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# An empirical investigation of the antecedents and performance outcomes of export innovativeness

Katerina Makri<sup>a</sup>, Marios Theodosiou<sup>b</sup>, Evangelia Katsikea<sup>c,\*</sup>

<sup>a</sup> Vienna University of Economics and Business, Institute for International Marketing Management, Welthandelsplatz 1, Building D2, Entrance A, 2nd floor, 1020 Vienna, Austria

<sup>b</sup> Department of Business and Public Administration, University of Cyprus, University Avenue 1, P.O. Box 20537, CY-1678 Nicosia, Cyprus

<sup>c</sup> School of Management and Business, King's College London, Franklin-Wilkins Building, 150 Stamford Street, London SE1 9NH, UK

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### ABSTRACT

The present study develops and empirically tests a conceptual model of the organizational, strategic, and environmental drivers of export innovativeness. The relationship between export innovativeness and export performance is also examined. Using data collected from 168 small- and medium-sized direct exporters, we find that decentralization in decision making, export market orientation, information exchange and export market dynamism have a significant influence on exporting firms' degree of innovativeness. Furthermore, export innovativeness has a significant positive effect on export performance. Several theoretical and managerial implications are derived from these findings. Directions for future research are also provided.

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## 1. Introduction

During the past 50 years, numerous studies have been published on the determinants of export performance (Chen, Sousa, & Hinming, 2016; Katsikeas, Leonidou, & Morgan, 2000; Leonidou, Katsikeas, & Samiee, 2002; Zou & Stan, 1998). The significant contribution of exporting to world gross domestic product (nearly 30% in 2015 according to World Bank statistics) and the popularity of exporting as a mode of international market entry (especially among small- and medium-sized firms) have spurred a substantial number of studies aiming at identifying the factors responsible for export success (Leonidou et al., 2002). Early studies in this area focused on the influence of environmental factors and firm characteristics (Aaby & Slater, 1989; Madsen, 1989). During the 1990s researchers' attention was directed towards investigating the antecedents and performance outcomes of export strategy (Aulakh, Kotabe, & Teegeen, 2000; Cavusgil & Zou, 1994), whereas more recent studies emphasize the role of firm export-related resources and capabilities (Morgan, Katsikeas, & Vorhies, 2012; Murray, Gao, & Kotabe, 2011).

Despite the large number of determinants of export performance investigated in previous studies (Chen, Sousa, & Hinming,

2016; Zou & Stan, 1998) a review of the exporting literature reveals that limited research attention has been devoted on the role of export innovativeness (Boso, Story, Cadogan, Micevski, & Kadić-Maglajlić, 2013). This scarcity of knowledge represents an important research gap, considering the crucial role that exporting can play for the survival and growth of firms, particularly small- and medium-sized ones, and the potential positive contribution of innovativeness to export success. In recent years, the concept of innovativeness and its relationship with other organizational variables has attracted attention in several business disciplines (Joshi, Das, & Mouri, 2015). Furthermore, the wide recognition that innovativeness is related to enhanced business performance has spurred a large volume of research that examines the factors that stimulate firm innovativeness, the innovation process, and the chain of effects that link innovativeness to performance (Hult, Hurley, & Knight, 2004; Menguc & Auh, 2010; Zhou, Yim, & Tse, 2005). However, to the best of our knowledge, no previous study has investigated export innovativeness as a strategic orientation that favors and encourages the adoption of new ideas, accepts and stimulates novel approaches to export market needs, and challenges current practices and assumptions.

A review of the pertinent literature reveals a number of different but highly consistent definitions of *innovativeness*. Hurley and Hult (1998, p. 44) state that "innovativeness is the notion of openness to new ideas as an aspect of a firm's culture". Auh & Menguc (2005, p. 250) view innovativeness as "an organization's

\* Corresponding author.

E-mail addresses: [aikaterini.makri@wu.ac.at](mailto:aikaterini.makri@wu.ac.at) (K. Makri), [mariosth@ucy.ac.cy](mailto:mariosth@ucy.ac.cy) (M. Theodosiou), [evangelia.katsikea@kcl.ac.uk](mailto:evangelia.katsikea@kcl.ac.uk) (E. Katsikea).

inclination to engage in innovative behaviors". Furthermore, Rubera & Kirca (2012, p. 130) define innovativeness as "a firm's receptivity and inclination to adopt new ideas that lead to the development and launch of new products". Drawing on Lumpkin and Dess (1996), Joshi et al. (2015) define innovativeness as "an organization's proclivity to engage in and support new ideas, creativity, novelty, and experimentation that may lead to new products, services, and processes". The common theme in these definitions is that innovativeness does not relate to specific innovations (like for example the introduction of a new product or service) but reflects a firm's positive predisposition towards developing and introducing innovations on a continual basis. Thus, innovativeness is viewed by some researchers as a business orientation, or a valuable firm capability, that is embedded in an organization's culture (Hurler and Hult, 1998; Luk et al., 2008). Deshpandé and Webster (1989, p. 4) define organizational culture as the "pattern of shared values and beliefs that help individuals understand organizational functioning and thus provide them with the norms for behavior in the organization".

As an aspect of an organization's culture, innovativeness is deeply rooted in a set of relevant values and norms. Furthermore, innovativeness is a socially complex capability which is not easily transferable or imitable by other firms (Menguc & Auh, 2006), and therefore can serve as a source of sustainable competitive advantage (Hult et al., 2004). Innovativeness is likely to affect product innovation through the firm's capacity to innovate (Augusto & Coelho, 2009). However, unlike innovation, innovativeness is not an end but a means to an end (Menguc & Auh, 2006). Along the same lines, Sigauw et al. (2006, p. 557) underscore the role of innovativeness by arguing that "a firm's long-term success may rely more on an overall firm-level innovation orientation that produces capabilities that spawn innovations and less on specific innovations".

On the basis of the preceding discussion, we define *export innovativeness* as an exporting firm's inclination to adopt new ideas that lead to the development of new export-related business processes and products that enable the firm to achieve competitive advantages and superior performance in export markets. In concert with the resource based view theory (RBV) export innovativeness is considered as a critical export marketing capability (Boso et al., 2013) that contributes to international business success (Calantone, Kim, Schmidt, & Cavusgil, 2006). Through innovativeness, exporting firms can devise solutions to export-related problems and challenges, which provide the basis for the survival and success of the exporting firm in the future (Hult, Hurler et al., 2004).

Innovativeness is particularly important for exporting firms, for a variety of reasons. First, these firms face intense global competition, which significantly shortens product life cycles and eliminates existing competitive advantages. Second, the international business environment is becoming increasingly complex and turbulent. Third, the environmental and market conditions that prevail across different country-markets are highly heterogeneous. Fourth, exporting firms can leverage their innovations by exploiting business opportunities that may exist in different export-markets (Hortinha, Lages, & Lages, 2011; Knight & Cavusgil, 2004). Innovativeness can help exporting firms to stay ahead of competition by: (i) facilitating the development of new products and services that satisfy the diverse and changing needs and preferences of export customers; (ii) introducing innovative technologies; and (iii) streamlining relevant operational processes. Thus, it is an issue of utmost importance for exporting firms to strengthen their degree of innovativeness. Recent empirical evidence suggests that lack of innovative activities serves as an obstacle to export success and business development (Uner, Kocak, Cavusgil, & Cavusgil, 2013).

In light of the above, the main objective of this study is to develop and empirically test a comprehensive conceptual model of the antecedents and performance outcomes of export innovativeness. We contribute to the extant export marketing literature by investigating the influence of three sets of antecedent factors (i.e., organizational, strategic, and environmental factors) on a firm's inclination towards export innovativeness, and assessing the impact of export innovativeness on export performance. The identification of the factors that determine an exporting firm's degree of innovativeness is crucially important since as Joshi, Das, & Mouri (2015, p. 368) state "it is imperative that for a firm to be innovative, it must recognize the factors contributing towards its innovativeness". We also contribute to the literature by demonstrating that as a valuable firm capability, innovativeness empowers an exporting firm to adopt a dynamic business model that allows the constant adaptation to environmental and market changes and keeps it always ahead of competition.

The rest of the article is organized as follows. The next section outlines the conceptual framework of the study and develops research hypotheses. Next, the research methodology is described and the results of statistical analysis are presented. The article concludes by discussing key findings and implications, addressing study limitations and identifying future research avenues.

## 2. Theoretical framework and research hypotheses

### 2.1. Theoretical background

A crucial question that researchers have been trying to answer for nearly five decades concerns the drivers of export performance (e.g., Cavusgil & Zou, 1994; Morgan, Kaleka, & Katsikeas, 2004; Murray et al., 2011). The considerable interest in this research area has resulted in a steady stream of publications and the development of a substantial body of knowledge that provides valuable insights and guidance to practicing managers responsible for designing and implementing effective export strategies and programs. Over the years, significant progress has also been achieved in terms of the theoretical development and methodological rigor of export-related studies. In terms of theory in particular, whereas early studies on exporting have been criticized for being atheoretic, more recent studies devoted significant attention to strengthening the theoretical foundation of export performance research, legitimizing the academic inquiry in the field of exporting (Chen et al., 2016). The most prominent theories used in previous studies are contingency theory and the related industrial organization (IO) framework (e.g., Cavusgil & Zou, 1994), and the resource-based view of the firm (RBV), along with its capabilities extension (Morgan et al., 2004; Murray et al., 2011). The conceptual model proposed in this study is based mostly on contingency theory, although it also includes elements of the RBV.

Contingency theory holds that an organization can achieve its objectives in many different ways, but that each way may not be equally effective under all conditions (Ginsberg & Venkatraman, 1985). Thus, depending upon the situation, some ways of achieving organizational objectives may be more effective than others (Zeithalm, 1988). Contingency theory involves three types of variables: *contingency variables* that represent situational characteristics faced by the organization and its managers; *response variables* that represent the actions taken by managers in response to current and anticipated contingency factors; and *performance variables* that represent various dimensions of organizational effectiveness (Zeithalm, 1988). In concurrence with contingency theory, the conceptual model proposed in this study (Fig. 1) considers export innovativeness as a strategic response of exporting firms to the interplay of three sets of antecedent

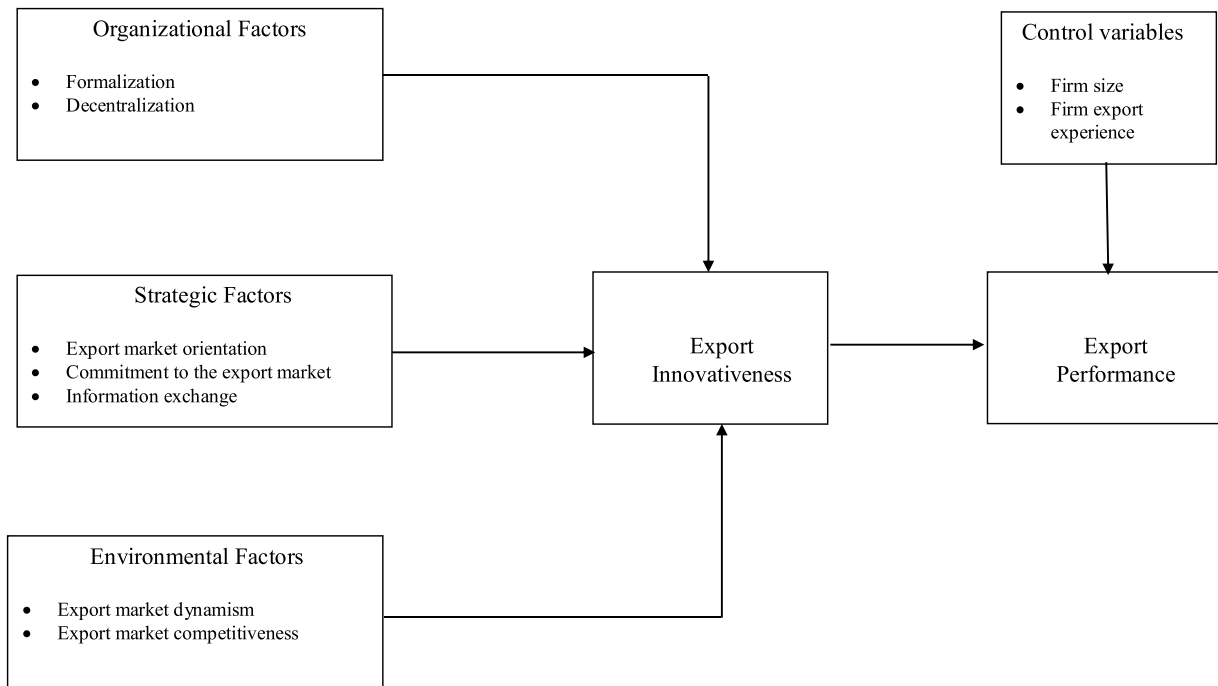


Fig. 1. A conceptual model of the antecedents and performance outcomes of export innovativeness.

factors: organizational factors, environmental factors, and strategic factors. These factors determine the level of innovativeness that exporting firms pursue in export markets, which in turn impacts on export performance.

The RBV postulates that the possession of superior firm resources and capabilities is the key driver of firm performance (Amit & Schoemaker, 1993; Barney 1991). According to Day (1994, p. 38), capabilities are complex bundles of skills and accumulated knowledge, which enable the execution of business processes. Capabilities are also considered as a deployment mechanism which enables firms to transform resources to specific competitive advantages in the marketplace (Morgan, Vorhies, & Mason, 2009). The RBV is relevant to the present study since export innovativeness is a critical export-related capability, which is “valuable and idiosyncratic to firms, an intangible asset that may provide businesses with competitive advantage by virtue of being too costly for rival firms to replicate” (Boso et al., 2013, p. 62).

## 2.2. A proposed conceptual model of export innovativeness

Drawing on previous research (e.g., Hult et al., 2004; Hurley & Hult, 1998; Özsomer, Calantone, & Di Benedetto, 1997), this study proposes that there are three sets of factors that drive export innovativeness: organizational factors, strategic factors, and environmental factors. As part of a firm’s culture, innovativeness requires the adoption of a new mind-set or set of attitudes that need to be shared or disseminated to all areas of the firm to be effective (Menguc & Auh, 2006). Therefore, we consider organizational structure and particularly the degree of organizational formalization and decentralization in decision making as important determinants of export innovativeness. Forces pertaining to the external environment are also critically important (Dibrell, Fairclough, & Davis, 2015; Tsai & Yang, 2013). In particular, heterogeneity across export markets, instability in consumer demands and preferences, and competitors’ actions in the direction of new product introductions will drive a firm to adopt a more innovative orientation. Previous research has shown that

innovative firms, with a greater capacity to innovate, will be more successful in responding to their environments and developing new capabilities that lead to competitive advantage and superior performance (Hurley & Hult, 1998).

Export innovativeness is also likely to be influenced by other strategic orientations adopted by the firm. In particular, the relationship between market orientation and innovativeness has attracted significant research attention. The classic passage of Drucker (1954), that marketing and innovation are the only basic business functions of an enterprise, has served as a source of inspiration for many studies (e.g., Deshpandé, Farley, & Webster, 1993; Han et al., 1998). While market orientation has been criticized for focusing only on the expressed needs of current customers (Zhou et al., 2005), innovativeness can direct attention on new and more effective ways for satisfying the latent needs of existing and new customers (Yalcinkaya, Calantone, & Griffith, 2007). Although no consensus exists in the literature regarding the exact nature of this relationship, we concur with the majority of studies which consider market orientation as an antecedent to innovativeness (Han et al., 1998; Hult et al., 2004; Zhou et al., 2005). The information processing activities (i.e., intelligence generation, dissemination and responsiveness), inherent in market orientation, facilitate the adoption of an innovative culture that focuses on finding new and improved ways to meet the needs and demands of evolving markets (Hult et al., 2004). We also suggest that exporting firms will exhibit higher levels of innovativeness when they are highly committed to a specific export market, as well as when they engage to a greater extent in information exchange with their foreign partners (which offers valuable information and knowledge regarding the export market) (Zhang, Cavusgil, & Roath, 2003).

An investigation of the nature of the relationship between export innovativeness and export performance is also important. The existence of a significant positive relationship between innovativeness and business performance is widely acknowledged in the literature (Deshpandé et al., 1993). Furthermore, in a recent meta-analysis study, Rubera and Kirca (2012) indicated that

innovativeness has a direct influence on both market performance and financial performance. Based on these findings, we propose that export innovativeness impacts on export performance. Fig. 1 presents the conceptual model that directed the execution of this study. This model reflects eight research hypotheses which are developed in the following section.

### 2.3. Research hypotheses

#### 2.3.1. Organizational structure and export innovativeness

Menguc and Auh (2006) conceptually treat innovativeness as a complex transformational process that leads to an organizational culture encouraging employees to be innovative, and as such, it requires the presence of certain organizational structural characteristics. Recent studies have revealed the importance of the exporter's organizational structure in emphasizing innovativeness. In particular, Boso et al. (2013) empirically proved that under more organic organizational structures, where greater decentralization and autonomy in decision making is encouraged, export personnel is more likely to engage in innovative export ideas. Formalization, refers to the extent to which rules define roles, authority relations, communications, norms and sanctions and procedures (Hall, Johnston, & Haas, 1967), providing solutions for effective problem solving, eliminating confusion, decreasing divergent interpretations to similar activities, and transferring the risk and attribution of failure to management (Auh & Menguc, 2007). Hurley and Hult (1998), suggest that organizations with lower levels of formalization have a higher capacity to innovate. In particular, low formalization is expected to promote openness and flexibility in roles as well as initiation and implementation of new ideas, which are preconditions for innovativeness. Therefore,

**H1.** Formalization is negatively related to export innovativeness

Decentralization involves employees who hold different positions within the organization and urges middle level managers to appreciate the value of information acquisition and dissemination (Pelham & Wilson, 1996). Empirical evidence indicates that decentralization promotes a constant exchange of thoughts and constructive criticism that lead to the emergence of a variety of innovative ideas from different groups of employees (Ruekert & Walker, 1987). In addition, decentralization enables export managers to be more creative and autonomous in offering product innovations to meet new export market requirements (Boso et al., 2013). In contrast, centralization has the potential to ignore the diverse and rich cognitive resources of human capital within an organization, confining such capital to a selected tier. As a result, creative and diverse thoughts are excluded from the decision-making process (Auh & Menguc, 2007). The concentration of decision-making authority prevents innovative solutions, while the dispersion of power is necessary for innovation (Thompson, 1965). According to Hurley and Hult (1998) participative decision making, support and collaboration, and power sharing compose important drivers of innovativeness. Even though empirical results supporting the negative association between innovation and centralization already exist (e.g. Damanpour, 1991), a recent meta-analytic review by Rubera and Kirca (2012) stresses the need for further investigating this relationship. Based on the above discussion, we advance the following hypothesis:

**H2.** Decentralization is positively related to export innovativeness

#### 2.3.2. Export market orientation and export innovativeness

Empirical evidence reveals that export market orientation plays an important role in export market ventures and contributes to marketing capability building (Murray, Gao, & Kotabe, 2011).

Marketing scholars also suggest that market orientation is an important antecedent of innovativeness (Han et al., 1998; Hurley & Hult, 1998; Hurley, Hult, & Knight, 2005; Im & Workman, 2004; Kirca, Jayachandran, & Bearden, 2005). However, other studies adopt a different point of view, arguing that market orientation also carries the risk of structural inertia for firms, a fact that may lead to reduced innovativeness (Boso, Story, & Cadogan, 2013; Christensen & Bower, 1996). Thus, there is an urgent need to further investigate the effect of market orientation on innovativeness.

Market orientation encourages organizational members to closely collaborate and coordinate their efforts with respect to continuously gathering, disseminating and responding to market intelligence (Kohli & Jaworski, 1990). The innovation process also includes activities for the generation, dissemination and adoption of new knowledge (Calantone et al., 2002; Moorman & Miner, 1998). Increased communication and integration across organizational functions shapes a climate which is open and receptive and emphasizes the generation of innovative ideas (Grinstein, 2008; Wei & Atuahene-Gima, 2009). Thus, firm innovativeness is based upon the extent to which managers gain and act on market intelligence (Hult et al., 2004). Extending this logical sequence to an export marketing context the following hypothesis is advanced:

**H3.** Export market orientation is positively related to export innovativeness

#### 2.3.3. Commitment to the export market and export innovativeness

The importance of managerial perceptions for the expansion of a firm's export activities is already acknowledged in the international marketing literature (Leonidou, Katsikeas, & Piercy, 1998). According to Cavusgil and Zou (1994), high management commitment levels enhance a firm's ability to go after export market opportunities and pursue effective export marketing strategies that will improve its export performance. Many recent studies on international marketing reveal the important role of commitment to the export market as a driver of international success (Beleska-Spasova, Glaister, & Stride, 2012; Lages, Jap, & Griffith, 2008; Zhou, Wu, & Barnes, 2012). Managerial commitment to an export market contributes to the careful planning of the entry into that market and the effective allocation of managerial and financial resources (Cavusgil & Zou, 1994). The commitment of the necessary organizational resources to the export market will encourage and facilitate the development of new and innovative ideas regarding product, service or process innovations that will enhance the value offered to customers and result in positional competitive advantages for the firm. Moreover, Nadkarni and Perez (2007), imply that firms with high levels of commitment to the export market are more likely to have greater interaction with their overseas exchange partners. Thus, they are more likely to adopt a customer centric approach in serving foreign markets. Through innovative solutions they are able to respond proactively to the evolving foreign customer needs and preferences (Cavusgil & Zou, 1994; Yli-Renko & Janakiraman, 2008). Therefore,

**H4.** Commitment to the export market is positively related to export innovativeness

#### 2.3.4. Information exchange and export innovativeness

Innovation requires external learning, including market learning and network learning, and internal learning, including R&D. A firm must acquire information from every possible source in order to develop leading edge innovative products to fulfill the market's needs (Weerawardena, Mort, Liesch, & Knight, 2007). Recent studies have shown that expanding the scope of information from external ideas and technologies, enables firms with high flow of

informational exchange to detect future market trends and develop innovations to capitalize on them (Rubera, Chandrasekaran, & Ordanini, 2015; Zhou and Li, 2012). For instance, strong channel relationships increase international channel performance through reduced transaction related costs (Zhang, Cavusgil, & Roath, 2003). Furthermore, the information exchange between the export manufacturer and the foreign distributor can contribute greatly to the partners' ability to respond quickly and effectively to the challenges which may arise from the evolving foreign environment (Zhang et al., 2003). Through exporting, a firm's learning abilities are increased, since firms get access to novel information and technological knowledge not available in their home market. Firms engaged in intense information exchange naturally enhance their process of information gathering and analyzing, which greatly contributes to their capability to support novelty, creativity and R&D. Recent empirical evidence emphasizes the important role of information acquisition about customers and competitors in increasing firm performance through the advancement of innovativeness (Ozkaya, Droge, Hult, Calantone, & Ozkaya, 2015). Therefore,

**H5.** Information exchange is positively related to export innovativeness

### 2.3.5. Market dynamism and export innovativeness

Market dynamism reflects changing customer preferences, wide ranging needs and requirements, and constant emphasis on the offering of innovative products and services (Hult, Ketchen, & Slater, 2004). In highly dynamic foreign markets, exporting organizations should enhance their innovativeness in order to provide superior customer value (Gatignon & Xuereb, 1997). In particular, instability in customers' preferences and expectations significantly limits the firm's ability to satisfy them by performing minor modifications to existing products (Zhou et al., 2005). Empirical evidence indicates that market dynamism and heterogeneity relate to innovativeness (Zahra & Neubaum, 1998; Zahra et al., 1997). As foreign market environments turn to be more diverse and more risky than domestic ones (Albaum, Duerr, & Strandskov, 2001), firms are likely to co-align their orientation to the environment by adopting innovative solutions. The ability to respond to the changing needs of foreign customers on a continuous basis is particularly important in today's highly turbulent environment which necessitates innovation and constant improvements or adaptations of products and services (Menguc & Auh, 2010). Consequently, to succeed within dynamic foreign environments, it is extremely important for exporting firms to adopt a business culture that supports new ideas and innovation. Therefore,

**H6.** Export market dynamism is positively related to export innovativeness

### 2.3.6. Competitiveness and export innovativeness

Competitiveness refers to the ability and willingness of competitors to alter marketing mix decisions in order to gain competitive advantage (Song & Parry, 2009). Under conditions of intense competition, customers have too many options and can choose from a wide set of competing alternatives (Augusto & Coelho, 2009). Zhou et al. (2005) argue that in order to remain competitive and maintain or enhance performance, firms should be able to create and deliver superior customer value. Innovative companies have the ability to anticipate and respond to consumer needs better than their competitors (Simpson, Sigauw, & Enz, 2006). Being innovative means being able to expand the portfolio of innovative new products to achieve international expansion, diversification and differentiation (Contractor, Kumar, & Kundu,

2007), elements which are mostly required in highly competitive environments. Empirical findings reveal the influential role of innovativeness in gaining a competitive edge and achieving competitive advantage (Olavarrieta & Friedmann, 2008). Therefore, intense competition in foreign markets necessitates the adoption of innovativeness as an effective response to aggressive competitors and as a means to offer superior value to customers (Jaworski & Kohli, 1993). Thus,

**H7.** Export market competitiveness is positively associated with export innovativeness

### 2.3.7. Export innovativeness and export performance

Researchers treat innovativeness as a valuable firm-specific resource that is difficult to be transferred or imitated (Hult & Ketchen, 2001; Menguc & Auh, 2006). This resource enables firms to develop and commercialize value-adding products, thus gaining competitive advantage in export markets (Kim & Park, 2010; Lages et al., 2009; Schilke, 2014). A large number of relevant studies indicate a positive association between innovativeness and firm performance (Damanpour & Evan, 1984; Deshpande & Farley, 2004; Han et al., 1998; Knight & Kim, 2009; Ozkaya et al., 2015; Zhou et al., 2005). Innovativeness leads to higher customer satisfaction, keeps existing customers loyal, attracts new customers and contributes to the desired growth and market share. Furthermore, according to a meta-analysis by Rubera and Kirca (2012), innovativeness enhances market performance as it allows the firm to keep pace with changing customer preferences and also strengthens a firm's financial position.

Innovativeness brings superior insights and process-based advantages, which make firms more efficient by reducing the cost of acquiring resources (McGrath, Tsai, Venkataraman, & MacMillan, 1996) and by lowering the average cost through more productive resource utilization (Morgan, Slotegraaf, & Vorhies, 2009). Further, innovativeness enables the firm to develop specific abilities that make it more productive in the use of the resources necessary to innovate (Szymanski, Kroff, & Troy, 2007). Innovativeness stimulates not only product or service innovations but also innovations in production processes, technologies and administration processes which can contribute towards significant cost reductions and operational efficiency (Gatignon & Xuereb, 1997; Han et al., 1998). In accordance with previous studies that convincingly argue that innovativeness is important to the success of the organization (Calantone et al., 2006; Hult et al., 2004), we expect that exporting firms adopting an innovation orientation with respect to export markets, will attain superior export performance. Therefore,

**H8.** Export innovativeness is positively related to export performance

## 3. Research method

### 3.1. Sample and data collection procedures

To test our research model and hypotheses we conducted a survey among direct manufacturing exporters operating in Greece, using a highly structured online questionnaire. Despite its financial struggle, Greece is still achieving significant growth in exports, from 13.4€ billion in 2009, to 23.6€ billion in 2015 (Hellenic National Statistical Authority 2016). We contacted the national Export Promotion Organization which provided us with a list of 1000 SMEs exporters of indigenous origin operating in different industries and producing either consumer or industrial goods. To secure effective response to the survey we decided to contact each firm by phone in order to assess its eligibility for inclusion in our

study, identify an appropriate key informant, ask for their cooperation and support, and verify contact details. Following each successful phone call, an e-mail was sent to the appropriate key informant, including a URL link that directs potential respondents to the site that hosts the questionnaire. The site was developed by a professional web site designer and it was visually appealing, user friendly, and easy for respondents to answer each question. Of the 1000 firms that we initially approached, 784 agreed to participate in our survey. We received 168 usable questionnaires, for an effective response rate of 21.4%. To test for nonresponse bias, we compared a random sample of 50 non-respondents with respondents in terms of number of full-time employees, number of employees involved in exporting, and export ratio. We found no significant differences, and therefore we conclude that nonresponse bias was not an issue of concern in this research.

We followed Huber and Power's (1985) guidelines with respect to collecting high-quality data from key informants. The key informant in our study is the head of exporting activities (hereafter referred to as export executive). These executives were selected because they are knowledgeable about the organizational culture and the level of market orientation pursued by their firms, the internal and external environment of their export organization, and export performance. To further reduce the possibility of potential bias attributed to the key informant the last section of our questionnaire included four statements that assessed respondents': (1) knowledge regarding the exporting activities of the firm; (2) involvement in the exporting activities of the firm; (3) responsibility for the exporting activities of the firm; and (4) confidence in answering the questions of the survey instrument. The means scores for these statements range between 5.03 and 6.23 (on a seven-point scale anchored by "Low" and "High"), indicating that potential bias attributable to the key-informant is negligible.

### 3.2. Common method bias

Common method bias (CMB) is a potential problem in studies that rely on a single informant. This bias results "from any artefactual covariance between the predictor and criterion variable produced by the fact that the respondent providing the measure of this variables is the same" (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). We used Harman's one-factor test (Podsakoff & Organ, 1986) to test for CMB. First, we performed a principal components analysis of all constructs examined in this study. The unrotated solution resulted in 13 factors with eigenvalues greater than 1.0, which could explain 75.35% of the variance. No general factor emerged, whereas the first factor explained only 26.04% of the variance. We also employed a confirmatory factor analysis (CFA) approach to Harman's one-factor test. In particular, we calculated the average scores of the 15 first-order factors included in our structural model, and used these variables as indicators of a single latent factor. We estimated this CFA model using EQS. Results indicated that this single-factor measurement model had a poor fit to the data:  $\chi^2_{(65)} = 365.55, p < 0.00; \chi^2/d.f. = 5.62; \text{comparative fit index [CFI]} = 0.71, \text{nonnormed fit index [NNFI]} = 0.66, \text{and root mean square error of approximation [RMSEA]} = 0.17$ . Admittedly, the Harman's one-factor test has several limitations (Podsakoff et al., 2003) and therefore CMB cannot be completely ruled out. However, these results indicate that CMB cannot explain the observed associations among our study constructs.

### 3.3. Measures

We measured our constructs using existing, well validated scales, which we identified after a thorough review of the pertinent

literature. Drawing on Walker and Ruekert (1987) we operationalized export performance as a second order factor comprising three dimensions: effectiveness, efficiency, and adaptability. The effectiveness and efficiency dimensions capture Morgan et al.'s (2012) measures of export market performance and export financial performance respectively. The adaptability dimension is consistent with Murray et al.'s (2011) measure of product performance, which reflects an exporting firm's ability to successfully introduce new products in foreign markets. We developed these measures based on previous studies (Morgan et al., 2004, 2012; Murray et al., 2011; Zou & Stan, 1998).

As the majority of studies on innovativeness were conducted in the area of entrepreneurship (Joshi et al., 2015) we measured export innovativeness using the innovativeness dimension of the entrepreneurial orientation scale (Lumpkin & Dess, 1996; Matsuno, Mentzer, & Özsoymer, 2002). Our measure of formalization was based on the widely used scale of Aiken and Hage (1968), whereas we measured decentralization using the scale developed by Olson et al. (2005). Our measure of export market orientation was based on the work of Cadogan et al. (2009), who adapted the Jaworski and Kohli's (1993) market orientation scale for the export marketing context. We measured commitment to the export market using a scale developed by Cavusgil and Zou (1994), and information exchange using the scale developed by Zhang, Cavusgil, and Roath (2003). Finally, our measures of export market dynamism and export market competitiveness were drawn from Cadogan et al. (2009) and Jaworski and Kohli (1993) respectively. Table 1 presents the specific measurement items for each construct and their sources.

We developed a first draft of the questionnaire in English. We employed the services of two professional translators who translated it to the local language and back translated it to English. This procedure ensures that both versions of the questionnaire contain equivalent measures. We then conducted a series of personal interviews with export executives who assessed the relevance and appropriateness of our measurement scales, and assisted us in rewording and/or rephrasing certain items to make them suitable for the exporting context. Subsequently, the questionnaire was administered to four academic experts in the area of exporting, who evaluated its face validity. The final version of the questionnaire was extensively pre-tested with 20 export executives and no specific problems appeared with respect to the measures, the clarity of the questions or the length of the questionnaire.

## 4. Analysis and results

### 4.1. Measurement model evaluation

We employed appropriate scale purification procedures in order to assess the validity and reliability of our measurement scales. Initially we performed exploratory factor analysis and item-to-total correlations in order to identify any poorly performing items. We dropped a number of items that exhibited low factors loadings or item-to-total correlations, or loaded heavily on more than one factors (see Table 1). With the remaining items we performed confirmatory factor analysis (CFA) using the EQS statistical package in order to assess construct convergent and discriminant validity and reliability. Fit statistics indicate a close fit to the data ( $\chi^2_{(1085)} = 1916.51, p < 0.00; \chi^2/d.f. = 1.77; \text{comparative fit index [CFI]} = 0.94, \text{nonnormed fit index [NNFI]} = 0.93, \text{and root mean square error of approximation [RMSEA]} = 0.068$ ). As shown in Table 1, all first-order and second-order factor loadings are large and significant, providing evidence of convergent validity. We assessed discriminant validity using the most restrictive test provided by Fornell and Larcker (1981). We found that for all

**Table 1**  
Measurement Scales, Confirmatory Factor Analysis Results, and Reliabilities.

Constructs and Measurement items	Standardized Loadings <sup>a</sup>
<b>Formalization</b> ( $\alpha = 0.84$ ; CR = 0.85; AVE = 0.59) (Aiken and Hage (1968)) (seven-point scales, anchored by “Strongly Disagree” and “Strongly Agree”)	
In our company a person can make his/her own decisions without checking with anybody else (R)	0.58 <sup>b</sup>
How things are done around here is left up to the person doing the job (R)	0.67 (6.54)
Employees here are allowed to do almost as they please (R)	0.84 (7.52)
Most employees here make their own rules on the job (R)	0.93 (7.74)
I feel that I am my own boss in most matters. <sup>c</sup>	
In our company employees are constantly being checked for rule violations <sup>c</sup>	
<b>Decentralization</b> ( $\alpha = 0.73$ ; CR = 0.76; AVE = 0.53) (Olson, Slater, and Hult (2005)) (seven-point scales, anchored by “Strongly Disagree” and “Strongly Agree”)	
Managers are allowed flexibility in getting work done	0.69 <sup>b</sup>
Many important decisions are made locally rather than centrally	0.59 (6.30)
Middle- and lower-level managers have substantial autonomy	0.86 (7.59)
In this marketing organization, decisions tend to be made at a high level <sup>c</sup>	
The individual decision maker has wide latitude in the choice of means to accomplish goals <sup>c</sup>	
A person who wants to make his own decision would quickly be discouraged <sup>c</sup>	
Even small matters are referred to someone higher in the marketing organization for a decision <sup>c</sup>	
<b>Export Market Orientation (Second-order factor)</b> (Cadogan, Kuivalainen and Sundqvist (2009)) (seven-point scale, anchored by “Strongly Disagree” and “Strongly Agree”)	
<b>A. Export market intelligence generation</b> ( $\alpha = 0.89$ ; CR = 0.89; AVE = 0.66)	0.89 <sup>b</sup>
In our company, we generate a lot of information concerning trends (e.g. regulations, technological developments, political, economic) in our export ventures’ markets	0.80 <sup>b</sup>
We constantly monitor our level of commitment and orientation to serving foreign customer needs	0.81 (11.07)
We periodically review the likely effect of changes in our export environment (e.g. regulation, technology)	0.75 (10.10)
We generate a lot of information in order to understand the forces which influence our foreign customers’ needs and preferences	0.89 (12.61)
We are slow to detect fundamental shifts in our export environment (e.g. regulation, technology, economy) <sup>c</sup>	
<b>B. Export market intelligence dissemination</b> ( $\alpha = 0.94$ ; CR = 0.94; AVE = 0.76)	0.47 (3.68)
Too much information concerning our export competitors is discarded before it reaches decision makers (R)	0.78 <sup>b</sup>
Information which can influence the way we serve our foreign customers takes forever to reach export personnel (R)	0.85 (11.68)
Important information about our foreign customers is often ‘lost in the system’ (R)	0.88 (12.34)
Important information about our export competitors’ activities often reaches relevant personnel too late to be of any use (R)	0.94 (13.26)
Important information concerning export market trends (regulation, technology) is often discarded as it makes its way along the communication chain (R)	0.90 (12.65)
<b>C. Export market responsiveness</b> ( $\alpha = 0.89$ ; CR = 0.89; AVE = 0.68)	0.82 (7.58)
If a major competitor was to launch an intensive campaign targeted at our foreign customers, we would implement a response immediately	0.78 <sup>b</sup>
We are quick to respond to significant changes in our competitors’ price structures in export markets	0.82 (11.31)
We are quick to respond to important changes in our export business environment (e.g. regulation, technology, economy)	0.73 (9.61)
We rapidly respond to competitive actions that threaten us in our export market	94 (13.16)
<b>Commitment to the export market</b> ( $\alpha = 0.87$ ; CR = 0.87; AVE = 0.70) (Cavusgil and Zou (1994)) (seven-point scale, anchored by “None” and “Substantial”)	
Extent of careful planning for the entry of this export market	0.72 <sup>b</sup>
Extent of management commitment to the export market	0.92 (10.55)
Extent of resource commitment to the export market	0.85 (10.08)
<b>Information Exchange</b> ( $\alpha = 0.76$ ; CR = 0.80; AVE = 0.58) (Zhang, Cavusgil, and Roath (2003)) (seven-point scale, anchored by “None” and “Substantial”)	
Extent of information exchange between your personnel and foreign customers/distributors	0.85 <sup>b</sup>
Extent of close collaboration with foreign customers/distributors to improve your export-related capabilities	0.86 (9.79)
Extent of joint training programs with foreign customers/distributors to improve mutual learning	0.53 (6.42)
<b>Export market dynamism</b> ( $\alpha = 0.82$ ; CR = 0.82; AVE = 0.54) (Cadogan et al. (2009)) (seven-point scale, anchored by “Strongly Disagree” and “Strongly Agree”)	
Our foreign customers’ product preferences change quite a bit over time	0.83 <sup>b</sup>
New foreign customers tend to have product-related needs that are different from those of our existing foreign customers	0.69 (8.39)
Our foreign customers tend to look for new products all the time	0.71 (8.63)
We are witnessing changes in the type of products/product lines demanded by our foreign customers	0.69 (8.46)
Our foreign customers tend to have stable product preferences <sup>c</sup>	
<b>Export market competitiveness</b> ( $\alpha = 0.85$ ; CR = 0.86; AVE = 0.55) (Jaworski and Kohli (1993)) (seven-point scale, anchored by “Strongly Disagree” and “Strongly Agree”)	
Competition in the export market is cutthroat	0.86 <sup>b</sup>
There are many “promotion wars” in the export market	0.88 (12.88)
Anything that one competitor can offer, others can match readily	0.70 (9.64)
Price competition is a hallmark in the export market	0.65 (8.67)
New competitive moves arise in the export market almost every day	0.56 (7.14)
Our competitors are relatively weak <sup>c</sup>	
<b>Export Innovativeness</b> ( $\alpha = 0.74$ ; CR = 0.76; AVE = 0.62) [Matsuno et al. (2002)] (seven-point scale, anchored by “Strongly Disagree” and “Strongly Agree”)	
When it comes to problem solving, we value creative new solutions more than solutions of conventional wisdom	0.70 <sup>b</sup>
Top managers in our company encourage the development of innovative export marketing strategies	0.85 (8.16)
<b>Export Performance (Second-order factor)</b> (seven-point scale, anchored by “Much Worse” and “Much Better”)	
<b>A. Export market effectiveness</b> ( $\alpha = 0.93$ ; CR = 0.93; AVE = 0.78)	0.91 <sup>b</sup>
Export sales volume	0.86 <sup>b</sup>
Export sales growth	0.89 (14.87)
Export market share	0.88 (14.61)
Export market share growth	0.90 (15.30)
<b>B. Export market efficiency</b> ( $\alpha = 0.94$ ; CR = 0.94; AVE = 0.76)	0.81 (9.63)

Table 1 (Continued)

Constructs and Measurement items	Standardized Loadings <sup>a</sup>
Export profitability	0.92 <sup>b</sup>
Export profitability growth	0.91 (19.23)
Return on sales	0.89 (18.17)
Return on investment	0.85 (16.14)
Export venture profit margins	0.76 (12.57)
<b>C. Export market adaptability</b> ( $\alpha = 0.85$ ; CR = 0.86; AVE = 0.67)	0.90 (8.35)
Sales revenues derived from products introduced in this export market during the past three years	0.73 <sup>b</sup>
Speed of getting new products to the market	0.86 (10.28)
Number of successful new export market products	0.86 (10.37)

<sup>a</sup> *t*-values are in parentheses.  
<sup>b</sup> Fixed item.  
<sup>c</sup> Dropped item after purification processes.

possible pairs of constructs included in our study the shared variance (i.e., the squared intercorrelation) was lower than the average variance extracted for the individual constructs. These results provide strong evidence of discriminant validity. Finally, we estimated construct reliability using Cronbach's alpha coefficient, composite reliability score, and average variance extracted. All constructs have alpha values and composite reliabilities scores that exceed 0.7. Moreover, the average variance extracted for all constructs is greater than 0.5, satisfying the recommended thresholds (Bagozzi & Yi, 1988; Fornell & Larcker, 1981). Thus, all measurement scales possess good levels of reliability. Table 2 presents descriptive statistics and intercorrelations for study constructs.

4.2. Structural model estimation

In order to test our research hypotheses we estimated the structural model shown in Fig. 1. Because an exporting firm's size and export experience may influence its financial performance, we include these two variables as controls in our model. Table 3 reports goodness-of-fit indices and standardized parameter estimates obtained from this analysis. The model has a satisfactory fit to the data ( $\chi^2_{(435)} = 761.44, p < 0.00; \chi^2/d.f. = 1.75$ ; comparative fit index [CFI] = 0.92, nonnormed fit index [NNFI] = 0.91, and root mean square error of approximation [RMSEA] = 0.067). Moreover, the standardized coefficients and corresponding *t*-values reported in Table 3 provide support for five research hypotheses. On the other hand, three hypotheses did not receive support.

In particular, our results indicate that decentralization, export market orientation, information exchange, and export market dynamism have a significant positive influence on export innovativeness, providing support for H2, H3, H5, and H6. Moreover, in support of H8, we find a significant positive effect of export innovativeness on export performance. On the other

hand, formalization, commitment to the export venture, and export market competitiveness have no significant relationship with export innovativeness. Therefore, no support is provided for H1, H4, and H7. It is also worth noting that firm size, which serves as a control variable in our model, has a significant positive effect on export performance. This result is consistent with previous studies which have shown that larger exporting firms possess greater financial, human, technological, and other resources which enable them to achieve superior performance in export markets (e.g. Kuivalainen, Sundqvist, & Servais, 2007; Sundqvist et al., 2012). Finally, the levels of explained variances for the dependent variables are 75.2% for export innovativeness and 41.5% for export performance.

5. Discussion and implications

The present research endeavour offers a comprehensive framework of the impact of innovativeness on export performance, taking into account key drivers of innovativeness. In this way we address the impact of innovativeness on the exporting firm's performance and we investigate the nature of relationships between innovativeness and key antecedents in the exporting context. Our findings have important implications for both managers and researchers.

5.1. Theoretical implications

Bringing together research on the determinants of export performance and the performance outcomes of innovativeness, the present paper contributes to the international literature in several ways. First, while innovativeness has received considerable attention in recent literature (Siguaw, Simpson, and Enz, 2006), no systematic research has examined the nature of innovativeness as applied to an exporting context. Addressing this research gap,

Table 2  
Descriptive statistics and correlation matrix.

	1	2	3	4	5	6	7	8	9
1. Formalization	–								
2. Decentralization	–0.37	–							
3. Export market orientation	0.03	0.24	–						
4. Commitment to the export market	0.03	0.07	0.49	–					
5. Information exchange	0.06	0.06	0.29	0.40	–				
6. Export market dynamism	–0.06	0.05	0.17	0.29	0.27	–			
7. Export market competitiveness	–0.03	0.03	0.00	0.13	0.22	0.38	–		
8. Export innovativeness	–0.07	0.39	0.54	0.39	0.32	0.37	0.12	–	
9. Export performance	–0.11	0.21	0.56	0.42	0.16	0.14	–0.01	0.36	–
Mean Score	5.38	4.27	4.72	5.08	4.79	4.17	4.93	4.95	4.14
Standard Deviation	1.25	1.19	1.03	1.43	1.39	1.28	1.32	1.41	1.22

Note: Correlations above 0.15 are significant at  $p < 0.05$ . Correlations above 0.20 are significant at  $p < 0.01$ .



**Table 3**  
Standardized Path Coefficients and *t*-values for the Structural Model.

Hypothesized Paths	Expected sign	Standardized coefficient	<i>t</i> -value
H1 Formalization → Export innovativeness	–	0.13	1.51
H2 Decentralization → Export innovativeness	+	0.23	2.24*
H3 Export market orientation → Export innovativeness	+	0.64	4.56**
H4 Commitment to the export market → Export innovativeness	+	–0.05	–0.41
H5 Information exchange → Export innovativeness	+	0.21	2.31*
H6 Export market dynamism → Export innovativeness	+	0.19	2.08*
H7 Export market competitiveness → Export innovativeness	+	–0.12	–1.48
H8 Export innovativeness → Export performance	+	0.52	5.63**
Control variables			
Firm size → Export performance		0.37	5.10**
Firm experience → Export performance		0.09	1.22

Note: Fit statistics for structural model:  $\chi^2_{(435)} = 761.44$ ,  $p < 0.01$ ;  $\chi^2/d.f. = 1.75$ ; CFI = 0.92; NNFI = 0.91; RMSEA = 0.067.

\*\*  $p < 0.01$ .

\*  $p < 0.05$ .

this study investigates the impact of export innovativeness (conceptualized as an exporting firm's inclination to adopt new ideas that lead to the development of new export-related business processes and products that enable the firm to achieve competitive advantages and superior performance in export markets) on export performance. Drawing on the contingency theory and the resource-based view theory, the study develops and empirically tests a conceptual model investigating a set of organizational, strategic and environmental antecedents of export innovativeness and the effect of the later to export performance.

Second, our main contribution lies in the fact that our findings highlight the urge of adopting a more integrated and compositional approach in order to study the effects of export innovativeness on export performance. We specifically contend with a growing stream of research, supporting that performance benefits of innovativeness do not merely result from the optimal matching of firm strategies to foreign environments (Boso et al., 2013; Lages, Silva, & Styles, 2009; Pittaway, Robertson, Munir, Denyer, & Neely, 2004). Findings from this research, highlight other important key drivers which leverage export innovativeness to deliver enhanced export performance outcomes, beyond external environmental factors. We extend the literature on innovativeness by empirically showing that decentralization, an internal organizational aspect, enables the development of innovativeness which in turn results in the firm's increased success in exporting operations. Thus, future studies in this area should adopt a holistic perspective when investigating export innovativeness and its correlates focusing on both the internal and external operating environments of the firm.

Furthermore, we consider it important to make a clear distinction between a cultural definition of "innovativeness", which emphasizes the "notion of openness to new ideas as an aspect of a firm's culture" (Hurley and Hult, 1988, p. 44) and a more practical definition of "innovations" which refers to the actual introduction of new products, services, or processes (Augusto & Coelho, 2009). Results from this study emphasize the need to conceptually treat export innovativeness as part of the deeply rooted cultural values and norms of an organization, and investigate its impact on the firm's export performance as such, rather than focusing on specific innovation outcomes.

### 5.2. Managerial implications

Considering the high turbulence and the intense competition which characterizes the global business environment, exporting firms pay increasing attention to the fulfillment of the evolving needs of their foreign customers (Barnes, Leonidou, Siu, &

Leonidou, 2010) and strive to satisfy them through the adoption of innovative solutions. Innovativeness has been identified as a critical organizational asset which generates value in the marketplace (Rubera & Kirca, 2012). Our research findings bear some very interesting managerial implications that corroborate nicely with existing empirical findings that innovativeness has positive effects on firm performance elements, such as firm's market position, financial position and firm overall value (Srinivasan, Pauwels, Silva-Risso, & Hanssens, 2009).

Thus, from a managerial perspective, our study findings reinforce the critical role of export innovativeness under the spectrum of the growing complexity of the international marketplace. Hence, export managers are advised to improve the innovativeness of their businesses in order to attain high levels of success in foreign markets. Moreover, our study findings underscore the key role of organizational structure to export innovativeness. Specifically, results indicate that decentralization has an influential positive effect on export innovativeness. In this respect, management in exporting organizations should delegate decision making to middle level managers and stimulate participative decision making, collaboration and power sharing. Export innovativeness can be inspired and spurred through decentralized structures within the exporting firm. This will in turn result in enhanced engagement in export innovation activities which will take the form of new processes, offerings, ideas and naturally, superior outcomes in the export markets.

Our findings also indicate that upper management in exporting firms should pay particular attention on the creation of an internal organization-wide environment conducive to export innovative activities. In particular, findings reveal the positive influence of export market orientation on innovative behavior. Export market orientation enhances export innovativeness, which in turn contributes to the development of superior offerings, diversified product lines, expansion of organizational activities, achievement of sustainable competitive advantage and enhanced export performance (Hult et al., 2004). Export market orientation as a strategic approach provides managers with special skills and knowledge concerning the foreign market and enables them to come up with innovative solutions to exporting challenges. The influential role of export information exchange is also highlighted. Specifically, the constant exchange of information between exporters and foreign distributors is found to have a positive effect on export innovativeness. Continuous information exchange between the business partners contributes to an in-depth knowledge of the foreign customer needs, products specification and understanding of foreign markets. This provides the input for the adoption of an organizational culture that is open to new ideas

and creates an appropriate internal environment that encourages innovative behaviors in the export markets, in terms of products, processes and organizational procedures. Thus, export managers are strongly advised to establish open formal and informal communication channels within their company in order to accelerate the information exchange.

Managerial teams should allocate resources to the design and implementation of structural and strategic plans that embody decentralized organizational cultures and export market oriented activities, and emphasize greater commitment to export markets and high levels of information exchange among the firm and its foreign partners. Additionally, under conditions of high market dynamism and competitiveness, foreign customers needs change constantly and emphasis should be placed on the offering of innovative products. This necessitates management in exporting organizations to draw on organizational resources to sustain innovativeness (Hult et al., 2004). For example, top management's continuous encouragement of external information acquisition and participative decision making across different hierarchy levels might be particularly helpful toward this direction.

## 6. Limitations and future research avenues

This study is subject to several limitations that should be taken into account when interpreting the findings. First, the present study is based on a cross-sectional survey. This allowed us to take a snapshot of the model investigated, but on the other hand, inferences regarding causality cannot be drawn. Future studies following a longitudinal research design could provide a more dynamic perspective to this stream of research. Second, the results were obtained from manufacturing exporting organizations. As a result, it is difficult to generalize them in industries beyond manufacturing, such as services. Third, data for this study were provided by a single respondent in each firm, the head of exporting operations. Future studies should attempt to collect data from multiple respondents from different organizational levels or departments in order to enhance our understanding regarding the engagement of innovative culture throughout the entire organization. Fourth, our study has adopted a rather narrow focus of investigation by focusing on export innovativeness. A fruitful avenue for future research is to investigate export innovativeness within the broader framework of an exporting firm's entrepreneurial orientation, and assess how export innovativeness integrates constructively with other key dimensions of export entrepreneurship. Fifth, this study utilizes data collected from a single country (i.e., Greece). Thus, the external validity of study findings should be assessed through replication studies in different national contexts. Finally, in this study we investigated the antecedents of export innovativeness and the direct impact of this construct on export performance. However, as previous research has suggested, the influence of innovativeness on performance may be mediated by other important constructs like the capacity to innovate and specific technology-, administrative-, and market-based innovations. In its present form, our conceptual model lacks a behavioral or an "action" component relating to innovation. Thus, the mediating role of different types of innovations should be investigated in future studies to provide a more holistic theory about the influence of export innovativeness on export performance.

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