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Development of firm export market oriented behavior: Evidence from an emerging economy

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ABSTRACT

Based on gathered survey data from Chinese apparel exporters, using structural equation modeling technique, a proposed firm's export market oriented (EMO) behavior model was empirically tested. A great set of antecedent factors (i.e., organizational structure, export systems, export coordination, top management factors, and export dependence) and moderating factors (i.e., environmental turbulence, export experience) were examined in the context of China, which extends the EMO literature from mainly Western business setting to non-Western business environment. This study identifies several key antecedents (i.e., export reward and training systems, top management support, and export dependence) facilitating the development of firm's EMO behavior while determining the specific moderating effects of environment and experience, and therein explains a large percentage of variance in EMO behavior (78.3%). Importantly, we uncover some instances where the theory of firm EMO behavior's antecedents does not hold for Chinese apparel exporters.

1. Introduction

As a result of the escalating integration of global economy, exporting as the most common form of international business involvement (Leonidou, 1995) has been gaining significant importance, not only in terms of national prosperity, but also for individual firms (Cadogan, Diamantopoulos, & Siguaw, 2002). International marketing literature indicates that one path to export success for a firm is to be market oriented (Rose & Shoham, 2002). The concept of market orientation stems from the theoretical development of marketing concept and generally refers to a firm's ability to generate market intelligence pertaining to current and future customer needs, disseminate the intelligence across departments, and respond to the intelligence (Jaworski & Kohli, 1993).

Over the years, marketing research has shown that market orientation can impact a firm's performance. However, a review of the literature suggests that a relatively small amount of empirical work have expanded market orientation research to the international business environment (Cadogan, Cui, Morgan, & Story, 2006). In particular, the literature has not fully explored the roles of various factors as antecedents or moderators for firm's market oriented behavior in an international setting. The factors impacting a firm's market oriented behavior found in its domestic market do not lend themselves straightly to being modeled as the antecedents or moderators to a firm's export market-oriented (EMO) behavior (Cadogan, Paul, Salminen, Puumalainen, & Sundqvist, 2001). Given this situation, a few studies have made initial efforts to address this gap in the literature through contextualizing the extant measures of antecedents, moderators, and firm's market oriented behavior for non-export-specific settings into an exporting setting (e.g., Akyol & Akehurst, 2003; Cadogan et al.,

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2006; He & Wei, 2011; Lingyee, 2004; Murray, Gao, Kotabe, & Zhou, 2007). Notwithstanding this development, the understanding of a firm's EMO behavior is still far from satisfactory (Cadogan et al., 2006). The rich complexity of international markets warrants further research.

In addition, most published empirical studies were focused on the developed nations or regions featured with Western business cultures (e.g., United States, Italy, New Zealand, etc.), while developing nations, emerging economies (e.g., China, India, etc.) in particular, have not been given enough attentions even though firms from developing nations have been actively involved in exporting business in the past several decades and been playing a crucial role in international trade. It is noted that generalizing findings on firm's EMO behavior from Western to non-Western business contexts may be misleading (Lingyee, 2004). As Ambler, Styles, and Wang (1999) indicated, there is a need for more studies into the transferability of Western exporting research to the non-Western business setting. In this respect, Cadogan et al. (2001) contend that the antecedents of firm's EMO behavior may be partially nation-specific.

Consequently, the purpose of this study is to shed new light on the antecedent and moderating factors to firm's EMO behavior on three fronts. First, the geographic coverage of EMO study is extended from a focus of developed nations or regions to the largest emerging economy China. The generalizability of previous findings on the development of firm's EMO behavior in the Chinese business setting is examined. The second contribution is to extend the previous firm's EMO behavior models by integrating antecedent and moderating factors validated in the previous studies. Using the primary data gathered by an industrial survey of Chinese apparel exporters, the reliability and validity of the proposed firm's EMO behavior model are examined and the developed hypotheses are tested. As a result, this study adds richness to the understanding of how a firm's EMO behavior can be facilitated and managed. Finally, through analyzing the export success of Chinese apparel manufacturers from a marketing management perspective (i.e., market orientation) this study brings an extended insight into the international business area.

2. Literature review and hypothesis development

As globalization and the rapid growth of international trade have made it imperative for firms, especially for those from emerging economies, to seek business expansion opportunities, the application of market orientation in the export context has increasingly played a pivotal role in firms' survival and success in international markets (Murray, Gao, & Kotabe, 2011). In a firm's export operations, under turbulent environment, there is a greater likelihood that the synchronization between the firm's offerings and the customers' needs in the export markets may be lost unless an emphasis is placed on EMO activities as a means of offsetting environmental turbulence (Matandaa & Freeman, 2009). Previous studies have revealed that there is a positive relationship between EMO and firm's export performance (e.g., Akyol & Akehurst, 2003; Cadogan et al., 2002; Cavusgil & Zou, 1994; Murray et al., 2007). Consequently, EMO has become an emerging construct useful for integrating market orientation, internationalization, and export behavior literature into a coherent whole (Cadogan et al., 2006). Hurley and Hult (1998) indicate EMO has been increasingly important as a major research stream in international business.

2.1. Concept and measure of EMO

Although it has been generally embraced that firms with EMO tend to perform better than firms without it (e.g., Akyol & Akehurst, 2003), debates continue to focus on what exactly constitute the construct of EMO. Initially, Cadogan and Diamantopoulos (1995) conceptualize EMO to comprise three behavioral components namely export intelligence generation, export intelligence dissemination, and export intelligence responsiveness. Cadogan and Diamantopoulos (1995)'s EMO construct tracks closely with widely applied Jaworski and Kohli (1993)'s formulation of market orientation with a special consideration of export setting. They describe these three behavioral components as being oriented toward export customers, competitors, and market environment. They contend that the activities of these orientations reflected in a coordinating mechanism lead to superior performance for a firm in its export markets. As an intangible property of a firm, EMO enables it to more effectively gather and manage export market information and deliver value to its customers (Hunt & Lambe, 2000). In this regard, EMO behaviors facilitate organizational learning and enhance market knowledge.

The measures of EMO behavior are initially developed and tested by Cadogan et al. in a series of empirical studies (2001, 2002, 2006) and are further applied by other scholars (e.g., Akyol & Akehurst, 2003; Murray et al., 2011). These measures have been mainly validated in the context of developed nations or regions. Export intelligence generation refers to those activities that relate to the creation of export market intelligence. Export intelligence dissemination refers to the extent to which a firm shares information about export markets among its export staffs and other units/departments. Export intelligence responsiveness refers to the degree to which a firm responds to its customers, competitors, or environment as a result of gaining export market intelligence (Cadogan et al., 2006, 2001).

2.2. Antecedents of EMO

Previous studies on antecedents of EMO draw heavily on variables and ideas arising in the organizational theory such as organizational structure, leadership, and coordination (e.g., Cherrington, Bischoff, Dyer, Stephan, & Stewart, 2001; Deshpandé & Farley, 2004; Jaworski & Kohli, 1993) and business contingency theory such as environmental condition (e.g., Chi, Kilduff, & Gargeya, 2009; Murray et al., 2007). Cadogan et al. (2001) find empirical support for the relationships between

organizational structure, export systems, export leadership, and export coordination and EMO. Cadogan et al. (2002) additionally find support for the impact of export dependence on EMO. Moreover, based on a comparison between the findings from their empirical study in the context of Hong Kong and their findings from other nations (i.e., USA, New Zealand, and Finland), Cadogan et al. (2006) conclude that antecedents of EMO may vary by geographic location. Analysis of antecedent factors which facilitate or impede the development of firm's EMO behavior should be framed in a national or regional setting (Deshpandé & Farley, 2004). In this study, the exploration of EMO antecedents is further expanded to China, the largest emerging economy. Since China formally reopened its market in 1978, it has become a worldwide sourcing and exporting platform. China provides an excellent research context to capture the complexity of export environment (Murray et al., 2007). The investigated factors include organizational structure, export systems, export coordination, top management factors, and export dependence. Each of them is then introduced.

2.2.1. Organizational structure

Organizational structure refers to both the level of formalization and the level of centralization of organizational structure related to export activities. Formalization is defined as the degree to which rules define roles, authority relationship, communication, norms, sanctions and procedures (Jaworski & Kohli, 1993). Centralization is defined as the lack of delegation of export market decision making and, in particular, the lack of participation by export function members in those decisions (Cadogan et al., 2001). Decentralized export decision making occurs when export market decisions are delegated to export function employees (Cadogan et al., 2006). Previous empirical findings on the relationship between organizational structure and EMO behavior are mixed (e.g., Cadogan et al., 2006; Pelham & Wilson, 1996). Further test is needed; therefore, Hypothesis 1 (H1) is proposed.

H1. There is a positive relationship between a firm's organizational structures and its level of EMO behavior.

2.2.2. Export systems

Export systems refer to export market oriented reward and training systems. Reward systems are designed to encourage employees to focus on increasing customer satisfaction, while training systems help employees become better export customer oriented. The more export market oriented a firm's reward and training systems are, the greater is the firm's level of EMO behavior (Cadogan et al., 2006). Therefore, Hypothesis 2 (H2) is proposed.

H2. There is a positive relationship between a firm's export systems and its level of EMO behavior.

2.2.3. Export coordination

Export coordination refers to several interrelated and overlapping themes including communication of shared understanding between export and non-export related employees, an organizational culture emphasizing the acceptance of responsibility and cooperation, a lack of dysfunctional conflict, and sharing the same work relevant goals (Cadogan et al., 2001). Cadogan et al. (2002) stress that coordination plays a key role in unifying a firm's capabilities into a cohesive whole, driving its learning processes, and directing its organizational activities. It is reasonable to propose Hypothesis 3 as follows.

H3. There is a positive relationship between a firm's level of export coordination and its level of EMO behavior.

2.2.4. Top management factors

Top management factors include a firm's management commitment to exporting and its emphasis on the importance of a firm's level of export market orientation behavior (Cadogan et al., 2001). A firm's management commitment relates to the degree to which a firm's management expresses positive attitude and expectation about the profitability and risks associated to its export operations. Management's emphasis on EMO refers to the extent to which a firm's management shows a clear signal to employees about the importance of being responsive to customer needs in its export markets. Prior empirical studies show that both management's commitment to exporting and emphasis on EMO are positively related to the firm's level of EMO behavior (e.g., Cadogan et al., 2001; Rose & Shoham, 2002). Thereby, Hypothesis 4 (H4) is proposed.

H4. There is a positive relationship between a firm's top management factors and its level of EMO behavior.

2.2.5. Export dependence

Export dependence is reflected by the degree to which a firm relies on exports to sustain its operations (Cadogan et al., 2001). As firms become more rely on export for their sales and profits, they are prone to allocate greater resources to export market information gathering and dissemination. When more employees within a firm see their success tied to the success of the firm's export operations, the perceived importance of EMO behavior will also be higher. Therefore, Hypothesis 5 (H5) is proposed as follows.

H5. There is a positive relationship between a firm's export dependence and its level of EMO behavior.

2.3. Moderating variables

In addition to aforementioned antecedents, a few factors that likely moderate the established relationships between the antecedents and firm's EMO behavior have also been qualitatively discussed or empirically investigated in prior studies (e.g., Cadogan et al., 2006; Moen & Servais, 2002; Rose & Shoham, 2002). They are then introduced.

2.3.1. Environmental turbulence

There is growing support from a contingency theory perspective about the impact of environmental turbulence on firm's EMO behavior. Cadogan et al. (2001) demonstrate that in an export context, environmental turbulence had a moderating effect on the relationship between a firm's organizational structure and its level of EMO. This is because when the export environment is relatively stable and less competitive, standardization and routinization of management activities and centralized decision-making processes can lead to increased efficiency. In contrast, when the environment is more turbulent, the formalized structure and centralized authority tend not to effectively adapt to rapid changes and become less efficient (Cherrington et al., 2001). However, some other studies (e.g., Cadogan et al., 2002; Jaworski & Kohli, 1993) do not support the moderating role of environmental turbulence. This unresolved issue warrants further investigation.

The items developed to measure environmental turbulence in prior market orientation studies are market dynamism, competitive turbulence, technological turbulence, and regulatory turbulence (Cadogan et al., 2001; Jaworski & Kohli, 1993; Qu & Ennew, 2008). Market dynamism reveals the degree to which a firm's export customers' needs and tastes change. Competitive turbulence relates to the degree to which a firm must react to its competitors' initiatives. Technological turbulence refers to the rapidity with which the technologies involved in export operations changes. Finally, regulatory turbulence reflects the degree to which foreign regulatory uncertainty affects a firm's export operations. Therefore, Hypothesis 6 (H6) is proposed to examine the moderating effect of environmental turbulence.

H6. Environmental turbulence moderates the relationship between a firm's organizational structure and its level of EMO behavior.

2.3.2. Export experience

With regard to export experience, in an international setting, information is often difficult and expensive to obtain, nevertheless, as export experience increments, the firm's familiarity with available source of export information and its knowledge of how to utilize them will gradually increase as well (Cadogan et al., 2001). It seems reasonable to believe that high level of export experience should lead to high level of EMO behavior. However, extant research findings have been conflicting due to the recent emergence of born global phenomenon (Zhou, Wu, & Luo, 2007). Different from the traditional stage approach (also known as Uppsala Internationalization Model) by which firms progress through various stages while they internationalize, born global firms start their export activities upon their inceptions (Knight & Cavusgil, 2004). Moen and Servais (2002) discover that born global firms with fairly limited export experience, exhibited higher level of EMO than established exporting firms. They suggest that the role of export experience might not be antecedent but moderating, and note there is a continuing need for further empirical investigation on this issue. Repositioning the role of export experience may more effectively reveal how EMO behavior is formed in some highly export oriented industries.

Export experience has been measured in different means. Cadogan et al. (2002) use breath of experience (i.e., the number of nations exported to) and length of experience (i.e., the number of years exporting) to reflect the level of a firm's export experience. Breath and length measures are straightforward but have been questioned by some researchers (e.g., Seringhaus, 1991) for their over simplicity and inaccuracy. Therefore, the extent of a firm's export knowledge has been developed and applied to better capture the level of export experience (e.g., Cadogan et al., 2006). Since the moderating effects of export experience are still inconclusive, Hypotheses 7a–7e (H7a–H7e) are proposed to test all potential moderating effects of export experience on the relationships between investigated antecedents and firm's EMO behavior.

H7a. Export experience moderates the relationship between a firm's organizational structure and its level of EMO behavior.

H7b. Export experience moderates the relationship between a firm's export systems and its level of EMO behavior.

H7c. Export experience moderates the relationship between a firm's export coordination and its level of EMO behavior.

H7d. Export experience moderates the relationship between a firm's top management factors and its level of EMO behavior.

H7e. Export experience moderates the relationship between a firm's export dependence and its level of EMO behavior.

3. Conceptual model and survey instrument

Based on above literature review, an enhanced firm's EMO behavior model is proposed and illustrated in Fig. 1. By integrating significant antecedent factors identified in prior studies (i.e., Cadogan et al., 1999, 2006, 2001; Gencturk, Childers, and Ruekert, 1995) into one conceptual model, this research presents a more holistic investigation of how a firm's EMO

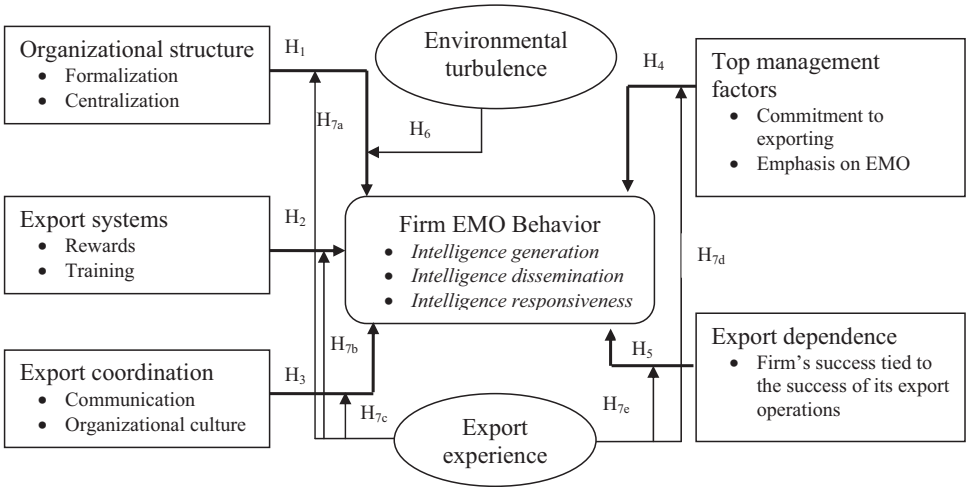

Fig. 1. Enhanced firm's EMO behavior model.

behavior is developed. The endogenous latent construct is firm's EMO behavior which is reflected by three first-order latent constructs – export market intelligence generation, dissemination, and responsiveness. The exogenous latent constructs comprise organizational structure, export systems, top management factors, export dependence, and export coordination. Environmental turbulence and firm's export experience are included as potential moderating factors for the relationships between antecedent factors and firm's EMO behavior. All developed hypotheses (H1–H5, H6, and H7a–H7e) are also depicted in Fig. 1.

A survey instrument was developed to cover all constructs in the proposed model. All measures in the survey instrument were derived from previous pertinent empirical studies. We used Cadogan et al.'s (2006) measures of EMO behavior to capture the degree to which firms behave in a market-oriented way in their export operations. The measures for organizational structure were originally presented by Jaworski and Kohli (1993), but were adapted for the export context by Cadogan et al. (2001). Export coordination measures were borrowed from Cadogan et al. (2001) and Cadogan et al. (1999). The reward systems and training systems measures were culled from Cadogan et al. (2001) which were originated from Jaworski and Kohli (1993) and Ruekert (1992). The measures of export commitment were derived from Gencturk et al. (1995). Top management emphasis measures are culled from Cadogan et al. (2001) which were originated from Jaworski and Kohli (1993). Export dependence measures are borrowed from Cadogan et al. (2001). Export experience is measured by experiential export knowledge developed by Cadogan et al. (2006). Finally, the measures for four constructs in environmental turbulence were culled from Cadogan et al.'s (2001) modifications of Jaworski and Kohli's (1993) work. All measures were previously demonstrated reliable and valid in their respective studies. This procedure provides proof of the content validity of measures (Ward, Duray, Leong, & Sum, 1995). All the measures and scales are provided in Appendix A.

4. Methodology

4.1. Research subjects and data collection

Chinese apparel manufacturing firms that have been involved in direct export operations are the research subjects. As provider of basic necessities and with great potential for export development, the apparel industry was placed in the vanguard of China's reform process and played a major role in China's drive to development. In the past three decades, the Chinese apparel industry has achieved spectacular growth, capturing a significant share of global production and trade (Chi, 2011). The unprecedented export success of Chinese apparel manufacturers has spurred an increasing number of scholarly work to explore the possible success factors. However, there is a paucity of empirical research developed to understand the capabilities of Chinese apparel manufacturers from an international marketing point of view, notwithstanding global apparel market is primarily driven by buyers (Chi & Kilduff, 2006). The present study addresses this deficiency in the literature by analyzing how Chinese apparel manufacturing exporters develop their EMO behavior. In addition, Chinese apparel manufacturers are permeated with Chinese values, which separates them from their Western counterparts by significant cultural, as well as geographical distances (Ngai & Ellis, 1998). Therefore, the choice of Chinese apparel exporters to test the proposed EMO model responds to Ambler et al.'s (1999) call and Cadogan et al.'s (2006) reiteration for research into the transferability of Western export studies into the Asian business context.

Primary data were gathered by a questionnaire survey of the Chinese apparel exporters. A random sample of 2500 apparel firms was prepared using China Texnet firm directory (www.texnet.com.cn) which is the most comprehensive and reliable firm database in the Chinese textile and apparel industries and includes some 8000 apparel manufacturing firms. These firms are located in five major apparel production and export provinces (i.e., Zhejiang, Jiangsu, Shandong, Fujian, and Guangdong).

behavior among Hong Kong exporters that incentive systems which work in more individualist cultures (e.g., USA) may not work as well in relatively more collectivist societies (e.g., Hong Kong). This contradiction exists only the assumption that China is a collectivist society is still valid. As Chi (2011) stated, in the past three decades, China has experienced dramatic transition in moving from a self-sufficiency-based, centrally-planned system towards a commercially-driven, export oriented economy. The Chinese apparel industry has witnessed far-reaching changes, and today, is dominated by private businesses. This feature is clearly revealed by the ownership distribution of survey respondents. At a firm level, Chinese apparel enterprises are capitalism in nature, while at an individual level, collectivism has been largely abandoned (Chi, 2011). These changes have also been recently reported by other scholars (e.g., Li & Peng, 2008; Quer, Claver, & Rienda, 2007). As previous findings are inconclusive, there is a need for more studies into this issue. In regards to the importance of training systems to EMO behavior, it has been universally advocated.

Hypothesis 3 is not supported ($\gamma = 0.21$, t-value = 1.40). A firm's level of export coordination does not significantly affect its level of EMO behavior. This result contradicts the findings reported in other studies of EMO behavior's antecedents (e.g., Cadogan et al., 2006, 2001) which show export coordination is a determining factor for EMO behavior. The possible explanation of this inconsistency could be the firm size of survey respondents. Majority of them were small and medium enterprises (SMEs). Coordination might be much less problematic among SMEs compared to big corporations.

Hypotheses 4 and 5 are supported ($\gamma = 0.47$, t-value = 2.64; and $\gamma = 0.51$, t-value = 2.43, respectively). There are positive relationships between a firm's top management factors and export dependence and its level of EMO behavior. Both managers' commitment to exporting and emphasis on EMO are important predictors of firm's EMO behavior. This finding supports the traditional view of Chinese respect for authority (e.g., O'Keefe & O'Keefe, 1997). Regarding export dependence, when a firm become more rely on export for their sales and profits, more employees within the firm see their success tied to the success of the firm's export operations, consequently, perceive EMO behavior more important.

In regards to moderating effect of environmental factor, Hypothesis 6 is supported ($\gamma = -0.23$, t-value = -1.72), indicating environmental turbulence moderates the relationship between a firm's organizational structure and its level of EMO behavior. In a more turbulent environment, the formalized structure and centralized authority in Chinese apparel exporting firms inhibit them in effectively adapting to rapid changes in customers, competitors, technologies, and regulations.

Finally, the moderating effects of export experience are multifaceted. Based on the test results, Hypotheses 7b, 7d and 7e are supported ($\gamma = 0.50$, t-value = 1.98; $\gamma = 0.42$, t-value = 2.27; and $\gamma = 0.26$, t-value = 1.79, respectively), while Hypotheses 7a and 7c are not supported ($\gamma = -0.17$, t-value = -1.14; and $\gamma = -0.26$, t-value = 1.23, respectively). The level of a firm's export experience only positively moderates the impacts of export systems, top management factors, and export dependence on the firm's EMO behavior. More experienced Chinese apparel exporters are better at developing export reward and training systems, more effectively impose managers' commitment to and emphasis on exporting, and more rely on export for sales and profits.

6. Conclusions and implications

EMO has been widely recognized as providing firm with a source of competitive advantage (Moen & Servais, 2002). A firm with sound EMO capabilities should be able to convert them into a positional advantage (i.e., superior customer value, lower relative cost) (Cadogan et al., 2002). Building on comprehensive literature review and rigorous research design and statistical analysis, this study provides theoretical and empirical support for the notion that certain export processes, structure, systems, and leadership can help facilitate or inhibit the development of a firm's EMO behavior.

We successfully identify several key determinants of EMO behavior in the Chinese business setting, and therein explain a large percentage of variance (78.3%). Importantly, our findings indicate that concerns are justified over the generalizability of export marketing theory. Specifically, we uncover several instances which show that the theory of EMO behavior's antecedents does not hold for this type of Chinese exporters, and provide implications for Chinese firms to develop their EMO behavior. First, efficiency generated by more formalized and centralized organizational structure cannot offset the loss of flexibility and responsiveness. Consequently, hierarchical and bureaucratic structure inhibits Chinese apparel exporters being more market oriented. This is particularly true when a firm operates in a highly turbulent environment. Therefore, designing and implementing less formalized structure and more decentralized decision-making process will help Chinese firms develop EMO behavior. Second, export coordination found to be critical in determining EMO behavior among Western exporters is not found to have the same influence in China. There is only very marginal impact identified from coordination aspect. This difference might be caused to some degree by the fact that SMEs are the majority in the Chinese apparel industry. Given the size, SMEs face less challenge in unifying a firm's capabilities into a cohesive whole, driving its learning processes, and directing its organizational activities compared to big corporations. This contradictory finding warrants further empirical investigations. Third, while the proven influences of top management support and export dependence are consistent with previous findings in Western contexts, the prominent association of reward systems to EMO behavior challenges the notion that incentive systems work in more individualist cultures and may not work effectively in relatively more collectivist societies (Cadogan et al., 2006). It is evident that incentives spur the development of EMO behavior in transitional society as well. We argue that collectivist society might not be an accurate and complete description of today's China. This emerging phenomenon has been increasingly reported by recent studies (e.g., Chi, 2011; Li & Peng, 2008; Quer et al., 2007). Given its nascent and inconclusive nature, there is a need for more studies to better understand this issue. Finally, although if having export experience is the prerequisite for a firm to enter international markets has been questioned

by born global scholars, in this study, export experience does play a positive role in moderating the impacts of reward and training systems, managers' support, and export dependence on Chinese firm's EMO behavior.

Overall, this study sheds new light on the antecedent and moderating factors to firm's EMO behavior in the context of an emerging economy (China). Since the proposed model shows sound and stable psychometric properties while the parsimonious statistical criteria are also well met by all constructs, it offers a valid and reliable tool to investigate firm's EMO behavior in other emerging economies. In addition, the transition happening in the Chinese apparel manufacturing sector is an epitome of the entire Chinese manufacturing industry (Chi, 2011), the methodology may, therefore, be transferred to studies targeting other industrial sectors.

7. Limitations and future studies

First, generalization of findings from this study should be applied with caution since the analysis was contextualized in China and Chinese apparel sector in particular. There might be industry specific impact on the development of firm's EMO behavior. In the future, cross-industry EMO study may be conducted. In regards to generalizing the findings from this study to the rest of the world and especially in comparison to other emerging economies which differ a lot culturally and economically from China, further validation is needed as China is a very unique major economy which has been experiencing radical transition from a self-sufficiency-based, centrally-planned system towards a commercially-driven, export oriented economy in the past three decades. In this study, the explanation of research results has been contingent on the understanding of this unique background. Second, our research focuses on identifying antecedents to EMO behavior under the assumption that EMO activity is beneficial for business success in most situations. Future researchers may also investigate this assumption in the context of China. Third, the potential impacts of firm's demographic variables such as ownership and sales revenue are not covered in this study. It may be addressed in the future studies.

Appendix A. Measures and 7-point Likert scales (factor loadings in parenthesis)

Intelligence generation (very strongly disagree to very strongly agree)	
IG1	We generate a lot of information concerning trends (e.g., regulation, technology, economy) in our export markets. (0.68)
IG2	We periodically review the likely effect of changes in our export environment. (Dropped)
IG3	We generate a lot of information in order to understand the forces which influence our overseas customers' needs and preferences. (0.77)
IG4	We constantly monitor our level of commitment and orientation to customers' needs. (0.71)
Intelligence dissemination (very strongly disagree to very strongly agree)	
ID1	Too much information concerning our export competitors is discarded before it reaches decision makers.* (0.60)
ID2	Information influencing the way we serve our export customers takes forever to reach export personnel.* (0.75)
ID3	Important information about our export customers is often 'lost in the system'.* (Dropped)
ID4	Information about our export competitors' activities often reaches relevant personnel too late to be of any use.* (0.73)
ID5	Important information concerning export market trends (regulation, technology) is often discarded as it makes its way along the communication chain.* (0.66)
Intelligence responsiveness (very strongly disagree to very strongly agree)	
IR1	If a major competitor were to launch an intensive campaign targeted at our foreign customers, we would implement a response immediately. (0.81)
IR2	We are quick to respond to significant changes in our export competitors' price structures. (0.73)
IR3	We are quick to respond to important changes in our export business environment (e.g., regulation, technology, economy). (0.80)
IR4	We rapidly respond to competitors' actions that threaten us in our export markets. (0.78)
Organizational structure – formalization (very strongly disagree to very strongly agree)	
F1	Export people are their own boss in most matters.* (0.63)
F2	Export people can make their own decisions without checking with anybody else.* (0.69)
F3	How things are done is left up to the export employee doing the work.* (0.65)
Organizational structure – centralization (very strongly disagree to very strongly agree)	
C1	In export decision making, even small matters have to be referred to someone higher up for a final answer. (0.77)
C2	Export people have to ask their boss before they do almost anything. (0.80)
C3	Export employees need to have the boss' approval first. (0.83)
Export market-oriented reward systems (very strongly disagree to very strongly agree)	
RS1	Export salespeople's performance is measured by the strength of relationships they build with customers. (0.72)
RS2	We use export customer surveys for evaluating our export salespeople. (0.63)
RS3	Reward systems encourage employees to focus on export customer satisfaction. (0.71)
Export market-oriented training systems (very strongly disagree to very strongly agree)	
TS1	We encourage training that will help employees become better export customer-oriented. (0.76)
TS2	Our management view export market training as an important investment. (0.80)
TS3	We devote substantial resources to developing the marketing expertise of our export employees. (0.82)
Export coordination (very strongly disagree to very strongly agree)	
EC1	Employees in the export unit and those in other functional areas help each other out. (0.75)
EC2	There is a sense of teamwork going right down to the 'shop floor'. (Dropped)
EC3	There is a strong collaborative working relationship between export and 'production'. (0.77)
EC4	Functional areas in this company pull together in the same direction. (0.73)
EC5	Our business functions (e.g., marketing/sales, manufacturing, R & D, etc.) are integrated in pursuing a common goal. (0.81)
EC6	We resolve issues and conflicts through communication and group problem-solving. (0.76)

Appendix A (*Continued*)

Top management's commitment to exporting (very strongly disagree to very strongly agree)	
MC1	Consider firm's exporting activities to be important. (0.85)
MC2	Intend to increase the firm's exporting activities. (0.77)
MC3	Consider exporting to be a valuable investment of resources. (0.82)
MC4	Expect exporting to have a positive effect on firm's performance. (0.80)
Top management's emphasis on EMO (very strongly disagree to very strongly agree)	
ME1	It is vital to adapt to trends in the export markets. (0.86)
ME2	Employees must be sensitive to the activities of the export competitors. (0.78)
ME3	We must gear up to meet export customers' future needs. (0.81)
Export dependence (very strongly disagree to very strongly agree)	
ED1	Percentage of sales attributed to exporting is vital. (0.86)
ED2	Firm's success tied to the success of its export operations. (0.88)
Export experience (skill poorly developed to skill very well developed)	
EE1	The ability to identify sources of export market information. (0.81)
EE2	A base of specific information on export sales opportunities. (0.77)
EE3	An ability to interpret the degree of quality of export market information. (0.72)
EE4	A base of specific information on overseas market legislation/regulations relative to our company's products/business. (0.84)
Export market dynamism (not at all to an extreme extent)	
MD1	Our export customers' product preferences change quickly over time. (0.83)
MD2	New export customers tend to have product-related needs that are different from those of our existing export customers. (0.72)
MD3	Our export customers tend to look for new products all the time. (0.75)
Export competitive turbulence (not at all to an extreme extent)	
CT1	In our export markets, there are many 'promotion wars'. (0.69)
CT2	One hears of a new competitive move in our export markets almost every day. (0.65)
CT3	In our foreign markets, aggressive selling is the norm. (0.72)
Technological turbulence (not at all to an extreme extent)	
TT1	The technology in our industry is changing rapidly. (0.78)
TT2	Technological changes provide big opportunities in our industry. (0.67)
TT3	A large number of new product ideas have been made possible through technological breakthroughs in our industry. (0.73)
Regulatory turbulence (very low impact to very high impact)	
RT1	Foreign restrictions on seller concentration. (0.84)
RT2	Foreign transportation and handling regulations. (0.70)
RT3	Foreign government pricing regulations. (Dropped)
RT4	Overseas environmental protection (e.g., pollution, noise, etc.) law. (0.82)
RT5	Foreign regulations relating to product resale. (Dropped)

Source: Cadogan et al. (1999, 2006, 2001), Jaworski and Kohli (1993), and Ruekert (1992).
Note: (*) reverse coded.

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