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Peer-reviewed author version

VERLEYE, Hannah; LAMBRECHTS, Frank; VOORDECKERS, Wim & UMANS, Ine (2024) Exploring the moderating effect of family communication patterns on the family CEO characteristics – family firm internationalization relationship. In: European management journal,.

DOI: 10.1016/j.emj.2024.10.007
Handle: http://hdl.handle.net/1942/44706

Title Page (with author details)

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Exploring the moderating effect of family communication patterns on the family CEO characteristics – family firm internationalization relationship

Abstract

This article explores the impact of family CEO characteristics on internationalization and how this relationship is moderated by family communication patterns. Drawing on family communication patterns theory, which states that family communication varies across two dimensions, i.e., family conversation orientation and family conformity orientation, we argue that early family communication shapes family CEOs' behavior in later life and moderates the effect of family CEO characteristics on internationalization. Our results from a sample of 182 Belgian private FFs show that family CEO education has a positive effect on the internationalization of FFs, but this effect decreases as the family conformity orientation increases. These findings make unprecedented and interesting contributions to upper echelon and family business research.

Keywords

Internationalization, family firms, family CEO, upper echelon, family communication patterns

1. Introduction

According to important economic indicators like GDP and employment, family firms (FFs) dominate the economic landscape worldwide (De Massis et al., 2018). However, FFs face many challenges to survive and prosper in the long-term. One of these challenges in an ever-increasing globalization and world-wide competition is the strategic choice to look for new growth opportunities beyond the national borders (Pukall & Calabro, 2014). Consequently, why some FFs choose an ambitious international growth trajectory while others stay local has intrigued researchers for decades (De Massis et al., 2018). From an upper echelon theory (UET) perspective, crucial antecedents to this important strategic decision seem to be the CEO's attributes (Popli et al., 2022; Ramón-Llorens et al., 2017). Indeed, CEOs are the most powerful actors in the organization, whose backgrounds and experiences greatly influence their interpretations of situations and, in turn, affect their strategic choices (Hambrick, 2007; Hambrick & Mason, 1984). Prior research mainly investigated the dichotomous distinction between a family and external CEO as antecedent of internationalization (e.g., D'Angelo et al., 2016) without taking into account their background characteristics. External CEO are often pictured as professional, talented and skilled in contrast to family CEOs (D'Angelo et al., 2016). However, much like family firms, *family CEOs* are not a homogeneous population. As the majority of private FFs still rely on family CEOs at the helm of the firm (Skorodziyevskiy et al., 2023), and these family CEOs largely shape their firms' internationalization strategies (Chittoor et al., 2019; Gomez-Mejia et al., 2010; Westhead & Howorth, 2006), this study focuses on the FFs with a family CEO. More specifically, we aim to investigate differences in family CEOs' educational level (e.g., Ramón-Llorens et al., 2017), age (e.g., Hsu et al., 2013) and position tenure (e.g., Musteen et al., 2006) because we know from UET that these CEO characteristics rank ahead as potential antecedents of firms' internationalization strategies (Finkelstein et al., 2009; Hambrick & Mason, 1984; Popli et al., 2022).

Generally, the search for antecedents of internationalization in FFs provided equivocal evidence, which triggered the exploration of a wide range of contextual factors as moderators (Arregle et al., 2021). Previous research shows that the *family* strongly influences FFs' outcomes (Nason et al., 2019; Prügl & Spitzley, 2021; Sciascia et al., 2013) and impacts strategic decisions in the firms they own and operate (Carney, 2005). Therefore, variables on the *family level* (e.g., family communication patterns) seem to be primary candidates as moderating factors when examining the antecedents of internationalization (Arregle et al., 2021). Surprisingly, prior research overwhelmingly focused on individual level variables, mainly neglecting the family level (Arregle et al., 2021; De Massis et al., 2018; Debellis et al., 2020), which is a remarkable omission as a critical source of FF heterogeneity exists within the controlling family (Daspit et al., 2021; Jaskiewicz et al., 2017). Therefore, to shed light on contexts that matter for family CEOs, we investigate how family communication patterns moderate the relationship between CEO characteristics and internationalization, combining upper echelon theory and family communication patterns theory, an overlooked but very promising theoretical route as proposed by, for example, De Massis et al. (2018) and Arregle et al. (2021). Family communication patterns theory is a well-known and prominent family science theory that focuses on family communication patterns experienced by family CEOs during their childhoods, i.e., in their families of origin. This theory is particularly suited for our study because it explains how family communication resides within individuals as well as within the family system in which the individual grew up. Because family CEOs have strong, emotional family ties to their firms (Gedajlovic & Carney, 2010; Nicholson, 2008), their adopted family communication patterns have spillover effects on the behavior of family CEOs in their jobs and the family firm as a workplace (Koerner & Fitzpatrick, 1997, 2006; Sciascia et al., 2013). By investigating family communication patterns, we do not only address heterogeneity among family CEOs, but also among families themselves, which helps identify antecedents of family firm heterogeneity in family firm internationalization.

Family communication patterns theory states that family communication varies across two orientations: *conversation*, focusing on the degree to which family members are encouraged to interact freely, participate in discussions and express ideas, and *conformity*, referring to obedience, as well as the appearance of harmony through similarity in attitudes, beliefs, and values (Barbato et al., 2003; Koerner & Fitzpatrick, 1997). As such, the family's conversation and conformity orientation may determine the influence of family CEOs – as strategic decision-makers – to communicate their views and gain support of the other actors in the FF (Nason et al., 2019), and thus affect the context in which internationalization decisions are made. Given that the family's conversation and conformity orientation of family CEOs' upbringing differ, we argue that the impact of education, age, and position tenure on internationalization could be contingent on these family communication patterns that shape family CEOs' interactions and relationship dynamics in later life. Moreover, private FFs provide a unique context in which the impact of family relationships is salient and could affect the predictive strength of family CEO characteristics on FFs' strategy (Finkelstein et al., 2009; Skorodziyevskiy et al., 2023). Family members are often involved in a private FF since its foundation, feel part of the business, and value that membership more than nonfamily members (Deephouse & Jaskiewicz, 2013), which makes the FF an essential part of their personal life and identity (Murphy & Lambrechts, 2015).

The results of this study are based on survey data of 182 Belgian private FFs. Moderated regression analyses reveal that family CEO education has a positive effect on the internationalization of private FFs, which decreases as the family conformity orientation increases. The ideas and findings of this study advance UET by demonstrating how differences in FF internationalization are partially explained by family CEO characteristics, i.e., education, and moderated by family communication patterns, i.e., family conformity orientation. This is in line with the call for more research on the combination of broader management theory and family science theory (Combs et al., 2020; Jaskiewicz et al., 2017; Skorodziyevskiy et al., 2023). In doing so, we provide a better understanding of the heterogeneity that exists among FFs, but originates from the controlling family (Daspit et al., 2021; Jaskiewicz et al., 2017). As such, our study provides a fruitful starting point for future research to further advance insights on how factors residing within the family itself directly and indirectly influence FFs' outcomes (e.g., Nason et al., 2019; Prügl & Spitzley, 2021; Sciascia et al., 2013) and drive strategic decisions (Carney, 2005). For practice, the results of this study could help family members aspiring to become CEOs recognize that obtaining a master's degree may prove valuable for their future careers in the FF. At the same time, we caution practitioners that a "one size fits all" approach regarding family CEOs' education can be dangerous as the potential contribution to internationalization changes according to the family conformity communication of their childhood.

2. Theoretical background and hypotheses development

2.1 Upper echelons theory

UET (Hambrick & Mason, 1984) argues that CEOs' characteristics and experiences greatly influence their interpretations of situations and, consequently, affect their strategic choices. This 'CEO effect' is mostly apparent in private firms, because the role of private-firm CEOs in strategic decision-making is more prominent as compared to CEOs in publicly traded firms (Quigley et al., 2022). CEOs in private firms have the flexibility to enact strategies that might face resistance due to regulation and oversight in a public company (Boot et al., 2006). This is especially true for private FFs managed by family CEOs. Because they are members of the owning family, family CEOs' discretion and strategic impact are suggested to differ systematically from that of nonfamily CEOs in FFs (Cirillo et al., 2022; Nicholson, 2008; Skorodziyevskiy et al., 2023; Westhead & Howorth, 2006). Family CEOs are emotionally tied to the FF (Gedajlovic & Carney, 2010) and usually have a highly pragmatic leadership orientation (Nicholson, 2008). Nonfamily CEOs, on the other hand, tend to be more rational decision-makers whose behavior is not affected by family ties to the FF (Gedajlovic & Carney, 2010).

The upper echelon perspective on the impact of CEOs on firm strategy is built on the notion that executives bring their own set of 'givens', i.e., cognitive bases and values, to a decision-making situation (Hambrick & Mason, 1984). Cognitive bases are made of knowledge and assumptions about future events, alternatives, and consequences attached to alternatives. Values, in turn, provide guidance for ordering alternatives according to preference. Both cognition and values coexist to shape executives' perception of a decision-making situation and, consequently, strategic choice. Thus, strategic choice is not made based on an actual 'real' situation, but rather on executives' perception of that situation (Sutton, 1987). According to UET, strategic differences among firms may thus arise from CEOs' observable attributes that reflect their cognition and values (e.g. Boling et al., 2016; Martino et al., 2020). More specifically, certain characteristics enable executives to manage international complexity and ambiguity (Nielsen & Nielsen, 2011). Indeed, decisions on internationalization are characterized by incomplete information and uncertainty related to anticipated outcomes (Nielsen & Nielsen, 2011). Under these circumstances, CEOs' backgrounds and experiences are likely to have an important influence on such strategic choices (Hambrick & Mason, 1984). In particular, specific observable CEO attributes, including educational level (e.g., Ramón-Llorens et al., 2017), age (e.g., Hsu et al., 2013), and position tenure (e.g., Musteen et al., 2006) represent proxies for CEOs' cognitive orientation, knowledge base, and risk-taking preferences. These observable characteristics can thus be used to infer cognitive biases and values and as such, they may serve as potent predictors of international strategies (Nielsen & Nielsen, 2011).

2.2 Family CEO's educational level

Even though top executives are typically many years beyond their formal education, a significant body of research suggests that the schooling of executives is reflected in their organizations (Finkelstein et al., 2009). Education indicates an individual's knowledge and skill base (Hambrick & Mason, 1984) and is shown to be associated with socio-cognitive capacities such as information processing capacity and receptivity to change, which are likely to have an important impact on the firm's internationalization behavior (Herrmann & Datta, 2005; Ramón-Llorens et al., 2017). Internationalization implies that a firm has to learn about unique national settings in terms of foreign cultures, consumer behavior, and regulations (Johanson & Vahlne, 1977, 2009). About this, CEOs with high education can engage in a more in-depth analysis of decision-making because as a result of education, their information processing capabilities are enhanced, which is important for internationalization (Hsu et al., 2013). Moreover, education fosters an open-minded attitude (Finkelstein et al., 2009), specifically toward other cultures (Herrmann & Datta, 2005) and acceptance of foreignness (Trevino et al., 2008), which represent key factors that facilitate FFs' internationalization (Arregle et al., 2017, p. 801). Indeed, several studies find that FFs run by more educated CEOs have better internationalization capacities (e.g. Cavusgil & Naor, 1987; Hsu et al., 2013; Ramón-Llorens et al., 2017). Therefore, we formulate the following baseline hypothesis.

Hypothesis 1. Family CEO's educational level is positively associated with internationalization.

2.3 Family CEO's age

In the literature of UET, researchers often consider age as an indicator of an executive's tendency to seek growth through novel and innovative strategies to seize opportunities (Hambrick & Mason, 1984). Older executives often have a more conservative stance than their younger counterparts, which can be explained in several ways. First, older executives may have less physical and mental stamina and are thus more risk averse (Child, 1974). Hambrick and Mason (1984) argue that age negatively impacts the ability to process information when making strategic decisions. Older executives are said to organize information less effectively and are more susceptible to the dysfunctional effects of information overload than younger managers, which may result in poorer decision-making (Taylor, 1975). This may limit their understanding of foreign countries. Older managers may be unable to adapt their home-grown cognitive maps easily to fit a new international setting (Hsu et al., 2013). Consequently, this may increase older family CEOs' reluctance to pursue international growth.

Second, older executives are more psychologically committed to the organizational status quo and their own – as well as the family's – financial and career security (Barker & Mueller, 2002).

Any risks that may interrupt these are generally avoided. Indeed, in FFs, fear of destructing family wealth is seen as an important source of resistance to change and eagerness to keep the status quo (Alayo et al., 2022; Carney, 2005; Chrisman et al., 2005; Zahra, 2005). This effect will likely be exacerbated when an older family CEO is positioned at the firm's apex. For the reasons outlined above, they may prefer prioritizing the FF's operations within the home community, thereby constraining the pursuit of internationalization strategies. Building on the above set of arguments, we propose a second baseline hypothesis.

Hypothesis 2. Family CEO's age is negatively associated with internationalization.

2.4 Family CEO's position tenure

A third indicator of managers' capacities to gather and process information that UET often considers is position tenure. Executives with short tenures bring in fresh, diverse information and are willing to take risks. Yet, over time, CEOs rely more on past experiences and develop a narrower frame of reference (Finkelstein et al., 2009). Indeed, executives' career experiences partially shape how they perceive current strategic opportunities and problems. If executives spend a large part of their careers at the apex of one organization it can be assumed that their cognitive lenses are relatively limited (Hambrick & Mason, 1984). Executives with longer firm tenure are expected to have restricted sources of information and generally gather and analyze less information than executives with a shorter position tenure (Miller, 1991). Researchers have referred to this effect as "commitment to a paradigm" (Hambrick & Fukutomi, 1991) or "stale in the saddle" (Miller, 1991), which indicates that long-tenured CEOs become less responsive to diverse perspectives (Hambrick et al., 1993; Hambrick & Mason, 1984) and change (Musteen et al., 2006).

As argued before, internationalization is often associated with the need for extensive information gathering and processing, as well as receptivity to change and learning about foreign cultures, consumer behavior and regulations (Johanson & Vahlne, 1977). For the reasons mentioned above, longer-tenured family CEOs are expected to be less inclined to actively seek such information about foreign countries than their less-tenured counterparts. Because information processing requirements are likely greater and more complex for internationalization, we expect the more open-minded perspectives of shorter-tenured family CEOs to facilitate FF internationalization, whereas longer-tenured family CEOs are more likely to constrain the pursuit of opportunities to expand the FF abroad. In line with this reasoning, we formulate a third baseline hypothesis.

Hypothesis 3. Family CEO's tenure is negatively associated with internationalization.

2.5 Moderating effect of the family's communication patterns

FFs are unique due to the salient impact of family relationships that could, therefore, affect the relationship between family CEO characteristics on FFs' internationalization strategies (Finkelstein et al., 2009; Skorodziyevskiy et al., 2023) because family CEOs have strong, emotional family ties to their firms (Gedajlovic & Carney, 2010; Nicholson, 2008). To explain how family CEOs' relationships with their family may impact the relationship between their backgrounds as reflected in their educational level, age and position tenure and strategic internationalization choices, we draw on family communication patterns theory (Fitzpatrick & Ritchie, 1994; Ritchie & Fitzpatrick, 1990). The family is the most important socialization agent that family members experience (Barbato et al., 2003; Fitzpatrick & Badzinski, 1985; Haslett & Samter, 2020). Family communication patterns experienced during early childhood – i.e., in the family of origin – determine interaction, as well as relationship dynamics and create a set of beliefs, attitudes and philosophies that socialize family members to process information stemming from outside the family and may, therefore, influence behavior brought to the workplace long after family CEOs have left their family of origin (Jaskiewicz et al., 2017;

Koerner & Fitzpatrick, 1997, 2006). As a result, family CEOs are partially steeped in the communication patterns of their families of origin (Jaskiewicz et al., 2017). Even though family members adopt communication patterns during their upbringing (Fitzpatrick & Ritchie, 1994), they may thus have important spillover effects on the behavior of family CEOs in their professional lives and the FF as a workplace (Koerner & Fitzpatrick, 1997, 2006; Sciascia et al., 2013). Consequently, the family communication patterns in which family CEOs grew up are likely at play in determining how family CEOs' education, age, and position tenure affect private FFs' internationalization strategies.

Family communication patterns theory states that family communication varies across two dimensions. On the one hand, *conversation*, focusing on the degree to which family members are encouraged to participate in discussions, express ideas and interact freely, frequently, and spontaneously with each other (Barbato et al., 2003; Koerner & Fitzpatrick, 1997). Highly conversational families stimulate children to share their thoughts, even if they disagree with others (Barbato et al., 2003). On the other hand, *conformity*, referring to obedience, avoidance of controversy, as well as the appearance of harmony through similarity in attitudes, beliefs, and values (Barbato et al., 2003; Koerner & Fitzpatrick, 1997). Children growing up in high-conformity families are taught to feel most comfortable when avoiding change, repress anger and reject views, attitudes or beliefs that differ from their own (Jaskiewicz et al., 2017). While research lacks evidence on the interaction between these two dimensions (Jaskiewicz et al., 2017), we know that they are not two opposites of the same spectrum, and the conversation and conformity dimension of a family can be high or low at the same time (Koerner & Fitzpatrick, 1997, 2006).

Even though we expect educational level, age and position tenure to be potent predictors of family CEOs' strategic choices, the specific strategic decision-making context is crucial importance to determine the extent to which the impact of these observable characteristics shines through on internationalization (Finkelstein et al., 2009; Skorodziyevskiy et al., 2023). In particular, the effect of these CEO characteristics – that infer executives' cognitive orientation, knowledge base and risk-taking preferences – on internationalization may be strengthened or weakened by the family CEO's adopted conversation and conformity orientations. Family conversation and conformity indirectly shape family CEOs' field of vision, the intensity with which they seek and explore new information and the sources they work with (Jaskiewicz et al., 2017) and determine the influence of family CEOs – as strategic decision-makers – to communicate their views and gain support of other actors in the FF (Nason et al., 2019), and thus affect the workplace context in which family CEOs decide on internationalization. That is, the influence of educational level, age, and position tenure on internationalization is affected by the extent to which the family CEO promotes conversation and does not force conformity.

Family CEOs who grew up in a conversation-oriented family learnt to openly exchange ideas and to show comfort with a wide variety of information sources (Jaskiewicz et al., 2017), which makes it likely for family CEOs to participate in discussions with other decision-makers about a wide array of topics, without limitations regarding time spent and subject matters. Low conversational families interact less frequently and discuss only a few topics openly, resulting in the family CEOs displaying reduced comfort with interacting and communicating their views in the workplace. Therefore, the positive effect of education on internationalization is expected to be enhanced if the family CEO grew up in a conversation-oriented family. That is, family CEOs' internationalization capacities fostered by education, i.e., information processing capacity, receptivity to change (Herrmann & Datta, 2005; Ramón-Llorens et al., 2017), open-minded attitude (Finkelstein et al., 2009) and acceptance of foreignness (Trevino et al., 2008), are more likely to be effectively worked with when the family CEO has adopted family communication patterns that are conversation-oriented. Conversely, the negative impact of age and position tenure is likely to be attenuated by family conversation. Family CEOs whose family-of-origin advocated conversation are less likely to establish a workplace context in which the reduced tendency for risk taking and information gathering and processing that is generally associated with the CEOs' increasing age or position tenure (Hambrick & Mason, 1984; Miller, 1991) negatively affects FFs' internationalization choices. In sum, we expect the impact of family CEO attributes (i.e., educational level, age, and position tenure) on private FF internationalization to be positively moderated by the degree of conversation orientation of the CEO's family of origin. Therefore, we hypothesize the following:

Hypothesis 4. Family conversation orientation positively moderates the relationship between the (a) family CEO's educational level, (b) family CEO's age, (c) family CEO's position tenure and internationalization.

On the other hand, growing up in a family that favored conformity makes it difficult for family CEOs to accept views, attitudes or beliefs that differ from those of their family and they may typically display workplace communication that focuses on harmony and reflects obedience (Barbato et al., 2003). Family CEOs from families on the low end of the conformity dimension welcome heterogeneous attitudes and beliefs and are more likely to accept their own uniqueness and independence from their families. Therefore, the positive effect of education on internationalization is expected to be limited if the family CEO grew up in a conformity-oriented family. Family CEOs' internationalization capacities reflected in their educational level, i.e., information processing capacity, receptivity to change (Herrmann & Datta, 2005; Ramón-Llorens et al., 2017), open-minded attitude (Finkelstein et al., 2009) and acceptance of foreignness (Trevino et al., 2008), will be less effectively utilized when the family CEO has adopted family communication patterns that are conformity-oriented, which means that FFs' internationalization is more likely to be constrained. The negative impact of age and position tenure is, however, likely to be strengthened by family conformity. Family CEOs who grew up in a conformity-oriented family, are more likely to demand similar conformity in the FF, which fosters a workplace context in which the negative effect of older CEOs' conservatism (Hambrick & Mason, 1984), commitment to the status quo (Barker & Mueller, 2002) and longer-tenured CEOs' limited cognitive lenses, reduced responsiveness to diverse perspectives (Hambrick & Mason, 1984) and change (Musteen et al., 2006) on FFs' internationalization is likely to be exacerbated. Altogether, we expect the impact of family CEO attributes (i.e., educational, age, and position tenure) on private FF internationalization to be negatively moderated by the degree of conformity orientation of the CEO's family of origin. Accordingly, we hypothesize the following:

Hypothesis 5. Family conformity orientation negatively moderates the relationship between the (a) family CEO's educational level, (b) family CEO's age, (c) family CEO's position tenure and internationalization.

(insert Figure 1 here)

3. Methodology

3.1 Sample

The empirical data for this study are derived from two data sources, one primary and one secondary. The primary source of Belgian data is derived from a cross-sectional survey conducted between March and May 2022. The survey explored general firm characteristics regarding governance, management and internationalization issues, as well as specific sections for FFs where detailed questions about the communication orientation of family CEOs' families of origin were asked. The questionnaire was mailed to 8,090 contacts of CEOs of private Belgian firms. We obtained responses from 487 businesses, which resulted in a final response rate of 6.03%. A Mann-Whitney U test did not reveal any significant differences in size, age and 2019 return on equity of the firms who responded compared to those who did not. Of the firms who responded, we focus exclusively on FFs. We classify a firm as a FF when the firm meets the following requirements: at least 50% of the shares are owned by a single family, and/or one family has a decisive influence on the business strategy or succession decisions, and/or the majority or at least two members of the management team are members of the same family, and/or the firm identifies itself as a FF (Chua et al., 1999) (remaining N=341). Next, in line with Bauweraerts et al. (2019), we limited the sample to small and medium-sized FFs and selected firms with five to 250 employees (remaining N=327), because SMEs dominate the Belgian economy (European Commission, 2023). We excluded micro-firms with fewer than five full-time employees because these companies tend to adopt informal governance structures (Gray & Mabey, 2005), have part-time operations, and have unstable objectives that can skew the study outcomes (Martin & Javalgi, 2016). In addition, this study specifically considers FFs managed by family CEOs, which means that FFs with nonfamily CEOs are excluded from the sample (remaining N=276). Because the questions about family communication patterns were extensive and personal, not all family CEO respondents filled them out. Therefore, we removed cases with missing values for one of the used variables (remaining N=184). Finally, we removed two cases in which the family CEO had a position tenure of less than a year. A final sample of 182 Belgian private FFs remained. Using a sample of this size is consistent with other published studies on the governance of FFs in the Belgian context (e.g., Bauweraerts et al., 2022; Umans et al., 2020, 2021). The secondary data source is the Bel-First database by Bureau Van Dijk, which includes financial information and accounting statements of Belgian businesses. The Bel-first database was used to collect data on three control variables, i.e., firm size, firm age, and industry.

3.2 Measurements

Dependent variable

To measure *internationalization*, we employ three different indicators. First, we measure internationalization propensity. For this, we use a dummy variable, indicating whether the firm is internationally active or not (Yang et al., 2020). Second, export scale is measured as the percentage of foreign sales with respect to total sales of 2019 (Alayo et al., 2022; Arregle et al., 2012; Calabrò et al., 2009; Calabrò et al., 2013). Last, we use the scope of internationalization, measured by the number of countries to which the firm exports its products (Alayo et al., 2022; Arregle et al., 2012). Respondents were asked to indicate this number between 1 and 30. Alternatively, if the firm has no export activities, export scope is coded as 0. If the number of export countries exceeded 30, respondents selected the response option '*more than 30*', which we coded as 31 in our dataset.

Independent variables

CEO education is a dummy variable coded 1 if the CEO holds a master's degree and 0 otherwise (Arregle et al., 2012). While previous research mainly considered MBAs, this study focuses on all kinds of academic degrees to measure the overall amount of family CEOs' formal education (Finkelstein et al., 2009, p. 111). When looking at the upper echelon research stream, it appears that executives with a formal education degree behave differently from executives without such a degree (Finkelstein et al., 2009). The measure for *CEO age* is the number of years from the date of birth (Herrmann & Datta, 2002; Hsu et al., 2013). *CEO position tenure* was measured as the number of years the firm's family CEO has been in that position in the FF (Herrmann & Datta, 2002; Hsu et al., 2013).

Moderating variables

The measures for *family conversation orientation* and *family conformity orientation* are based on validated scales adapted from Ritchie and Fitzpatrick (1990, p. 526). Respondents were asked to indicate on a 5-point Likert scale to what extent they agreed with the items presented. Family conversation orientation is measured using a 15-item scale with items such as "*My parents and I often had long, relaxed conversations about nothing in particular*", "*My parents liked to hear my opinions, even when we disagreed*" and "*My parents tended to be very open about their emotions*". Family conformity orientation is measured using an 11-item scale, including items such as "*In our home, my parents usually had the last word*", "*If my parents did not approve of it, they did not want to know about it*" and "*When I was at home, I was expected to obey my parents' rules*". The Cronbach's alpha equals 0.91 for family conversation, and 0.90 for family conformity. Since both Cronbach's alphas exceed the threshold of 0.70 (Hair, 2009), the internal consistency and reliability of these measures are confirmed.

Control variables

In line with previous research, our analysis includes several firm characteristics that may influence the internationalization of a FF. First, we control for firm size, because we expect larger firms to internationalize more (Wagner, 2001). Firm size is measured as the natural logarithm of total assets (Yang et al., 2020). Next, we control for firm age, because older firms might have experience advantages enabling them to sustain international growth (Autio et al., 2000). Firm age is measured as the natural logarithm of the number of years the firm has been in business (Arregle et al., 2012; Autio et al., 2000). Third, in line with Gomez-Mejia et al. (2010) and Arregle et al. (2012), we prevent potential industry-related biases, and include a dummy variable to indicate whether the firm's main industry group is in a manufacturing industry (1) or not (0). Fourth, we also include two variables which enable us to control for the effects that the professionalization of the FF may have on internationalization. Therefore, on the one hand, we include a dummy variable that indicates whether the firm has a Board of Directors (1) or not (0) (Bauweraerts et al., 2019; Calabrò et al., 2013). On the other hand, we control for the influence of nonfamily involvement in the top management team (TMT), which is measured as the percentage of nonfamily managers with respect to the size of the TMT

(Alessandri et al., 2018; Majocchi et al., 2018). The presence of nonfamily managers can provide FFs with knowledge of international markets and bridging networks (Arregle et al., 2007; Kontinen & Ojala, 2012), which may foster internationalization (Alessandri et al., 2018; Majocchi et al., 2018).

4. Results

4.1 Descriptive statistics

Descriptive statistics are summarized in Table 1. 48.9% of the firms in our sample are internationally active. The average ratio of foreign to total sales is 18.6% (export scale), whereas the average number of countries to which the firms in our sample export their products (export scope) is 4.81. The average family CEO in our sample is 52 years old and has a position tenure of almost 20 years. 34.6% of the responding family CEOs hold a master's degree. The mean level of family conversation is 3.21, and the mean level of family conformity orientation is 2.81. Of the FFs in our sample, 20.3% are manufacturing firms, and 63.2% have a Board of Directors. The average ratio of nonfamily managers is 44.7% and the average firm age is 29 years.

(insert Table 1 here)

Table 2 presents pairwise correlations. The correlation table displays a significant correlation between family CEO education and internationalization propensity, export scale and export scope. There are no significant correlations between the family CEO age and internationalization variables, nor between family CEO position tenure and internationalization variables. Similarly, family conversation and family conformity do not show significant correlations with the dependent internationalization variables.

(insert Table 2 here)

4.2 Regression results

Considering the characteristics of the internationalization outcome variables, we used a probit and tobit regression model (e.g. Bauweraerts et al., 2019; Fernández & Nieto, 2005; Sánchez-Bueno & Usero, 2014; Yang et al., 2020). Internationalization propensity is a binary dependent variable with observations equal to 1 if the firm is internationally active, or 0 if the firm is not internationally active. Export scale and scope are left-censored dependent variables due to the high percentages of observations with a measure of export scale (53.3%) and scope (57.7%) equal to zero. Table 3 presents the probit regression results with internationalization propensity as the dependent variable. Tables 4 and 5 show the tobit regression results with export scale and scope, respectively, as dependent variables.

Model 1 tests baseline Hypothesis 1. In these analyses, we additionally control for the age of the CEO. Hambrick and Mason (1984) cautioned for an unobserved spurious effect from executive age, since there has been a steady tendency toward increased education levels of executives, and hence young executives tend to be more highly educated than older executives. Model 1 shows that family CEO education has a positive, statistically significant effect on internationalization propensity (in Table 3, $\beta=0.604$, $p<.01$), export scale (in Table 4, $\beta=23.944$, $p<.01$), and export scope (in Table 5, $\beta=7.165$, $p<.05$). These results provide support for baseline Hypothesis 1. Thus, FFs governed by family CEOs holding a master's degree have a higher internationalization propensity, export scale and export scope compared to FFs governed by family CEOs without a master's degree.

Models 2 and 3 show the regression results related to baseline Hypotheses 2 and 3, respectively, and do not display a statistically significant effect for family CEO age or position tenure. Consequently, Hypotheses 2 and 3 are not supported.

Model 4 shows regression results related to Hypothesis 4a, which is not supported. Model 5 tests Hypothesis 5a. The coefficient for the interaction between family CEO education and family conformity orientation is negative and statistically significant for export scope in Table 5 (β=-7.631, p<.10). Model 5 in Tables 3 and 4 does not display a significant conditional effect of family conformity orientation on the relationship between family CEO education and internationalization propensity and export scale, respectively. Consequently, our results provide partial support for hypothesis 5a. The regression results related to Hypotheses 4b, 4c, 5b, and 5c (unreported) do not show any statistically significant results.

(insert Tables 3, 4, and 5 here)

To support the interpretation of the significant interaction term in Table 5, we plotted the conditional effect using the marginal effects approach (Busenbark et al., 2022). This marginal effect is indicated by the diagonal line for which the upper and lower levels of the 95% confidence intervals are shown at different values. The marginal effect is statistically significant when both the upper and lower bounds of the confidence interval are above (or below) the horizontal zero line.

Figure 2 unfolds the significant interaction term in Table 5 and displays the marginal effect of family CEO education on export scope as the values of family conformity orientation change. We conclude that the marginal effect is significant on the lower end of family conformity orientation (1 to 2.5). So, the effect of family CEO education on export scope decreases as the family conformity orientation increases. Next, Figure 2 shows similar results for internationalization propensity. From Figure 3 we conclude that the marginal effect is significant on the lower end of the family conformity orientation (1 to 3). Thus, the effect of family CEO education on internationalization propensity decreases as family conformity increases. Last, Figure 4 displays the same analysis for export scale. The effect of family CEO education on export scale is significant for family conformity scores 2 to 3, whereas low (1 to 1.5) and high (3.5 to 5) family conformity values have insignificant marginal effects.

(insert Figures 2, 3, and 4 here)

5. Discussion and conclusions

5.1 Theoretical contributions

Upper echelon researchers have rarely examined family CEOs in FFs on whom early family communication patterns have a salient impact (Skorodziyevskiy et al., 2023). This is surprising since early family communication patterns shape family CEOs' interactions and relationship dynamics across many facets in later life (Jaskiewicz et al., 2017) and may affect the predictive strength of family CEO characteristics on firm strategy. Therefore, this study examines what effect family conversation and conformity communication patterns that family CEOs grew up with have on the relationship between observable family CEO characteristics and internationalization of private FFs. Our results show that FFs governed by family CEOs holding a master's degree will have a higher internationalization propensity, export scale, and export scope compared to FFs governed by family CEOs without a master's degree. Alongside this, our findings indicate that the family conformity communication patterns that family CEOs experienced during their early upbringing – i.e., in their family of origin – form an important boundary condition on this relationship. In particular, the positive effect of family CEO education on internationalization propensity and export scope decreases as the family conformity orientation increases. These findings make several unprecedented and interesting contributions to upper echelon and family business (FB) research.

First, while prior studies find that CEOs' educational level (e.g. Ramón-Llorens et al., 2017), age (e.g. Hsu et al., 2013) and position tenure (e.g. Musteen et al., 2006) are potent predictors of internationalization strategies (Nielsen & Nielsen, 2011), we only find empirical evidence for family CEO education, i.e., whether the family CEO holds a master's degree or not. Master-educated CEOs are said to be less innovative or risk-prone compared to more "self-made" CEOs (Finkelstein et al., 2009; Hambrick & Mason, 1984). This does not mean that executives who graduated from a university are risk-averse; rather, they take more calculated risks because of the analytical techniques learned in a master's program, which are aimed at avoiding big losses and mistakes (Finkelstein et al., 2009). Highly educated CEOs engage in more in-depth analysis of decision-making because of their information processing capabilities that matter for expanding the business abroad (Hsu et al., 2013). Moreover, a master's degree is associated with alertness and responsiveness to clear-cut trends in the environment (Finkelstein et al., 2009), such as globalization (De Massis et al., 2018). In line with this reasoning, our findings suggest that a master's degree confers a bundle of skills and attitudes on family CEOs that are valuable resources (Barney, 1991) and enhance FFs' internationalization. In contrast to our expectations, the family CEO's age and position tenure do not have statistically significant effects on FF internationalization in our sample, which may indicate these relationships are more complex than previously thought. We speculate that perhaps other unobserved family effects, such as birth order and personality or different phases in the family's life cycle (Jaskiewicz et al., 2017) are at play here.

Second, we side with recent FB literature suggesting that FFs are very heterogeneous (De Massis et al., 2018; Jaskiewicz & Dyer, 2017). In particular, we contribute to the rich literature on the internationalization of FFs (e.g., Alessandri et al., 2018; Arregle et al., 2017;

Arregle et al., 2019; Banalieva & Eddleston, 2011; Debellis et al., 2021; Fernández & Nieto, 2005; Fernández & Nieto, 2006; Majocchi & Strange, 2012; Ray et al., 2018; Sciascia et al., 2012), and further advance our understanding by showing that early family communication may affect private FFs' endeavors in international markets. In doing so, we respond to recent calls for drawing on family science to advance research on FFs (Combs et al., 2020; James et al., 2012; Jaskiewicz et al., 2017) and offer deeper explanations of previous findings regarding heterogenous FF internationalization behavior. Family CEOs are steeped in the family communication patterns they experienced growing up, which shape their field of vision, the intensity with which they seek and explore new information and the sources they work with (Jaskiewicz et al., 2017) as well as their influence to communicate their views and gain support of other actors in the FF (Nason et al., 2019). Our findings indicate that a highly conformity-oriented family of origin constrains the strength of the family CEO education–internationalization relationship. As shown by the marginal effects figures (Busenbark et al., 2022), the effect of family CEO education on internationalization propensity and export scope is only significantly positive for low levels of family conformity. This relationship is, however, not significant for export scale, which may be explained by FFs tendency to follow niche strategies and thus target narrower market segments that are saturated very quickly and can only be expanded by targeting similar segments in different countries (Hennart et al., 2019). Further, family CEOs' skills and attitudes associated with a master's degree may be best utilized by entering into additional foreign markets (Johanson & Vahlne, 1977, 2009) that expose them to more expansive learning opportunities (Lu & Beamish, 2004). These results indicate that it is important to distinguish between export scale and scope to have a more fine-grained understanding of the influence of family CEO education on FFs' international strategy. Our findings regarding the moderating effect of family conformity orientation are in line with what we know from family science: low conformity in the family of origin is associated with the best outcomes in terms of independence, uniqueness and the acceptance of new and diverging attitudes and beliefs (Jaskiewicz et al., 2017). Accordingly, the results of our study show that the positive effect of holding a master's degree on internationalization only shines through if the family CEO grew up in a family on the low end of the conformity orientation. This profound effect of family conformity is not surprising given that high levels of conformity – i.e., being taught to unconditionally obey parents – are even associated with mental health issues such as controlling behavior and lack of healthy relationships (Jaskiewicz et al., 2017).

5.2 Implications for practice

Our study has two important implications for practitioners. First, while education may not be a selection criterion for family CEOs (Schulze et al., 2001), this study demonstrated its strong influence on internationalization. In private FFs, family CEOs are often the central decision-makers who determine internationalization strategies (Chittoor et al., 2019; Gomez-Mejia et al., 2010). In doing so, they are required to deal with incomplete information and uncertainty related to anticipated outcomes (Nielsen & Nielsen, 2011). Our study shows that decisions regarding international expansion are influenced by individual characteristics of family CEOs, i.e., their educational level. Family members aspiring to become CEOs must recognize that obtaining a master's degree may prove valuable for their future careers in the FF. By understanding and attending to their own set of 'givens' that they bring to a decision-making situation (Hambrick & Mason, 1984), family CEOs may be better able to balance rational motives with their own cognitions and values. Moreover, family CEO education may foster competence trust in FFs (Sundaramurthy, 2008). In a FB context, confidence is often sought that those running the business system are capable of adapting to changing environmental needs, so that the FF can flourish. Family CEOs holding a master's degree may be considered more capable of expanding the business abroad effectively than family CEOs without such a degree.

Second, as our results show that family CEOs' adopted family conformity communication orientation limit the benefits of education on internationalization, family CEOs need to be aware of these family forces. Stated differently, business families should not underestimate the importance of their history (Suddaby et al., 2023), since our study provides evidence of the long-lasting effects of social processes from the past. This finding suggests that a "one size fits all" approach regarding family CEOs' education can be dangerous as the potential contribution to internationalization changes according to the family conformity communication patterns of their childhood.

5.3 Limitations and suggestions for future research

Notwithstanding its contributions, this study has limitations that provide fruitful avenues for future research. First, the data are limited to the Belgian context. Therefore, future research could explore whether our findings can be generalized to other countries. There may be different national legal, economic, and political influences that significantly affect FFs' internationalization (Shapiro et al., 2003; Tsang, 2001). Second, our data is of cross-sectional nature, which means that claims about causality cannot be substantiated. It would be interesting to replicate the models with longitudinal data to consider variances in the variables over time and help solidify causal directions. Third, our study does not include other internationalization modes, such as foreign direct investments, that expose FFs to high commitment in terms of knowledge, resources, and governance capabilities abroad (Rondi et al., 2022). This leaves the possibility of exploring how family CEOs and early family communication patterns influence different internationalization modes to future research efforts. Next, future research may add the family instead of an individual as the unit of analysis (Koerner & Fitzpatrick, 1997). While this study focused on one family member in particular, i.e., the family CEO, it would be interesting to include data from multiple family members when addressing family communication patterns.

Additionally, by showing that family communication patterns of family CEOs' early upbringing pose boundary conditions on the relationship between family CEO education and internationalization, our study illustrates the notion that family members are a product of, and shaped by, their family history (Suddaby et al., 2023). Indeed, recently, scholars have started to argue that behavior of family members in FFs is instilled and nurtured through social processes that have a profound impact on how individuals think and act (Bloemen-Bekx et al., 2021; Hedström & Swedberg, 1996; Merton, 1968). Families influence behavior long after individuals have left their families of origin (Koerner & Fitzpatrick, 1997). As such, our study illustrates that it is a fruitful avenue for future research to consider FFs as unique sites of ongoing dynamic with the past (Suddaby et al., 2023). For example, future research may explore how family conversation and conformity orientation nurture families' entrepreneurial legacy (Jaskiewicz et al., 2015). Family member childhood interactions are essential to motivate children's future entrepreneurship and might help explain why some families produce (international) entrepreneurs for generations.

Moreover, our study may fuel the debate on the role of the family in FFs, as well as the exploitation of family science theories for FB research (Combs et al., 2020; Jaskiewicz et al., 2017). While we investigated the family CEO's family of origin (i.e., the family context in which an individual grew up), future studies may also consider current families (i.e., the family context in which an individual currently lives). This distinction is important because the contextual forces from one's family of origin influence how an individual behaves as an adult, but do not respond to the current actions in the organization, i.e., there is no feedback loop. The current family, on the other hand, coexists with the organization at the same time, which can involve reciprocal relationships, i.e., there is a feedback loop (Jaskiewicz et al., 2017). As suggested by Jaskiewicz et al. (2017, p. 317), FB scholars might find it particularly fruitful to investigate how the current family's communication patterns, for example, between spouses, both impacts and is impacted by the FF. To do so, future research may leverage other family science theories to shed light on the indirect effects that the current family context has on FF strategies.

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Table 1: Descriptive statistics

Variables	Minimum	Maximum	Mean	SD
Internationalization propensity	0	1	0.489	0.501
Export scale	0	100	18.599	28.789
Export scope	0	31	4.813	8.802
Family CEO education	0	1	0.346	0.477
Family CEO age	29	80	52.049	9.176
Family CEO position tenure	1	50	19.560	10.148
Family conversation orientation	1.267	4.733	3.209	0.691
Family conformity orientation	1.091	4.727	2.811	0.736
Firm size (in thousands)	170	164 841	8 666.302	16 150.690
Firm age	3	90	29.143	14.655
Manufacturing industry	0	1	0.203	0.404
Board of directors	0	1	0.632	0.484
Ratio nonfamily managers	0	100	44.703	36.264

N=182

Table 2: Pairwise Correlations

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Internationalization propensity	1												
2. Export scale	0.662**	1											
3. Export scope	0.561**	0.685**	1										
4. Family CEO education	0.236**	0.220**	0.175*	1									
5. Family CEO age	0.079	0.017	0.072	-0.091	1								
6. Family CEO position tenure	0.018	-0.096	-0.016	-0.205**	0.680**	1							
7. Family conversation orientation	0.033	-0.003	0.063	0.103	0.017	-0.016	1						
8. Family conformity orientation	-0.009	-0.012	-0.014	-0.080	-0.007	-0.045	-0.327**	1					
9. Firm size (ln)	0.083	0.194**	0.224**	0.155*	-0.009	-0.049	-0.014	-0.126	1				
10. Firm age	0.062	-0.031	0.085	0.141	0.090	0.036	0.052	-0.081	0.286**	1			
11. Manufacturing industry	0.271**	0.336**	0.288**	0.120	0.024	-0.001	0.025	-0.112	0.156*	0.052	1		
12. Board of directors	0.109	0.058	0.182*	0.124	0.193**	0.128	0.188*	-0.066	0.129	0.015	0.018	1	
13. Ratio nonfamily managers	0.017	0.073	0.047	0.202**	0.033	-0.029	0.001	-0.076	0.260**	-0.092	0.036	0.134	1

*N=182; * p <0.05; ** p <0.01*

Table 3: Probit regression results

Dependent variable	Internationalization propensity				
	Model 1	Model 2	Model 3	Model 4	Model 5
Independent variables					
Family CEO education	0.604**			-0.054	1.229
Family CEO age	0.012	0.008		0.012	0.012
Family CEO position tenure			0.000		
Family conversation orientation				-0.097	
Family conformity orientation					0.156
Family CEO education * Family conversation orientation				0.204	
Family CEO education * Family conformity orientation					-0.221
Control variables					
Firm size	0.024	0.033	0.028	0.022	0.030
Firm age	-0.011	0.072	0.087	-0.004	-0.015
Manufacturing industry	0.842**	0.891**	0.892**	0.855**	0.848**
Board of directors	0.191	0.256	0.285	0.178	0.174
Ratio nonfamily managers	-0.002	-0.000	-0.000	-0.002	-0.002
Pseudo R^2	0.099	0.068	0.065	0.101	0.103
Log likelihood	-113.629	-117.599	-117.855	-113.380	-113.169

*N=182; ** p <.01; * p <.05; † p<.10*

Table 4: Tobit regression results

Dependent variable	Export scale				
	Model 1	Model 2	Model 3	Model 4	Model 5
Independent variables					
Family CEO education	23.944**			28.840	34.993
Family CEO age	5.703	0.226		0.436	0.431
Family CEO position tenure			-0.319		
Family conversation orientation				-3.130	
Family conformity orientation					5.119
Family CEO education * Family conversation orientation				-1.380	
Family CEO education * Family conformity orientation					-3.890
Control variables					
Firm size	5.703	5.720	5.439	5.536	5.871
Firm age	-7.197	-4.041	-3.012	-7.087	-6.922
Manufacturing industry	37.201**	40.085**	40.074**	37.217**	37.861**
Board of directors	3.436	6.835	8.363	4.606	3.086
Ratio nonfamily managers	-0.060	0.012	0.010	-0.060	-0.053
Pseudo R^2	0.031	0.023	0.024	0.031	0.031
Log likelihood	-503.993	-508.013	-507.815	-503.787	-503.724

*N=182; ** p <.01; * p <.05; † p<.10*

Table 5: Tobit regression results

Dependent variable	Export scope				
	Model 1	Model 2	Model 3	Model 4	Model 5
Independent variables					
Family CEO education	7.165*			-5.896	28.280*
Family CEO age	0.127	0.065		0.132	0.133
Family CEO position tenure			-0.062		
Family conversation orientation				-1.105	
Family conformity orientation					3.911
Family CEO education * Family conversation orientation				3.997	
Family CEO education * Family conformity orientation					-7.631†
Control variables					
Firm size	3.025†	3.076†	3.041†	3.044†	3.235*
Firm age	0.252	1.097	1.340	0.398	0.211
Manufacturing industry	13.466**	14.322**	14.338**	13.779**	13.356**
Board of directors	5.338	6.420†	6.785*	4.923	4.633
Ratio nonfamily managers	-0.053	-0.032	-0.032	-0.054	-0.053
Pseudo R^2	0.047	0.040	0.040	0.048	0.051
Log likelihood	-350.016	-352.404	-352.391	-349.621	-348.293

*N=182; ** p <.01; * p <.05; † p<.10*

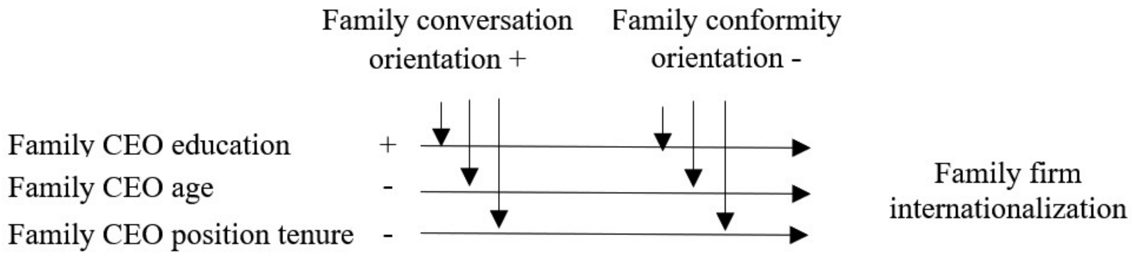

Figure 1: Research model

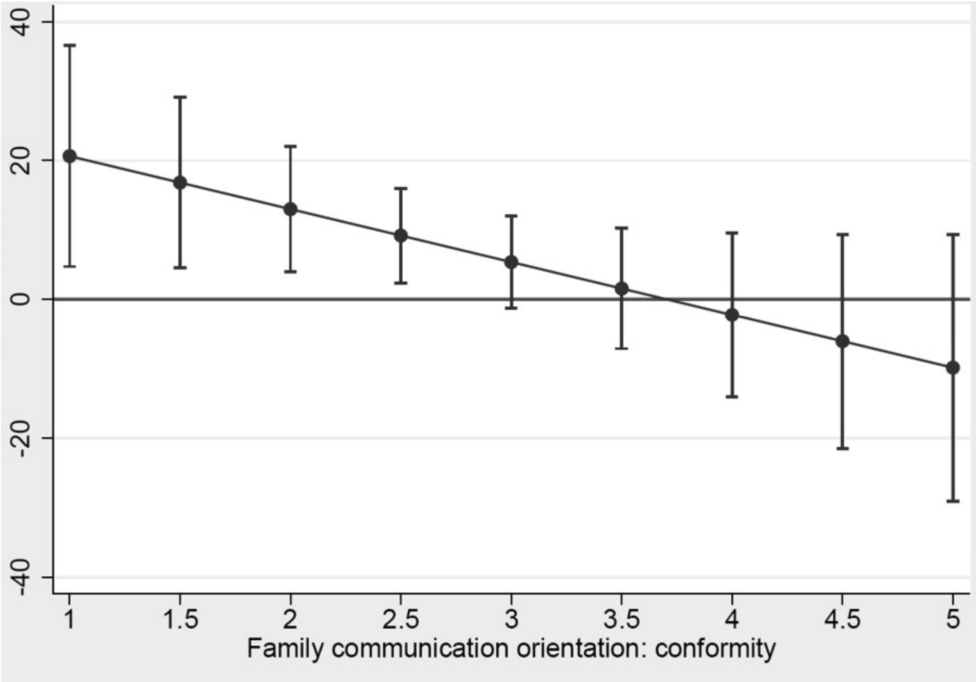

Figure 2: Conditional effect of family CEO education on export scope for different values of ‘family conformity orientation’ (95% confidence interval)

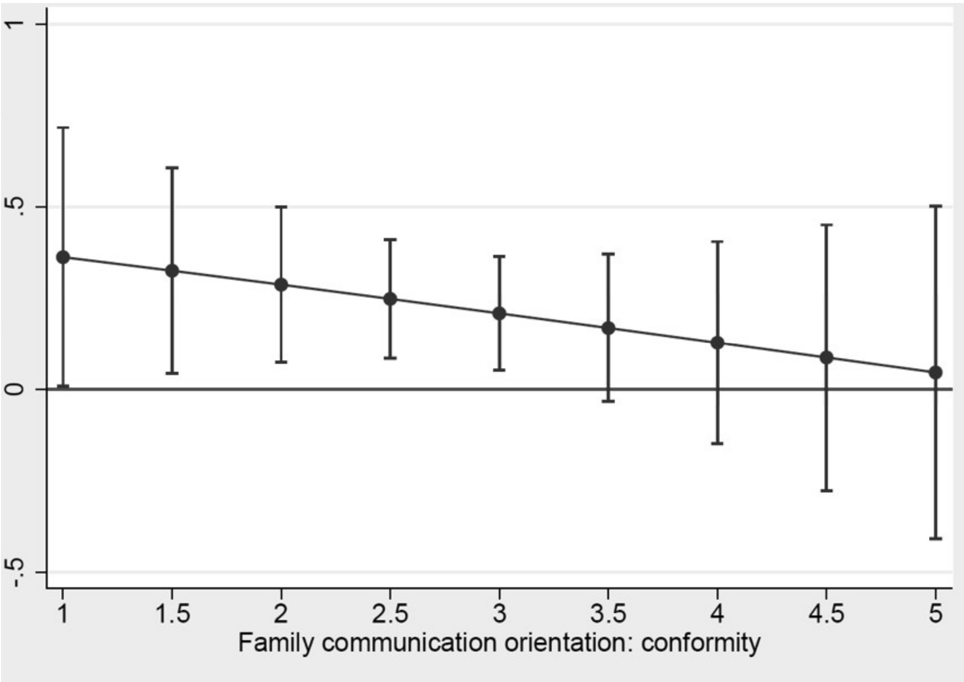

Figure 3: Conditional effect of family CEO education on internationalization propensity for different values of ‘family conformity orientation’ (95% confidence interval)

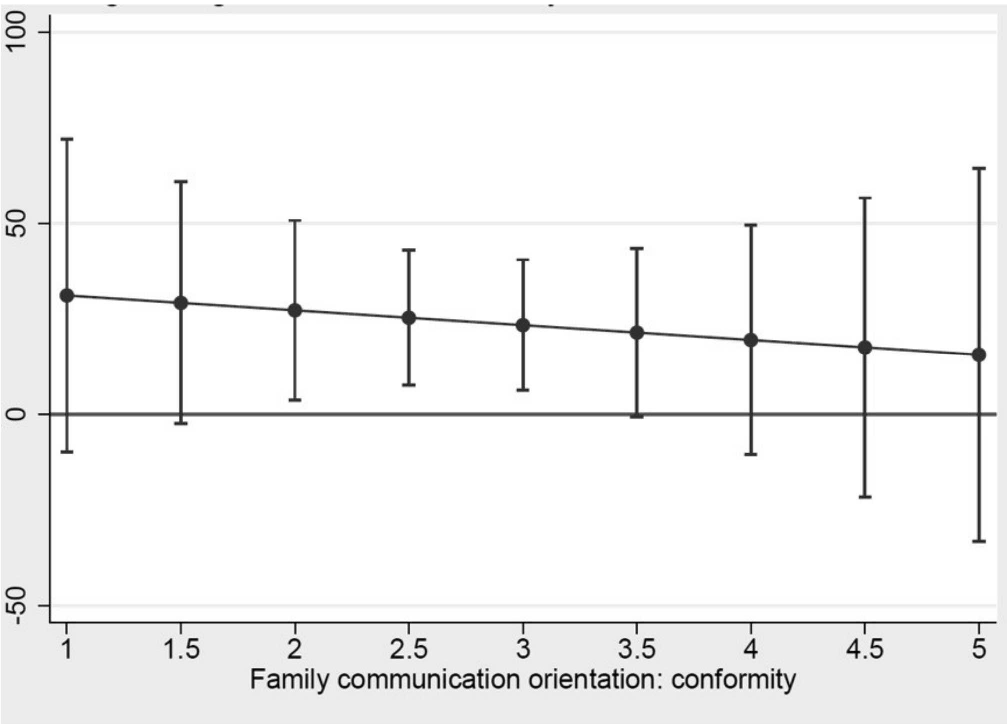

Figure 4: Conditional effect of family CEO education on export scale for different values of ‘family conformity orientation’ (95% confidence interval)