

## MARKET ORIENTATION, ORGANIZATIONAL INNOVATION AND ORGANIZATIONAL PERFORMANCE--EVIDENCE FROM FUJIAN AND GUANGDONG PROVINCE IN CHINA

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*Abstract.* Using empirical data drawn from a field survey of 211 firms in Fujian and Guangdong provinces, adopting the classification of market orientation for proactive market orientation (PMO) and responsive market orientation (RMO), we explore the role of organizational innovation (OI) in the relationship between market orientation (MO) and organizational performance (OP). Through a structural equation model analysis, we find that OI partially mediated the OP impact of PMO and RMO. Based on the empirical result and survey conclusion, we give some advices on development of innovation and improvement of performance for firms in those and other regions. Relevant implications are drawn and limitations of the study are discussed accordingly.

**Keywords:** Proactive Market Orientation; Responsive Market Orientation; Organizational Innovation; Organizational Performance

**1. Introduction.** In today's knowledge based society, marketing strategy has become a highly important component of business operations. During the last decade, the term "market orientation" has received much attention in the marketing and strategic management literatures. In addition to market orientation, personal mastery, organizational learning and innovation are the other three key capabilities that enable the firm to identify, create, exploit, renew, and apply knowledge flows in new ways to obtain improvement in organizational performance (Nonaka and Takeuchi, 1995). Making these capabilities work effectively can provide firms with a source of sustainable competitive advantage since these capabilities are usually valuable, rare and difficult to imitate or replace (Barney, 1991). In southern China-Fujian and Guangdong provinces, which are two "windows" first open to the world, local firms pay much more attention to marketing strategy, from "doing best to meet the expressed needs of customers" to "guiding and monitoring the needs of customers". In recent years, technical and administrative innovations have gained significant importance in the business community and attracted intensive research attention. Thus, what's the mechanism of interrelationship among market orientation, innovation and performance? In particular, research interests have been drawn to whether the organizational innovation capability affects the relationship between proactive and responsive market orientations and organizational performance.



While some studies have found a significant link between market orientation and organizational performance (Dickson, 1996; Farrell and Oczkowski, 2002; Bell et al., 2002), others have failed to do so (Ahuja and Lampert, 2001; Bontis et al., 2002). One explanation for the inconsistent finding is that organizational innovation is necessary for marketing information applications. Therefore, the role of key organizational technical and administrative innovations in the relationship between market orientations (proactive and responsive market orientations) and organizational performance must be taken into account. Accordingly, two deeply interrelated questions have been raised in this field of research. One addresses whether both proactive and responsive market orientations are important for the organization to achieve and win sustainable competitive advantage. In this question another discussion is implicit which refers to whether market orientation alone is able to promote organizational performance--what's the role of organizational innovation? This debate contributes to analysis and discussion of the power of market orientation as a root for organizational innovation and performance.

The remaining part of this paper is structured as follows: The literature review section introduces key concepts of the study and brings forward hypotheses concerning the interrelationship among market orientation, organizational innovation and organizational performance. The methodology section presents the procedures used for data collection and the measurement properties of the constructs. Major research findings are presented in the research results section. The paper concludes with a discussion of the findings and suggestions for future research.

**2. Literature Review and Propositions.** Market orientation, as a corporate culture, characterizes an organization's disposition to continuously deliver superior value to its customers (Slater and Narver, 1994). This creation of superior customer value entails an organization wide commitment to continuous information gathering and coordination of customers' need, competitors' capabilities, and the provisions of other significant market agents and authorities. Furthermore, market orientation is considered as the organization wide generation of market intelligence pertaining to current and future customers' need (Atuahene-Gima et al., 2005). Hence, the term market orientation refers to the ability of organization to generate, disseminate and use superior information about customers and competitors. Narver et al. (2004) developed the market orientation domain into a two-dimensional context containing proactive and responsive market orientations. Proactive market orientation means "guide or monitor the customers" and it is the search for new information and knowledge to discover and satisfy the latent, unarticulated needs of customers. In contrast, responsive market orientation refers to "guided or monitored by customers" (Narver et al., 2004). That means companies try to look for, understand and satisfy the apparent customers and their expressed needs. A responsive market-oriented company develops products by efficiently integrating knowledge closely related to extant experience to satisfy needs of the customers. The review above indicates the theoretical expectation of first order (positive) and second order (negative) relationships between the two market orientations.

Although the marketing orientation is central to the marketing literature, very little research has been done in terms of developing a valid measurement scale and testing the



construct empirically (Cadogan et al., 2003; Tsai et al., 2008). According to Narver and Slater (1990), three sets of activities are commonly used to measure market orientation, namely customer orientation, competitor orientation, and inter-functional coordination. Slater (1997) hypothesized that market orientation is a dimensional construct consisting of three components—intelligence generation, intelligence dissemination, and responsiveness to market intelligence. Based on these measurements, many empirical studies on the relationship between market orientation and business performance were conducted (Appiah-Adu, 1998; Wang et al., 2008).

However, the literature includes few studies examining the market orientation from the perspective of proactive and responsive market orientations. Prior research argues that excessive focus is put on meeting apparent customers' needs and experiencing with skills and procedures to understand and satisfy the expressed needs of current customers (responsive market orientation). However, uncovering latent customer needs by working closely with lead users and undertaking experiments are frequently linked to the organizational innovations and performance (Wang et al., 2008). Concentrating on future customers' needs may also alert the firm to new market and technology developments and increase its abilities to integrate developments into firm performance (Tsai et al., 2008). Nonetheless, both proactive and responsive market orientations are expected to have positive effects on organizational innovations and performance.

**2.1. Market Orientation and Organizational Performance.** Market orientation is an important basis of corporation's competitive advantage, which depends on the level of existing related knowledge in the corporation and the ability to absorb (Slater and Narver, 1995). Market orientation is considered as the skills and procedures to understand and satisfy the expressed needs of current and future customers which lead to an enhanced absorptive capacity and performance (Day, 1999). One organization that has the cultural values of market orientation and an adequate pattern of behaviour coherent with these may also become a true learning organization, which is one essential element for organization to gain competitive advantage. Through conducting a meta-analysis consisting of studies of enterprises from seven different industries, Capon, Farley and Hoenig (1990) found significant and positive association between market orientation and innovation performance. In summary, proactive market orientations can become beneficial to new product performance if they maintain a certain level.

A number of empirical studies were conducted to assess the impact of market orientation on organizational performance. Narver and Slater (1990) examined the interrelationships among customer orientation, competitor orientation and firm performance by analyzing data from 113 strategic business units in an American company. Empirical evidences have supported the view that the positive linkage between market orientation and organizational performance. Im and Workman (2004) examined the relationship between market orientation and organizational performance, and the result indicated that the market orientation can influence the firm performance, but the effect depended on the type of the market. Based on empirical studies in the Chinese context, similar conclusion was given: both proactive and responsive market orientations can significantly improve organizational market performance and new product development performance (Wang et al., 2008).



On the basis of the above considerations, the following hypotheses are proposed in a China context:

*H1a: Proactive market orientation positively affects organizational performance.*

*H1b: Responsive market orientation positively affects organizational performance.*

#### Market orientation and organizational innovation

Previous research examined market orientation in relation to organizational performance, new product development and competitive structures of companies. Referring to product development, Atuahene-Gima (1996) found that market orientation had a positive impact on new product performance at the early stage of the Product Life Cycle (PLC) and incremental product innovation. On the other hand, Salavou (2005) suggested that market orientation had a significant effect on product innovativeness in SMEs. Appiah-Adu and Singh (1998) also found a link among customer orientation, new product success and company performance. This notion of a customer-focused culture facilitates organizational innovativeness in both technical and administrative areas and it is consistent with the marketing concept's long-term orientation.

Many empirical studies showed that market orientation did have significant effects on organizational performance. Using data collected from banking industry, Han et al., (1998) empirically investigated the effect of innovation on the relationship between market orientation and performance by constructing a SEM model. Results showed that innovation can influence the effect of market orientation and performance. Similar conclusion was given after empirical studies: the effect of market orientation can not significantly improve performance unless organizations have high innovation capability (Sinkula, 1994; Baker and Sinkula, 1999; Lin, 2001).

On the basis of the above considerations, the following hypotheses are set forth in a China context:

*H2a: Proactive market orientation positively affects organizational innovation.*

*H2b: Responsive market orientation positively affects organizational innovation.*

#### Organizational innovation and organizational performance

In today's competitive landscape, innovation has become an important component of business operations. The link between organizational innovation and organizational performance stands as the most consensually documented part of the postulated "market orientation-innovation-performance" chain (Lin, 2001). The rationale behind organizational innovativeness showing a strong, positive influence on corporate performance is ascribed to innovations serving to accommodate the uncertainties.

In recent years, empirical studies have been conducted to explicate the role of organizational innovation in firms' performance. Organizational innovation not only assists the performance of organization, but also is as a source of sustainable competitive advantage. Looking into innovation's influence on performance exclusively assumed either a technical or administrative innovation focus, Damanpour (1991) showed that organizational innovation gap between enterprises affects the degree of knowledge assimilation and performance. Empirical evidence demonstrated that participating enterprises should invest more in their "learning ability" as to get new and useful information from other organizations.



Lin (2001) examined how innovative capabilities influence the performance of high-tech industry companies in Taiwan, and he found that organizational learning positively affects technical and administrative innovation, but only technical innovation enhanced organizational performance. Therefore, participating organizations with a high level of innovation were likely to obtain new information and knowledge to help them break down cost and obtain competitive advantage (Baerm, 2003). Accordingly, the following hypothesis is brought forward in a China context:

*H3: Organizational innovation positively affects organizational performance.*

### **3. Research Methodology.**

**3.1. Research Design and Data Collection.** The empirical study had been undertaken under the financial support of the enterprise-networks research program of natural science fund in Guangdong province. Data were collected through a face-to-face interview. In southern China, the recent emergence and growth of regionally based industrial cooperation, together with the participation of various regional institutions, provided opportunities for studying the effect of organizational innovation between market orientation and organizational performance of the local firms. The field setting for our research consisted of firms operating in ten industries and eight cities in Fujian and Guangdong Provinces, China.

A questionnaire survey was adopted for conducting an empirical analysis. Forty-two (42) items were included in the questionnaire. These items were extracted or borrowed from previous studies. The questionnaire can be divided into three parts. The first part includes fourteen items for measuring market orientation (Wang et al., 2008; Narver and Slater, 1995). Then, the second part consisted of sixteen items for evaluating organizational innovation (Lin, 2001). Finally, the third part contained twelve items for assessing organizational performance (Han et al., 1998; Lin, 2001). They were translated into Chinese or rearranged in line with the analytic framework of this study. To ensure compatibility and consistency of the survey questionnaire, reverse translation and further modifications were also performed. Respondents rated their perceptions of the items using seven-point Likert-type scales, which range from 'strongly agree' to 'strongly disagree'. Using the initial draft of the questionnaire, a small-scale pilot test was conducted on ten firms, and wording was refined to ensure the respondents' clear understanding and preciseness of the answers.

Four hundred questionnaires were distributed, and two hundred and eleven matched questionnaires were regained altogether. The total respondent rate of the questionnaire was 52.75%. Table 1 shows basic information of the sample firms.

### **3.2. Measures.**

**3.2.1. Market Orientation.** In this study, the definition and scale for market orientation developed by Wang et al., (2008) and Narver and Slater (1995) was adopted. The instrument consisted of two subscales were used to measure proactive market orientation and responsive market orientation.



**3.2.2. Organizational Innovation.** Measures of technical innovations and administrative innovations were operationalized based on absolute number of innovations implemented in the respective categories for each firm (Lin, 2001).

**3.2.3. Organizational Performance.** Although performance can have a variety of meanings, it is broadly viewed from two perspectives in the previous literature. First, there is the subjective concept, which is primarily concerned with the performance of firms relative to that of their competitors. The second view is the objective concept, which is based on absolute measures of performance. Both of them pay much attention to the short term financial benefits. However, respondents may be reluctant to provide hard financial data, because company information is usually regarded as highly confidential in Chinese societies.

To measure organizational performance, each respondent in this study was asked to evaluate his/her company's current performance relative to its major competitors with respect to short term and long term performance. (Han et al., 1998; Lin, 2001)

TABLE 1. Demographic characteristics of sample firms

Object	Criterion	Frequency	Percentage
NO. of Employees	Under 100	103	48.82%
	100-300	70	33.18%
	Above 300	38	18.00%
Years of Operation	Under 3	44	20.85%
	3-9	96	45.50%
	Above 9	71	33.65%
Industry Type	<sup>1</sup> High-tech industry	93	44.08%
	<sup>2</sup> Traditional industry	118	55.92%
Region	<sup>3</sup> Guangdong	145	68.72%
	<sup>4</sup> Fujian	66	31.28%

**3.3. Reliability and Validity Test.** Since developed from the previous literature, items have content validity. Convergent validity, which measures construct identity, can be judged by looking at the item factor loadings (Podsakoff and Organ, 1986). The estimated results shown in Table 2 confirmed convergent validity of the scales. Each factor loading for the multi-item variables of market orientation (both proactive market orientation and responsive market orientation), organizational innovation and organizational performance was significantly related to its underlying factor. All standardized item factor loading and

<sup>1</sup> Electronic components (37), Information and communication equipment (32); Chemical products (8), Auto Parts (16).

<sup>2</sup> Textile and garment (58); Food processing (32), Handicraft (28).

<sup>3</sup> Guangzhou (41); Dongguan (22); Shenzhen (34); Shantou (48).

<sup>4</sup> Xiamen (39); Quanzhou (27).





variance extracted were well above the cut-off of 0.50. Further, confirmatory factor analysis (CFA) was performed to check the reliability and validity of the measurement models. The properties of the measurement models were also summarized in Table 2. All composite reliability measures of constructs exceed the recommended level of 0.80, and the fit indexes, including comparative fit index (CFI), goodness of fit index (GFI), and normed fit index (NFI), were all above the cut-off level of 0.90 (Bagozzi and Yi, 1988). Additionally, items also have high internal consistency and good scale reliability owing to the result of the Cronbach alphas 0.78 to 0.88 (all results exceed 0.75). These results confirm that the measurement models have sound reliability and validity.

TABLE 2. Reliability and validity test

Construct	Indicator	Cronbach Alphas	Composite Alphas	Variance Extracted	Fit Indexes
<b>Proactive m-orientation</b>		0.85	0.85	75.52.	CFI=0.92,GFI=0.95, NFI=0.96
<b>Responsive m-orientation</b>		0.88	0.88	74.12	CFI=0.95,GFI=0.91, NFI=0.94
<b>Organizational innovation</b>	<b>Technical</b>	0.78	0.82	70.29	CFI=0.96,GFI=0.94, NFI=0.96
	<b>Administrative</b>	0.80			
<b>Organizational performance</b>	<b>Short term</b>	0.87	0.90	78.34	CFI=0.95,GFI=0.93, NFI=0.96
	<b>Long term</b>	0.84			

**4. Research Results.** This research uses LISREL to analyze the data to determine whether the hypotheses are supported, and their results are presented in Figure 1. Table 3 displays the data fitting for analysis model. The  $\chi^2$  values and degrees of freedom (*df*) are shown in table 3, and  $\chi^2 / df$  statistics is smaller than 2, which is within the acceptable limit (Byrne, 1989). Other goodness of fit indexes is also presented in Table 3. The non-normed fit index (NNFI), comparative fit index (CFI), and goodness of fit index (GFI) are all above 0.90, the RMSEA are below the critical value of 0.08, indicating that the structural model fits the data well (Bagozzi and Yi, 1988). In short, all fit indexes are within the acceptable limit, suggesting that the structural model provides good fit with the data.

TABLE 3. Data fitting for SEMs

index	$\chi^2$	<i>df</i>	$\chi^2 / df$	P	NNFI	GFI	CFI	RMSEA
value	225.26	152	1.482	0.000	0.93	0.96	0.94	0.048

As shown in Figure 1, significant associations are found in the paths linking proactive market orientation to organizational performance (factor loading is 0.25,  $p < 0.05$ ), responsive market orientation to organizational performance (factor loading is 0.16,  $p < 0.10$ ), proactive market orientation to organizational innovation (factor loading is 0.43,



$p < 0.01$ ), responsive market orientation to organizational innovation (factor loading is 0.29,  $p < 0.01$ ), and organizational innovation to organizational performance (factor loading is 0.48,  $p < 0.01$ ). All relationships between two of them are significantly positive, these results not only support all of the research hypotheses of this study but confirm organizational innovation as a partial mediator between the market orientation (both proactive market orientation and responsive market orientation) and organizational performance (Baron and Kenny, 1986).

Obviously, even if responsive market orientation affects organizational innovation and organizational performance, the influence appears to be weak. In short, both of the proactive market orientation and responsive market orientation appear to be helpful for local firms to obtain knowledge and innovation. It suggests that improved market orientation significantly promote organizational innovation and organizational performance.

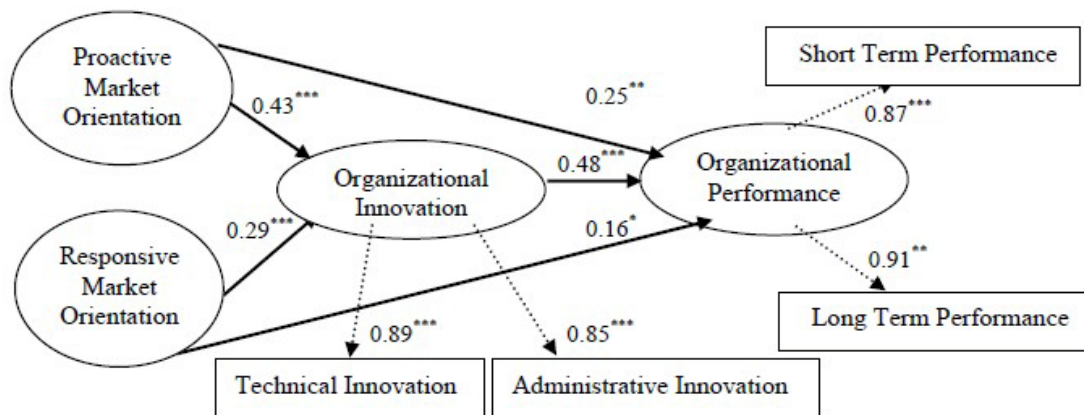


FIGURE 1. LISREL analysis model for research framework

Note: \* $P < 0.10$ , \*\* $P < 0.05$ , \*\*\* $P < 0.01$ .

**5. Conclusion and Discussion.** The key objective of this study is to examine the role that organizational innovations play in the context of the relationship between market orientation and organizational performance. Research findings simultaneously confirm the mediating effect of organizational innovation in participating firms' proactive market orientation and responsive market orientation and organizational performance. In general, we do find some evidence of market orientation facilitating an organization's capacity to innovate (including technical and administrative innovation), which in turn, positively influences its organizational performance. The results of empirical analysis largely support all of the research hypotheses. Meanwhile, this study has significant managerial implications, especially for focal firms operating in southern China by displaying insights for understanding how a participating firm can gain useful knowledge under reasonable market strategy to enhance its innovation and performance.

This research suggests that a focal firm's proactive and responsive market orientations access and internal organizational technical and administrative innovations are critical to improve the organizational performance. First, by conducting a reasonable market orientation strategy, focal firms are likely to obtain useful knowledge from external market





members such as the customers and competitors, etc. Proactive market orientation focuses on searching for new and diverse knowledge that challenges existing knowledge and experience. While, the importance of a responsive market orientation is to develop competitive advantage through a specialized competence in responding to current customer and meeting their expressed needs. In addition, the research findings have revealed that organizational innovation (including technical and administrative innovations) should play an important role in the dynamic process of applying marketing strategy and simply investing in both the market orientations in isolation is unlikely to achieve the desired result. Last but not least, in justifying investments in various dimensions of market orientation, practicing managers may want to consider not only the direct effect of both market orientations on organizational performance but also the indirect effect resulting from internal organizational innovation.

In fact, in our follow up interviews, several firms suggested that the most important element in the process of improving organizational performance is sources of external knowledge and information. Thus, the market orientation is the indispensable instrument to exploit and absorb the external resource. Moreover, organizations that operate in more turbulent innovative environment are likely to have more alternative avenues to gain a competitive advantage through technical and administrative innovations. Those firms also regard the linkages to different market members as the key channel for gaining access to information relevant to new product development performance and innovativeness. Besides, some practicing director expressed that they have paid more attention to build their own R&D department and market strategy research centre. Focal firms develop their key capabilities while obtaining complementary information through their proactive and responsive market orientations to achieve desired results. To a large extent, these recommendations are supportive to the findings of the empirical analysis.

Though this study offers some insights to the extant literature and managerial understandings, there are a number of limitations need to be dealt with in the future. This study is conducted with a simplified research design, mainly dealing with the variables of proactive and responsive market orientations. To elicit further insights, however, other behavioural variables should be incorporated and the better comprehensive variables to measure market orientation should be designed. In addition, we only conduct a survey in Fujian and Guangdong province in southern China. Therefore, the extent to which the findings of this study may be generalized, even for firms operating in eastern or northern China, or even other regions all over the world remains to be discussed. Nonetheless, such limitations should be considered as opportunities, rather than forming barriers, for future studies.

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