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Assadinia, S, Boso, N, Hultman, KGM orcid.org/0000-0003-1771-8898 et al. (1 more author) (2019) Do Export Learning Processes Affect Sales Growth in Exporting Activities? Journal of International Marketing, 27 (3). pp. 1-25. ISSN 1069-031X

https://doi.org/10.1177/1069031X19848425

Do Export Learning Processes Affect Sales Growth in Exporting Activities?

Abstract

Our understanding of experiential learning via export learning process, and its outcomes, is limited in the international marketing literature. Using multi-source, time-lagged data of exporting firms in the United Kingdom (U.K.) and China, this study finds that export learning process is positively associated with marketing strategy adaptation for both U.K. and Chinese exporters. Results suggest contrasting moderating effects of experiential knowledge resources (i.e., psychic dispersion, multinationality, and duration) and strategy adaptation on the relationship of export learning process and export sales growth in the two samples. In the U.K. sample, we observe a positive moderation effect of psychic dispersion, and negative moderation effects of multinationality and duration. For the China sample, we find the exact opposite pattern of moderation effects for the experiential knowledge resources. Marketing strategy adaptation plays a negative moderation role in the China sample, but has no such effect in the U.K. sample. The study has implications for theory development on, and the productive management of, processes of learning export management.

Keywords: experiential knowledge, export learning process, export sales growth, knowledge-based view, marketing strategy adaptation

INTRODUCTION

Organizational learning literature suggests a firm's ability to learn and apply new knowledge in the conduct of organizational tasks is an important driver of its strategic actions and performance (Kale and Singh 2007). There is no scholarly consensus on the organizational learning construct (Aulakh, Kundu, and Lahiri 2016) and, seemingly, it is multifaceted (Weerawardena et al. 2015). Indeed, one view is that it involves the process of developing new knowledge of the external environment (e.g., customers, competitors, and macro-environment forces) to inform strategic actions preceding performance (Skarmeas, Lisboa, and Saridakis 2016). A second view suggests studies of learning processes and their outcomes should emphasize knowledge furnished by the internal environment via prior operating experiences (Edmondson et al. 2003). Exporting work (e.g., Cadogan, Kuivalainen, and Sundqvist 2009; Gnizy et al. 2017; Souchon, Sy-Changco, and Dewsnap 2012) has concentrated on explaining how externally focused, informational learning (i.e., know-what) drives performance in export markets. By contrast, research on internally focused, experiential learning (i.e., know-how) linked to the skillful execution of exporting tasks, is sparse (Trąpczyński and Banalieva 2016). The field lacks insight into the conceptual domain, consequences, and contingencies of exporting know-how-related learning processes.

It is unfortunate that attention given to what exporters learn about the marketplace has obscured the matter of whether firms actually know how to export. Export managers may be motivated to learn from the marketplace as they fear their firms being outcompeted and perceive greater rewards from learning from outsiders (cf. Menon and Pfeffer 2003). Still, knowing how to create and transfer tacit knowledge efficiently within the exporting firm (cf. Kogut and Zander 1992) is crucial, as exporting is a knowledge-intensive context and managers have limited time and opportunities to learn from external information (Spyropoulou et al. 2018). Exporting know-how presents firms with a route out of difficult economic circumstances domestically, and is a means of leveraging internal knowledge bases to exploit new growth opportunities overseas (Adekambi, Ingenbleek, and van Trijp 2015; Nemkova et al. 2015).

The knowledge-based view (KBV) maintains that it is the firm's ability to embed experiential knowledge resources in firm-level capabilities that enables the achievement of strategic goals (Kogut and Zander 1992). Learning capabilities are the primary mechanism by which experiential knowledge is developed and maintained, and learning about the accomplishment of tasks would allow the firm to successfully adapt to the environment and realize new opportunities (e.g., overseas) (Morgan et al. 2003). The current study, thus, draws on the KBV to argue that a firm's export learning capabilities shape its adaptation strategy and sales growth in export markets. Still, no matter how advanced a firm's capabilities might be, their function is to deploy resources. Such internal conditions are expected to affect capabilities' economic rents (Makadok 2001). Therefore, we also posit that international experiential resources (i.e., psychic dispersion, multinationality, and duration), alongside marketing strategy adaptation, condition relationships of export learning process and export sales growth.

The contributions of the study are threefold. The first lies in the novelty of capturing export learning process as an organizational capability that firms deploy systematically to excel in export operations. We draw insights from the organizational learning and alliance literatures (e.g., Kale and Singh 2007) to conceptualize and operationalize export learning process as a deliberate effort of exporting firms to learn, accumulate, and deploy export managerial know-how to effectively execute export-related tasks (Morgan et al. 2003). The importance of this exercise lies in that we currently do not have an operational definition and measures of internal experiential learning relevant to researchers interested in understanding processes of learning export management, and to managers interested in measuring levels of learning within the export function of their firms. Rather, empirical exporting studies (e.g., Theodosiou and Katsikea 2013) have focused on assessing learning processes based on external knowledge inputs.

The second contribution relates to the originality of theorizing and modeling consequences and contingencies of export learning process. In examining marketing strategy adaptation and export sales growth outcomes of export learning process, and in evaluating experiential knowledge resource and

adaptation contingencies, we reveal how and when exporting firms can benefit from learning processes (Lisboa, Skarmeas, and Lages 2013). We unveil that exporters with different profiles in terms of forms and levels of experiential knowledge and marketing adaptation (i.e., versus standardization) (Hultman, Katsikeas, and Robson 2011), prove differently able at using export learning process to drive sales growth. In particular, our findings add to KBV and capabilities work (Morgan, Vorhies, and Mason 2009) by showing that knowledge resources and learning capabilities can be complementary or substitutive.

Third, although we theorize and observe that internal contingencies shape the role of exporters' learning capabilities, conditions in the external macro-environment may offer additional insights into how firms benefit from such capabilities. The institutional development literature suggests conditions in developed home markets contrast those in emerging ones, and shape how firms learn in and beyond their home markets (Aulakh, Kundu, and Lahiri 2016; Trąpczyński and Banalieva 2016). In anticipation of differences in external environment conditions across nations, we explore whether export learning processes help (or hinder) exporters of the United Kingdom (U.K.) and China. Our surprising findings (cf. Morgan et al. 2003) unveil that while the influence of export learning process on marketing strategy adaptation is positive for both U.K. and Chinese firms, and its effect on export sales growth is generally positive and at worst benign for U.K. firms, under certain moderation conditions the impact of learning process on growth is negative for Chinese exporters. Prima facie, emerging economy firms lack access to cross-border know-how sufficient to perform as successfully on the international stage as their developed-market counterparts. We also contend that learning structures and processes that can help mature and established exporting firms, like those in the U.K., may hold back maturing firms, such as those in China. Drawing from the multinational organization literature (e.g., Barkema, Bell, and Pennings 1996), we discuss how export learning process provides a generic best practice that may either be a help or hindrance, depending on the strategic contexts firms find themselves in.

THEORETICAL BACKGROUND AND HYPOTHESES

Export Learning from a Knowledge-Based View

Marketing scholars have devoted sustained attention to understanding the export performance construct and its drivers (Chabowski et al. 2018; Magnusson et al. 2013). Still, extant research has overlooked key facets of organizational learning as a driver of export performance. Organizational learning has been defined as "the capacity or processes within an organization to maintain or improve performance based on experience" (Nevis, DiBella, and Gould 1995, p. 73), highlighting an earlier contention by Dodgson (1993, p. 376) that "[l]earning is a dynamic concept, and its use in theory emphasizes the continually changing nature of organizations". These contentions place organizational learning within the theoretical space of the KBV, which asserts that an exporting firm can derive advantages from managing its experiential knowledge resources and becoming a learning laboratory (cf. Aulakh, Kundu, and Lahiri 2016). According to the KBV, tacit knowledge stocks—not physical assets—are the most critical resources of the firm, and heterogeneous knowledge bases across firms are the main determinants of performance differences (Gassmann and Keupp 2007). While the broader resource-based theory suggests resources and capabilities are likely to be heterogeneous and relatively immobile across firms (Kraaijenbrink, Spender, and Groen 2010), the KBV elevates organizational learning as a capability that is unique to, and variable across, firms (Cohen and Levinthal 1989).

The current study conceptualizes export learning process as an organizational learning capability that enables exporting organizations to capture advantages in export markets. These learning processes are internally developed within an organization and are often derived from experience (DiBella, Nevis, and Gould 1996). Our approach extends the exporting literature that has focused on conceptualizing learning based on inputs derived from market research (e.g., Cadogan, Kuivalainen, and Sundqvist 2009; Lisboa, Skarmeas, and Lages 2013; Naldi and Davidsson 2014; Souchon, Sy-Changco, and Dewsnap 2012). As we show in Table 1, the emphasis has been on processes of acquiring external knowledge about customers, competitors, and exogenous market environment forces (Edmondson et al. 2003); and

how externally focused, informational learning affects firms' export market strategy and performance (Lisboa, Skarmeas, and Lages 2013). The few exporting studies considering internal experiential learning either do not directly capture the learning process underpinning how firms create and transfer experiential knowledge within an organizational context (Morgan et al. 2003), or assess export-related outcomes of general (not export) knowledge management skills (Villar, Alegre, and Pla-Barber 2014).

- Table 1 about here -

In defining export learning process as a capability, we capture the totality of firms' processes to articulate, codify, share, and internalize managerial know-how to improve skills in exporting tasks. Here, articulation refers to efforts to access and externalize individually held exporting knowledge into explicit knowledge. Codification involves creating and using codified tools, templates, or guidelines to assist action in future export management tasks. Sharing entails exchanging and disseminating individually and organizationally held export management knowledge via interpersonal relations within the organization. Finally, internalization conveys efforts to facilitate absorption of accumulated, organization-level exporting know-how by individuals (Kale and Singh 2007). This conceptual approach is informed by Kale and Singh's (2007) equivalent concept, alliance learning process.

Table 1 further suggests the literature has produced conflicting findings on the export performance consequences of export learning. Certain studies have examined how processes of export learning shape export market success within relevant boundary conditions (Theodosiou and Katsikea 2013). While a focus on external contingencies is legitimate (cf. De Clercq and Zhou 2014), advances made by the few studies adopting the KBV (e.g., Villar, Alegre, and Pla-Barber 2014) imply that the lack of knowledge on how a firm's internal knowledge activities (e.g., resources) shape the impact of export learning process on export performance, is problematic. We respond to this gap in the literature by using the KBV to develop a model (see Figure 1) examining: how international experiential knowledge resources condition

export sales growth outcomes of export learning process; and how export learning process drives marketing strategy adaptation, with its sales growth outcomes being conditioned by such adaptation.

- Figure 1 about here -

As per the KBV, we make the assumption that export learning process is a capability that develops based on an exporter's cross-border, experiential knowledge resources (Takeuchi et al. 2005; Villar, Alegre, and Pla-Barber 2014) and control for these paths in the model. Internal, organizational learning processes are driven by the accumulation of firms' experiences in the form of preserved behaviors, mental maps, norms, and values (Ericsson 2006; Fiol and Lyles 1985; Ucbasaran, Westhead, and Wright 2009). Our use of control paths, generally, allows for more focused theory development.

Although we propose a universal export learning theory applicable across national populations of exporting firms, from a scientific point of view, we acknowledge that a contextual consideration of our proposed model would make interpretation of the results more robust (Hambrick and Quigley 2014). Thus, in testing theory, we explore whether export learning processes help or hinder established international firms such as those of developed economies, in the same way as the younger generation of firms from emerging markets (Awate, Larsen, and Mudambi 2015; Cavusgil and Knight 2015). Morgan et al. (2003) observed no differences across developed and emerging market exporters in their testing of the outcomes of learning-related capabilities, and remains the only export learning study to compare these contexts. Comparisons across country samples are rare in this stream of study, generally.

Outcomes of Export Learning Process

Classical organizational learning literature argues that the ultimate purpose of learning is to inform an organization's strategy options and growth (Burgelman, 1983; Fiol and Lyles 1985). More recent knowledge management studies have also argued that learning processes can shape a firm's strategy and performance outcomes (Zellmer-Bruhn and Gibson 2006). The current study focuses on two specific

export strategy and growth outcomes of the firm's export learning process: namely, marketing strategy adaptation and export sales growth.

Marketing strategy adaptation refers to the extent to which a firm adjusts its marketing strategy to account for variations in its export markets relative to its home market (Calantone et al. 2006). Such a strategy involves a continuous and iterative set of decisions, ranging from virtually complete standardization to complete adaptation of the marketing program. The expert knowledge literature argues that deliberate, repeated practice of a task—such as continuous adaptation of strategy—enables one to fine-tune skills in executing the task (Ericsson 2006). Experts acquire knowledge in the form of meaningful patterns about particular situations, by storing memories of their previous actions (Simon and Chase 1973). Formulating adaptation strategies is a complex undertaking for managers, as they need to be able to form a mental model of what adaptations are to be selected under what circumstances. Export learning processes that articulate, codify, share, and internalize knowledge can simplify the problem. These repositories for lessons learnt furnish export managers with anticipatory and distinctive memory assets that develop and support routines of task planning, reasoning, and evaluation. Learning that has been harnessed systematically from accumulated experiences of exporting offers a knowledge base that firms can deploy to better understand the idiosyncrasies of different export markets and resulting complexities of marketing adaptations (Evans, Mavondo, and Bridson 2008). Such a knowledge repository helps exporters to perceive the subtleties of market mechanisms and identify opportunities to follow and threats to avoid, resulting in export-marketing decisions that better accommodate the distinct contingencies of each market (Westjohn and Magnusson 2017). The expert exporter's proficiency in tailoring its offering to local market needs would improve accordingly (Hultman, Robson, and Katsikeas 2009). We thus argue that a firm's export learning process yields an anticipatory and expert knowledge base that facilitates repeated adjustments toward marketing strategy adaptation. Hence:

H_1: Export learning process is positively related to marketing strategy adaptation.

Superior organization of export learning processes not only helps exporters determine their export strategy adaptation options, but also offers insights into how to drive efforts to influence performance in export markets. Here, we capture export performance as firms' export sales growth, defined as the percentage change in export sales over time (Morgan, Kaleka, and Katsikeas 2004); which is indicative of the health of a firm's exporting operations. From a KBV perspective, a firm's ability to sustain its competitive edge and grow in export markets depends on its ability to configure and deploy tacit knowledge resources via learning capabilities (cf. Peng 2001). As an organizational capability, processes of export learning capture the firm's exporting experiences and competencies, which enables the firm to coordinate exporting tasks by matching these knowledge resources with opportunities to stimulate demand growth (Ibeh and Kasem 2014; Souchon, Sy-Changco, and Dewsnap 2012).

The ability of an exporting firm to articulate and externalize exporting knowledge held by export personnel enables it to better understand cause-and-effect links in the export market (Kale and Singh 2007). Greater articulation of exporting know-how helps firms to be more effective in using explicit knowledge to respond to export customer needs and grow sales revenues. Similarly, deliberate efforts of firms to document export market activities and expertise with exporting tasks may help enhance export managers' understanding of how and why things work in certain situations. Greater codification of exporting knowledge not only enriches internal reference sources for export personnel, but also creates an opportunity to transfer best export practices across functional units. A firm should be more effective in growing export sales when its export market knowledge is codified and guidelines are made accessible to current and future export decision-makers, and other key audiences within the firm.

A firm's ability to deploy exporting know-how relevant to growth opportunities is dependent on the diffusion, via interpersonal relations, of existing knowledge related to the execution of exporting tasks. Still, the dissemination of knowledge across the firm is necessary but not sufficient for export managers to absorb specific lessons and best practices (Kale and Singh 2007). Knowledge also needs to

be internalized by individual recipients for use in their work tasks. For learning competences to help an exporter grow sales, individuals must be able to extract know-how held by the firm. Sharing and internalizing knowledge helps firms improve their ability to sense and exploit market opportunities (Bell, Whitwell, and Lukas 2002). In sum, we contend that when the overall level of export learning process is high, the exporting firm is more likely to realize sales growth opportunities overseas (Yeoh 2004):

H_2: Export learning process is positively related to export sales growth.

Export Learning Process, International Experience, and Export Sales Growth

Experiential learning from repeated practice is a primary mechanism for discovering and exploiting international opportunities (Vahlne and Johanson 2017). In essence, knowledge acquired from past international experience helps exporting firms gain and utilize new knowledge (Chetty, Eriksson, and Lindbergh 2006). The more a firm internationalizes its operations, the more internationally experienced its management becomes, conferring on the firm tacit knowledge that other firms would find difficult to access. Crucially, exporting firms internationalize in different ways and the profile of their experience is difficult to express since cross-border experiences vary in practice. We posit that international experience comprises three conceptually distinct components: psychic dispersion, multinationality, and duration of exporting (Brouthers et al. 2009; Qian and Delios 2008). Psychic dispersion is captured as the number of geographically diverse regions (i.e., global not country regions) to which a firm exports products or services (Cadogan, Kuivalainen, and Sundqvist 2009), and multinationality stems from the number of foreign country-markets the firm serves (Cadogan et al. 2009). While psychic dispersion exposes the firm to broad external uncertainty across regions, which requires cognitive simplification, multinationality is an expansion strategy based on incremental behaviors. For instance, a US exporter serving the U.K. market might develop processes harnessing its experiences of U.K. consumers, competitors, and institutions to better manage exporting tasks in Ireland, France, Belgium, and other

proximate European countries. Duration captures the number of years a firm has been exporting (Brouthers et al. 2009), and enables the exporter to enhance its learning competence over time.

Resource complementarity and substitution logics within resource-based theory suggest firms possess (knowledge) resources and capabilities that may be mutually complementary or substitutive (Hakala 2011; Morgan, Vorhies, and Mason 2009). From a complementarity standpoint, resources must be combined to support each other when there is a payoff relationship between them. Srivastava, Fahey, and Christensen (2001) argued that resources should be integrated, transformed, and leveraged to produce an overall organizational process that generates economic value for the firm. However, classical economic theory argues that it is almost impossible for a firm to configure one resource to complement every other resource (Lachmann 1947). It is likely to substitute for certain other resources and there is no marginal benefit in investing in resources that interact negatively (Kaya and Seyrek 2005). The notion of universally beneficial resources may be replaced by the principle that the efficacy of some resources or capabilities in driving performance is dependent upon other resources or capabilities of the firm (Noble, Sinha, and Kumar 2002). Indeed, we posit that the efficacy of export learning processes in driving export sales growth hinges upon the international experiential knowledge resources a firm possesses.

Following resource complementarity logic, as psychic dispersion increases, the exporting firm should be more capable of responding to export market variations in terms of customer needs and competitive moves and growing in export markets (Cadogan, Kuivalainen, and Sundqvist 2009). Eriksson and colleagues (2000) argued that the knowledge required to underpin a firm's growth in foreign markets must be current and culturally specific, such that greater experiences in geographically dispersed regions can facilitate an inflow of new knowledge resources to the firm and its development and commercialization of viable products for different foreign markets (Patel et al. 2014). Nonetheless, it stands to reason that the breadth of such an internal knowledge resource requires cognitive simplification through systematic organization, to harness and match it—in a timely fashion—with external, export

market opportunities for the reuse of knowledge. The firm's efforts to use export learning process to coordinate exporting tasks and create sales growth, require experience, knowledge, and meaning constructed from activities in psychically dispersed regions. By contrast, expert coordination efforts are more likely to fail in the aforementioned matching process, and misfire, for low-psychic dispersion exporters that lack broad knowledge resources to integrate. We thus argue that with greater capability to articulate, codify, share, and internalize export market knowledge, and with greater experience in doing business in psychically dispersed regions, a firm increases its chances of achieving export sales growth:

H_{3a}: The impact of export learning process on export sales growth is moderated by psychic dispersion, such that as export learning process increases and the degree of psychic dispersion increases, the effect of export learning process on export sales growth becomes more positive.

We follow resource substitution logic to propose a negative moderating effect of multinationality on the relationship between export learning process and export sales growth. High-multinationality exporters that operate in many markets—which may fall within multilateral free-trade agreements—are likely to approach exporting tasks in a manner that emphasizes scale and experience effects via the repeated execution of similar routines across markets. The deployment overseas of stringent knowledge management practices concerning institutional (e.g., regulations) and business (e.g., expectations of customers) conditions (Eriksson, Majkgård, and Sharma 2000) would seem of limited value for a firm with greater multinationality, as institutional and business knowledge is gained incrementally across the international portfolio. High-multinationality exporters' reliance on a systematic export learning process could even be counterproductive when the knowledge required to succeed is understood and utilized, automatically and repeatedly, by decision-makers across country markets. In the absence of specific lessons and best practices that export managers need to absorb before making decisions about new markets, export learning processes' articulation, codification, sharing, and internalization of task execution would slow the realization of incremental growth opportunities. By contrast, low-multinationality exporters are expected to benefit from deliberate approaches to export learning as they

act more creatively in serving fewer country markets. When an exporter's tasks involve more than the ongoing repetition of established sets of practices, it will be amassing knowledge that is fresh and diverse (Samiee and Chirapanda 2019). Such knowledge requires coordination via export learning process to improve the firm's ability to productively exploit market opportunities. Thus, when multinationality is low not high, efforts to harness export managerial know-how are a worthwhile investment. Accordingly:

> H_{3b}: The impact of export learning process on export sales growth is moderated by multinationality, such that as export learning process increases and the degree of multinationality decreases, the effect of export learning process on export sales growth becomes more positive.

We likewise use resource substitution logic to posit that as the duration of exporting increases, managerial overconfidence and structural inflexibility and inertia (Heimeriks 2009; Russo and Schoemaker 1992) inhibit the potency of export learning process in driving export sales growth. As a firm accumulates additional years of international experience, its managers may begin to lack the humility to embrace all available knowledge (Cain, Moore, and Haran 2015). In addition, a greater number of years of exporting could generate structural inflexibilities that hamper the firm's ability to learn new skills and follow opportunities to grow (Autio, Sapienza, and Almeida 2000). Export learning process improves export managers' understanding of how and why things work under particular conditions, but only if they are willing and able to learn and modify behaviors accordingly. In the presence of duration-induced barriers, learning processes would struggle to furnish the exporter with sales growth benefits. Alternatively, a firm with limited years of export operations is more likely to possess an organic organizational structure receptive to proactive learning, which encourages the ability to quickly perceive and realize new export market opportunities (Banerjee, Prabhu, and Chandy 2015; Eesley and Roberts 2012). Firms with fewer years of export operations are receptive to relying on the sum of their managers' creativity in accessing the export market-specific knowledge needed to grow in foreign markets (Eriksson, Majkgård, and Sharma 2000). Inexperienced firms facing liabilities of newness and foreignness when attempting to compete abroad, have a greater propensity to rely on

managers' personal contacts and interactions to amass and act on new know-how about foreign markets (Patel et al. 2014). Export learning processes that articulate, codify, share, and internalize this individually held knowledge can render it useful for driving demand growth overseas. Hence:

> H_{3c}: The impact of export learning process on export sales growth is moderated by duration, such that as export learning process increases and the duration of exporting decreases, the effect of export learning process on export sales growth becomes more positive.

Export Learning Process, Marketing Strategy Adaptation, and Export Sales Growth

Learning capabilities can drive a firm's marketing strategy adaptation decisions, and both are expected to shape performance overseas (Katsikeas, Samiee, and Theodosiou 2006). Still, the fact that cross-national differences in consumer needs, competitive moves, and national socio-cultural and economic conditions justify increases in marketing strategy adaptation (Zeriti et al. 2014), and increases in export market learning are warranted in culturally heterogeneous circumstances (Ruigrok and Wagner 2003), does not necessarily imply that higher levels of both would generate superior export sales growth. Hultman, Katsikeas, and Robson (2011) observed that knowledgeable exporters tend to derive greater performance benefits from marketing strategy standardization, not adaptation; exporters with limited knowledge are more likely to favor mimetic isomorphism and adapt in line with local competitors' marketing strategies to enhance performance (Banerjee, Prabhu, and Chandy 2015). For knowledgeable exporters, marketing decision-making is "an evolutionary process, and the factors influencing the adaptation decision upon entry might change when the exporting firm accumulates knowledge about foreign markets" (Hultman, Katsikeas, and Robson 2011, p. 24). Effectively, exporters evolve by harnessing knowledge to maximize performance gains offered by standardization.

We contend that firms engaging in routines to articulate and codify knowledge of how export markets work and to share and internalize such experiential knowledge, are better able to uncover opportunities to grow export sales if they are attempting to standardize (not adapt) marketing strategy. The KBV maintains that knowledge resources are enhanced through their repeated use (Morgan et al.

2003). As opposed to adaptation strategies that, by nature, differ across export markets, standardization strategies naturally overlap and, thus, competence in experiential learning can be harnessed productively via reoccurring strategic decisions. Standardization strategies run the risk of neglecting local customers' loyalty as they are extended to new markets (Thompson and Chmura 2015). Where exporters become knowledgeable via an effective learning process, they can more confidently leverage internal resources linked to the standardization approach, and achieve sales growth by exploiting communalities between markets rather than opting for the safety net of local legitimacy (Hultman, Katsikeas, and Robson 2011). Alternatively, pursuing strategic variations in export markets involves numerous new task experiences. These are not always conducive to deriving performance advantages from processes that systematically harness prior experiences and retrospective sense-making with respect to managerial know-how.

Further, export learning process drives sales growth by matching knowledge resources with opportunities to stimulate demand. Coordinating such a process involves concerted cognitive and behavioral efforts on the part of the exporting firm and its managers. Adaptation itself is a resource-intensive strategic activity that is onerous to maintain (Koza, Tallman, and Attay 2011). If internationalization increases information-processing demands on a firm's managers (Lu and Beamish 2004), adaptation strategies that embrace country disparities magnify these demands. It stands to reason that finite managerial resources allocated to outwardly focused adaptation decisions, cannot also and easily be deployed to harness inwardly looking competence in coordinating exporting know-how. Thus:

> H_4: The impact of export learning process on export sales growth is moderated by marketing strategy adaptation, such that as export marketing strategy adaptation becomes greater, the effect of export learning process on export sales growth becomes less positive.

METHODS

Research Contexts

We test our hypotheses using a survey approach and archival sources in two countries: the U.K. and China. While there are differences in the two countries' economies and institutional arrangements,

similarities also exist. Both countries' elevation in economic terms is attributable to global trade. The total value of U.K. exports reached US$ 444.25 Billion in 2017 (Office of Trade Statistics of the U.K.), and China has become the world's largest exporter of merchandized goods with total export values exceeding US$ 2.26 Trillion in 2017 (World Bank 2017). Besides empirically examining the theoretical model across one developed market and one emerging market—both with potent exporting sectors—we used multi-industry samples in our efforts to enhance generalizability (Murray, Gao, and Kotabe 2011). In line with previous studies focusing on active exporters' firm-level resources and capabilities, we used the firm-level as our unit of analysis (e.g., Cadogan, Kuivalainen, and Sundqvist 2009).

Data and Samples

The U.K. study: We relied on two sources to develop the sampling frame for the study: Dun & Bradstreet and the Queen's Award for International Trade directory. We began by drawing a random sample of 1,000 exporters and initially contacted these firms by phone to (1) evaluate their eligibility for the study, (2) verify their contact details, (3) find key informants, (4) pre-notify informants of the study execution and objectives, and (5) uncover informants' preferred questionnaire administration method. We identified 658 eligible firms that suited our selection criteria. A mail packet or formal email with a questionnaire link was sent to the informants with extensive knowledge of the firms' export operations (e.g., chief executive officers, export sales directors, and international development managers). Following two additional phone calls, two follow-up letters, and/or emails, we received 224 responses. We excluded 16 responses owing to extensive missing data or to a low score for knowledge, responsibility, or confidence in the post hoc informant quality test (see Morgan, Katsikeas, and Vorhies 2012) and five statistically outlying cases, leaving 203 valid responses. Subsequently, we obtained three-year export sales data for 176 of the 203 firms externally from the Bureau van Dijk and ICC Plum databases—an effective response rate of 27%. On average the U.K. firms studied (see Table 2) employed 87 full-time staff, had been in business for 41 years, and exporting for 26 years. The firms exported to

42 markets and operated in 6 global regions on average. Their average total annual sales was US$28.28 Million, out of with 62.87% was from export sales.

The China study: The sampling frame for the China study was created from a list provided by FOB Business Forum; supplemented by a second list obtained from China's National Bureau of Statistics. In combining these sources, a sampling frame of 2,300 Chinese firms was created. A research firm was then hired in China to contact senior managers (e.g., chief executive officers, managing directors, and export sales directors) in the 2,300 firms by phone to solicit their participation in the study. The initial contact procedures and eligibility requirements were broadly consistent with those used for the U.K. sample. A total of 589 firms declined participation and were excluded from the study. The remaining 1,711 firms were visited by trained researchers who conducted interviews using a Mandarin version of the U.K. questionnaire. The Mandarin version was professionally translated from English and back-translated by a native speaker working with the research firm, helping guarantee linguistic equivalence of the measures. We obtained 299 valid responses. Given that the survey was administered by a research agency on our behalf, upon its completion 10% of the firms (selected at random) were contacted by phone to verify their responses. All firms contacted confirmed their earlier responses to the questionnaire items.

Next, we obtained three-year export sales data for 198 of the 299 firms externally from the FOB Business Forum and China's National Bureau of Statistics databases. After removing 8 cases for severe outliers, 190 Chinese firms are used for this study—an effective response rate of 11%. As can be seen from Table 2, on average, the Chinese firms employed 88 full-time staff, had been in business for 6.37 years, and had been exporting for 5.84 years and exported to 13 countries and 5 global regions. Average annual sales was US$10.97 Million, and 66.73% of these were attributable to export sales. The sample profiles in terms of firm characteristics and industries represented correspond well with the overall market profiles of exporting firms in the two countries (www.uktradeinfo.com; www.stats.gov.cn).

- Table 2 about here -

Measure Development

We developed the survey instrument from prior research following a thorough review of relevant literature, and adapted it to the specific context via pretests and field interviews. First, an initial version of the questionnaire was revised via in-depth discussions with five academics familiar with research on learning processes and exporting. Second, the revised questionnaire was reviewed by an academic expert with extensive knowledge of international marketing. Third, we conducted face-to-face interviews with five U.K. and ten Chinese export managers. We asked the managers about their firms' export learning activities and the outcomes of these. They also scrutinized the wording and design of the questionnaire.

International experience: We conceptualized international experience as three distinct components: psychic dispersion, multinationality, and duration of exporting. Following Cadogan, Kuivalainen, and Sundqvist (2009), we captured psychic dispersion by asking informants to select the "regions to which your firm currently exports" (the provided options were: Western Europe (including all European Union (E.U.) countries); Eastern Europe (excluding all E.U. countries); Russia and Eurasia; Africa; the Middle East; Asia; Australia and New Zealand; South and Central America; and North America). We then summed the regions selected. Multinationality was tapped as the natural logarithm of the "number of countries to which your firm exports" (Hultman, Katsikeas, and Robson 2011). We measured duration via the natural logarithm of the "number of years your firm has been exporting" (Hultman, Katsikeas, and Robson 2011).

Export learning process: We measured export learning process with items modified from Kale and Singh's (2007) reflective scales. As per Kale and Singh (2007), and guided by field interviews with export managers, learning process was treated as a second-order construct with knowledge articulation, codification, sharing, and internalization dimensions. The rationale is that each dimension is conceptually distinct, but also centered on the learning and accumulation of export management know-how (Kale and Singh 2007). We used the prompting question, "Please indicate to what extent you agree with the

following statements about your firm's export learning process". Items measuring each dimension were captured on a seven-point Likert-type scale, where 1 = "strongly disagree" and 7 = "strongly agree". As shown in Table 3, alpha values for each dimension in both samples exceed .76.

Marketing strategy adaption: Our reflective measure of marketing strategy adaptation was based on those used by Aulakh, Rotate, and Teegen (2000) and Magnusson et al. (2013). Consistent with these studies, we adopted a first-order approach—with each item tapping a different marketing program element—instead of the less parsimonious second-order approach (cf. Katsikeas, Samiee, and Theodosiou 2006). Although the measure focused on the firm's marketing program in its export markets, guided by the prestudy interviews and in line with Aulakh and colleagues (2000), we omitted distribution. Our interviewees suggested that channel structure can be hard to adapt given its structural rigidity and inter-firm connectivity, and it may not act in concert with other program components (Navarro et al. 2010) and have the same nomological associations. Decisions regarding product/service, promotion, and pricing are the means by which firms' offerings adapt to idiosyncrasies of overseas markets (Cavusgil and Zou 1994). We used the prompting sentence, "Please indicate the degree to which the following export marketing strategy elements are standardized/ adapted in your foreign markets compared to your domestic market". Each item was assessed on a scale anchored by 1 = "highly standardized" and 7 = "highly adapted" (α: U.K. = .86; China = .93).

Export sales growth: We used objective data to measure export sales growth in order to avoid bias associated with self-reported performance measures (Dencker and Gruber 2015; Hult and Ketchen 2001; Vorhies, Orr, and Bush 2011). The reasons for concentrating on export sales growth are threefold. First, theorists (e.g., De Clercq et al. 2012; Naldi and Davidsson 2014) have argued that in view of the long-term consequences of organizational learning process, growth is a natural measure of performance in learning studies. Second, in addition to tapping performance, export sales growth reflects resource accumulation through foreign market entry (Uhlenbruck 2004). As a widely used economic measure of

performance in exporting research (Katsikeas, Leonidou, and Morgan 2000), export sales growth fits with the KBV premise that economic rents are driven by knowledge resources and capabilities. Third, Tuli and colleagues (2010, p. 37) assert that sales growth is of pragmatic importance because "managers are often evaluated on this metric [… and] viewed as a valuable metric by financial analysts as firms with higher sales growth receive higher valuations". Our time-lagged operationalization of export sales growth (for clarity, time 2) tapped percentage change in export sales for the three years directly following data collection of the independent variables (time 1). Use of a three-year average helps control the impact of any short-term, unobserved event on export sales growth. A logarithmic transformation was applied to normalize the data. In the U.K. study, we validated the objective export sales growth measure on the basis of its high correlation ($r = .88$; $p < .01$) with a scale-based measure of export sales performance.

Controls: To control for industry and firm heterogeneity effects on our dependent variables, export learning process, marketing strategy adaptation, and export sales growth, we included an industry dummy variable (services = 0, manufacturing = 1) (Boso, Cadogan, and Story 2013), and used the natural logarithm of total number of full-time employees as an indicator of firm size (Morgan, Vorhies, and Mason 2009). We tapped the presence of a dedicated export department using a dichotomous variable (no = 0, yes = 1) (Katsikeas 1994), which we also linked to our dependent variables. Not only might firms with export departments enjoy greater exporting success, but also a dedicated department would use resources to develop capabilities and strategic practices to this end (cf. Kale and Singh 2007). Our measures and their validation statistics are reported in Table 3.

- Table 3 about here -

ANALYSIS AND RESULTS

Bias Assessments

We assessed the threat posed by two main biases: non-response bias and common method bias. First, we assessed non-response bias by comparing early and late respondents, in the two samples, using the means

of annual sales and the number of full-time employees. No significant differences were found. Second, a comparison of the 176 U.K. responses and 41 randomly selected non-participant firms, revealed no significant differences in the means of annual sales and the number of full-time employees between the groups. Similar results were obtained when the 190 China responses were compared to a group of 58 non-participants. Thus, non-response bias does not pose a problem in this study.

We followed recommended ex ante procedural remedies (Ketokivi and Schroeder 2004; Podsakoff et al. 2003) to minimize the threat of method bias by using multiple data sources per observational unit. Although the dependent variable came from a source different from the independent variables, we conducted an ex post statistical analysis to check if there is evidence of method bias in our data. Following the marker variable procedure (Malhotra, Kim, and Patil 2006), we used the second smallest positive correlation between the study variables (0.02 for both samples) as a marker variable proxy and then calculated adjusted correlations among the variables. The adjustment did not change the significance level of any coefficient, which suggests method bias is not an issue in this study.

Measure Validation

A confirmatory factor analysis (CFA) was undertaken for the multi-item reflective constructs in the model using maximum likelihood estimation in LISREL 8.71. A good model fit was obtained for both samples: U.K.: χ^2(D.F.) = 167.89 (94); non-normed fit index (NNFI) = .99; comparative fit index (CFI) = .99; root mean square error of approximation (RMSEA) = .00; China: χ^2(D.F.) = 136.47 (94); NNFI = .98; CFI = .96; RMSEA = .02. Export learning process was assessed as a second-order factor, and the weights linking export learning process to knowledge articulation, codification, sharing, and internalization are all significant at the 1% level: knowledge articulation (U.K.: γ = .66; t = 7.95; China: γ = .89; t = 9.94); knowledge codification (U.K.: γ = .85; t = 9.29; China: γ = .81; t = 7.03); knowledge sharing (U.K.: γ = .83; t = 10.21; China: γ = .73; t = 8.57); and knowledge internalization (U.K.: γ = .95; t = 8.02; China: γ = .76; t = 6.64).

Next, we undertook reliability, convergent validity, and discriminant validity evaluations for the two samples. The scores for composite reliability and average variance extracted (AVE) for all constructs exceed the standard benchmarks of .70 and .50, respectively, in the U.K. and China samples. Standardized factor loadings for indicators of all constructs are significant at the 1% level. The AVEs for each respective pair of constructs are superior to their corresponding squared correlations. Thus, we confirm the discriminant validity of each multi-item scale used to measure components of the export learning process construct across both samples (Fornell and Larcker 1981).

After establishing acceptable CFA model fit for each sample individually, we evaluated the equivalence of the multi-item measures across both samples using the hierarchical tests approach (Steenkamp and Baumgartner 1998). Accordingly, a multi-group CFA of all items was undertaken, focusing on showing that our measures achieve configural (i.e., the measures demonstrate the same pattern of factor loadings), metric (i.e., evidence of equal loadings), factor variance (i.e., equality of factor variances), and error variance (i.e., equal measurement error) invariances (Steenkamp and Baumgartner 1998). Findings revealed that the measures capturing the multi-item constructs are invariant across the samples and, thus, appropriate for hypothesis testing purposes. The configural (χ^2(D.F.) = 503.86 (201); NNFI = .90; CFI = .91; RMSEA = .09), metric (χ^2(D.F.) = 408.27 (213); NNFI = .91; CFI = .91; RMSEA = .08), and factor variance (χ^2(D.F.) = 430.01 (226); NNFI = .92; CFI = .93; RMSEA = .07) invariance tests all returned acceptable fits to the data. Although the error invariance test produced a poor fit given significant variance in the error terms across the two samples, the model did converge: χ^2(D.F.) = 683.26 (246); NNFI = .82; CFI = .86; RMSEA = .11. Details of the results of the measurement model assessment are presented in Table 3.

Structural Model Estimation

Given that the multi-item perceptual measures were observed to be invariant across the two samples, we followed Morgan et al. (2003) to estimate two competing two-group structural models, which enabled us

to assess whether (or not) our hypothesized relationships are equivalent across the U.K. and China samples. To this end, we first estimated a two-group structural model in which the measures of the constructs and the structural paths between the constructs were constrained to be invariant across the two samples. The results obtained for this model were relatively poor: χ^2(D.F.) = 332.98 (96); NNFI = .82; CFI = .84; RMSEA = .10. A second two-group structural model was estimated in which the measures of the constructs were held equal across both samples, but the parameters for the structural paths between the constructs were allowed to vary freely. The large drop in chi-square ($\Delta\chi^2$ = 235.83; ΔD.F. = 56; $p < .01$) and observed improvement in fit heuristics (NNFI = .91; CFI = .94; RMSEA = .07) indicated that the model that assumes equality of measures but differences in structural paths has a better fit than the model that assumes equality of both measures and structural paths. Thus, heeding Anderson and Gerbing's (1988) advice, structural paths for the U.K. and the China samples were analyzed separately.

We used moderated structural equation modeling (MSEM) to test moderating effect relationships (Cortina, Chen, and Dunlap 2001). The MSEM approach helped us incorporate product terms of export learning process and marketing strategy adaptation and with the single indicants used to measure multinationality, psychic dispersion, and duration, in the assessment of the moderation effects. A mean value was created for the export learning process variable from its multi-item reflective indicators. Because product terms contain measurement error that might not be normally distributed, we followed Agustin and Singh's (2005) advice and Ping's (1998) two-step, single-indicant estimation procedure for these terms. Ping's (1998) approach is seen to produce robust estimates (Cortina et al. 2001). Hence, having orthogonized all the variables that were involved in multiplicative terms (Little, Bovaird, and Widaman 2006), we multiplied the respective variables involved in the interactions (e.g., export learning process multiplied by psychic dispersion). We then estimated the structural model and set the error variance of the latent variables at [(1-p) x σ^2], where p is the composite reliability and σ is the sample standard deviation of each construct. This enabled us to generate estimates for the item loadings and error

variances of the linear terms in the structural model. For the single indicant measures (such as psychic dispersion, multinationality, and duration) we assumed a composite reliability value of .70 when computing the error variances (Ping, 1995). We then used Ping's (1995) equations to calculate the item loadings and error variances of the interaction terms.

Details of the descriptive statistics and inter-construct correlations for our constructs, in the U.K. and China samples, are reported in Table 4. Given that our Figure 1 framework has multiple outcome variables (i.e., export learning process, marketing strategy adaptation, and export sales growth), we estimated six nested models to account for changes in chi-square (degrees of freedom) and R^2, which facilitated a comparison across the models for the U.K. and China samples. The largest variance inflation factors in the models—2.74 for the U.K. and 2.07 for China—fall below conventionally used thresholds (i.e. 5.00 or 10.00), and we can conclude that multicollinearity is not a problem in interpreting the results.

In Model 1, we estimated effects of control variables on export learning process. In Model 2, control paths from psychic dispersion, multinationality, and duration to export learning process were added to this model and estimated. Similar procedures were then followed to estimate effects of control paths and predictor variables on marketing strategy adaptation (Model 3 and Model 4) and export sales growth (Model 5 and Model 6). Overall, Model 6 returned superior fit statistics in both samples (see Table 5). Specifically, results show good model fit for the U.K. sample: χ^2(D.F.) = 63.92(32); $p < .05$; NNFI = .97; CFI = .97; RMSEA = .05; R^2: export learning process = .18; marketing strategy adaptation = .12; export sales growth = .31. Good model fit was also obtained for the China sample: χ^2(D.F.) = 47.88(32); $p > .05$; NNFI = .96; CFI = .99; RMSEA = .03; R^2: export learning process = .10; marketing strategy adaptation = .12; export sales growth = .32. Using Model 6 to interpret our hypotheses (it also contains export learning process and marketing strategy adaptation outcomes), five of the six are supported in the U.K. sample, while two hypotheses are supported in the China sample.

- Table 4 and Table 5 about here -

Our Model 2 findings suggest psychic dispersion is positively linked to export learning process in the UK sample ($\gamma = .12$; $t = 1.88$; $p < .10$), while duration is negatively linked to export learning process in the China sample ($\gamma = -.20$; $t = -2.38$; $p < .05$). With respect to the control variables, for the UK sample, the presence of an export department drives export learning process ($\gamma = .20$; $t = 2.59$; $p < .01$), whereas industry (i.e., manufacturing) attenuates export learning process ($\gamma = -14$; $t = -1.95$; $p < .10$). In the China sample, firm size is negatively related to export learning process ($\gamma = -.36$; $t = -3.48$; $p < .01$).

Moreover, regarding outcomes of export learning process, we argue in H_1 that export learning process is positively linked to marketing strategy adaptation. Our Model 4 supports this assertion in both the U.K. ($\gamma = .33$; $t = 4.78$; $p < .01$) and China ($\gamma = .22$; $t = 3.86$; $p < .01$) samples. Here, there are two significant control paths: industry is positively linked to adaptation in the U.K. sample ($\gamma = .13$; $t = 1.74$; $p < .10$); and psychic dispersion drives adaptation in the China sample ($\gamma = .25$; $t = 3.46$; $p < .01$).

The study contends that export learning process is positively related to export sales growth. We find, in Model 6, that export learning process is positively associated with export sales growth in the U.K. sample ($\gamma = .15$; $t = 1.84$; $p < .10$), while no relationship exists in the China sample ($\gamma = -.05$; $t = -.66$; $p > .10$). Thus, H_2 is only accepted for the U.K. We also theorize that these direct effects are conditioned by the international experience components. Specifically, H_{3a} argues that increases in export learning process and higher levels of psychic dispersion are associated with increases in export sales growth. Our findings reveal that when export learning process and psychic dispersion take on greater values, there is a positive effect of export learning process on export sales growth for the U.K. firms ($\gamma = .16$; $t = 2.13$; $p < .05$); which provides support for H_{3a} in this sample. However, the coefficient in the China sample for the product term of export learning process and psychic dispersion is negative ($\gamma = -.21$; $t = -2.14$; $p < .05$), suggesting H_{3a} is rejected.

We argue in H_{3b} and H_{3c} that increases in export learning process and greater multinationality and duration, respectively, are associated with decreases in export sales growth. In line with H_{3b}, we find that

at higher levels of multinationality, there is a corresponding decrease in the effect of export learning process on export sales growth in the U.K. sample (γ = -.15; t = -1.80; p < .10). Conversely, higher levels of multinationality are associated with a stronger effect of export learning process on export sales growth in the China sample (γ = .10; t = 1.68; p < .10). Hence, H_{3b} is rejected in the China sample. We find that while the association between export learning process and export sales growth is attenuated when duration of exporting takes on higher values in the U.K. sample (γ = -.16; t = -2.04; p < .05), the path is accentuated when duration is larger in the China sample (γ = .15; t = 2.36; p < .05). Thus, H_{3c} is supported in the U.K. sample but rejected in the China sample.

We propose in H_4 that as marketing strategy adaptation becomes greater, the effect of export learning process on export sales growth becomes less positive. While H_4 is rejected in the U.K. sample as the product term of export learning process and marketing strategy adaptation is not significant (γ = .03; t = .43; p > .10), it is supported in the China sample as the coefficient is negative (γ = -.14; t = -2.16; p < .05). As regards the Model 6 control paths, in the U.K. sample, export department and duration of exporting are negatively linked to sales growth (γ = -.35; t = -2.19; p < .05 and γ = -.34; t = -3.05; p < .01, respectively), while firm size is positively linked to sales growth (γ = .25; t = 2.30; p < .05). For Chinese exporters, industry is positively related to export sales growth (γ = .20; t = 2.60; p < .01), as is psychic dispersion (γ = .27; t = 2.78; p < .01) and duration (γ = .33; t = 4.45; p < .01). The absence of significant effects of adaptation on sales growth in both samples, upholds the view that there is no one-size-fits-all solution to export strategy adaptation decisions (Hultman, Robson, and Katsikeas 2009).

We plotted the relationship between export learning process and export sales growth under differing levels of the moderators, following Aiken and West's (1991) procedures. Specifically, we estimated the effect of export learning process on export sales growth under high versus low values of the international experience and marketing strategy adaptation moderators. In Figure 2a and Figure 2b, we show that moderation effects of psychic dispersion are driven mainly by the high psychic dispersion

condition; which boosts export sales growth when paired with high export learning process in the U.K. sample, and low export learning process in the China sample. Figures 3a and 3b demonstrate that moderation effects of multinationality are facilitated mainly by low multinationality; which enhances export sales growth when coupled with high export learning process in the U.K. sample, and low export learning process in the China sample. Figure 4a reveals that the moderation effect of export duration in the U.K. sample can be attributed to low duration, which boosts export sales growth when paired with high export learning process in the U.K. sample. Figure 4b suggests the moderation effect of duration in the China sample is driven by high duration, which boosts export sales growth when paired with high export learning process. In Figure 5, we show that the moderation effect of marketing strategy adaptation in the China sample is driven by high adaptation, which augments export sales growth when coupled with low export learning process. Overall, the plots imply that while the influence of export learning process on export sales growth is either positive or benign for U.K. exporters, high levels of export learning process are detrimental for Chinese exporters under certain conditions. Findings from additional analyses show that our modeling is robust (see supplementary Online Appendix).

- Figures 2, 3, 4, and 5 about here -

DISCUSSION

Theoretical Contributions

The ideas discussed in the article add to two main areas of research: export learning theory and the KBV position that exporting firms develop and benefit from experiential learning processes; and the matter of how the strategic contexts of exporting firms in developed and emerging markets influence their learning.

Contributions to knowledge on export learning theory: While the organizational learning literature has for a long time emphasized the theoretical distinction between know-what and know-how forms of learning (Edmondson et al. 2003), prior exporting research has focused almost exclusively on

informational learning processes that harness the former (e.g., Souchon, Sy-Changco, and Dewsnap 2012; Theodosiou and Katsikea 2013). A rare exception is Morgan et al. (2003), but their empirical study stops short of directly capturing the experiential learning process underpinning how exporters create and transfer knowledge. As such, scholars have taken crucial steps in advancing our understanding of export processes for acquiring and using external knowledge about the export marketplace. But the lack of insight into how export learning processes convert internal knowledge from an organization's experiences to develop its competences in the execution of export-related tasks, continues to inhibit export management theory development and testing (Lages, Abrantes, and Lages 2008). Our study is the first to conceptualize export learning process as an organizational learning capability that enables firms to learn, accumulate, and deploy export management know-how (cf. Kale and Singh 2007). In doing so, we apply and extend the KBV assertion that firms are capable of turning themselves into learning laboratories to exploit existing intellectual assets (cf. Aulakh, Kundu, and Lahiri 2016). We rely on data from U.K. and Chinese exporting firms to validate our second-order, export learning process construct and measures of its knowledge articulation, codification, sharing, and internalization dimensions.

The study is also novel in theorizing and modeling how exporting firms can benefit from their exporting know-how. Drawing from the KBV, we posit that an exporter's understanding and know-how can be embedded in organizational learning capabilities that, via the more skillful accomplishment of exporting tasks, allow it to adapt to the environment and achieve its strategic growth goals (Kogut and Zander 1992; Morgan et al. 2003). We also adopt specific insights from the experiential knowledge literature (e.g., Banerjee, Prabhu, and Chandy 2015) to theorize that complementarity and substitution effects between knowledge resources and learning capabilities underpin moderating effects of experiential knowledge components on the sales growth outcomes of export learning process (Hakala 2011). The study results confirm that different experience components play different roles in conditioning sales growth outcomes of export learning process (cf. Cadogan, Kuivalainen, and Sundqvist

2009). Here, we advance the notion that international experience is a multifaceted and complex construct that is not best captured using broad-brush conceptualizations—the effects of which should be treated with caution (Hultman, Katsikeas, and Robson 2011). Finally, we reveal for the first time not only that export learning process drives marketing strategy adaptation, but also that its sales growth outcomes are conditioned by the level of adaptation. The study's comprehensive moderation thesis helps bridge a gap in the exporting literature regarding contingencies of the export learning–firm performance relationship (De Clercq and Zhou 2014).

Contributions to knowledge on export learning in different strategic contexts: Given the paucity of theory on whether export learning process helps or hurts exporting firms in developed and emerging markets (cf. Adekambi et al. 2015), we developed a universal model of conditional outcomes of export learning process. Nonetheless, our H_1 assertion that a firm's export learning process facilitates repeated adjustments toward marketing strategy adaptation was the only hypothesis to receive support for both U.K. and Chinese exporters. Surprising findings—especially for the China sample—suggest contextual considerations can add valuable precision to our a priori theorization (Hambrick and Quigley 2014; Trąpczyński and Banalieva 2016). An important implication of the study is that the KBV may be cross-fertilized with insights from research on multinational organizations (e.g., Zellmer-Bruhn and Gibson 2006) and, cultural and institutional differences (e.g., Barkema, Bell, and Pennings 1996).

Literature on multinational organizations suggests macro-environmental factors can shape processes firms put in place to induce learning (Zellmer-Bruhn and Gibson 2006). Large heterogeneity across firms' macro environments worldwide, creates learning barriers as a result of the complexities of management systems and contradictions that emerge (Ghoshal 1987). Barkema and colleagues (1996) suggest firms are able to overcome these barriers to learning in heterogeneous environments through time and incremental experiences. In light of our H_2 findings, that export learning process is positively linked to export sales growth in the U.K. sample alone, we maintain that well-established exporting firms

like those in the U.K. (see Table 2) are more capable of using cross-border learning processes to achieve growth in foreign markets than maturing firms like those in China. Given their liability of newness overseas and fluid internal structures, younger, emerging market firms are likely to utilize network ties, and not formalized processes, to learn about exporting to foreign markets (Cavusgil and Knight 2015). While Chinese firms can be ambitious in developing new external knowledge contacts in export markets, they are reliant on long-term ties with domestic institutional contacts that have connections overseas to address foreign-market learning barriers (Zhou, Wu, and Luo 2007). The lack of a positive main effect of export learning process on sales growth could stem from the difficultly of transitioning from an entrepreneurial model that leverages external know-how from contacts in China and overseas, to a model of internalizing and formalizing know-how. That exporters may struggle to combine internal, experiential with external, network sources of know-how contrasts theory on learning processes capable of integrating diverse forms of know-what (Mena and Chabowski 2015), and is an intriguing avenue for future research.

In our experiential knowledge moderation hypotheses, we theorized that learning processes' export coordination efforts are more likely to succeed in driving sales growth for: high-psychic dispersion exporters with broad-based knowledge resources to integrate (H_{3a}); low-multinationality exporters that act creatively in amassing knowledge on fewer country markets (H_{3b}); and low-duration exporters willing and able to learn from managers' activities and modify behaviors accordingly (H_{3c}). While these hypotheses were supported in the U.K. sample, we observed the exact opposite pattern of moderation effects in the China sample. A high level of export learning process dampens Chinese exporters' sales growth under the conditions of high psychic dispersion, low multinationality, and low export duration.

Maturing multinational enterprises may view the world as their marketplace and, as such, expand widely to different regions. However, the business culture of Chinese firms values existing relationships over the immediate gratification of growing by forging new ones (e.g., with importers in many new markets) (Li, Lam, and Qian 2001). Their strategy of internationalizing based on partners' referrals from

domestic network contacts may slow the pace of learning from new foreign markets (Zhou, Wu, and Luo 2007). Chinese exporters fitting this pattern would lack depth of experiential knowledge in their regional setup (Awate, Larsen, and Mudambi 2015). Indeed, our China sample (see Table 2) supports an entry strategy profile of relatively new exporters with high psychic dispersion but also low multinationality. Developing and deploying cognitive structures through which to leverage experiences within formalized and systematized export learning processes, could be risky in the absence of deeper sources of regional knowledge through which to refine and calibrate memory assets. Moreover, Chinese firms may find it disruptive to change their mode of learning away from culture-linked processes of reusing relationships and toward cognitive processes of reusing knowledge, when their strategy is to offset the riskiness of pursuing growth opportunities in diverse markets. Thus, in situations of high psychic dispersion, Chinese exporters are likely to develop better growth opportunities via low export learning process.

By contrast, Chinese exporters characterized by low multinationality struggle to use export learning processes to grow sales. We theorized that multinationality can involve merely incremental improvements and learning, and that this is not conducive to knowledge coordination via export learning process improving the firm's ability to exploit market opportunities. While such conditions would seem to apply to U.K. exporters with established multinational footprints comprising similarly developed export markets (i.e., within the European Economic Area), Chinese exporters appear to add new country markets in a way that does require strategic creativity and coordination through export learning process. It is possible that this is a function of China, as a traditionally closed, emerging economy, needing to find more creative entry solutions. Also, Chinese firms with low multinationality have yet to switch from uncovering expansion opportunities via external contacts to deploying experiential learning mechanisms. At this stage in their development, they do not need export learning processes undermining their reliance on social networks. Similarly, if Chinese exporters deploy export learning process too early in their development—under conditions of low export duration—they potentially sacrifice the entrepreneurial

dynamism that underpins their persistence in overcoming liability of newness and foreignness in export markets. Unlike their U.K. counterparts, Chinese firms are used to institutional voids and the need to redesign internal processes. Culturally, they may be resistant to structural inertia and hubris effects undermining the export learning process to sales growth relationship as duration of exporting increases.

A final surprising moderation finding is that marketing strategy adaptation does not inhibit the effect of export learning process on sales growth in the U.K. sample. We theorized, in H_4, that where exporters become more knowledgeable through an effective export learning process, they can confidently leverage internal resources linked to the naturally repeated and fine-tuned standardization strategy, and achieve higher sales growth. We also asserted that export learning process and adaptation strategy compete for finite managerial resources. The China results appear to endorse our logic by showing that adaptation depletes the growth relevance of export learning process. Regular adaptation entails greater accumulation of costs, and coordination burdens that arise when large quantities of products, ranges of prices, and varieties of promotional messages are being adapted in multiple export markets. The younger generation of emerging market exporters may have fewer analytical and planning models at their disposal (Samiee and Chirapanda 2019). It is unlikely that these firms possess the resources needed to grow sales through export learning process while adapting to many different cultural cues. Resource-endowed, established firms, such as U.K. exporters, would have more formal learning routines that can be leveraged via adaptation activities to generate greater sales levels. Prima facie, U.K. exporters' capacity for organized adaptation strategies neutralizes the predicted advantages of coupling export learning processes with repeated standardization.

We also observe inconsistencies in the effects of the experiential knowledge activities on export learning process for the U.K. and China exporters. Psychic dispersion drives export learning process in the U.K. sample, but not in the China sample. It would seem that U.K. firms, which export to many country markets located in psychically dispersed regions (see Table 2), are more likely to possess cross-

cultural memory assets and be capable of developing know-how practices to deal with cultural heterogeneity across regions. Further, the experiential knowledge literature asserts that learning diminishes as firms acquire greater durational experience, because hubris and structural inertia usually accompany such experience (Eesley and Roberts 2012). Still, we found that duration is negatively related to export learning process in the younger China sample, and not in the older U.K. sample. We infer that Chinese exporters are more likely to favor an organic structure receptive to proactive learning culture (Zahra, Ireland, and Hitt 2000) as their cross-border operations approach maturity, which militates against the adoption of formalized learning processes. The possibility that such an effect does not hold for Chinese exporters at a later phase of internationalization (cf. Lu and Beamish, 2004) represents an intriguing direction for future research.

Finally, multinationality was found to be unrelated to export learning process in both samples, which we attribute to the role of regional free-trade agreements. Firms will not be motivated to develop a formalized learning process when multinationality increases, if the majority of export decisions taken are for incrementally different markets. In sum, our study adds to previous exporting work (e.g., Hultman, Katsikeas, and Robson 2011; Ibeh and Kasem 2014) by observing and accounting for the fact that exporting firms domiciled in different strategic contexts have idiosyncratic experience profiles that generate differential learning processes and performance outcomes.

Managerial Implications

The findings provide key insights for export managers. First, we observe that both U.K. and Chinese exporters' ability to learn from export market experiences drives the adaptation of marketing strategy activities to export market conditions. Second, we observe that the efficacy of export learning process in determining export sales growth is dependent upon the profile (i.e., form and level) of experiential knowledge available to the exporting firm. Specifically, we suggest U.K. export managers would gain most from high export learning process in situations of high psychic dispersion, low multinationality,

and low duration. Chinese exporters would derive export sales growth benefits from high export learning process under the conditions of low psychic dispersion, high multinationality, and high duration. Yet, for Chinese exporters, good growth outcomes are achievable by pairing low export learning process with a high psychic dispersion and low multinationality expansion strategy. Such an approach would reduce transitory difficulties associated with young Chinese firms' lack of years of observation of export market challenges and of deep sources of regional knowledge, and disruption to their entrepreneurial network-based structures and strategies when seeking expansion opportunities outside China. Third, our findings indicate that Chinese exporters are well placed to effectively leverage growth benefits of export learning process when following standardized export marketing strategies.

To further scrutinize the significant direct effects of export learning process and moderating effects of international experience and strategy adaptation, on export sales growth, we performed two additional post hoc tests (Katsikeas, Leonidou, and Zeriti 2016). First, a median split analysis conducted on the U.K. sample, shows that U.K. exporters with greater export learning process achieved 24.1% higher export sales growth. Second, we split the independent and moderator variables into high (upper quartile = top 25%) and low (bottom quartile = bottom 25%) groups. We compared the mean export sales growth values across the high and low groups of export learning process. We find that U.K. exporters with high psychic dispersion achieved 8% more export sales growth when these also had high versus low export learning process. Chinese exporters with high psychic dispersion achieved 4% lower export sales growth with high export learning process. Firms in the U.K. sample with high multinationality saw a 2.5% drop in export sales for high versus low export learning process, whereas Chinese firms in the high multinationality group experienced 4.7% growth in export sales with high export learning process. Results show that U.K. firms with high duration of exporting realized a 14.7% decline in export sales when these had high (not low) export learning process. In contrast, Chinese exporters in the high duration group attained 28.0% growth in export sales for the high (not low) export learning process group. Finally,

Chinese exporters with high strategy adaptation and high export learning process accomplished virtually no change in export sales growth (0.2%), while those with low adaptation and high export learning achieved a 3.1% increase in export sales growth.

LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

We relied on externally available export sales data to objectively capture export sales growth. While this approach has benefits in terms of minimizing method bias (Podsakoff et al. 2003), has been used widely in previous exporting studies (Naldi and Davidsson 2014), and has been validated in the current study with a scale-based sales performance measure, it can be argued that use of a single sales growth measure ignores other growth dimensions contributing to profit growth (Morgan, Slotegraaf, and Vorhies 2009). It is important that future exporting research employing growth measures incorporates sales volume growth together with sales margin growth. Further, export performance should ideally be captured using a combination of economic and non-economic measures (Cadogan, Kuivalainen, and Sundqvist 2009; Katsikeas et al. 2016). Future export learning process studies should use other indicators of performance from different parts of Katsikeas and colleagues' (2016) marketing–performance outcome chain.

Our theorization assumed an exporter's international experience is an organizational resource that provides it with an experiential knowledge resource-base to feed into its export learning capabilities (Chang, Gong, and Peng 2012). Yet the study results were mixed. Since processes of export learning are based on input derived from both external (e.g., market research) and internal (e.g., experiential) sources of information (see Table 1), future studies should ideally examine the interplay among external and internal drivers of export learning process. The learning-by-exporting literature would benefit from such an attempt to synthesize across related knowledge and learning concepts (Chabowski et al. 2018).

To further scrutinize how the KBV informs export strategy, we recommend that scholars seek to untangle the learning and performance implications of different international experience configurations, and capture such interplay in additional market settings. Our firm-level experience measures do not, for

instance, account for situations where particular manager-level experiences are sourced by, and added to, the export department of the firm to fill gaps in its experience profile. Indeed, a vital piece of the jigsaw, from the perspective of how export experiences and allied resources are managed, concerns the role of the export department. It is important that scholars unpack our observation that U.K. (not Chinese) exporters—perhaps as a function of abundant experiences in handling heterogeneity across their macro environments—are able to utilize export departments to drive export learning processes, but experience lower export sales growth than firms without departments.

To make sense of our moderation findings, we contrasted the U.K. and Chinese findings and drew attention to the different strategic contexts of these exporters. We acknowledge that any comparisons made can only be tentative given concerns over generalizing from two data points (i.e., countries). Still, our findings provide a rich platform to guide future explorations of the mechanisms by which export learning processes explain the kind of learning that older, developed market firms and younger, developing market firms may follow to succeed in foreign markets. With sufficient data points, one can utilize institutional differences logic to formally hypothesize and test for differences and similarities across the institutional environments within which exporting firms operate. In addition, such studies might draw on organizational ecology theory to argue that environmental circumstances (e.g., customer dynamism, technological turbulence, and competitive intensity) under which exporters emerge, grow, evolve, and become extinct, shape the level and effectiveness of export learning process.

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Figure 1: Theoretical Framework

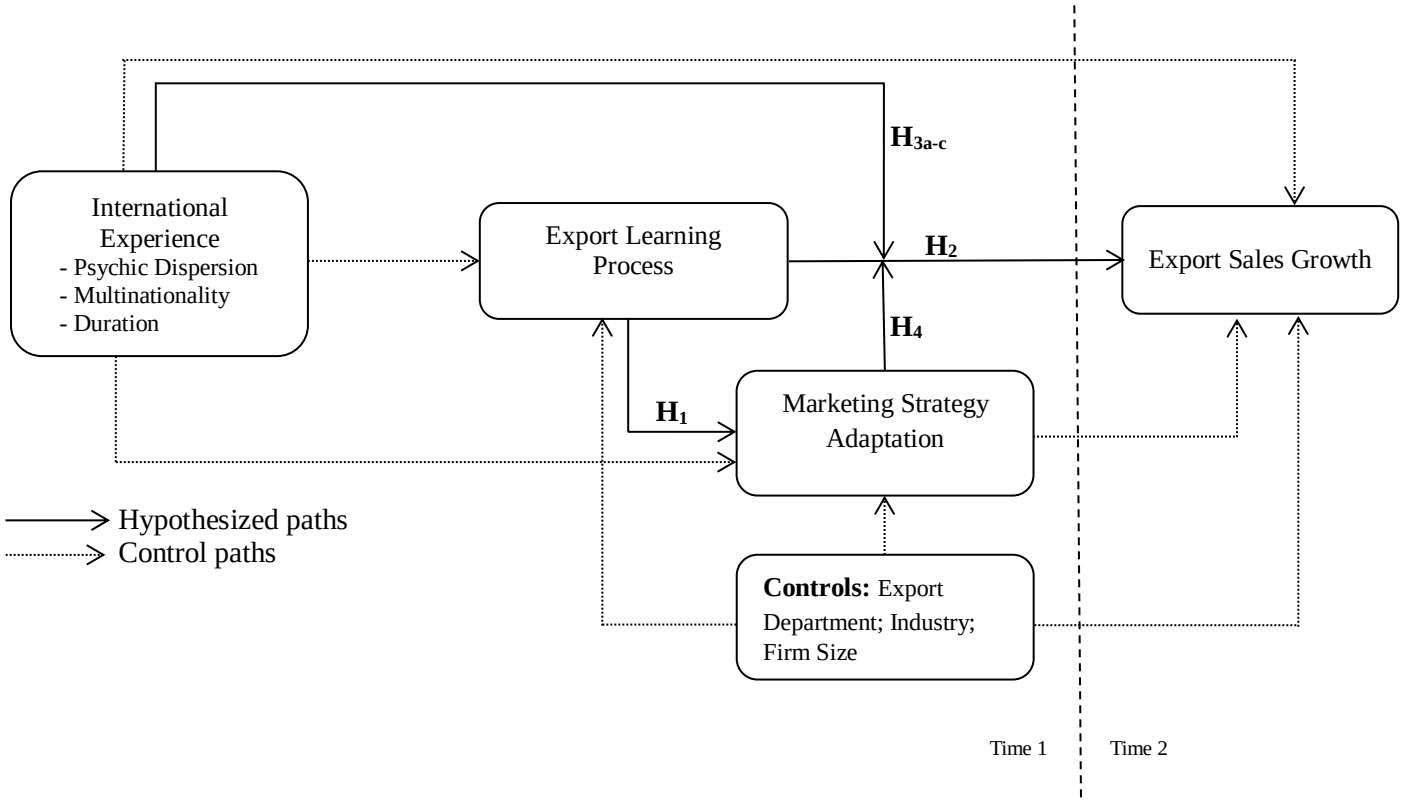
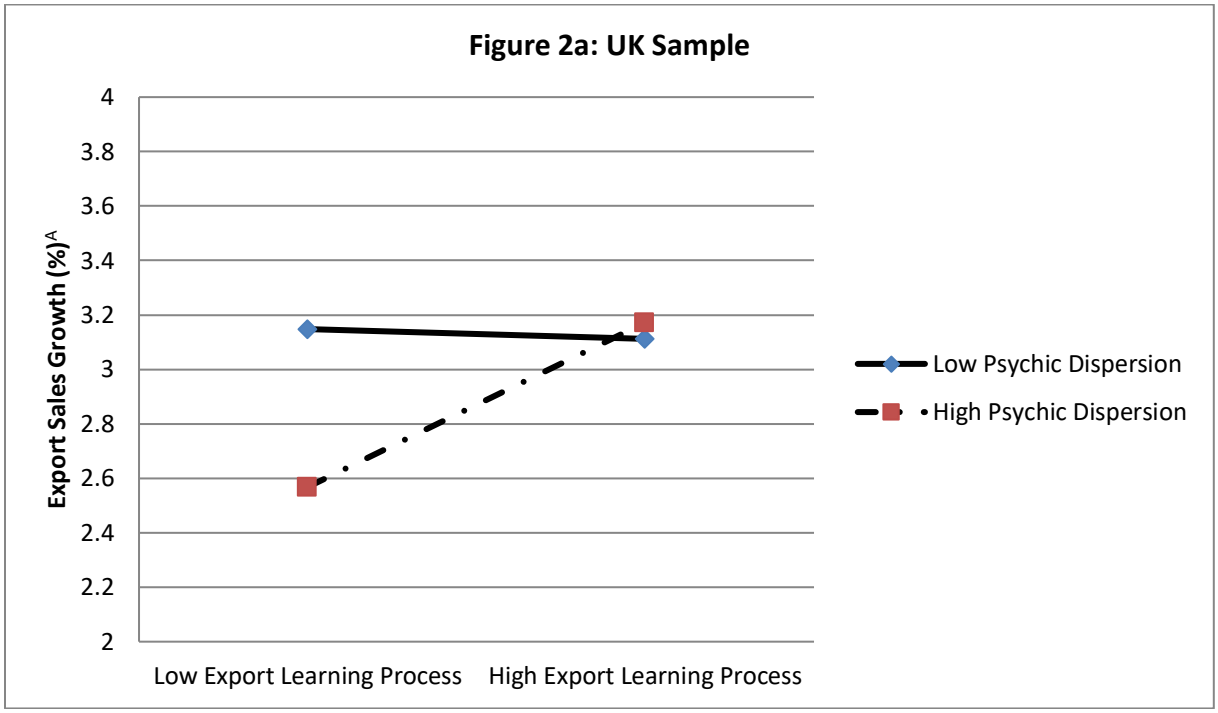


Figure 2a-2b: Surface of the Moderating Effect of Psychic Dispersion of Exporting



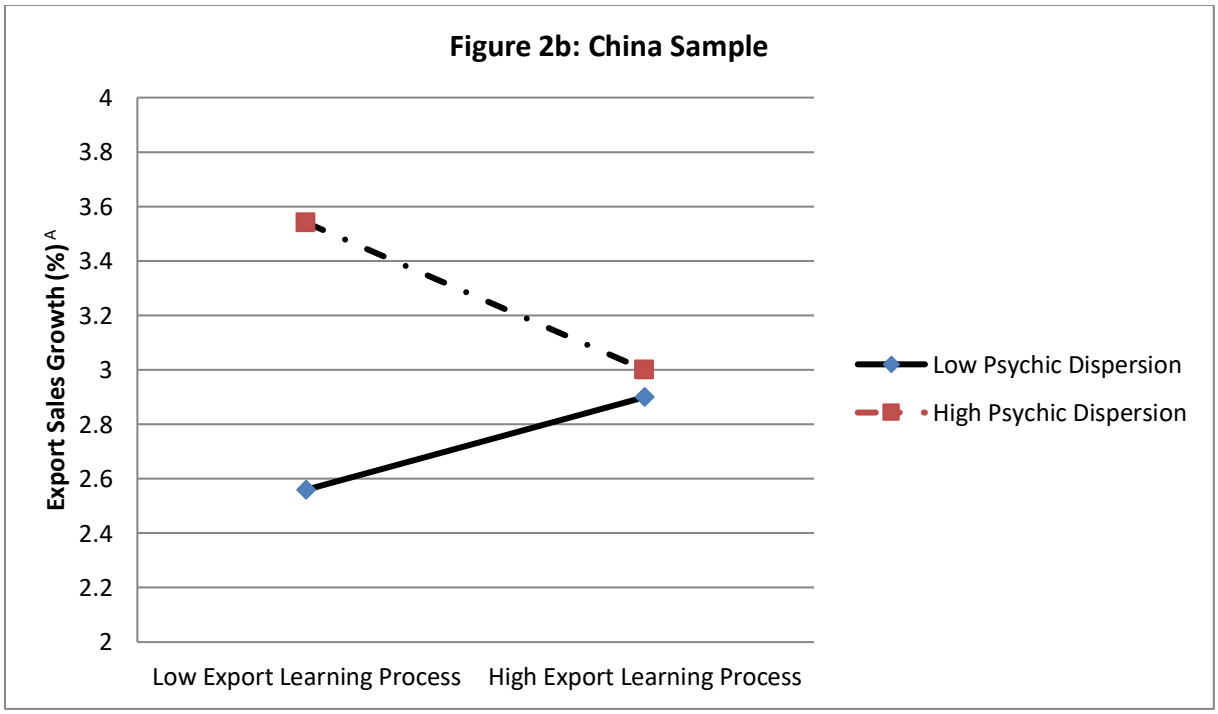
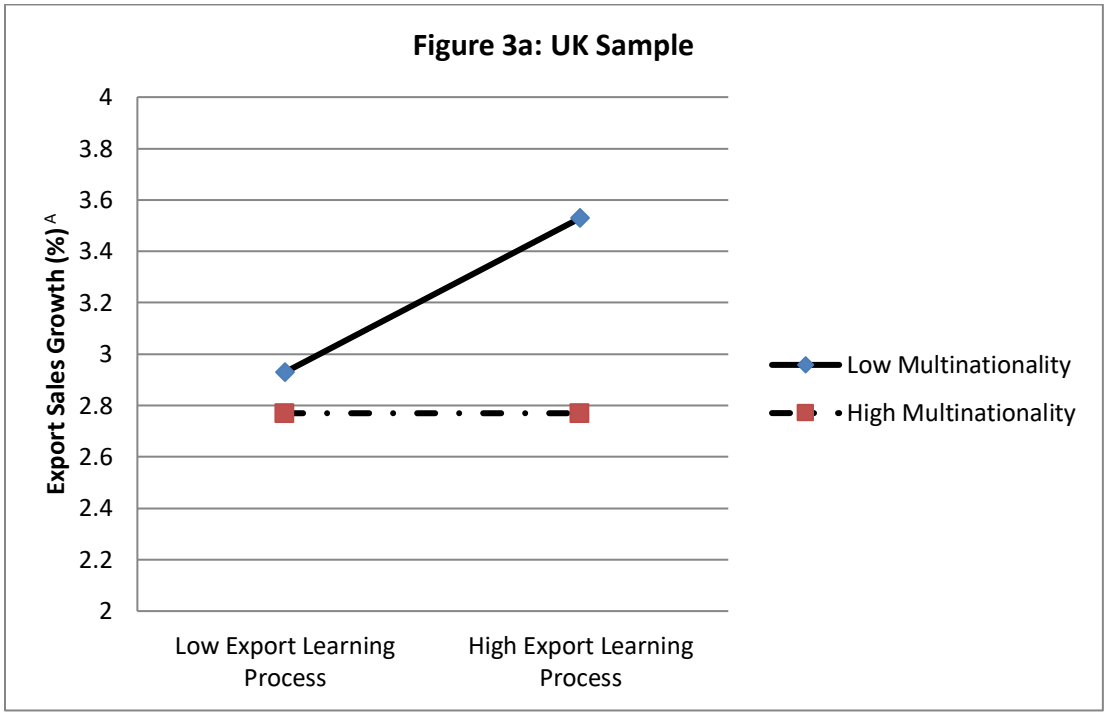


Figure 3a-3b: Surface of the Moderating Effect of Multinationality of Exporting



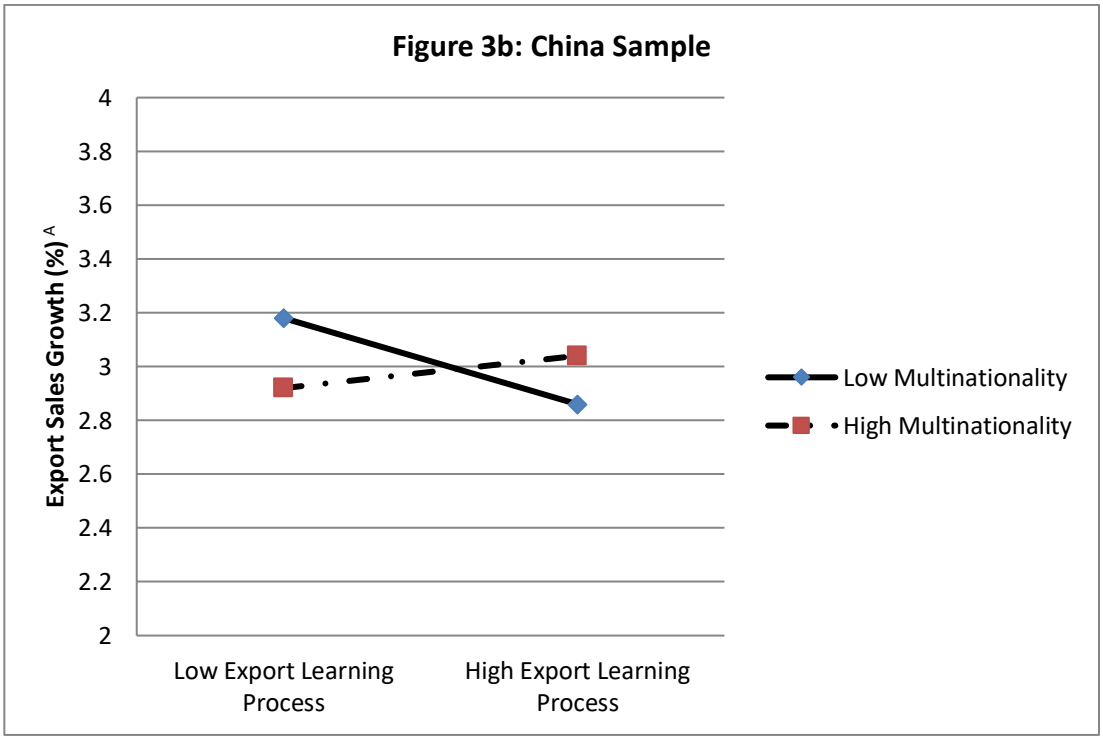
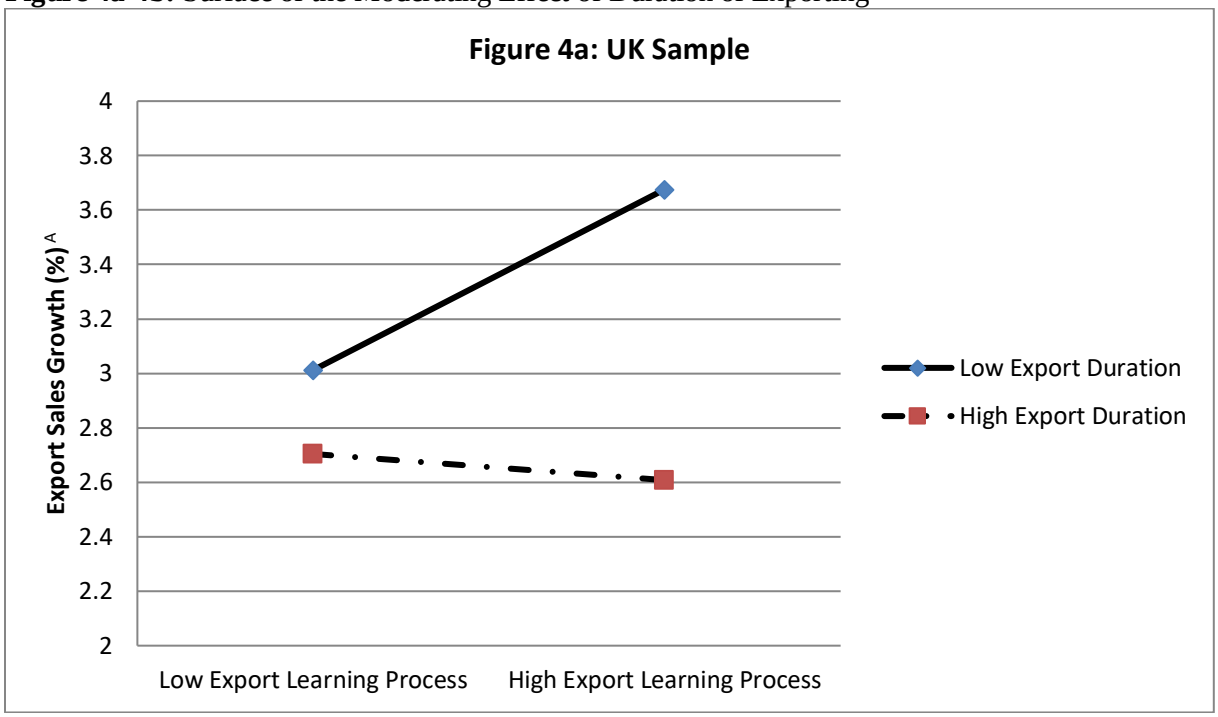


Figure 4a-4b: Surface of the Moderating Effect of Duration of Exporting



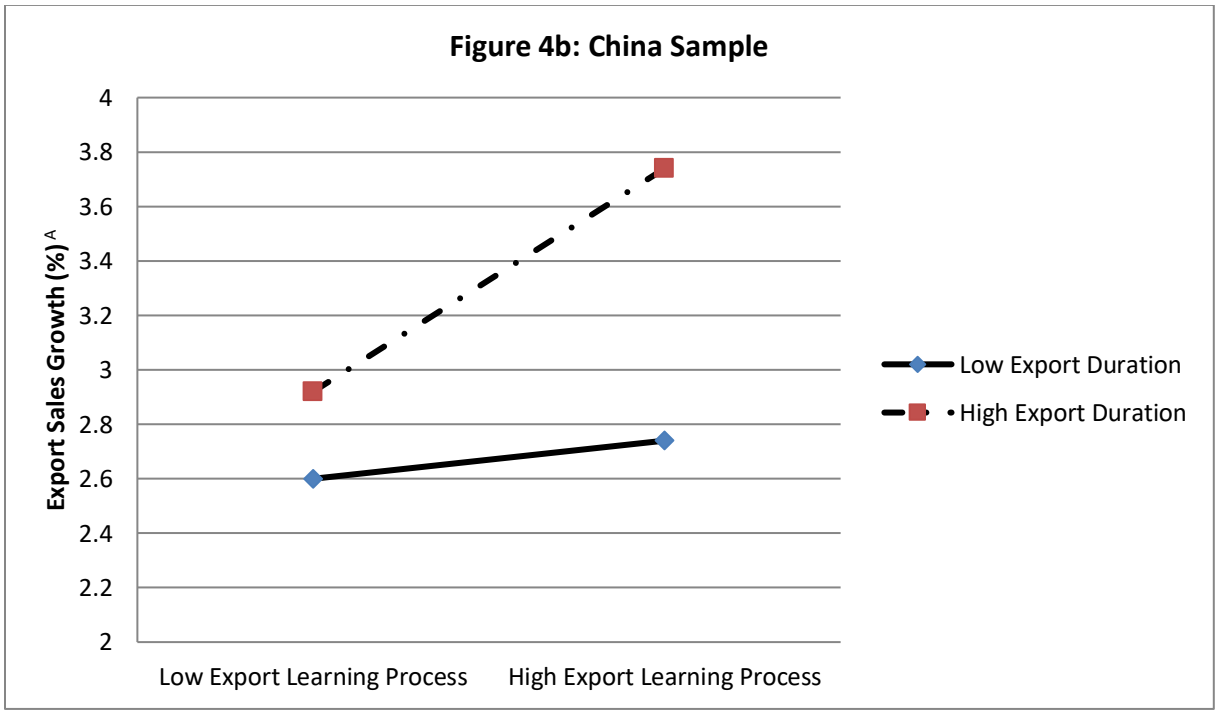
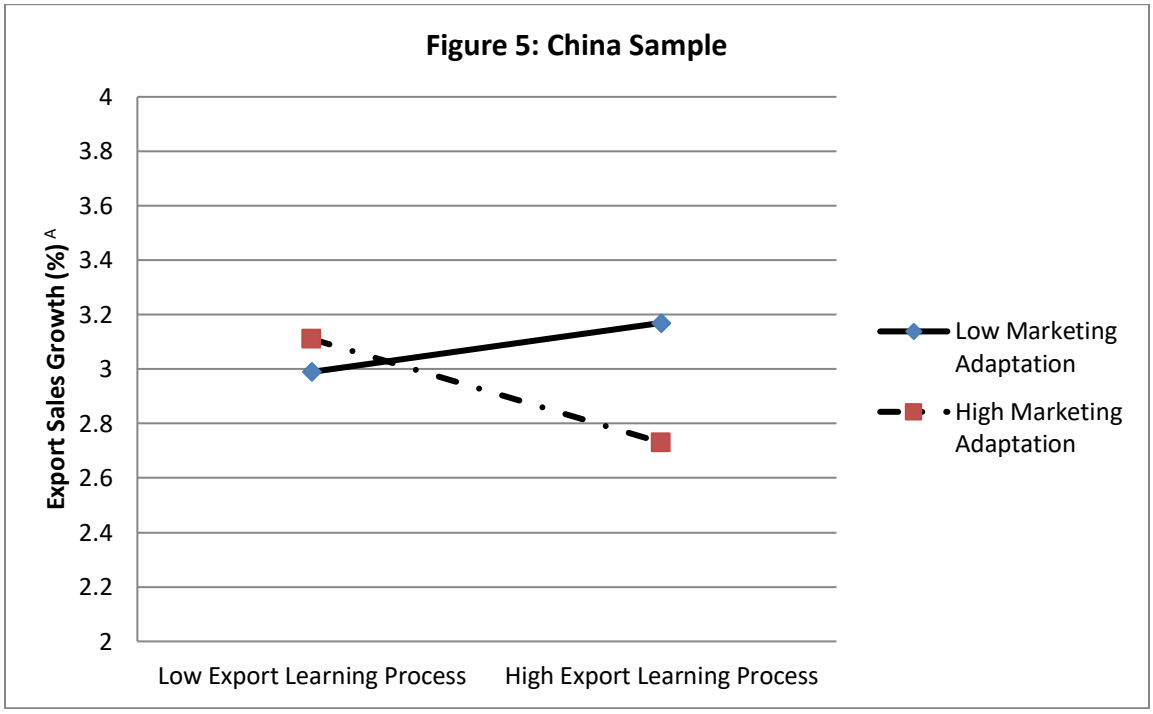


Figure 5: Surface of the Moderating Effect of Marketing Strategy Adaptation



[A] Units have been converted to 5-point scales for display purposes.

Table 1: Empirical Studies on the Antecedents and Outcomes of Processes of Export Learning

Authors	Sample	Learning constructs	Antecedent constructs	Outcome constructs	Key findings
Morgan et al. (2003)	243 U.K. and 198 Chinese exporters	Organizational learning-related capabilities (marketing planning and implementation)	Individual and venture experiential knowledge and venture market knowledge	Adaptive export performance	For both markets: Individual and export venture experiential knowledge of export venture personnel are positively related to venture marketing planning and marketing implementation capabilities; Export venture market information knowledge is positively related to venture marketing planning and marketing implementation capabilities; Export venture marketing implementation capabilities are positively related to venture adaptive performance
Yeoh (2004)	258 US (exporting) born globals	International learning (market, technological, and social)	Geographic diversity	New venture performance (export sales and satisfaction with profit changes)	Geographic diversity is negatively and positively related to technological and social learning, respectively; Cultural diversity (positively and negatively) and top management's international experience (positively) moderate geographic diversity to learning paths; There are positive associations between the three types of organizational learning and firm export sales; Technological learning has a negative effect on profit changes
Kaleka and Berthon (2006)	312 U.K. exporters	Information acquisition and memory development (firm size and experience)	N/A	Differentiation advantage (product and service)	Customer turbulence positively moderates the positive relationship between export market information acquisition and memory development; Customer turbulence and competitive intensity positively moderate the positive relationship between memory development and export differentiation advantage
Armario et al. (2008)	112 Spanish exporters	Foreign-market knowledge acquisition	Market orientation	Foreign-market commitment and performance	Market orientation is positively related to foreign-market knowledge acquisition and performance; Foreign-market knowledge acquisition is positively related to commitment and performance
Cadogan et al. (2009)	783 Finnish exporters	Export market orientation (export market intelligence generation, dissemination, and responsiveness)	N/A	Export sales performance	The relationship between export market-orientation behavior and export sales performance is inverted U-shaped; The optimal value of market orientation decreases as market dynamism increases, and increases as exporting firm internationalization increases
Zhou et al. (2010)	436 Chinese (exporting) born globals	Learning advantages of newness (knowledge and network capability upgrading)	International entrepreneurial proclivity (proactiveness, risk-taking, and innovativeness)	International performance of newness	Positive relationships of entrepreneurial proclivity facets and international performance of newness are mediated by knowledge and network capability upgrading
Aguilera-Caracuel et al. (2012)	155 Spanish exporters	Organizational learning capability	N/A	Proactive environmental strategy	Organizational learning capability is positively related to proactive environmental strategy; Organizational learning capability negatively moderates the positive relationship between international diversification and proactivity strategy
Hilmersson and Jansson (2012)	203 Swedish exporters	Internationalization, societal, and business network knowledge	N/A	Perceived uncertainty	Societal and business network knowledge of the host country have uncertainty reducing effects; The greater the degree of specificity of the experiential knowledge, the greater is its uncertainty-reducing effect
Souchon et al. (2012)	345 Philippine exporters	Export learning orientation (acquisition, distribution, integration, and interpretation of export information, management of mental export models, shared export vision, and export knowledge quality)	N/A	Response to export information, use of export memory, and export growth	Acquisition and distribution of export information and management of export mental models are positively related to response to export information; Integration of export information and management of mental models are positively related to use of export memory; There is a U-shaped relationship between response to information and export growth; The link of response to information to export growth is negatively moderated by use of export memory
Lisboa et al. (2013)	267 Portuguese exporters	Export market exploitation and exploration	N/A	Export performance	Export market exploitation has a positive and U-shaped link with export performance; Export market turbulence positively moderates the negative relationship of export market exploration and performance; There is a positive interaction effect of exploration and exploitation on performance
Theodosiou and Katsikea (2013)	160 U.K. exporters	Export information system (information acquisition, efficiency of export information dissemination, and instrumental and symbolic use of export information)	Personal contacts in the export market, formal export information sources, formalization, and centralization	Export performance	Personal contacts and formal information sources are positively related to export information acquisition; Acquisition and formalization are positively linked to efficiency of information dissemination, and centralization is negatively related to dissemination; Acquisition and dissemination are positively related to instrumental use of information; Acquisition is positively related to symbolic use of information, and dissemination is negatively related to symbolic use; Dissemination and instrumental and symbolic use positively shape performance
De Clercq and Zhou (2014)	158 Chinese (exporting) born globals	International learning effort	Entrepreneurial strategic posture, competitive intensity, and social interaction	International performance	The positive relationship between entrepreneurial strategic posture and international performance is mediated by international learning effort; Social interaction and competitive intensity positively moderate entrepreneurial strategic posture to international learning effort to international performance paths

Ibeh and Kasem (2014)	96 Syrian exporters	Marketing learning	International scope, external social capital, perceived gap in marketing knowledge, and age at entry	N/A	International scope, external social capital, and perceived gap in marketing knowledge are positively related to marketing learning
Naldi and Davidsson (2014)	138 Swedish exporters	Acquisition of international knowledge	N/A	Sales from new international markets and new products in international markets	International knowledge acquisition is positively related to sales from new international markets; Firm age negatively moderates the relationship between acquisition of international knowledge and sales from new products in international markets
Villar et al. (2014)	95 Spanish and 62 Italian exporters	Knowledge management practices (dissemination and storage) and knowledge management dynamic capabilities (external integration and internal development)	N/A	Export intensity	The positive relationship between knowledge management practices and export intensity is mediated by knowledge management dynamic capabilities
Fernandez-Mesa and Alegre (2015)	93 Spanish and 57 Italian exporters	Organizational learning capability	Entrepreneurial orientation	Export intensity	Organizational learning capability mediates the effect of entrepreneurial orientation on export intensity
Cieslik et al. (2016)	321 Polish exporters	Export experience	N/A	Export performance	Export experience and performance have an inverted S-shaped relationship
Oura et al. (2016)	112 Brazilian exporters	Innovation capacity (including learning capacity) and international experience	N/A	Export performance	Innovation capacity and international experience are positively related to export performance; International experience has a greater impact on export performance than does innovation capacity
Skarmeas et al. (2016)	265 Portuguese exporters	Market learning capabilities (export market exploitation and exploration)	Intrapreneurship (new business venturing, innovativeness, self-renewal, and proactiveness)	Export market effectiveness and future export performance	Intrapreneurship components are positively related to market learning capabilities; Export market exploitation and exploration are positively linked to export market effectiveness and future export performance, respectively; There are additional non-linear ties between capabilities and performance outcomes
Gnizy et al. (2017)	225 U.K. exporters	Export information sharing	N/A	Export performance	Export information sharing negatively moderates the relationship between export dispersion and export performance; Export information sharing is positively linked to export performance
Wang and Ma (2018)	142,644 Chinese exporters (panel data)	Learning to innovate (new product sales) as a result of exporting	Export intensity and ownership types (privately-owned and state-owned enterprises)	N/A	Export intensity and learning to innovate have an inverted U-shaped relationship; The inverted U-shaped relationship holds for privately-owned enterprises but not for state-owned enterprises

Table 2: Firm Characteristics

Key characteristics	Mean (Standard Deviation)		Median	
	U.K. firms	Chinese firms	U.K. firms	Chinese firms
Number of employees	87 (76)	88 (126)	60	40
Firm age (years)	41.09 (38.88)	6.37 (7.98)	29	7
Years of exporting	25.65 (21.69)	5.84 (9.35)	20	7
Number of export markets	42.13 (31.62)	13.30 (16.60)	35	10
Number of export regions	6.17 (1.98)	5.16 (1.24)	7	5
Annual sales[A]	28.28 (33.27)	10.97 (6.69)	10	4.40
Annual export sales[A]	17.78 (26.94)	7.32 (9.61)	5.50	5.00

[A] In millions of United States dollars.

Table 3: Details of Measures and Results of Validity Tests for the Multi-Item Constructs for the U.K. and China Samples

Constructs and Measures (Reliability and Convergent Validity for U.K./China)	Factor Loadings (t-values)		Measurement Invariance[C]
Export Learning Process	**U.K.**	**China**	**Loadings (t-values)**
Knowledge Articulation (α = .85/.88; CR = .86/.89; AVE = .68/.73)	**.66 (7.95)[A]**	**0.89 (9.94)[A]**	**.60 (10.06)[A]**
Managers responsible for the firm's exporting maintain a record (in the form of a memo, note, report, or presentation) of all major incidents, decisions, or actions associated with their respective export venture(s).	.83[B]	0.89[B]	.88[B]
Export managers regularly report on the progress and performance of their respective export venture(s).	.90 (18.32)	0.88 (16.36)	.89 (20.44)
The firm maintains a database containing up to date information for each of its export ventures (e.g., date of export, name of the export partner(s), names of managers/ executives who manage that export market(s).	.78 (16.69)	0.86 (15.95)	.78 (17.69)
Managers involved in the firm's exporting are regularly debriefed about their prior and/or current export experience.[D]	-	-	-
The firm maintains a directory or 'contact list' of individuals from outside the firm who can potentially provide inputs or assistance on export management.[D]	-	-	-
Knowledge Codification (α = .89/.84; CR = .89/.85; AVE = .74/.65)	**.85 (9.29)[A]**	**0.81 (7.03)[A]**	**.79 (12.71)[A]**
Resources such as checklists or guidelines are developed and used to assist managerial decision making and actions while forming or managing export ventures.	.68[B]	0.62[B]	.76[B]
Resources such as export manuals (containing tools, templates, or frameworks) are developed and used to assist managerial decision making and/ or actions while forming or managing export ventures.	.93 (12.19)	0.91 (10.43)	.83 (14.61)
The firm updates the exporting checklists, guidelines or manuals that have been developed and are in use.	.93 (12.11)	0.73 (9.47)	.81 (14.29)
Firm managers follow a well-defined 'process' to guide the formation or management of any export venture.[D]	-	-	-
Knowledge Sharing (α = .81/.84; CR = .82/.84; AVE = .61/.63)	**.83 (10.21)[A]**	**0.73 (8.57)[A]**	**.78 (9.99)[A]**
Export managers participate in forums such as committees or task forces to take stock of their export management experience and practices.	.73[B]	0.73[B]	.68[B]
Firm managers participate in forums such as meetings, seminars, or retreats to exchange export-related information, experiences, etc.	.69 (11.15)	0.67 (7.43)	.74 (10.94)
Firm managers engage in informal sharing and exchange of export-related information and know-how with colleagues within the firm.	.76 (11.33)	0.79 (9.10)	.74 (10.97)
Managerial incentives are used to encourage individual managers to share their personal export management experience and know-how with other managers within the company.[D]	-	-	-
Firm management conducts a 'collective review' to assess the progress and performance of its export ventures.[D]	-	-	-
Knowledge Internalization (α = .77/.81; CR = .79/.83; AVE = .55/.63)	**.95 (8.02)[A]**	**0.76 (6.64)[A]**	**.67(9.97)[A]**
Firm managers attend 'in-house' training programs on 'export management' whenever they are assigned to manage or work with any export venture.	.85[B]	0.72[B]	.81[B]

The firm provides opportunities for 'on-the-job' export training to individuals who are relatively new to exporting. Here, individuals are assigned to work in existing export ventures, especially with managers who have substantial experience in managing such export ventures.	.78 (14.94)	0.91 (14.94)	.77 (12.31)
The firm provides managers access to documented and codified information and know-how on its prior and ongoing export experience.	.66 (12.96)	0.67 (12.96)	.57 (9.94)
Firm managers attend externally conducted training programs on 'export management' whenever they are assigned to manage or work with any export venture.[D]	-	-	-
Marketing Strategy Adaptation (α = .86/.93; CR = .82/.92; AVE = .54/.66).			
Product/ Service mix	.91[B]	.80[B]	.85[B]
Product positioning	.92 (16.71)	.98 (17.10)	.89 (27.63)
Pricing	.80 (11.20)	.82 (13.16)	.75 (20.18)
Promotional techniques	.74 (10.93)	.93 (16.11)	.76 (24.50)
Fit Statistics			
χ^2/D.F.	167.89/94	136.47/94	430.01/226
NNFI	.99	.98	.92
CFI	.99	.96	.93
RMSEA	.00	.02	.07

[A] Second-order factor; [B] Fixed parameter; CR = Composite reliability; AVE = Average variance extracted; [C] Factor invariance test; t-values are reported in parentheses; [D] Item omitted during scale purification.

Table 4: Descriptive Statistics and Inter-Construct Correlations for the U.K. and China Samples[A]

		Mean		SD												
		U.K.	**China**	**U.K.**	**China**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
1	Knowledge Articulation	5.51	4.8	1.23	1.30		.54	.57	.53	-.04	-.04	-.08	.10	.11	-.07	-.09	.05
2	Knowledge Codification	4.10	4.04	1.56	1.44	.29		.63	.73	.03	-.05	-.12	.30	.14	-.07	-.12	.13
3	Knowledge Sharing	4.44	4.94	1.49	1.00	.50	.42		.67	.11	.06	-.09	.25	.03	.01	-.10	.20
4	Knowledge Internalization	4.00	5.05	1.51	1.11	.32	.31	.30		.14	.05	-.11	.21	.12	-.03	-.16	.21
5	Psychic Dispersion	6.17	5.16	1.98	1.24	-.13	-.16	.14	.11		.69	.29	.00	-.16	.14	.17	.20
6	Multinationality[B]	3.39	2.55	.96	.94	-.28	-.55	.12	.09	.22		.36	-.08	-.21	.09	.10	.34
7	Duration[B]	25.65	5.84	21.69	9.35	-.15	-.09	.01	.09	.08	.17		.00	-.27	.29	.10	.10
8	Marketing Strategy Adaptation	4.35	4.72	1.48	1.00	-.12	-.08	-.08	.03	.12	-.03	.20		.16	.03	.09	.04
9	Export Sales Growth	68%	80%	1.01%	2.96%	-.24	-.21	.02	-.17	.07	.39	.14	-.09		.02	-.10	-.14
10	Firm Size[B]	87	88	76	126	-.10	-.17	-.09	.02	.10	.29	.05	-.02	.13		.15	.14
11	Industry[C]	-	-	-	-	-.30	-.25	.06	-.21	-.08	.39	.10	.05	.27	-.08		.00
12	Export Department[C]	-	-	-	-	.03	.27	.11	-.12	.06	-.21	-.10	.13	.05	.04	-.08	

Correlations above .20 are significant at $p < 0.05$ for both samples.

[A] Correlations for the U.K. sample (N = 176) are reported above the diagonal, and correlations for the China sample (N = 190) are reported below the diagonal; [B] Natural logarithm transformation of the original values; [C] Dummy variable.

Table 5: Results of Structural Model Estimation

Independent Variables	**Dependent Variables and Cross-Sample Comparisons**											
	Export Learning Process				Marketing Strategy Adaptation				Export Sales Growth[A]			
	Model 1		Model 2		Model 3		Model 4		Model 5		Model 6	
Control Paths	U.K.	China	U.K.	China	U.K.	China	U.K.	China	U.K.	China	U.K.	China
Export department	.18	.01	.20	.03	.11	.08	.04	.07	-.17	.15	-.35	.13
	(2.46)**	(.17)	(2.59)***	(.34)	(1.34)	(1.00)	(.50)	(.93)	(-2.02)**	(2.05)**	(-2.19)**	(1.39)
Industry	-.13	.06	-.14	.06	.08	.13	.13	.12	-.07	.20	-.15	.20
	(-1.79)*	(.88)	(-1.95)*	(.95)	(1.12)	(1.79)*	(1.74)*	(1.62)	(-1.03)	(2.96)***	(-.86)	(2.60)***
Firm size	-.05	-.46	-.03	-.36	-.01	-.01	-.01	.13	.14	-.12	.25	-.01
	(-.68)	(-3.44)***	(-.44)	(-3.48)***	(-.11)	(-.17)	(-.20)	(1.27)	(1.93)*	(-1.23)	(2.30)**	(-.12)
Psychic dispersion (PD)			.12	.06	.12	.23	.07	.25	-.07	.09	-.13	.27
			(1.88)*	(.80)	(1.10)	(3.21)***	(.59)	(3.46)***	(-.67)	(1.26)	(-.72)	(2.78)***
Multinationality (MN)			-.16	.04	-.24	.11	-.19	.12	-.01	-.03	.02	-.02
			(-.97)	(.44)	(-1.97)**	(1.55)	(-1.61)	(1.62)	(-.10)	(-.42)	(.89)	(-.35)
Duration (DU)			-.11	-.20	.05	-.10	.08	-.10	-.26	.35	-.34	.33
			(-1.62)	(-2.38)**	(.56)	(-1.23)	(1.01)	(-1.21)	(-3.27)***	(4.45)***	(-3.05)***	(4.45)***
Marketing strategy adaptation (MSA)									.12	-.08	.14	-.08
									(1.42)	(-1.00)	(1.49)	(-1.01)
Direct Effect Paths												
H1 and H2: Export learning process (ELP)							.33	.22	.12	-.05	.15	-.05
							(4.78)***	(3.86)***	(1.90)*	(-.69)	(1.84)*	(-.66)
Interaction Effect Paths												
H3a: ELP x PD											.16	-.21
											(2.13)**	(-2.14)**
H3b: ELP x MN											-.15	.10
											(-1.80)*	(1.68)*
H3c: ELP x DU											-.16	.15
											(-2.04)**	(2.36)**
H4: ELP x MSA											.03	-.14
											(.43)	(-2.16)**
Fit Statistics:												
R^2	.05	.04	.18	.10	.10	.09	.12	.12	.25	.26	.31	.32
ΔR^2	-	-	.13***	.06***	-	-	.02**	.03**	-	-	.06***	.06***
χ^2/D.F.	72.48/33	56.94/33	69.63/30	50.49/30	78.21/35	88.88/35	65.74/34	76.88/34	74.81/36	68.96/36	63.92/32	47.88/32
$\Delta\chi^2/\Delta$D.F.	-	-	2.85/3	6.45/3	-	-	12.47/1	12.00/1	-	-	10.89/4	21.08/4
NNFI	.88	.89	.93	.92	.88	.85	.90	.92	.91	.88	.97	.96
CFI	.92	.94	.96	.95	.93	.90	.94	.96	.96	.90	.97	.99
RMSEA	.08	.06	.07	.06	.08	.09	.07	.06	.06	.07	.05	.03

Critical t-values for $\alpha = .10$, $\alpha = .05$, and $\alpha = .01$ (two-tailed test) are * = 1.65, ** = 1.96, and *** = 2.58, respectively; [A] Export learning process and marketing strategy adaptation outcomes are estimated together with export sales growth in Model 5 and Model 6.