which is necessary for measuring the main constructs, namely Market Orientation and New Product Performance. They should have introduced at least a new product during the last three years.

The developers were contacted by phone and email to invite in this study. As a result, twenty 22 out of 150 property developers in Sabah were agreed to be interviewed and 88 new products were considered in this study. Property developers in this study refers to firms or organizations that develop residential properties such as houses, apartments, condominiums and commercial properties like shopping complexes and office buildings as well as hotel buildings.

The questionnaire was divided into five major sections which included questions regarding: (1) Market orientation; (2) Product advantage; and (3) New product performance.

Market orientation construct was measured using five fundamental elements with equal weight which was adapted from Narver and Slater (1990), Gatignon and Xuereb (1997) and Langerak et al. study (2004). The market orientation construct consisted of customer orientation (6 items); competitor orientation (8 items); and interfunctional coordination (5 items). A 7-point Likert scale (1 = strongly disagree; 7 = strongly agree) was used to measure these items.

Product advantage was measured with 8 items adapted from Langerak et al. (2004). A 7-point likert scale (1 = strongly disagree; 7 = strongly agree) was used to measure these items.

For new product performance, measurement of the variable was adapted from Langerak et al. (2004) and Wei and Morgan (2004) through six main variables. Specifically, the new product performance construct consisted of market-level measures (4 items); financial measure (4 items); customer acceptance measures (4 items); product-level measures (2 items); timing measures (3 items); firm's performance (3 items). A 7-point Likert scales of (1 = very poor; 7 = very good and, 1 = very low; 7 = very high) was used to measure these items.

## Data analysis

A reliability analysis was conducted on the questionnaire items using the Cronbach's Alpha coefficient model. Descriptive analysis was conducted to present the main characteristics of the sample. To test the hypotheses, a simple and hierarchical linear regression analysis was conducted to determine the expected relationships between market orientation, product advantage and new product performance. Baron and Kenney's (1986) mediation method was used to test the mediating role of the product advantage on the relationship between market orientation and new product performance.

The reliability test was conducted to see the consistency of the variables involved in this study. The Cronbach's alpha values are 0.952 (market orientation), 0.973 (product advantage), and 0.977 (new product performance) showing a strong reliability results for all the variables. These show that the constructs for the three variables are highly reliable (Table 1).

## Sample characteristics

From the twenty two companies which were surveyed, 5 (5.7%) are the developer of major products of residential development, while the majority of 16 (18.2%) of the developers are doing a mix of residential and commercial properties. Only 1 (1.1%) developer is involved in residential and real estate activities.

The data also found that 19 (21.6%) of the organizations are private limited company, 1 (1.1%) public listed company and 2 (2.3%) are either government or semi-government type of organization. About 11 companies have operated for more than 10 years, seven companies with 6 -10 years, and four companies with 3-5 years of experience.

About 17% of these firms have a maximum of 100 employees (small companies), 3.4% with more than 1000 (large companies), 2.3% with 101 - 300, and 1.1% with 301 - 500 and 701 - 1000 fulltime employees. From the 22 participating companies, 7 firms (8.0%) have 6 new products and 5 firms (5.7%) have 2 or 3 new products. Companies with 1 and 4 new products both have 2.3% (2 firms for each) and only 1 firm has more than 6 products (1.1% (Appendix 1 and 2)).

## RESULTS

In this section, the overview of the scores of all the variables: Market orientation, product advantage and new product performance is presented in Table 2. As depicted in Table 3, on a 7 point scale, the mean for market orientation is 5.2028, new product performance is 5.2347 while product advantage is 5.3438. These results indicated that most of the respondents agreed that these variables are important factors as successful criteria for new products.

The R square value indicated that 55.3% of variance in product advantage can be explained by market orientation ( $R^2 = 0.553$ ;  $F = 106.582$ ;  $p < 0.01$ ). The regression results in Table 4 also show that there is a relationship between market orientation and product advantage ( $\beta = 0.744$ ;  $p < 0.01$ ). Thus, hypotheses 1(a) is accepted.

In Table 5, the R square value indicated that 65.4% of variance in new product performance can be explained by product advantage ( $R^2 = 0.654$ ;  $F = 162.535$ ;  $p < 0.01$ ). The regression results also show that product advantage has a relationship with new product performance ( $\beta = 0.809$ ;

**Table 1.** Reliability test.

Variable	No. of item	Item deleted	$\alpha$
Market orientation	19	-	0.952
Product advantage	8	-	0.973
New product performance	20	-	0.977

**Table 2.** Descriptive statistics of variable.

Variable	Mean	Standard deviation
Market orientation	5.2028	0.89356
Product advantage	5.3438	1.28838
New product performance	5.2347	0.95470

**Table 3.** Simple regression analysis: The relationship between market orientation and product advantage.

Independent variable	Value
Market orientation	0.744**
F value	106.582
R <sup>2</sup>	0.553
Adjusted R <sup>2</sup>	0.548

\*\*p &lt; 0.01

**Table 4.** Simple regression analysis: The relationship between product advantage and new product performance.

Independent variable	Value
Market orientation	0.809**
F value	162.535**
R <sup>2</sup>	0.654
Adjusted R <sup>2</sup>	0.650

\*\*p &lt; 0.01

**Table 5.** Simple regression analysis: The relationship between market orientation and new product performance.

Independent variable	Value
Market orientation	0.717**
F value	90.958**
R <sup>2</sup>	0.514
Adjusted R <sup>2</sup>	0.508

\*\*p &lt; 0.01.

p < 0.01). Thus, hypotheses 1(b) is supported.

The R square value indicated that 51.4% of variance in new product performance can be explained by market orientation (R<sup>2</sup> = 0.514; F = 90.958; p < 0.01). The regression results also showed that market orientation is related

**Table 6.** Hierarchical regression analysis: The relationship between market orientation, product advantage and new product performance.

Independent variable (New product performance)	Dependent variable
<b>Model 1</b>	
Market orientation	0.717**
F value	90.958**
R <sup>2</sup>	0.514
Adjusted R <sup>2</sup>	0.508
<b>Model 2</b>	
Market orientation	0.258*
Product advantage	0.617**
F value	91.892**
R <sup>2</sup>	0.684
Adjusted R <sup>2</sup>	0.676

\*\*p &lt; 0.01, \*p &lt; 0.05.

related to new product performance ( $\beta = 0.717$ ; p < 0.01). Thus, H<sub>2</sub> is supported.

From Table 6 for model 1, the R square value indicated that 51.4% of variance in new product performance can be explained by market orientation (R<sup>2</sup>=0.514; F=90.958; p<0.01). The results also showed that market orientation is related to new product performance. In model 2 with the inclusion of product advantage as a control variable, the R square value indicated that 68.4% of variance in new product performance can be explained by market orientation and product advantage (R<sup>2</sup> = 0.684; F= 91.892; p < 0.01).

### Hierarchical regression analysis

To test for mediation the method by Baron and Kenney (1986) which include the computation of three regression

**Table 7.** The regression models testing intervening (product advantage).

Y	Model 1	Model 2	Model 3
	Product advantage	New product performance	New product performance (PA is controlled)
R <sup>2</sup>	0.553	0.514	0.684
R <sup>2</sup> change		0.514	0.170
F	106.582**	90.958**	91.892**
Beta MO	0.744**	0.717**	0.258*
Beta PA			0.617**

\*\*p<0.00; \*p<0.05.

models was used. The first regression is between the independent variable and the intervening variable. Secondly, the regression between independent variable and dependent variable and lastly, regressing the dependent variable on both the independent variable and the intervening as shown in the research hypothesis.

According to Baron and Kenny (1986), these three regression equations provide the tests of the linkages of the mediational model. To establish mediation, the following conditions must hold: First, the independent variable must affect the mediator in the first equation; second, the independent variable must be shown to affect the dependent variable in the second equation; and third, the mediator must affect the dependent variable in the third equation. If these conditions all hold in the predicted direction, then the effect of the independent variable on the dependent variable must be less in the third equation than in the second. Perfect mediation holds if the independent variable has no effect when the mediator is controlled. The hierarchical regression results also showed that product advantage mediates the relationship between market orientation and new product performance ( $\beta = 0.617$ ;  $p < 0.01$ ). Thus,  $H_1(c)$  is supported.

As summarized in Table 7, the results of the three regressions model for intervening (Product Advantage) shows that the effect of market orientation on the new product performance is much less in the third model compared to the second model. Nevertheless, the R square has improved from 0.514 in the second model to 0.684 in the third model, this results showed that the third model allows partial mediation to explain more variance (R square = 0.684) than in the second model (R<sup>2</sup> = 0.514) without considering the intervening variable of product advantage. While the lower R square changed from the third model compared to the second model indicated that the variance of the population is better or favorably explained by the data. A perfect mediation cannot be claimed since the beta for market orientation in the third model is still significant where  $p < 0.05$ . A decrease from 0.717 to 0.258 of the beta value from the second model to the third model shows the intervening effect.

## DISCUSSION

### Relationship between market orientation and new product performance

The relationship between market orientation and performance of new product is found to be significant. The finding shows a positive relationship between the two variables and concludes that the independent variable of market orientation does positively affect the new product performance. Thus, this result provides support to Hypotheses 2.

Ramaseshan et al., (2002) provided a strong support for the basic proposition that market orientation influences the overall performance of new products. The result also provides a strong positive relationship between market orientation and the market performance and project performance of new products. It was stated that there is no significant difference in the level of market orientation and the performance of new products either for consumer or industrial products.

It is popularly known that the success of new product is because the product has been developed based on consumer's needs and wants and to provide expected benefits to the target customer. To the developer, the success of their project is determined by the success of their project or product has been sold. If the project or product has been sold, it has met the consumer's needs. If the project or product cannot be sold or takes time to sell, it indicates that the product is not fulfilling customer requirements. The buyers always inform the developer about their experience and preferences of the property they wish to purchase.

### Relationship between market orientation, product advantage and new product performance

The relationship between market orientation and product advantage in property industry in Sabah is found to be significant. This indicates that market orientation contributes to the prediction of product advantage. The finding

shows a positive relationship between the two variables and concludes that the independent variable of market orientation does affect the intervening variable of product advantage, thus, providing support to Hypotheses 1(a).

This result is consistent with Langerak et al., (2004) which concluded that there is a relationship between market orientation and new product advantage, where it was found that market orientation has a positive significant ( $p < 0.01$ ) relationship with product advantage.

Besides that, our findings agree with other studies suggesting that a market-oriented culture enhances the creation of products with greater advantage over competing products than their non market-oriented counterparts (Kohli and Jaworski 1990; Narver and Slater 1990). In this study, the data collected from property developers shows that market oriented firm will tend to develop competitive products that meet potential buyer's expectation in the market. This is based on the market survey conducted by developers to better understand what potential consumers or buyers want in terms of the design value for their money.

A positive and significant relationship between product advantage and new product performance in property industry in Sabah was also found in this study. It indicates that the better the product advantage the higher the performance of a new product. Thus, this result provides support to Hypothesis 1(b).

This finding is consistent with past research that reveals the importance of product advantage to obtain higher new product performance (Henard and Szymanski, 2001; Montoya-Weiss and Calantone, 1994; Langerak et al., 2004). As in the property industry, potential buyers will look into the maximum advantage that a product could offer compare to other competitors' products. This is the main factor that property buyers will search in the first place before making the decision to purchase. Yet, we must realize that property product is a complex and requires the customer to study thoroughly before making the decision to purchase. Therefore, offering a better product advantage would increase the performance of the newly produced.

Apart from that, the finding also shows that product advantage partially mediates the relationship between market orientation and new product performance. Thus, this result provides support to Hypotheses 1(c). It means that the intervening factor of product advantage does play some important role in the property industry where customers tend to look into the uniqueness of benefits, the quality, whether the product could solve their problem compared to the competitors' products and other aspect pertaining to the advantage of the product offered. By knowing what customers need, it will help developers to develop specific products that will give the best benefits to the customers and ultimately determine the success of new products. It is a norm that the better product can provide superior benefits to consumer, thus spurring the consumer to buy.

## IMPLICATIONS

### For practice

The first managerial implication concerns the findings that market orientation has a significant positive relationship with new product performance especially in the Sabah property industry. Firms hoping to initiate new products should take note of the impact of market orientation on their product performance. Further understanding of the requirements of customer on the product advantage is critical for the activities of new product development. The second implication is that firms should further strengthen their market orientation to improve the chances of success of new products. Increased effort in market orientation would mean more regular research on the current and changing expectations of customers towards the property industry mainly in the Sabah context. Another important implication of this study is that the impact of market orientation on new product performance is channeled through the product advantage.

This study also contributes significantly to the industry players. Property developers will benefit from the findings which concluded the importance of market orientation towards the performance of new product and the intervening factor of product advantage that mediates the relationship between these two variables. This will help property developers specifically in Sabah, in their future project planning in order to ensure the product performs at the highest expectation. The finding also gives new insights to the Sabah property developers especially on the factors that they should emphasize for competitive advantage.

### For knowledge

Academically, the finding of the research adds new understanding to the literature particularly in the new product development area. This study also shed more light on the factors and their interrelationships that influence new product success specifically in property industry.

Besides that, with the confirmation of the proposed framework from this study, it has given significant contribution to the methodological aspect of new product development studies.

### For future studies

Similarly to previous works, limitations associated with sampling could limit the influences of market orientation and new product performance. The small number of data gathered limits the influence of the findings in this study. This was due to the unwillingness of developers to participate in the study. Company policies which forbid such information to be revealed was the main excuse given from the organizations.

Although the results of this study support the positive relationship between market orientation and the new product performance, the causal effect of relationship between all constructs should be investigated so that the directionality of this relationship can be better understood and also the explanation will be more thorough.

A larger sample size of respondents should be gathered in future research to strengthen those relationships. To achieve this, the strategies on how to increase response rate should be implemented. Finally the need to examine the impact of market orientation with a modification on the intervening factors related to the area of study of new product performance might provide a better understanding and generalization of knowledge to improve the performance of new products.

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**Appendix 1.** Companies' profile.

<b>Variables</b>	<b>Categories</b>	<b>Frequency</b>	<b>(%)</b>
Major activities	Residential	5	5.7
	Commercial	0	0.0
	Mix development (Residential and Commercial)	16	18.2
	Residential development and Real estate	1	1.1
	Others	0	0.0
	Total	22	100
Company ownership	Private limited company	19	21.6
	Public listed company	1	1.1
	Government / Semi-Gov.	2	2.3
	Total	22	100
Established	Less than 3 years	0	0
	3-5 years	4	4.5
	6-10 years	7	8.0
	More than 10 years	11	12.5
	Total	22	100
Fulltime employees	100 or less	15	17.0
	101 – 300	2	2.3
	301 – 500	1	1.1
	501 – 700	0	0.0
	701 – 1000	1	1.1
	More than 1000	3	3.4
	Total	22	100
New products	1	2	2.3
	2	5	5.7
	3	5	5.7
	4	2	2.3
	5	0	0.0
	6	7	8.0
	More than 6	1	1.1
	Total	22	100

**Appendix 2.** List of measurement.

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**New product performance**

**Market-level**

Unit volume goals  
Met revenue goals  
Met sales growth goals  
Met market share goals

**Financial**

ROI or IRR  
Met profitability goals  
Met contribution margin goals  
Development costs

**Customer acceptance**

Customer acceptance  
Customer satisfaction  
Number of customers  
Customer competitive advantage

**Product-level**

Met performance specifications  
Met quality specifications

**Timing**

Launch on time  
Time-to-market  
Break even time

**New product performance**

Management satisfaction with new product performance  
Overall new product performance  
Market strength attributable to new products

**Competitor orientation**

Our firm knows whether competitors are open to complaints by customers  
Our firm knows why customers continue buying from competitors  
Our firm knows whether customers buying from competitors are satisfied  
Our firm know how competitors maintain relationships with customers  
Our firm monitors customers buying from competitors  
Our firm know why customers switch to competitors  
Our firm knows which products competitors offer customers  
Our firm knows in what way competitors attract customers

**Interfunctional coordination**

Our firm's departments coordinate their contacts with customers  
Our firm's departments jointly satisfy customers' needs  
Our firm's departments take decisions that affect the relationship with customers collectively  
Our firm's departments are collectively aware of the importance of the relationship with customers  
Our firm's departments coordinate their activities aimed at customers

**Product advantage**

The new product offered unique benefits for customers  
The new product provided higher quality than competing products  
The new product solved problems for customers  
The new product was highly innovative  
The new product replaced inferior products  
The new product was radically different from competitor products  
The new product was superior to competing products  
The new product offered solutions not possible with existing products

**Market orientation**

**Customer orientation**

Our firm gathers information about customers' needs  
Our firms has insight into the buying process of customers  
Our firm consults customers to improve the quality of service  
Our firm handles customers' complaints well  
Our firm looks for ways to offer customers more value  
Our firm treats customers as partners

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