

The Export Firms' Capability and International Market Turbulent that Affect Firms' Export Innovation through Market Orientation

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Abstract - The current study examines the export firms' capability that affects international market performance in relation with the market orientation and firms' innovation for foreign market. Moreover, international market turbulent is examined. The purpose is to uncover how export firms can overcome the foreign market by their operation. The subjects are small and medium enterprises having export transactions from various industries in Thailand. The Structural Equation Modeling (SEM) was applied to figure out the empirical result of the variables presented in the framework included the mediator. The results indicate that firms' capability and international market turbulent have a direct affect to market orientation, which consequently affect innovation for foreign market.

Keywords - Market Orientation, Export Innovation

I. INTRODUCTION

Economic growth in Thailand depends on exporting of the business firms operated in the country for more than three decade. The government has both encouraged and supported the export firms to increase their export performance. In the beginning, the competitive advantage of those Thai firms depend on low

cost of their product resulted from low labor cost and other production cost. Currently, the situation has been changed since the increase of labor cost and other expenses occurring in the country. The new paradigm has shifted from low cost to the innovation. Since a country's long-term economic growth is considered from innovation [1-2]. Some study indicates that firms that engage into export market become more innovative [3-4]. Moreover, Thailand has benefit from foreign direct investment that can be considered in term of spillover of the innovation from foreign firms to local firms. Since the local firms can learn new knowledge and experience from the neighboring firms [5]. The total effect of exporting that derived from domestic firms' innovation present positive and indicates a non-monotonic correlation with the share of others firms in a cluster [6]. The other evidence is that unlike the firms in a highly protected environment, firms in liberalized international trade can gain the benefit of advance technology utilized by their global counterparts [7]. There are various studies investigated how important of innovation on many results. The domestic firms of developing countries can gain the exporting technology adoption and managerial spillover that improve performance [8-10]. Then, the exporters are found superior to no-exporters and more productive and innovative. However, a few studies concentrated on firms' capabilities

accompanied with the business environmental turbulent in relation with the innovation for foreign market. Then, this study attempts to investigate the empirical result of the export firms' capability and market turbulent internationally that link to the firms' export innovation. Moreover, market orientation that include customer, competitor, and interfunctional coordination was applied as a mediator connect between the variables [11]. The results will contribute to the link between multi-factors as firm capability, business turbulent, MO and the supporting of innovation for foreign market.

II. THEORETICAL OVERVIEW AND PRIOR STUDIES

A. Export Firms Capability

The role of firms' capability deployment in enforcing performance of firms has been substantial for researcher in marketing area [12-14]. In addition, prior scholars has examined the export activities that effects performance rely on export marketing activities [13, 15]. The firms' capabilities may concerning to product development capability and customer relationship capability [16]. Some study found relationship between innovation capability and export performance [17]. Thus, this study focuses on capability in product development and quick response to customer need.

B. Market Orientation

Market orientation has become crucial in research streams concerning to marketing area. It was conceptualized and operationalized by Narver, Slater, and Maclachlan that comprising the three dimension include customer orientation, competitor orientation, and interfunctional coordination [11, 18]. The customer orientation refers to the interested in firms' customer value and place their strategy on increase customer value [19]. The customer value is entrepreneurs' determination to provide product that have greater benefits than customer expectation [20]. According to the competitor orientation, firms need to focus on their competitor behavior to response effectively such as following the competitor marketing

strategy and operation. For the interfunctional coordination, it is necessary for firms to create coordination across all functions within an organization to support marketing activities [11, 21]. Similarly, market orientation can be considered as the market intelligence within an organization that that focus on customer needs related to the dissemination of intelligence across internal function in responding to the external environment [21]. Since MO enables business firms to understand the need of market place and support the management to develop internal capability that link firms' marketing operation with external environment [22]. The conceptualization of MO can be determined in term of its attempt to understand and satisfy their customer which is responsive MO. The success of firms operating in a specific environment rely on their appropriate strategy, and MO [23]. The market orientation concerning to export activity plays an important role since it controls the strategy of an organizations which consequently support achievement in foreign markets [24]. Moreover, the firms also act as proactive from its focusing on customers' latent needs [25]. This can be considered that firms focus on market orientation is necessary to create the innovation in response to the competitive environment. Moreover, they will consider innovation to create value creation to their customer. The market orientation has a relationship with knowledge and competency, which finally affect to innovation [26]. Then, Scholar should consider the relationship between MARKET ORIENTATION and innovation within a particular firm. The role of market orientation to any firms entering into foreign market has not fully studied yet [27]. It is necessary for those firms to acquire update information and need capabilities and experience to apply the information effectively to their international operation [28]. Although many studies indicate beneficial of market orientation to foreign operation, however some studies present the negative effect of market orientation during times of turbulence [29].

C. International Market Turbulent

According to the external environment of business firms, there are many studies that put their effort on narrow down the scope of environment that may affect the firms operation. For the export activity, three turbulent of the external environment are pertinent to the management [30]. The three component can be summarized as follow [31]. First, market turbulent is the level of environmental dynamic that affects the firms in their strategies to fit the customer need. Second, technological turbulence indicates the level of technological dynamic in both product and manufacturing process. Finally, competitive turbulent is the intensity of the rival among various player in a particular industry. In addition, all exporters are face with the continuous changing of international trade regulation. Moreover, the difference among countries in their laws and regulations also crucial for firms aim at internationalization. The main idea is that speed in an important factor for firms to adjust their operation in the turbulent business environment [32]. The firms that move their operation into internationalization rapidly face a problem of time to instruct organization learning to adjust promptly [33]. Therefore, highly strategic firms focus on turbulence of their operation [34]. In the period of turbulent in foreign markets, the firms that perform market orientation will have highly capability to overcome the uncertainties inherent of those foreign environment [35]. Because market orientation firms concentrate of customer and competitor, then, they are more flexible for optimizing of resource allocation to appropriate turbulent situation. Moreover, the market orientation may support firm's propensity to move from a foreign market that have high turbulence in case of better benefit. The expansion of firms to international level make them become large scale and asymmetric result in disproportionate exploitation to various countries in different region [36]. Thus, it affect to government of any countries to issue of any laws and regulation to overcome the problem occurring from trade among countries particularly unfair behavior that create barrier of international trade. According to the diminishing of

international trade barrier, most bilateral and multilateral trade agreement among countries purposed to support the foreign operation of firms that put their effort on internationalization. On the contrary, domestic regulations of specific countries do not promote the foreign firms and become major obstacle particularly service sector [37]. For example, the supply chain of Caterpillar and Komatsu the producer of heavy equipment have established centers for remanufacture parts of their equipment, they face with an obstacle from the regulation concerning to waste and secondhand goods introduce by some country particular developing countries [38]. Then, firms have to be aware of regulation of any countries that will be issued continuously and unexpectedly.

D. Firms' Innovation for Foreign Market

An economic growth of many countries are derived from there innovation [1]. Consequently, the spillover of technology from one country to another come from international trade [39]. Innovation is the adoption of new device, system, process, product that is new to an organization [40]. Three typologies have been conceptualized as product, process, and administrative function. Innovation orientation means an organization that have it culture open to new ideas and propensity to change by adopting technology, skills, management system and resource [41]. The firms that perform their export without innovation are found negative affects to productivity, and prices-cost mark up. On the contrary, firms that start with innovation alone derive positive impact on their operation [39]. Exporting firms that do not invest in R&D are found the worst performance in term of labor intensive sector [42]. In contrast, the most productivity export firms are reported invest in R&D specifically in capital-intensive sector [43]. In addition, the all new product innovations present no immediate effect on firms' export performance, but incremental product innovation do [44].

III. RESEARCH DESIGN AND METHODS

A. Subjects and Data Collection

We investigated the small and medium enterprises which conduct their export activities in Thailand. Those firms come from various type of industry. However, the largest group of those small and medium firms is food and beverage group. There are three hundred subjects who are small and medium firms that have export activities participate in this study.

B. Research Instrument and Variable Measurement

The framework of this study was constructed base upon reviewing of the literature concerning to the following variables: 1) Export Firms Capability (EFC), 2) International market turbulent (IMT), 3) Market Orientation (MKO), and 4) Firms' Innovation for Foreign Market (FFM). The instrument apply for data collection was questionnaire developed appropriately to fit the variable in the model. Consequently, it was proved for validity as Item Objective Congruence, and tested for its reliability.

C. Measurement

Measurement models for Export firms' Capability, International Market Turbulent, Market Orientation, and Firms' Innovation for Foreign Market were tested using structural equation modeling. There are 30 items applied for measuring the relationship between each variable. The instrument use a 5-point scale ranging from 1 to 5 for summarize the relationship of the variable shown in the model. Then, composite measures were tested.

Export firms' Capability was measured using five items. The mean score for this item was 3.63 and the Standard Deviation was 1.02. A Cronbach's alpha test was conducted to evaluate internal consistency ($\alpha=0.828$). International Market Turbulent was measured using nine items. The mean score for this item was 3.64 and the Standard Deviation was 1.04. Then, Cronbach's alpha test was conducted to evaluate internal consistency ($\alpha=0.900$). In considering Market Orientation it was measured using eleven items. The mean score

for this item was 3.58 and the Standard Deviation was 1.06. Similarly, Cronbach's alpha test was conducted to evaluate internal consistency ($\alpha=0.925$). Firms' Innovation for foreign market was measured using five items. The mean score for this item was 3.62 and the Standard Deviation was 1.02. Finally, Cronbach's alpha test was conducted to evaluate internal consistency ($\alpha=0.833$).

D. Reliability Testing

According to the reliability result, this study applied the Cronbach's Alpha to overall items specifically investigate the variables, the results from table I, indicate Cronbach's alpha between 0.828 and 0.925 indicating that they had the reliability.

TABLE I
RELIABILITY STATISTICS

Variable	Cronbach's Alpha
Export firms' Capability	0.828
International Market Turbulent	0.900
Market Orientation	0.925
Firms' Innovation for foreign market	0.833

E. Multi Collinearity Testing

To ensure that the model will complete the requirement of the structural equation model that is based on regression analysis, the multicollinearity between independent variables should be tested. The tolerance and variance inflation factor (VIF) are measurements for testing. The tolerance should be more than 0.1, or VIF should be less than 10 ($VIF = 1 / \text{tolerance}$), the result indicated that all tested variables have tolerance and VIF are between the range that indicate no multicollinearity found.

F. Construct Validity

To ensure the complete of the instrument, the construct validity, and discriminant validity were tested. The convergent validity was measured by the value of confirmatory factor analysis (CFA) that their factor loading should be greater than 0.6. The result found average variance extracted (AVE) of all variables were above .5. Moreover, the discriminant validity was tested by examining

the correlation between construct and the presented in the following tables.
 correlation between observed variables that
 should less than 0.85, the results of AVE are

G. Statistical Modeling

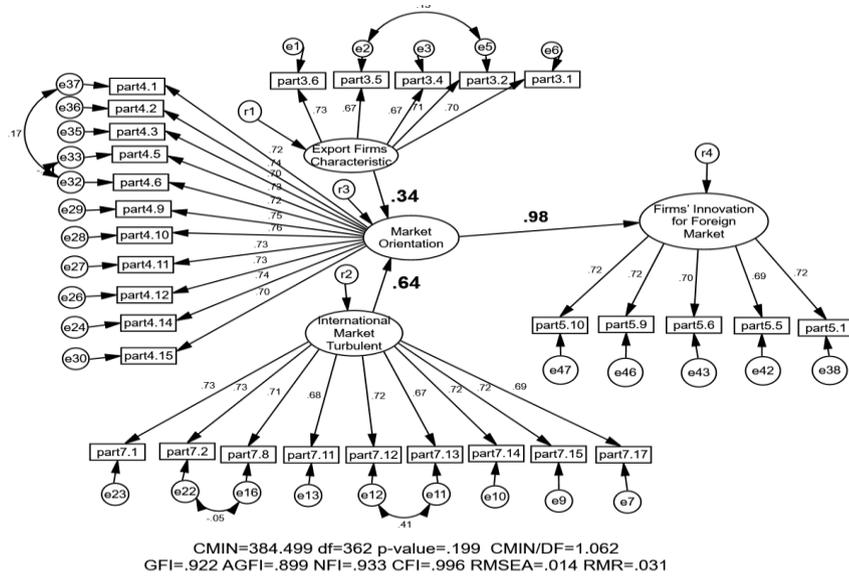


Fig. 1 Statistical Model

TABLE II
ASSESSING THE MODEL FIT INDICATORS

Chi-square/Degree of freedom (CMIN/df)	1.06
Goodness of Fit Index (GFI)	.922
Adjusted Goodness of Fit Index (AGFI)	.899
The Root Means Square Error of Approximation (RMSEA)	.014
Normed fit index (NFI)	.933
Comparative Fit Index (CFI)	.996

IV. FINDINGS

The results from adjusted statistic model show that Export firms' Capability have a significant affect to Market Orientation ($\beta=.34$ with p-value $<.05$), International Market Turbulent have a significant affect to Market

Orientation ($\beta=.64$ with p-value $<.001$), and Market Orientation have a significant affect to Firms' Innovation for Foreign Market ($\beta=.98$ with p-value $<.001$).

TABLE III
STANDARDIZE DIRECT AND INDIRECT EFFECT

	Direct Effect			Indirect Effect			Total Effect		
	EFC	IMT	MKO	EFC	IMT	MKO	EFC	IMT	MKO
MKO	.340	.641					.340	.641	
FFM			.976	.332	.626		.332	.626	.976

According to table III, the indirect of Firms' Innovation for Foreign Market have effect from Export Firms' Capability with $\beta=.332$ and from International Market Turbulent .626. It indicates that the Export firms' capability and International Market Turbulent have effect to Firms' Innovation for Foreign Market through Market Orientation. However, there is no direct effect from both export firms' capability and international market turbulent to firms' innovation for foreign market.

V. DISCUSSION

The crucial role of innovation and significant shift toward exporter networks have an impact on firms that aim to achieving goals in global supply chain. Moreover, the understanding of the consequences of innovation occurring from firms' capability and their behaviors on market orientation remain unclear. Since no research focus on the context of relationship between these factors along the supply chain process of the Thai' export firms. Then, this study focuses on discovering the relationship between firms' capability and the creation of innovation with market orientation as mediator. Furthermore, the rapid change of international market situation has been crucial for doing international business of export firms. Then, we applied the international market turbulent as an additional factor to discover how it affect to market orientation and innovation of firms. In addition, we also concentrate on how important of firms' capability and innovation both direct effect and indirect effect.

A. Managerial Contributions

The key difference to prior research concerning to market orientation is that presents study applied both capability of firms and international market turbulent as independent variables. The purpose is to discover how they have an impact on market orientation which finally affects firms' innovation for foreign market. The results from 300 small and medium firms offer further insight for international market practices. The export firms' capability concerning mainly to capability in

making resolution by firms' themselves, and capability to response quickly and aggressively to uncertain condition affect to market orientation. Consequently, it affect firms' innovation for foreign market. Market orientation of firms can be considered mainly as quick response to foreign customers need by marketing research. Then, the export firms' should be aware of applying the research in following customer need to arrange their products appropriately to the continuously required by foreign customers. Since foreign customers are located in various locations, and may have their needs differently, and change over some period of time. In addition, quick responding to customer complain will support export firms in their conceptual of innovation. In considering competitor, the competitor' behaviors are considered crucial to the success of international operation. The strategy of quick response to the competitors will encourage firms' innovation to generate different products and services to their foreign customers. Since foreign customers need different products upon their geographical areas, and specific need upon culture and market situation. The research results may provide real time information concerning to specific markets, which support the coordination within firms to create better innovation for competitive advantage in an international market. According to market orientation, firms' capability has an impact on market orientation from its capability in making a resolution and creation of product innovation. Moreover, firms have to response quickly to uncertainty environment from its risk management.

B. Theoretical Contribution

Applying Structural Equation Model to discover the relationship of multi variable composed in the framework, the result indicates crucial theoretical contribution confirm former research that Market Orientation have highly affect firms' innovation for foreign market. In particular, the finding presents the important issue on market orientation of quick response to the customers, quick response to the competitors, and interfunctional coordination within firms in terms of using company resources and

promptly communication. This finding confirms the concept of market orientation that affect other firms' activities which finally may affect their operation that can be measure in term of both financial and nonfinancial performance.

VI. FUTURE RESEARCH

Since this study found research is important for firms in international marketing practices. Moreover, research in marketing specifically firms that operative marketing internationally have been conducted through online channel. Then, online marketing research can support export firms for their export practice. The future research should place their interested in conducting content of online research method that can be simplified for the exporters.

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