

The contingent effect of TMT international experience on firms' internationalization speed

Abstract. Drawing on upper echelons theory, we argue that there will be an inverted U-curve-shaped relationship between top management teams' (TMTs') level of international experience and a firm's internationalization speed. Accounting for the role of executive job demands highlighted in upper echelons theory, we further suggest that competitive pressure, product diversification, and geographic scope moderate the relationship between TMT international experience and internationalization speed by increasing the demands of TMT managers' jobs. Using data on the international expansion of 91 retailers between 2003 and 2012, we find empirical support for the inverted U-curve-shaped effect of TMT international experience and the moderating role of competitive pressure. We find no moderating effect of product diversification or geographic scope.

Keywords: internationalization speed, top management teams, TMT international experience, executive job demands, upper echelons theory

Introduction

In recent years, researchers have begun to study the internationalization of firms from an upper echelons (UE) perspective. UE theory explains firms' strategic decisions as influenced by the characteristics of the firms' CEO or TMT (Hambrick and Mason, 1984). Accordingly, UE-based research explaining the nature of firm internationalization, as one such strategic decision, explores how TMT characteristics affect various dimensions of a firm's internationalization. This research has studied TMT characteristics such as TMT size (Sanders and Carpenter, 1998), the average age of TMT members (Lee and Park, 2008), TMT members' level of education (Datta and Rajagopalan, 1998), TMT tenure (Tihanyi *et al.*, 2000) and TMT international experience (Lee and Park, 2008; Reuber and Fischer, 1997) and has related them to various dimensions of firms' internationalization, including firms' international diversification (Tihanyi *et al.*, 2000), their choice of foreign entry mode markets (Nielsen and Nielsen, 2011), their formation of international strategic alliances (Lee and Park, 2008) and their overall global strategic posture (Carpenter and Fredrickson, 2001).

In line with the central role of firms' international experience in explaining the pattern of firm internationalization (e.g., Clarke *et al.*, 2013), UE-based research on firm internationalization considers the international experience of TMTs as particularly important for firm internationalization (e.g., Athanassiou and Nigh, 2000; Reuber and Fischer, 1997; Sambharya, 1996; Tihanyi *et al.*, 2000). This approach is because internationally experienced TMTs are more likely to be oriented toward and know more about international markets, influencing decisions related to firm internationalization. Confirming this basic assumption, the first stream of studies has focused on the effect of TMT international experience on the general level of firm internationalization, which it has captured in several different ways. Research has shown that TMT international experience is related in a positive and linear way to the average of

the three ratios of firms' international sales, employees and assets to firms' total sales, total employees and total assets, respectively (Athanassiou and Nigh, 2002). Similarly, Sambharya (1996) finds that TMT international experience has positive effects on firms' foreign-to-total sales and assets, whereas Tihanyi *et al.* (2000) observe that TMT international experience has a positive effect on firm's foreign-to-total sales and the number of countries in which they operate. Using an entropy measure of international diversification, Herrmann and Datta (2005) find that international diversification is positively associated with TMT international experience. Although these studies find linear effects of TMT international experience on firms' level of internationalization, Lee and Park (2006) find that TMT international exposure has an inverted U-curve-shaped effect on the average of the ratio of foreign sales to total sales and the ratio of foreign subsidiaries to total subsidiaries.

A closely related stream of research has explored the role of TMT/CEO international experience in shaping firms' foreign entry mode decisions. This research has shown that the greater the international experience of a firm's TMT (Nielsen and Nielsen, 2011) or CEO (Herrmann and Datta, 2002; Herrmann and Datta, 2006), the more likely it is to choose full control over partial-control entry modes. Focusing on small and medium-size enterprises' (SMEs') choice between non-equity and equity entry modes, Laufs *et al.* (2016) argue for a (moderated) positive effect of CEO international experience on the choice of equity entry modes.

Overall, prior research has thus shown that TMT international experience plays a central role in explaining various facets of firm internationalization. We contribute to this research in two important ways. First, recent evidence has highlighted the increasing occurrence and the performance effects of rapid internationalization by firms in different industries and from different geographical regions (e.g., Casillas and Moreno-Menéndez, 2014; Chang and Rhee, 2011; Luo and Tung, 2007; Mohr and Batsakis, 2017). Research into Born Globals and

International New Ventures has often conceptualized a firm's internationalization speed as the time between its founding and its first international expansion (e.g., Oviatt and Patricia Phillips, 2005; Reuber and Fischer, 1997). However, this conceptualization of speed "in reality, deals more with the pre-internationalization period than the internationalization process *per se* [italics in original]" and accordingly, there is a need to study the speed of internationalization "once it is underway" (Casillas and Acedo, 2013, p. 15). Conceptualizing a firm's internationalization speed as the pace with which firms internationalize after their first internationalization also seems more relevant in the case of mature firms (the focus of our study) that may start internationalizing only relatively late in their life and that therefore have been used to study internationalization speed of mature firms (Chang and Rhee, 2011; Mohr and Batsakis, 2017; Vermeulen and Barkema, 2002).

Research has not studied the role of TMT international experience as a potential driver of the speed with which firms expand internationally. This lack of research is surprising given the role that prior research has attributed to TMT international experience in shaping other facets of firm internationalization. Drawing on the UE logic, we therefore investigate how TMT international experience affects firms' internationalization speed. By accounting for the speed of internationalization, we extend the current knowledge on the effects of TMT international experience on the patterns of firm internationalization. Clarifying the drivers of rapid internationalization is not only theoretically important but also practically relevant. Firms' decisions to internationalize rapidly rather than slowly may have more to do with TMTs' international experience than with a careful analysis of the benefits and drawbacks of rapid vs. slow internationalization, potentially leading to sub-optimal decisions and detrimental performance effects.

Second, UE-based research suggests that the effects of different TMT characteristics on strategic decision making are likely to depend on other factors, for example, the nature of the

team leader or the team's cohesion (e.g., Buyl *et al.*, 2011; Wei and Wu, 2013), a firm's industry (Finkelstein and Hambrick, 1990) or an organization's macro-environment (Crossland and Hambrick, 2007). Research adopting UE logic to study the factors explaining the nature of firm internationalization has begun to identify numerous contingencies in the relationship between TMT characteristics and firm internationalization (e.g., Carpenter and Fredrickson, 2001; Laufs *et al.*, 2016). Despite these advances, we still know very little about the conditions under which a TMT's international experience has a stronger, weaker or no effect on its internationalization decisions. To address this shortcoming, we draw on the central role attributed to performance and task challenges and the associated job demands on executives in UE theory (Hambrick *et al.*, 2005). Specifically, we expect that the competitive pressures faced by a firm in a weak market position, along with its level of product diversification and geographic scope will moderate the effects of a TMT's international experience on internationalization speed because these factors increase the job demands on TMTs. By investigating the role of competitive pressures, we account for contingencies that are at least partly exogenous to firms and thus contribute to the UE theory that has traditionally viewed such factors as antecedents of TMT characteristics rather than as moderators of the effects of TMT characteristics on strategic outcomes (Carpenter *et al.*, 2004). In general, investigating the contingent nature of the effect of TMT international experience contributes to a clarification of the boundary conditions of the application of UE logic in research on firm internationalization.

Our study thus addresses the following two research questions: *(1) How does TMT members' international experience affect internationalization speed? (2) How do competitive pressures, product diversification, and geographic scope affect the association between TMT international experience and firms' internationalization speed?* We answer these questions by developing hypotheses based on the UE perspective and by testing these hypotheses using the full

information maximum likelihood method (FIML) and Generalized Least Squares (GLS) estimation on a newly created dataset containing information on the horizontal international expansion of 91 retailers during the period 2003-2012.

Theoretical background and hypotheses

The non-monotonic effect of TMT international experience on internationalization speed

Drawing on the UE perspective, we suggest that firms run by internationally experienced TMTs will internationalize more rapidly than firms with TMTs that have little or no international experience. However, we suggest that the positive effect of TMT international experience on internationalization speed will decline and even become negative at very high levels of international experience, leading us to suggest a non-monotonic relationship between TMT international experience and firm internationalization speed.

UE theory highlights the role of TMT experience in affecting strategic decision making in organizations (Hambrick and Mason, 1984). UE logic builds on the idea “that the demographic characteristics of executives can be used as valid, albeit incomplete and imprecise, proxies of executives’ cognitive frames” (Hambrick, 2007, p. 335). In addition, recent UE research has identified further theoretical constructs that can be proxied by TMT characteristics and influence strategic decision making in TMTs, including, for example, skills and orientations, access to information and resources, and social capital (Carpenter *et al.*, 2004). Although the inference of orientations, knowledge, cognitive frames and other psychological characteristics from demographic characteristics has been criticized (e.g., Lawrence, 1997), the existence of strong links between individuals’ demographic characteristics and various of these constructs has been supported in prior research (Simons *et al.*, 1999; Smith *et al.*, 1994). In particular, we suggest that a TMT’s international experience affects its *international orientation* and *knowledge related to*

international expansion in a way that makes internationally experienced TMTs more likely to choose rapid internationalization than TMTs without international experience.

Internationally experienced TMTs are more likely than TMTs with little or no international experience to have developed an *international orientation* and thus to view their firm's growth from an international rather than a purely domestic perspective (Nielsen and Nielsen, 2011; Perlmutter, 1969; Tihanyi *et al.*, 2000; Tung and Miller, 1990). TMTs with such an international orientation are more sensitive to and thus quicker to spot opportunities for international growth than TMTs with little or no international experience (Forsgren, 2002; Nielsen and Nielsen, 2011; Perlmutter, 1969; Tihanyi *et al.*, 2000).

Compared to TMTs with little or no international experience, internationally experienced TMTs have greater *knowledge of overseas markets* (Athanassiou and Nigh, 2000; Tihanyi *et al.*, 2000). Prior research suggests that familiarity with a particular subject matter allows experts to "rapidly retrieve complex configurations of information from long-term memory" (Rost and Osterloh, 2010, p. 215). Because of their greater knowledge of overseas markets, firms with internationally experienced TMTs are thus quicker to process and evaluate information, for example, with regard to the idiosyncratic characteristics of overseas markets. Internationally experienced TMTs will thus perceive lower levels of uncertainty than TMTs with little or no international experience (Carpenter *et al.*, 2001; Elron, 1997; Eriksson *et al.*, 2000; Forsgren, 2002; Piaskowska and Trojanowski, 2014; Tihanyi *et al.*, 2000). Because of their knowledge of international markets and lower perceived uncertainty, internationally experienced TMTs are quicker to make expansion decisions (Forsgren, 2002). Firms with internationally experienced TMTs will thus expand more rapidly than firms with TMTs that have little or no international experience.

Although we expect internationalization speed to increase with rising levels of TMT international experience, this effect is likely to become weaker or even negative at very high levels of TMT international experience. The declining marginal effects of increasing TMT international experience on firms' internationalization speed are attributable to the following two effects. First, although we suggest that an increase in knowledge associated with international experience is likely to accelerate a firm's international expansion, it is likely that the further increase in knowledge of even greater international experience is unlikely to result in a proportional increase in a firm's internationalization speed. At the high levels of knowledge possessed by TMTs with very high levels of international experience, TMT members are more likely to have knowledge of both international operation and rapid internationalization. Such members are more likely to be aware of the potential time compression diseconomies associated with rapid internationalization (Jiang *et al.*, 2014; Vermeulen and Barkema, 2002) and thus to prefer slower internationalization speeds. At very high levels of international experience, TMT managers may thus become better at assessing the risks of internationalization. Such managers may be as likely as managers with less experience to take mental shortcuts and rely on heuristics, but these heuristics will be based on a more balanced approach to internationalization speed.

Second, increasing international experience will, in general, be associated with an increasing breadth of TMT members' international experience. Every additional "instance" of international experience increases the scope for additional heterogeneity, whereas removing such an instance reduces the scope for heterogeneity. Rising levels of experience thus increase the potential that this experience varies from the stock of existing international experience of TMT members.

The growing differences in TMT members' international experience, in turn, increase the heterogeneity of TMT members' orientations, skills and networks (Carpenter and Fredrickson,

2001), which has been argued to be positively associated with various facets of internationalization, but to have negative effects on these facets at higher levels of heterogeneity (e.g., Carpenter and Fredrickson, 2001; Lee and Park, 2006). These negative effects result from the greater likelihood of conflicts and slower, more difficult coordination, communication and behavioural integration among TMT members (e.g., Carpenter and Fredrickson, 2001; Greening & Johnson, 1997; Jaw & Lin, 2009; Lee and Park, 2006). These problems become particularly pronounced when contrasted with the high needs of coordination and communication among TMT members associated with managing complex international operations in general (e.g., Hutzschenreuter and Horstkotte, 2013a), but especially with expanding these operations *rapidly* (Jiang *et al.*, 2014; Vermeulen and Barkema, 2002). Based on these negative effects of high levels of the greater heterogeneity associated with increasing TMT international experience, Carpenter and Fredrickson (2001), for example, expect an inverted U-curve-shaped effect of TMT international experience on firms' global strategic posture. In a similar vein, we suggest that greater heterogeneity of orientations, skills and networks among members of TMTs with high levels of international experience will negatively affect the speed of internationalization at high levels of TMT international experience. Accordingly, we formulate the following hypothesis.

Hypothesis 1: There will be a curvilinear (inverted U-curve) relationship between TMT international experience and firms' internationalization speed.

The Moderating Role of Competitive Pressures and Product Diversification

Research has begun to develop UE theory by identifying potential contingencies in the relationship between TMT characteristics and strategic outcomes to clarify the boundary conditions of UE logic (Carpenter *et al.*, 2004). We focus on executive job demands because UE

theory has identified these demands as a central moderator of the effects of TMT characteristics on strategic firm decisions.¹ According to Hambrick *et al.* (2005), job demands strengthen the effect of TMT characteristics on strategic outcomes by increasing the pressure on executives to rely on their prior experiences (Hambrick, 2007). In the context of our study, TMT members' international experience is likely to have a more pronounced effect on TMTs' decision making when TMT members face higher job demands. We suggest that TMT members' job demands increase with increasing competitive pressure faced by a firm and increasing levels of product diversification and geographic scope.

Competitive pressure refers to external or internal expectations to improve or maintain a firm's market position vis-à-vis its competitors. TMTs of firms that are not performing well—i.e., those with a weak position vis-à-vis competitors or with “fragile market footholds” (Hambrick *et al.*, 2005, p. 476)—are faced with performance challenges from firm owners or shareholders who expect these TMTs to improve their firms' market position (Hambrick *et al.*, 2005). TMTs confronting competitive pressure and performance challenges are subject to greater expectations related to improving their firms' market position, thereby increasing their job demands (Hambrick *et al.*, 2005).

Organizational complexity is a key source of task challenges and thus of job demands for managers (e.g., Hambrick *et al.*, 2005). We suggest that increasing *product diversification* and

¹ The seminal research work by Carpenter *et al.* (2004) has considered important firm-level characteristics (e.g., product diversity and sales levels) as antecedents of TMTs' effects. Magnusson and Boggs (2006) reinforce this argument and suggest that firms with high foreign-to-total sales will select CEOs with greater international experience. Whereas the moderators in our study—i.e. product diversification and competitive pressures—may affect the composition of firms' TMTs, e.g., a greater number of executives with experience in multiple industries, we suggest that these factors are unlikely to directly affect the level of a TMT's international experience. As such we did not theorize about the direct effect that these two factors may have on a TMT's international experience. Instead, we suggest that product diversification and market position are seen as sources of job demands, which in turn have been discussed as central moderators of the effects of TMT characteristics on strategic outcomes. We would like to thank one of the reviewers for raising the possibility of direct relationship between firm-level characteristics and TMTs' effects.

geographic scope will raise TMTs' job demands in a number of manners. First, both high levels of product diversification and a wide geographic scope confront TMTs with a larger number and more varied competitors, distribution channels and customers (Ghoshal and Bartlett, 1990; Kumar, 2009; Levy and Weitz, 2008; Vermeulen and Barkema, 2002), creating significant task challenges for TMTs. They thus challenge TMTs to process and act on increasing amounts of information that—as a result of the idiosyncratic characteristics of the product areas and geographic areas into which a firm expands—are also highly diverse (Hutzschenreuter and Horstkotte, 2013b; Kumar, 2009). Second, the TMTs of firms that are highly diversified in terms of their products or services and with regard to the geographic areas in which they operate, face the challenge of coordinating modifications in product scope and managing and coordinating resource allocation among product areas to ensure that subsidiaries serving new product and/or country markets are embedded within existing or modified organizational structures and processes (Grant, 1987; Kumar, 2009). Increasing product diversification and geographic scope thus increase the task challenges that TMTs face and therefore their job demands.

Competitive pressure, product diversification, and geographic scope will thus increase the job demands on TMTs. Based on UE logic, they are thus likely to strengthen the effect of TMT international experience on internationalization speed. They do so by increasing TMT members' reliance on their existing orientation and prior knowledge and strengthen internationally experienced TMTs' bias towards rapid internationalization. The greater the job demands with which TMT members are confronted, the greater the role that TMT members' orientation will play in their decision on international expansion because, when faced with greater job demands, managers are even more likely to “economize in their strategic decision making by relying on their experiences to search for and interpret information, as well as to select among options” (Hambrick *et al.*, 2005, p. 478).

When high job demands reduce TMTs' time and ability to investigate different strategic options, they are even more likely to focus on strategic options with which they are familiar and comfortable and that "closely reflect their backgrounds" (Hambrick *et al.*, 2005, p. 478). Internationally experienced TMTs are more likely to be familiar and comfortable with international expansion than TMTs without such experience. When faced with high job demands, internationally experienced TMTs are thus even more likely to consider international expansion instead of alternative strategic options. The first reason for this phenomenon is that international expansion "fits" with internationally experienced TMTs' comparatively greater international orientation.

A second reason for this phenomenon is that when faced with high job demands, internationally experienced TMTs' greater knowledge of international markets allows them to economize on the search for and interpretation of information when assessing this strategic option. When confronting high job demands, TMTs will have an even stronger preference for international expansion because—compared to strategic options with which they are unfamiliar—it will reduce the need to search for, collect and interpret new information. International expansion allows TMTs to draw more on the knowledge and information they already possess, which increases in importance when TMTs face higher levels of job demands. In contrast, internationally experienced TMTs with comparatively lower job demands face lower pressure in their decision making. Such TMTs will thus experience lower pressure to rely on their existing knowledge and have greater scope to explore alternative growth options, instead of relying on their existing knowledge.

Overall, the increase in job demands associated with greater competitive pressure, greater product diversification, and wider geographic scope will therefore strengthen the effect of TMT

international experience on internationalization speed. Accordingly, we formulate the following hypotheses.

Hypothesis 2a: The job demands associated with greater competitive pressure will strengthen the effect of TMTs' international experience on firms' internationalization speed.

Hypothesis 2b: The job demands associated with greater product diversification will strengthen the effect of TMTs' international experience on firms' internationalization speed.

Hypothesis 2c: The job demands associated with wider geographic scope will strengthen the effect of TMTs' international experience on firms' internationalization speed.

Data and methods

Sample

Research has begun to highlight the importance of rapid internationalization to firms in various sectors (Casillas and Moreno-Menéndez, 2014; Chang and Rhee, 2011). However, we suggest that the retail sector is particularly suited to addressing our research question. On one hand, research suggests that retailers exhibit a high level of regional or domestic orientation (Rugman and Girod, 2003). On the other hand, there is anecdotal evidence for rapid internationalization among, for example, fashion retailers such as Zara (e.g., Ghemawat and Nueno, 2006; Quinn and Falley, 2010) and super-/hyper-market chains such as Tesco and Carrefour (Coe and Hess, 2005; Coe and Wrigley, 2007) in the face of increasing time-based competition for service-sector firms in general and retailers in particular (e.g., Heskett *et al.*, 1990; Mentzer *et al.*, 2000).

We compiled a list of 189 retailers with overseas sales outlets included in at least one of the following three company rankings: (i) Planet Retail's Top Global 250 Retailers (2012); (ii) Deloitte's Top 250 Global Retailers (2011); and (iii) the United Nations Conference on Trade and Development's (UNCTAD) ranking list of the top 100 transnational corporations (2012). We collected longitudinal data for these 189 retailers for a 10-year period (2003-2012) from the Planet Retail and Orbis databases. Because some of the financial data for these firms were missing, the initial sample was reduced to 144 firms. We next gathered data on TMT characteristics from retailers' annual reports. In line with prior research, we define the TMT as the executive team listed in a company's annual report.² We measured all the TMT variables for each firm-year observation. If an annual report did not provide data on TMT characteristics, we manually collected this information from corporate websites, Bloomberg's Businessweek, Forbes, LinkedIn, Reuters, and similar sources. Our sample size was reduced to 91 retailers because of these missing data.

Variable Measurement

Prior research has measured internationalization speed by dividing the average number of foreign outlets by the number of years since the firm's first international expansion (Chang and Rhee, 2011; Vermeulen and Barkema, 2002). The use of this measure would require us to focus on the firm's TMT at the time of the firm's first international expansion because we are interested in the effect of a firm's TMT on the firm's internationalization speed. However, because the composition of a firm's TMTs varies over time, the speed with which a firm expands internationally might also vary over time. Therefore, we measure speed of international

² In cases in which an annual report did not provide sufficient information about a TMT's members, we used the members of the firm's management board. Given the potential differences in the concepts of firms' executive teams and management boards, we have run our analyses excluding the observations/cases related to information derived from management boards. The results of these analyses showed that there are no substantial differences between these results and those reported as our main findings. We would like to thank two anonymous reviewers for highlighting this issue.

expansion using an alternative measure of speed suggested by Chang and Rhee (Chang and Rhee, 2011) and take the average number of foreign outlets a retailer has opened over a three-year period. In addition to allowing for the comparability of different firms' internationalization speeds, this measure allows us to explore the variation in a firm's internationalization speed that results from the characteristics of the firms' TMTs at the outset of this three-year period. All of our independent, moderating and control variables are measured at the outset of this three-year period.

To measure our independent variable—*TMT international experience*—we use the average number of years the TMT members worked overseas prior to their appointment to the firm's executive committee or management board. This measure is in line with prior research stressing the central role of managers' overseas work experience in their international experience (Le and Kroll, 2017).³ Our sample firms' TMT members have an average of 2.06 years of international work experience. The highest level of international work experience for our sample firms' TMT members is 24 years.

To capture the *competitive pressure* a firm faces as our first moderator, we draw on the empirical industrial organization literature that uses firms' market shares to capture the level of product-market competition and thus competitive pressure faced by the firms in an industry (Beneito *et al.*, 2015). The greater a firm's relative market share, the greater its power, and the lower the competitive constraints it faces from its competitors. The greater the gap between a firm's market share and the market share of the relevant market leader, the greater the competitive pressure faced by the firm (Mohr and Batsakis, 2014). Accordingly, we use the

³ Prior research (e.g., Hutzschenreuter and Horstkotte, 2013b) suggests measuring TMT international experience accounting for whether TMT members were born or educated outside the firm's home country, in addition to TMT members' international work experience. Because the likely variation in the associated experience and the comparatively longer time since the associated international experience has been obtained, we focus on international work experience in our measure of TMT members' international experience. We would like to thank one of the anonymous reviewers for this suggestion.

firm's *market position* relative to the market leader in its market segment.⁴ A large gap between a firm's market share and the market share of the market leader, the greater job demands faced by the firm's TMT (Hambrick *et al.*, 2005). We therefore calculate the absolute difference in terms of total sales (measured in thousands of USD) between a focal firm and the total sales of the market leader in a particular retail segment.⁵ The greater the difference from the leader of the relative market segment, the higher the competitive pressure faced by the firm. To measure our second moderator—*product diversification*—we follow prior studies (e.g., Wiersema and Bowen, 2008) and use Jacquemin and Berry's (1979) entropy measure of product diversification. This entropy measure provides a reliable index of the level of diversity in a retailer's product lines.⁶ Based on this information, we derive the share of a retailer's total sales for each product line and measure each retailer's level of product diversification accordingly. We measure *geographic scope* as our third moderating variable in line with prior research and use the total number of foreign countries in which the firm operates (Vermeulen and Barkema, 2002).

We control for various other characteristics of TMTs that prior research has suggested as affecting different facets of firm internationalization (Carpenter and Fredrickson, 2001; Lee and Park, 2008; Tihanyi *et al.*, 2000). We include a *TMT size* measure that reflects the number of TMT members (Lee and Park, 2008) based on the notion that quantity of managerial resources will affect firm internationalization (e.g., Hutzschenreuter and Horstkotte, 2013b; Sanders and Carpenter, 1998). We include the average age of TMT members (*TMT age*) to account for the

⁴ Competitive pressures can arise from a variety of sources, including, the factors identified in Porter's five forces framework, industry concentration, and price-cost margins. Our measure thus focuses on a particular type of competitive pressure that might be termed "performance pressure". We would like to thank one of the reviewers for pointing this out.

⁵ We divide this measure by 10^{12} .

⁶ The product categorization scheme we use is obtained from Planet Retail, and it distinguishes between twelve product lines for each retailer (automotive products; clothing, footwear and jewellery; consumer electronics; DIY and furniture; edible grocery; entertainment; food service; health and beauty; household and pet care; office supplies; sports and leisure; and other).

potential role of general managerial experience in firm internationalization (Lee and Park, 2008). We control for TMT members' educational level in accordance with suggestions that formal education provides managers with cognitive skills that are particularly useful when operating in complex environments (Datta and Rajagopalan, 1998), such as those developed through international diversification. Following Datta and Rajagopalan (1998), we measure *TMT education* as the average of individual members' highest degree earned (i.e., 1 = high school, 2 = some college, 3 = undergraduate degree, 4 = some graduate school, 5 = master's degree, 6 = attended a doctoral program, and 7 = doctoral degree). We include *TMT tenure*, measured as the average of individual TMT members' tenure, based on suggestions that TMT tenure is conducive to international expansion because longer tenure enables the development of a shared understanding of the firm's international environment (Tihanyi *et al.*, 2000). We also include *TMT nationality diversity* measured using Blau's (1977) index, in which different categories reflect national backgrounds. Finally, we control for the *TMT international experience heterogeneity*, which is measured as the average number of foreign countries in which each TMT member has worked prior to their appointment to the firm's TMT. All these variables are calculated for the first year of the three-year period over which we measure a firm's internationalization speed.

We include the following firm-level controls that have been suggested to affect internationalization speed (e.g., Mohr and Batsakis, 2014): *firm age*, measured as the year of observation minus the year of inception; *firm size*, measured as the natural logarithm of a firm's total assets (measured in USD thousands); *leverage*, calculated as the percentage ratio of a firm's total debts to its total assets; *profitability*, calculated as return on assets (ROA), i.e., the percentage ratio of net income to total assets; *firm international experience*, measured as the sum of years in an overseas market across all entered overseas markets (Mohr and Batsakis, 2017).

Finally, we control for whether a firm has divested some of its foreign operations by including foreign divestment, measured as the percentage ratio of divested foreign outlets to the total number of outlets in a given year.⁷ We also include *home market size* to control for the possibility that first, firms from smaller markets internationalize more rapidly than those from larger markets (Oviatt and McDougall, 1999). Finally, we include seven retail industry dummies based on the core retail segment of each firm, and we include year dummies. We calculate all of these variables for the first year of the three-year period over which we measure a firm's internationalization speed.

Method

Our sample is a ten-year panel dataset (2003-2012) consisting of 91 retail multinational enterprises (MNEs). Our data are structured as a pooled, time-series cross-section. The majority of our variables are in time-series formation (i.e., they change over time); however, we control for possible unobserved heterogeneity (Wooldridge, 2010) by incorporating several dummy variables that lack a time dimension (e.g., firms' industry classification). The aforementioned setup led us to the conclusion that a random-effects GLS estimator is the most appropriate method for testing our hypotheses. We use a lagged variable approach (2-year lag) between the dependent variables and the independent, moderating and control variables (Carpenter and Fredrickson, 2001; Tihanyi *et al.*, 2000). Consequently, values for our dependent variables cover the years 2005-2012, whereas values for the independent, moderating and control variables cover the years 2003-2010. On top of the GLS estimator, and because a number of our variables suffer from missing values, we also use a full information maximum likelihood method (FIML) to test our hypotheses. FIML has been demonstrated to deliver more efficient estimates, thus mitigating the issue of list-wise deletion bias, which might be problematic when using alternative methods.

⁷ We would like to thank one of the anonymous reviewers for this suggestion.

In the results section below, we present both methods and consider the estimates of both to decide whether a hypothesis should be accepted.

Results

Table 1 presents the descriptive statistics and pairwise correlations of the variables included in the regression models. The computed variance inflation factors (VIFs) indicate the absence of multicollinearity in our models, since the highest VIF score is below the threshold of 5.0, which is the most common cutoff point for the possible presence of multicollinearity. However, multicollinearity may occur because of the inclusion of moderating effects in the regression models. We thus follow Aiken and West (1991) and mean-centre the respective variables.

Insert Table 1 about here

Tables 2 and 3 present, respectively, the FIML and GLS regression estimates.

Insert Tables 2 and 3 about here

The empirical results support hypothesis 1. The FIML estimates show that the coefficient for TMT international experience in Model 1 in Table 2 is positive and statistically significant ($\beta = 6.884, p < 0.10$) and the coefficient for TMT international experience squared is negative and statistically significant ($\beta = -0.307, p < 0.10$), indicating an inverted U-curve-shaped relationship between TMT international experience and internationalization speed as per our first hypothesis. These results remain consistent when we apply the GLS estimator. Specifically, the coefficient for TMT international experience in Model 5 in Table 3 is positive and statistically significant ($\beta = 11.40, p < 0.01$), and the coefficient for TMT international experience squared is negative and statistically significant ($\beta = -0.446, p < 0.05$).

We also find empirical support for hypothesis 2a, suggesting a moderating effect of competitive pressure on the effect of TMT international experience on firm internationalization speed. The FIML estimates of Model 2 in Table 2 show that the interaction term between market position and TMT international experience is negative and statistically significant ($\beta = -61.308, p < 0.01$), and the interaction term between market position and TMT international experience squared is positive and statistically significant ($\beta = 3.378, p < 0.05$). This result shows that the moderating effect of competitive pressure flattens the initially inverted U-curve-shaped relationship between TMT international experience and internationalization speed. Regarding the GLS estimates, the interaction term between market position and TMT international experience in Model 6 in Table 3 is also negative and statistically significant ($\beta = -40.94, p < 0.05$), and the interaction term between market position and TMT international experience squared is positive and statistically significant ($\beta = 2.653, p < 0.05$). To better understand the moderating effect of competitive pressure, we plot the interaction graph for the aforementioned interaction effect on internationalization speed (Fig. 1). First, for every level of TMT international experience, firms led by TMTs that face high competitive pressures show higher internationalization speeds. Second, the inverted U-curve-shaped relationship is indeed flattened, showing that especially for high levels of TMT international experience, the effect on speed starts to become more linear and less negative for the firm. Our results thus support hypothesis 2a regarding the moderating effect of competitive pressure.

Insert Figure 1 about here

Hypothesis 2b suggested a moderating effect of product diversification on the relationship between TMT international experience and internationalization speed. The FIML estimates of Model 3 in Table 2 show that the interaction term between product diversification and TMT

international experience is negative and statistically significant ($\beta = -16.263, p < 0.05$), and the interaction term between market position and TMT international experience squared is positive and statistically significant ($\beta = 0.758, p < 0.10$). However, the GLS estimates (Table 3, Model 7) show that the interaction terms between product diversification and TMT international experience (and TMT international experience squared) are insignificant. Due to the ambiguity of the findings, we are not able to support hypothesis 2b.

Finally, neither the empirical results for the FIML model nor those for the GLS model support hypothesis 2c regarding the role of geographic scope in moderating the link between TMT international experience and internationalization speed. The coefficients for the respective interaction terms are not statistically significant (see Model 4 in Table 2 and Model 8 in Table 3).

Sensitivity tests

To test the sensitivity of our results, we performed a number of additional robustness tests. First, our measure of TMT international experience is based on the average years of TMT members' international work experience. This measure does not account for the size of TMTs and thus treats small and large TMTs with an equal average of years of international experience as having an equal level of international experience. Because this measure does not account for a TMT's total international experience, we create an additional measure of TMT international experience summing up the years of international work experience of all TMT members.⁸ We reran our models using this alternative measure of TMT international experience, and the results remain consistent. Second, the first- and second-order terms of TMT international experience are highly correlated, and this may be an indication of multicollinearity. For this reason and to ensure that there is no strong correlation between the linear and quadratic terms of TMT international

⁸ We would like to thank the anonymous reviewers for highlighting the need to explore the role of total, rather than relative, TMT international experience.

experience, we have generated the orthogonal second-degree polynomial of TMT international experience. The sensitivity analysis shows that there is no substantial difference between these results, and the results reported in the main model presented in Table 2.

Discussion

In our first hypothesis, we expected non-monotonic effect of TMT international experience on firms' internationalization speed in the shape of an inverted U-curve. Our results support this hypothesis. This hypothesis was motivated by the UE argument that managers draw on their past experience in making decisions (Hambrick and Mason, 1984) and prior research highlighting the possible negative effects of high levels of heterogeneity of TMT members' skills and orientations associated with high levels of international experience (Carpenter and Fredrickson, 2001). Whereas previous research has stressed the importance of international experience in firm internationalization, our findings for the associated hypotheses extend this research in various ways. Prior research focusses on the usefulness of the knowledge of international markets engendered in this experience when expanding overseas (Clarke *et al.*, 2013). However, our argument based on the UE logic suggests that rather than merely facilitating international expansion, international experience may play a much more pronounced role in choosing the nature of a firm's internationalization. Our research thus contributes to a broadening of the strategic outcomes that UE theory views as-shaped by TMT characteristics.

Furthermore, we argued that at increasingly high levels of experience, TMT members' experience is more likely to include negative experiences, making TMTs more aware of the time compression diseconomies and thus more cautious about the benefits of (rapid) internationalization. Additionally, we argued that TMTs with highly internationally experienced members will show greater diversity in their orientation and skills and that this diversity renders communication and coordination among TMT members more difficult and slow. The positive

effect of increasing TMT international experience would thus decline and potentially even become negative at higher levels of international experience. Our finding for the associated inverted U-curve-shaped relationship between international experience is in line with prior research arguing for non-monotonic effects of TMT characteristics, such as TMT international experience and TMT diversity, on other facets of firms' strategy (e.g., Carpenter and Fredrickson, 2001). At the same time, this finding underlines the complex and likely non-monotonic effect of TMT international experience on the internationalization of firms.

In line with prior research that used the number of overseas subsidiaries established over a given period (e.g., Chang and Rhee, 2011; Vermeulen and Barkema, 2002), our measure of internationalization speed was based on the number of foreign outlets that a retailer established over a three-year period. Since outlets vary in size and the sales they generate, internationalization speed can also be measured using the size and sales volume of foreign outlets. We therefore explored these two alternative measures and found a quadratic (inverted U-curve shaped) but not statistically significant effect of TMT international experience on these alternative measures.⁹ It is possible that a measure of internationalization speed using overseas sales instead of the number of outlets captures not only a retailer's international expansion per se but also the "success" of overseas operations. In turn, measuring internationalization speed using the size of a retailer's outlets (i.e., the change in the total overseas retail space in square meters) is problematic because retail segments vary in their retail space requirements.

In hypotheses 2a-c, we suggested that competitive pressure, product diversification, and geographic scope would moderate the non-monotonic effect of TMT international experience on firms' internationalization speed. We selected these three factors because of their likely role in

⁹ These results are available from the authors.

creating performance and task challenges for TMTs highlighted as central contingencies of the basic UE relationship (Hambrick *et al.*, 2005).

The empirical support for hypothesis 2a regarding the moderating effect of competitive pressure is in line with our argument based on UE that competitive pressure increases the performance challenges for TMTs. These challenges, in turn, lead to greater job demands for TMTs that strengthen the effect of TMT characteristics on strategic decision making in general (Hambrick *et al.*, 2005) and of TMT international experience on firm internationalization in particular because, under conditions of high job demands, TMTs are more likely to employ previously used strategies and filter information based on their general orientations, knowledge and cognitive frames when making strategic decisions (Hambrick *et al.*, 2005). Firms facing high competitive pressures show higher internationalization speeds for every level of TMT internationalization experience than firms facing low competitive pressures.

Additionally, our results show that the proposed negative effects of high TMT international experience on internationalization speed decline when TMT faces the higher job demands associated with high levels of competitive pressure. We suggested that at very high levels of TMT international experience, TMT members will be less likely to resort to mental shortcuts and that TMTs will be more likely to encounter difficulties with regard to coordination and communication. One possible explanation for our result is that when faced with high job demands, even TMT members with very high levels of international experience “fall victim” to taking mental shortcuts and deciding without thoroughly analysing their decisions about internationalization speed. Similarly, when faced with high job demands, coordination and communication problems might not prevent TMTs from deciding on rapid internationalization because high competitive pressure requires quick decision making. Whereas this may explain the almost linear effect of TMT international experience on internationalization speed for firms

facing high competitive pressures, it may indicate that rapid internationalization under such conditions will lead to difficulties and ultimately to lower firm performance. Although we did not investigate firm performance in our study, our findings may provide an explanation for the inverted U-curve-shaped relationship between internationalization speed and firm performance found in previous research (Mohr and Batsakis, 2017; Wagner, 2004).

The empirical support for the moderating effect of competitive pressure complements recent efforts to clarify the conditions under which TMT characteristics are likely to affect organizational outcomes (Carpenter, 2002). We suggest that future research adopting the UE perspective investigate how competitive pressure moderates the effects of TMT international experience on other facets of firm internationalization, such as firms' choice of ownership mode when entering new markets (Nielsen and Nielsen, 2011) or the formation of international strategic alliances (Lee and Park, 2008). On a more general level, and given the general nature of the UE argument, future research should also explore how competitive pressure might moderate the effects of other TMT characteristics, such as TMT national diversity (Nielsen and Nielsen, 2011), on firm internationalization.

In contrast to hypothesis 2a, we find no empirical support for hypotheses 2b and 2c, suggesting a moderating effects of product diversification and global scope, respectively, on the relationship between TMT international experience and internationalization speed. We based this hypothesis on prior research suggesting increased job demands for TMTs of firms with high levels of product diversification and wide geographic scope. This research suggests that both factors increase information processing and coordination demands on managers (Hutzschenreuter and Horstkotte, 2013b; Kumar, 2009). One possible explanation for the lack of empirical support for this hypothesis may be that firms can reduce the information processing and coordination requirements associated with higher levels of product diversification and wider geographic scope

through the establishment of appropriate organizational structures and processes.¹⁰ However, we do not have available data to explore the validity of this explanation empirically. Alternatively, the type of job demands associated with coping with the task challenges resulting from high levels of product diversity may differ in level or nature from the job demands associated with coping with the performance challenge resulting from competitive pressures. For example, competitive pressure may create more urgency and be associated with greater uncertainty insofar as the number of strategic options to respond to competitive pressures may exceed the number of options available for dealing with particular task challenges, such as those associated with higher levels of product diversification. Future research should complement this study and draw on research stressing the role of job demands in UE logic (Hambrick *et al.*, 2005) to explore the level and nature of job demands associated with different task and performance challenges.

Finally, our results show consistent, statistically significant effects for two of the variables included as control variables. We find a consistent positive effect of firm age on internationalization speed. This effect is in line with prior research on the factors that affect retailers' internationalization speed (Mohr and Batsakis, 2014). Interestingly, however, it contrasts with the findings of Chang and Rhee (2011), who find a negative effect of firm age on the manufacturing firms' internationalization speed. Whereas a positive effect of age on internationalization speed may be attributed to the existence of established routines and processes that facilitate rapid international expansion, the difference in findings may potentially be attributable to the greater relative importance of the market-seeking motive as opposed to other motives for internationalization compared to manufacturing.

¹⁰ We would like to thank one of the anonymous reviewers for highlighting this possibility.

Implications for managerial practice

From a practical perspective, our findings have numerous implications for managerial practice, as they underline the role played by TMT characteristics in shaping firms' internationalization strategies. First, our findings can inform the assessment of how changes in firms' TMT, for example, a new CEO, may lead to changes in their internationalization speed. This finding would be of interest for both analysts and firms attempting to analyse and anticipate competitors' strategic actions. Second, our findings also have implications for firms filling executive positions. Depending on the desirability of rapid international expansion, international experience may become a critical factor when selecting or hiring individuals for such roles. Knowledge of the link between TMT international experience and strategic decisions regarding internationalization is also important when tasking individuals or groups with developing options for firm growth because the level of TMT international experience will influence the role that international growth will play in the resulting proposals. Finally, members of a firm's TMT need to be aware of the role that their own international experience plays when choosing the speed and the direction of their firm's international expansion. Our findings show that TMTs' background may have a particularly strong effect on TMTs' decision making when TMTs also face the high job demands associated with a high level of competitive pressure. Awareness of this influence may allow TMTs to make decisions on the speed of internationalization based on comparatively more rational parameters.

Limitations and Implications for future research

Our study has several limitations. Performance and task challenges for TMT members, as the mechanisms through which we link competitive pressure, product diversification and geographic scope to executive job demands, may arise from other sources. For example, rather than geographic scope per se, it may be the degrees to which the countries in a firm's portfolio of

international operations differ in terms of cultural, administrative, geographic and economic dimensions that drive the task challenges faced by a TMT (e.g., Ghemawat, 2001). Furthermore, although we expect performance and task challenges to be key drivers for job demands, Hambrick *et al.* (2005) suggest that executives' job demands are also associated with the executive's management aspirations. Given our use of secondary data, we were unable to measure TMT members' management aspirations in our sample firms. We expect that such aspirations are likely either to moderate the link between TMT international experience and internationalization speed or to directly affect firms' internationalization speed. Future research should use survey data to explore these possible effects.

Second, some of the concepts and measures would benefit from further differentiation. For example, we are unable to account for potential multi-citizenship of TMT members and their possible international assignments within the domestic firm, which may affect firms' ability to internationalize rapidly into some but not other locations¹¹. Further research may be able to obtain finer-grained data on the nature of TMTs' international experience and investigate this possibility. Equally, our work has not attempted to distinguish between TMT international experience and firm international experience and how these two forms of experiential knowledge could potentially affect the firm's level of internationalization speed.

Third, data availability limited our choice of variable measurement. Specifically, future research should account for additional TMT characteristics for which we had no data. For instance, future research should account for the potential role of, for example, TMT members' functional backgrounds or their educational specialization for the relationships investigated in this study.

¹¹ We would like to thank one of the anonymous reviewers for highlighting these possibilities.

Finally, our sample of firms is limited to a single sector (i.e., retailing). Although this focus allows us to employ the rich and detailed information available on firms in this sector, our results may not be generalizable to other sectors. Future studies should thus explore our research questions in other or across different sectors.

Conclusion

Our study was motivated by the limited understanding of the effects of TMT international experience on the internationalization of firms, particularly on firms' internationalization speed. Drawing on UE theory, we suggest that TMT international experience has a non-monotonic effect on firms' internationalization speed. We further propose that this effect is contingent on the competitive pressure, product diversification and geographic scope because these factors lead to task and performance challenges, thereby increasing job demands for TMT members. Our findings underline the usefulness of integrating insights from UE theory when explaining the effect of TMT international experience on the patterns with which firms expand internationally. By accounting for the contingent nature of these effects, future research will provide better explanations of firms' internationalization process.

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