Journal of Small Business Management

ISSN: (Print) (Online) Journal homepage: https://www.tandfonline.com/loi/ujbm20

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To cite this article: Baris Istipliler, Annegret Hauer, Detlef Keese, Michael Woywode & Jan-Philipp Ahrens (2023): Childhood exposure to family firm and transgenerational orientation: Moderated mediation of affective commitment, Journal of Small Business Management, DOI: 10.1080/00472778.2023.2246060

To link to this article: https://doi.org/10.1080/00472778.2023.2246060

Published online: 08 Sep 2023.

JOURNAL OF SMALL BUSINESS MANAGEMENT
https://doi.org/10.1080/00472778.2023.2246060

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Childhood exposure to family firm and transgenerational orientation: Moderated mediation of affective commitment

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ABSTRACT

Based on organizational commitment theory, we explain how childhood exposure to the family firm (CEFF) impacts shareholders' affective commitment (AC) to the firm in later life. After we demonstrate how this AC mediates the relationship between shareholders' transgenerational orientation (TGO) and CEFF, we investigate the two factors moderating this mediation relationship: shareholders' non-manager status and material expectations from the firm. By utilizing a unique sample of 217 family firm shareholders from 174 family firms and a conditional process modeling analysis, we demonstrate that the AC mediates the relationship between CEFF and TGO. Accounting for differing manifestations of AC, this mediation effect only exists for non-managing shareholders and becomes weaker as non-managing shareholders' material expectations increase.

KEYWORDS

Affective commitment; childhood exposure; family firms; transgenerational orientation

Introduction

Transgenerational transfer of firm ownership and control to future generations is a central characteristic of family firms (Chrisman et al., 2012; Chua et al., 1999). In this respect, family firm scholars generally define family firms as firms in which one or more families with transgenerational transfer experience or trajectories hold a controlling interest (Astrachan & Shanker, 2006; Chua et al., 1999). Accordingly, researchers show that a transgenerational orientation (TGO), which refers to the long-term management of family wealth via a family organization and willingness to include the next generation of family members in the organization, is crucial for long-term survival of the family firm (Le Breton-Miller et al., 2011; Suess-Reyes, 2017). Furthermore, research shows that various pillars of family firm strategy, from innovation activities (Chrisman & Patel, 2012) to stakeholder orientation (Zellweger et al., 2013), financial performance (Hoffmann et al., 2019), firm valuation of the family owners (Zellweger et al., 2012), and succession planning (Umans et al., 2021), are shaped by the level of TGO.

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However, most studies treat TGO as a family-level phenomenon and thereby underappreciate important explanatory factors (Garcia et al., 2019; Suess-Reyes, 2017). Families are formed by individuals who can differ in their levels of TGO given their divergent experiences *with* the family firm *within* the family during different life stages (Bieto et al., 2010; Daspit et al., 2016; Jaskiewicz & Dyer, 2017). Neglecting this fact leaves us "with a gap in understanding of micro-level conditions leading family firm actors and decision-makers to execute firm strategy" (De Massis & Foss, 2018, p. 392). In order to understand the decisions at the individual level, researchers have focused their attention on the owner-managers (e.g., Dawson et al., 2015; Garcia et al., 2019; Memili et al., 2013). However, as family firms age, they also include younger generations as shareholders, thereby increasing the number of owners without management responsibilities (Davis & Harveston, 2001; De Massis et al., 2013; Eddleston et al., 2013). Accordingly, familial socialization experiences with the family firm starting at an early age become even more valuable for understanding these owners (Astrachan & McMillan, 2003; Pieper, 2010), especially their divergent attitudes and goals (Chua et al., 2018; De Massis et al., 2013; Kotlar & De Massis, 2013; Vazquez & Rocha, 2018). Yet, despite several studies underlying the importance of such experiences for individual shareholders' TGO (Bloemen-Bekx et al., 2021; Jaskiewicz & Dyer, 2017; Jaskiewicz et al., 2015, 2017), there is a lack of studies offering vigorous tests of these conjectures with shareholders who are less active in the family firm.

In this article, we focus on shareholders' childhood exposure to the family firm (CEFF) to investigate the emergence of shareholders' TGO in adulthood. CEFF refers to "the specific and pronounced influence of the family business context on children" (Gimenez-Jimenez et al., 2021, p. 742) induced by their early-age experiences in familial settings (Jaskiewicz et al., 2015; Wang et al., 2018). Specifically, we tackle the following main research question: *How does CEFF affect the attitudes of shareholders toward their family firm and their willingness to transfer their ownership to the next generations?* Furthermore, we also ask the following to explore the heterogeneous effects of CEFF: *How do different contingencies such as managerial status and material expectations of shareholders affect this relationship?* To answer these, we use organizational commitment theory (Meyer & Allen, 1991) to argue that CEFF is conducive to the development of the shareholders' affective commitment (AC) by positively affecting their *emotional attachment to*, *identification with*, and *involvement in* the family firm. In turn, we posit that AC positively mediates the relationship between CEFF and TGO, as AC increases shareholders' willingness to transfer their family firm to their offspring. We also argue that this mediation of AC only occurs when shareholders are not managers of the family firm, since a managerial role would decrease the salience of childhood experiences in the formation of AC in adulthood. Finally, we also hypothesize that the material expectations of these non-manager shareholders affect the mediation relationship negatively, suggesting a substitution of material means in AC formation. Using a sample of 217 family firm shareholders from 174 family firms, we find support for all our conjectures.

Our study contributes a detailed view of the emergence of TGO in individual family firm shareholders by focusing on their childhood: a pivotal life-stage in the formation of attitudes and behaviors. Indeed, researchers have frequently called for more research, especially into the role of shareholders' socialization and interactions in the family through different life stages (Bloemen-Bekx et al., 2021; Jaskiewicz & Dyer, 2017; Rovelli et al., 2021). Furthermore, by considering the shareholders without management responsibilities and showing that the argued mediation mechanism of the CEFF-TGO relation via AC exists only for this group, we answer recent demands to focus our attention beyond the owner-managers (Daspit et al., 2016; Dibrell & Memili, 2019; Garcia et al., 2019). Moreover, by also highlighting the significant role of material expectations in the formation of AC for non-managers, our results suggest that we may better understand formation of AC in family firms as a dynamic and contextual process that evolves over time (Jennings et al., 2014; Murphy et al., 2019). Finally, as a practical contribution, our study shows that CEFF can serve as a crucial tool for fostering a strong bond between offspring and the family firm. It also provides parents with valuable insights on how they can effectively use this tool, considering its boundary conditions.

TGO in family firms

In line with the literature, we define TGO "as a decision premise to maintain the family's control over the business across generations" (Suess-Reyes, 2017, p. 749). TGO is an important pillar of family firm longevity (Lumpkin et al., 2010), and essence approach to family firm definition based on TGO also underline its centrality (Chua et al., 1999; Handler, 1994; Harms, 2014). Accordingly, we also use the essence approach to defining family firms in our study, which puts transgenerational experience (or concrete plans of transgenerational transfer if the firm is in the first generation) as a necessary criterion in addition to a controlling ownership (Astrachan & Shanker, 2006; Chrisman et al., 2012; Chua et al., 1999). Thus, family firms are systems that transcend generations in which the will to pass the firm on to the next generation is inherent (Chua et al., 1999; Dawson & Parada, 2019; Gersick et al., 1997; Irava & Moores, 2010; Magrelli et al., 2022). Although research identifies a dynastic motive initiated by the firm founder as important for TGO in family firms (Bertrand & Schoar, 2006; Casson, 1999; Jaffe & Lane, 2004), the psychological antecedents and reasons underlying the manifestation and adoption of TGO are still less clear (De Massis & Foss, 2018)—especially in older family firms with a growing number of family shareholders (Kleve et al., 2020). Thus, recent studies have focused on the crucial question of how to spark the motivation of subsequent generations to reciprocate the TGO of the incumbent owners (Bika et al., 2019; Canovi et al., 2022; Combs et al., 2020; Suess-Reyes, 2017).

In this vein, researchers focused on the role of emotional ties and argued that fostering family shareholders' AC is necessary beyond the creation of financial benefits in order to motivate their will to transfer the firm to later generations (Memili et al., 2013; Sharma & Irving, 2005). Especially for later-generation family firms with many inactive shareholders, a sole shareholder role should be augmented with an emotional value so that a will to maintain the firm emerges (Aronoff & Ward, 2011; Davis & Herrera, 1998; López-Vergara, 2013; Mahto et al., 2019; Thomas, 2009; Vilaseca, 2002). Otherwise, passive shareholders tend to behave like investors and aim for short-term goals, including the liquidation of their firm (Borralho et al., 2020; Eddleston et al., 2013; Schulze et al., 2003). In fact, researchers develop and use the concept of emotional value to show that the emotional aspects associated with family firm ownership act as a premium, increasing the selling price and decreasing the chances of liquidation (Zellweger & Astrachan, 2008).

Accordingly, scholars have also investigated emotional factors as drivers of the willingness of the *next* generation to take over and ensure the continuation of the firm (Canovi et al., 2022; Gimenez-Jimenez et al., 2021; Habbershon et al., 2003, 2010). Here, studies show a strong connection between emotional ties and the will of the next generation to obtain and maintain firm ownership for the long term (Arregle et al., 2007; Basco et al., 2019; Björnberg & Nicholson, 2012; Dawson & Parada, 2019; Miller & Le Breton-Miller, 2005; Seymour, 1993; Sirmon & Hitt, 2003). Some researchers argue that the next generations' passion for the family firm is an important factor in their motivation to retain ownership (Birley, 2002; Gimenez-Jimenez et al., 2021; Kriklivetc & Plakoyiannaki, 2022; Miller, 2014).

However, despite these findings suggesting that emergence of TGO is a phenomenon rooted in the individual family shareholders and their familial relations (Suess-Reyes, 2017), research is focused mainly on the owner CEOs (e.g., Dawson et al., 2015; Garcia et al., 2019; Memili et al., 2013). Such a focus is, however, less adequate, especially in larger family firms with many non-managerial shareholders (Davis & Harveston, 2001; De Massis et al., 2013; Eddleston et al., 2013). This is problematic as the divergent nature and degree of socialization these shareholders have with their firms could drive heterogenous expectations and goals associated with firm ownership and TGO (Chua et al., 2018; De Massis et al., 2013; Kotlar & De Massis, 2013; Vazquez & Rocha, 2018). Accordingly, investigating individual shareholders' socialization with their family firm starting from an early age (Astrachan & McMillan, 2003; Pieper, 2010; Suess-Reyes, 2017) is crucial to understanding the emergence of TGO as well as affective factors anteceding it (Bloemen-Bekx et al., 2021; Jaskiewicz et al., 2015; Pieper, 2010; Umans et al., 2021). However, there is still a paucity of empirical research focusing on these issues.

Theoretical background

Organizational commitment is an important factor affecting individual-level outcomes such as turnover, motivation, and job performance (Meyer & Allen, 1991; Mowday et al., 1979). Earlier studies defined commitment as a structural phenomenon that comes into existence when individuals "link extraneous interests with a consistent line of activity" (Becker, 1960, p. 32), making it costly for them to leave their organization (Hrebiniak & Alutto, 1972; Salancik, 1977). A psychological conceptualization soon followed this early transactional view (see Yahaya & Ebrahim, 2016) and centered around psychological attachment, that is, "the psychological bond linking the individual and the organization" (O'Reilly & Chatman, 1986, p. 492). Although early unidimensional conceptualizations focused on the role of emotions in formation of this bond (Kanter, 1968; Mowday et al., 1979), multidimensional conceptualizations have recently gained more traction. In one of the most prominent multidimensional conceptualizations, Meyer and Allen (1991) argue that organizational commitment consists of three components: in addition to the affective commitment that refers to the *desire* of individuals to maintain membership of their organizations, continuance and normative commitment involve the *need* and *obligation* to do so.

Multidimensional views also enabled studies focusing on the different combinations of commitment components forming diverging commitment profiles (Meyer & Herscovitch, 2001; Wasti, 2005). Among these profiles, a "pure" AC profile is proposed as the most conducive profile to achieve desirable behavior (Meyer & Herscovitch, 2001). Along similar lines, many researchers considered AC as the most prevalent component of organizational commitment and argue that *emotional attachment to*, *identification with*, and *involvement in* the organization are its three components (Allen & Meyer, 1990; Becker et al., 2012; Mercurio, 2015). Family firm research also highlights AC as "a pivotal prerequisite for the prosperity and, in the long term, the very survival of" family firms (Memili et al., 2013, p. 443). Studies underline the crucial importance of AC compared with other components of commitment when describing family firm and owner behavior as well as attitudes (Bloemen-Bekx et al., 2021; Dawson et al., 2015, 2015; Sharma & Irving, 2005), especially transgenerational ones (Lambrecht, 2005). In general, family members who are affectively committed to their company would keep their companies' best interest in mind and modify their actions accordingly (Björnberg & Nicholson, 2012; Shepherd, 2016). AC would also reduce the risk that shareholders drift away from their family firm, especially in larger and older firms, due to distant residences and family trees branching out over the generations (Davis & Harveston, 1999, 2001; Ward, 1997), which may result in tensions and endanger the continuity of the firm (Grote, 2003; Kellermanns & Eddleston, 2007; Kotlar & De Massis, 2013; Shepherd, 2016). Research also underlines lack of AC as a strong predictor of turnover intentions of family employees (Mahto et al.,1986 2020). Moreover, developmental psychologists highlight that although emotional processes are pervasive for inference through all phases of life, processes related to logic and reasoning are less prevalent in childhood, making the emotional processes centrally formative to the development of attitudes (Moshman, 2011). Thus, although childhood experiences could also lead to other components of commitment, these effects will not be as strong, especially in the formation of TGO as an altruistic behavior which "children are more likely to learn from affectionate models" (Clary & Miller, 1986, p. 1366). The literature also addresses this emotion-based modeling of family members when they act as mentors (Dhaenens et al., 2018). In fact, Dawson et al. (2015) find that continuance commitment does not significantly relate to later generations' intentions to continue to work at their family firm. Similarly, Sharma and Irving (2005) argue that normative commitment would have weaker relations with discretionary behaviors compared to affective commitment. Taken together, these arguments justify our focus on AC as the central element for studying the relationship between CEFF and TGO among family firm shareholders.

Hypothesis development

AC as a consequence of CEFF

CEFF captures the "the specific and pronounced influence of the family firm context on children" (Gimenez-Jimenez et al., 2021, p. 742) induced by their early-age experiences in familial settings (Jaskiewicz et al., 2015; Wang et al., 2018). The literature acknowledges that beyond working at the firm (e.g., Carr & Sequeira, 2007), discussions in the familial context and storytelling can also induce exposure to a family firm (Jaskiewicz et al., 2015; Sharma & Irving, 2005; Wang et al., 2018). This is especially the case in early childhood given the reduced likelihood of being exposed to the firm at this age by working in it, especially in relatively larger firms based on non-craft-based business models. Hence, in early childhood, stories, familial discussions, and socialization with and observation of family members in a familial setting are pivotal elements of CEFF (Wang et al., 2018).

We argue that CEFF contributes to the formation of all three components of AC (i.e., *emotional attachment to, identification with, and involvement in* the organization) and is therefore associated with higher AC. First, CEFF would lead to the formation of an *emotional attachment to* the firm. Parents and family members are important role models for children, and their imitation is crucial to forming children's attitudes and behaviors (Anderson & Cavallaro, 2002; Krohn et al., 1985), including those regarding firm ownership (Carr & Sequeira, 2007; Fairlie & Robb, 2007). Accordingly, children who are exposed to their parents' family firm, its history, and its culture (Lambrecht, 2005; LeCounte, 2022) will be more likely to model their parents' emotional attachment to it (Dawson et al., 2015; Garcia et al., 2019; Wang et al., 2018). Furthermore, the parents' choice to remain with the organization (Pfeffer & Lawler, 1980) can result in positive emotions toward the organization justified by past behavior (O'Reilly & Caldwell, 1981). Thus, even if children only observe and passively model their parents' behavior, this would result in an emotional attachment to the firm as time passes (Meyer & Allen, 1991). Moreover, the concept of nostalgia offers another explanation of why CEFF may lead to emotional attachment in later life. Happy memories are emotionally conducive for adults toward the objects of the memories (Batcho, 1998; Davis, 1979; Shields & Johnson, 2016). Familiarity with the family firm in a familial atmosphere will increase the chances of forming happy memories of the firm (Björnberg & Nicholson, 2012) and lead to emotional attachment to the firm later in life.

Second, CEFF would also lead to a shareholder *identifying with* their family firm. Organizational identification refers to the "tendency of individuals to perceive themselves and their groups or organizations as intertwined, sharing common qualities and faults, successes and failures, and common destinies" (Mael & Tetrick, 1992, p. 813). Ashforth and Mael (1989) argue that the main motivation of group identification is the desire for self-definition. Children especially show a high tendency and desire to engage in thinking about who they are and who they want to become in the future (Crocetti, 2017). During this process, they explore various world views, values, and groups to which they will commit and thereby define their identity (Tesch & Cameron, 1987). Thus, the information parents make available to their children regarding their family firm is crucial to the identification process (Grusec & Goodnow, 1994; Knafo & Schwartz, 2003, 2004). By exposing their children to family firm–related issues at an early age, parents increase the chances of children's identification with the firm (Dawson et al., 2015; Garcia et al., 2019), as growing up in this context may lead children to consider the firm as part of their identity (Brundin et al., 2014). This would especially be the case, as the exposure would inform offspring about self-esteem–enhancing qualities of family firms, such as high social status in the community or philanthropy, thereby increasing their motivation for identification (Bettinelli et al., 2022; Zellweger et al., 2013). In addition, exposure to such dynamics within a familial setting would also lead to the embracement of the business family identity, which is even more crucial than the identity of the organization for family firm identification (Matherne et al., 2017). Furthermore, this familial exposure to the business also leads to the entanglement of family and business identities, contributing to family firm identification (Cabrera-Suárez et al., 2014; Sundaramurthy & Kreiner, 2008). As a result, family members align their interests with that of the business, perceive it as an extension of themselves (Shepherd & Haynie, 2009; Zellweger et al., 2010), and incorporate the family business into their identity (Lefebvre & Lefebvre, 2016; Murphy et al., 2019).

Finally, CEFF would be associated with higher *involvement of a shareholder in* the organization. Involvement refers to the "psychological immersion or absorption in the activities of one's work role" (Buchanan, 1972, p. 533) or "the degree to which a person's work performance affects his self-esteem" (Lodahl & Kejnar, 1965, p. 25).[1] Although not all family shareholders work at their firm, they are still responsible for governing their organization in congruence with family values and needs (Aronoff & Ward, 2011; Villalonga et al., 2015). Shareholders who were exposed to family firm–related issues and observed how their parents dealt with these as shareholders in their childhood would internalize this role more as a shareholder (Ahrens et al., 2019). In fact, Buchanan (1972) refers to the applicability of the law of primacy and suggests that the earlier such experience, the higher its impact will be on involvement. Considering the influence of childhood experiences on attitudes toward work and behavior in work organizations in adulthood (Dubin, 1961), CEFF would be positively associated with higher involvement in the family firm in adulthood. Thus, taking the above arguments together, we hypothesize[2]

H1: *CEFF is positively associated with shareholders' AC to their family firm.*

AC as an antecedent of TGO

The desire to follow a course of action in line with organizational values and striving to fulfill the organizational goals are important outcomes of AC (Meyer & Herscovitch, 2001). In fact, research highlights that people who develop AC remain committed to their organization along with its values and goals even after they leave it (Breitsohl & Ruhle, 2013, 2016). Accordingly, shareholders with AC would still care about what happens to their firm even after they cease being its shareholder. This is especially important for

[1]In line with an AC perspective and similar studies focusing on AC in a family firm setting (see Gimenez-Jimenez et al., 2021), we refer to the involvement as a psychological notion. Thus, it does not (necessarily) reflect the extent of the responsibilities or hierarchy of a shareholder in the family firm (see Dhaenens et al., 2018, p. 48), although it can also be correlated with those aspects.

[2]It is worth mentioning here that it is *not* our intent to offer CEFF as the *only* mechanism through which shareholders develop AC to their family firm. There can be cases where children are not even aware of their relation to a family firm in their early years, and this still does not prevent them from developing strong AC toward the company in their adulthood. Further, it is important to consider that CEFF could also be negatively associated with AC. This would especially be the case if it involves negative events or memories such as financial struggles of the family and the business, or lack of familial attention shareholders experienced in their childhood given the significant energy and time their parents had to invest in the business. Regardless of these particular cases, however, we expect that the positive effects of CEFF will generally triumph given the nostalgic tendencies addressed as well as parents' discretion and motivation for exposing their children to predominantly positive experiences.:

shareholders of a family firm, as the firm serves as an "arena" where the family enacts its agenda with commitments and benefits that extend across generations (Chua et al., 1999; Corbetta & Salvato, 2004; Davis & Stern, 1988). Thus, affectively committed family firm shareholders who leave their organizations will try to choose future shareholders who are likely to act in congruence with the firm's familial values and goals (Ahlers et al., 2017; Lambrecht, 2005; LeCounte, 2022). In this case, choosing their own offspring in line with a TGO to ensure this congruence is a good option for two reasons: First, these future shareholders are members of the family and thus also recipients of potential future benefits. As such, they are more likely to remain committed to the goals of the organization aimed at benefiting them. Second, in a familial setting, the current shareholder can much more easily shape and observe their values (Mussolino & Calabrò, 2014). By doing so, the current shareholder can ensure a high level of value congruence between the future shareholders and the family firm, a possibility that does not exist in the case of non-family candidates. Finally, transferring the firm's shares to an offspring as part of a TGO is also consistent with the altruistic values (Corbetta & Salvato, 2004) that an affectively committed family firm shareholder would embrace. Thus:

H2: *Shareholders' AC to their family firm is positively associated with TGO.*

AC as a mediator of the CEFF–TGO relationship

Given we posit that CEFF leads to AC and AC leads to TGO, an investigation of a mediator role for AC between CEFF and TGO is warranted. This requires a justification of why CEFF imposes (at least a part of) its effect on TGO through AC, that is, *indirectly* through mediation. First, it is reasonable to think that shareholders whose AC is (at least partially) driven by CEFF will be more likely to mimic their parents' behavior and expose their offspring from early on to their family firm to benefit AC formation. In turn, this would result in a higher AC of these children to the family firm in line with the arguments we provided for our first hypothesis. This would also make them more appropriate successors who would be likely to act in congruence with the firm's familial values and goals (Ahlers et al., 2017; Lambrecht, 2005; LeCounte, 2022). When such a successor exists, the current shareholder of the firm would be more likely to think of leaving the shares of his "beloved" firm to the next generation, resulting in higher TGO. In fact, research shows that not finding appropriate successors with high value congruence is one of the reasons hindering a TGO (Parker, 2016). Although it is empirically possible to think that CEFF may also lead to TGO *directly* (or via mediators other than AC and unobserved in this study), the existence of such a theoretical mechanism (i.e., one not involving *emotions*, *identification*, and *involvement* with the organization even partially) is less feasible, especially when the high importance of emotions attached to childhood experiences and the nostalgic effects generated by such experiences are considered. Thus, we posit that a mediation of AC between CEFF and TGO exists.

H3: *Shareholders' AC positively mediates the relationship between CEFF and TGO.*

Non-manager status as a moderator of the mediation

We argue that the degree of shareholder AC induced by CEFF may depend on shareholders' role in the firm. A shareholder may have an active role in the firm, in particular when they have managerial responsibilities, or a passive role as a shareholder without any managerial responsibilities (Michiels et al., 2015; Thomas, 2009). We argue that in the latter case, where exposure to the firm via managerial participation is absent, CEFF will continue to be central to the formation of AC. For active managers, on the other hand, even if CEFF might initially play a highly prominent role in AC formation (and even motivate managerial participation in the first place), it would become less prominent as managerial participation increases. Accordingly, this implies a shift in AC formation, where managerial shareholders gradually rely less on outdated and overwritten childhood memories over time and instead place greater emphasis on recent experiences arising from managerial participation (Vilaseca, 2002). Further, a managerial role could result in higher absorption in the work role in the organization given that it increases the participation in decision making, leadership responsibilities, autonomy, and degree of contribution made to the organization (Bass & Barrett, 1972; Rabinowitz & Hall, 1977). This would also fuel the identification of the person by increasing their visibility and improving the alignment between goals and values with self and the organization (Weisman et al., 2022). In this case, where the AC is driven by these factors arising from a professional role, other factors such as CEFF would be less pronounced in driving AC to the organization (Baruch & Cohen, 2007; Carson et al., 1999; Gouldner, 1957). This implies that a managerial role would suppress (or substitute) the positive effect of CEFF on AC and weaken this positive relationship. In addition, by overwriting the childhood memories characterized by emotional valence with new and updated experiences embedded in a more rational and material context, a managerial role will also reduce the effects of nostalgia.

By contrast, in a non-managerial context where emotional elements are more pronounced, childhood experiences will continue to serve as a source of profound commitment to the family firm. The literature also addresses how people unable to create social content through new interactions compensate for this shortcoming by clinging to past experiences and developing nostalgic tendencies (Seehusen et al., 2013). Accordingly, passive shareholders who are more external to the organization than the ones in managerial roles will be more likely to be affected by childhood experiences and such experiences will play a greater role in the formation of AC. Based on these considerations, non-manager shareholders should derive more AC from CEFF compared to managers. Since this high level of AC would also lead to a high level of TGO, we posit:

H4: *The non-managerial role of shareholders positively moderates the positive mediation of shareholders' AC between CEFF and TGO, such that the non-managerial role positively influences the relationship between CEFF and AC and thus leads to a higher TGO.*

Material expectations as moderator of the moderated mediation

After we establish that non-manager status will positively moderate the positive mediation of AC between CEFF and TGO (i.e., a moderated mediation), we next investigate material expectations as a further factor moderating this moderated mediation relationship, resulting in a *moderated moderated mediation* (see Hayes,). Research shows that material returns from an organization may positively relate to AC (Gao2018-Urhahn et al., 2016). Family firm research also emphasizes the importance of financial means in forming the shareholders' commitment (Michiels et al., 2015; Vilaseca, 2002). Furthermore, the material and social relationships between members and the organization may share the same function of generating affective responses (Eisenberger et al., 1990; Lasaleta et al., 2014) and hence are not "the opposite poles of a single continuum" (Loi et al., 2009, p. 404). For instance, profit-sharing with employees can increase the employee AC since it increases the perception of fairness and mutual trust (Coyle-Shapiro et al., 2002), especially when the employees participate less in firm decisions (Bayo-Moriones & Larraza-Kintana, 2009). In a similar vein, some passive shareholders' well-being may be dependent on the financial returns, and they could perceive these payments as an act by the family firm to take care of them. Driven by the feeling of indebtedness, these individuals tend to reciprocate with positive attitudes toward the firm (Coyle-Shapiro et al., 2006; Loi et al., 2006). This would be especially the case for members with fewer responsibilities in their organization, as this limits their possibilities of reciprocating (Bayo-Moriones & Larraza-Kintana, 2009).

Thus, we argue that material returns such as dividend payments can increase the AC of non-manager shareholders. This would especially be the case for non-manager shareholders whose material expectations increase the salience of the financial returns (De Massis et al., 2013; Le Breton-Miller et al., 2011). In fact, research shows that higher salience of material needs driven by financial responsibility toward family increases AC (Kim & Kim, 2017; Wayne

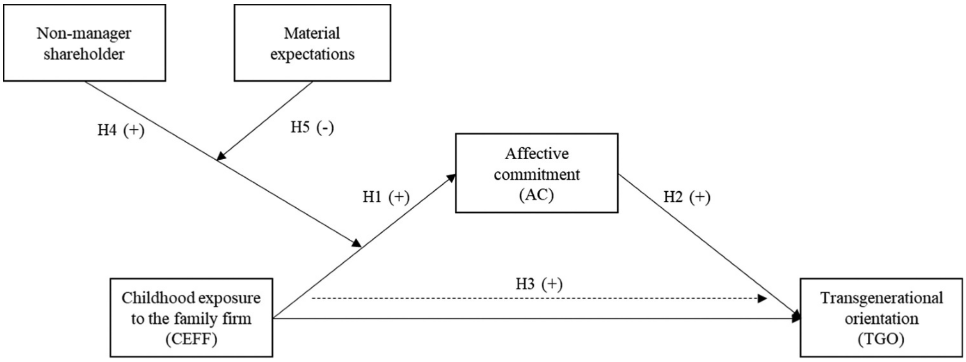

Figure 1. Conceptual diagram of the hypothesized relationships. A dashed line is used to show the mediation hypothesis (H3). Further, H4 and H5 are moderators of this relationship in the first stage.

et al., 2013). Achieving AC via financial returns would also reduce the motivation to search for other means (Braver et al., 2014; Carver, 2004). Hence, as shareholders derive their AC from the material returns, the role of CEFF in the emergence of AC and TGO would decrease, suggesting a substitution effect. Therefore, the material expectations of shareholders will negatively moderate the proposed positive mediation of AC between non-manager shareholders' CEFF and TGO (see Figure 1 for the conceptual diagram):

H5: *The material expectations negatively moderate the positive mediation of AC between non-manager shareholders' CEFF and TGO, such that material expectations negatively influence the relationship between CEFF and AC for non-manager shareholders and thus lead to a lower TGO.*

Methods

Sample

We gathered data from 292 family firm shareholders between September and October 2016. We base our family firm operationalization on an essence approach, which requires the fulfillment of two criteria (Astrachan & Shanker, 2006; Chrisman et al., 2012; Chua et al., 1999): (a) the firm has at least 50% family ownership and (b) it has transgenerational experience (shown by multiple generations) or concrete plans of an ownership transfer if it is owned by the first generation. Any individuals with firm ownership who belong to the owning family (or families) are relevant respondents for our survey. We recruited our respondents mainly on the basis of three sources: (1) the largest 500 family firms in Germany with respect to the revenue and number of employees, resulting from extensive (more than 150 hours) ethnographic research (annual reports, web pages, etc.); (2) companies registered to the German Family Business Network, which requires a family ownership majority, transgenerational experience, or concrete plans as well as at least 50 employees; and (3) personal contacts of authors to shareholders of other family firms fulfilling the abovementioned two criteria.

In total, we received 65% (199) of the responses by mail and 35% (102) via the survey tool provided by e-mail. We excluded 9 surveys since they were incomplete. A post-hoc analysis does not indicate any difference in response behavior except that online respondents were younger. To alleviate anonymity and social desirability concerns, we did not ask shareholders for their name or any identifying information. A post hoc analysis shows that these 292 respondents emerged from 205 different firms.

We dropped 45 observations due to missing values in variables of interest and 30 observations due to missing values in majority of control variables. In the resulting sample of 217 (which corresponds to 174 unique firm characteristic combinations), we imputed 30 observations with missing data in age, gender, and number of shareholders corresponding to 14% of the regression sample, which is well below the 50% threshold (Allison, 1991). The largest fraction of missing information value in our models is 42%, which is also below the threshold of 50% (Graham et al., 2007). We conducted a 40-times imputation of the data with the help of the *mi impute* command of STATA 16 software and ran our models using the *mi estimate* commands with robust standard errors.

Variables

We measure *TGO* of the responding shareholders using a two-item scale (α = 0.77). Similar to prior studies (Frank et al., 2017; Hoffmann et al., 2019; Suess-Reyes, 2017; Zellweger et al., 2012, 2012), we used two Likert-scale (1–5) items measuring the extent to which the respondents agree with the statements "continuing the family tradition is important for me" and "I find it hard to imagine ever selling the company or my shares."

In line with prior studies (e.g., Uhlaner et al., 2007) as well as the suggestion by Zellweger and Astrachan (2008), we derive our firm shareholder *AC* scale from the modification of the AC scale offered by Allen and Meyer (1990). Consisting of five Likert-scale (1–5) items (α = 0.90), our scale taps into the mechanisms driving the emotional commitment of the shareholders to their firms (Björnberg & Nicholson, 2012; Memili et al., 2013).

Our *CEFF* variable consists of three Likert-scale (1–5) items (α = 0.80) aimed at capturing the level of exposure to family firm context in childhood. Given our rationale of capturing the exposure starting at an early age, our items inquire about exposure to family firm–related issues in a familial context as well as overall level of familiarity and interest shareholders had in their childhood (Jaskiewicz et al., 2015; Sharma & Irving, 2005; Wang et al., 2018).

As high Cronbach's alpha and composite reliability (CR) scores indicate (see Appendix 1), our scales demonstrate high reliability (Bagozzi & Yi, 2012; Fornell & Larcker, 1981). Further, average variance extracted (AVE; see Appendix 1) for each scale exceeding the 0.50 threshold along with high factor loadings for single items indicate high convergent validity (Bagozzi & Yi, 2012). In addition, three factors with eigenvectors greater than 1 emerging from an exploratory factor analysis, along with no evidence of cross loadings exceeding the critical value of 0.32, support the appropriateness of our measure (Tabachnick & Fidell, 2019). Finally, we observe that the squared correlations among our scales are always below the AVE, ensuring a high discriminant validity (Fornell & Larcker, 1981).

Our first moderator variable, *non-manager*, is a binary (1/0) variable taking the value of 1 if the shareholder stated that they are not a top manager at the firm. Our second moderator, *material expectations*, is a single-item Likert-scale (1–5) measurement where the respondents evaluated the following statement: "The material benefits from my position as a shareholder are important to me." Research underlines that a clearly articulated single-item measurement is more effective and efficient to inquire about the unequivocal constructs such as the one under question for our variable (Fuchs & Diamantpoulos, 2009). Further, studies focusing on similar contexts also utilize such single-item measures (Williams et al., 2013).

We also control for various factors in our regressions. We include indicators for age of the shareholder (i.e., *18–30, 31–50*, and *51–65*; *65+* excluded in regressions as the base group to avoid perfect collinearity) given that age relates to TGO and AC (Sharma & Irving, 2005). We control for the gender of the respondent given that it affects emotionality and long-term orientation (Allen & Haccoun, 1976; Fetchenhauer & Rohde, 2002). Furthermore, we also control for marital status (i.e., *married, divorced, widowed*, and *separated*; *never married* excluded as the base group) and shareholder with children given their effect on TGO (Bennedsen et al., 2007). We include four indicators for the educational level (i.e., *vocational training, bachelor's degree, master's degree*, and *doctoral degree*; *school education* excluded as the base group) since education may affect emotionality, legacy intentions, material expectations, and managerial status (Ahrens et al., 2019; Davis & Harveston, 2001). Firm size can affect the sociality of shareholders with the firm (Memili et al., 2013; Uhlaner et al., 2007). To control for the size, we include three indicators for number of employees (i.e., *251–500, 501–1000*, and *1000+*; *under 250* excluded as the base group). We also include the number of shareholders (i.e., *1, 2–10*, and *11–20*; *21+* excluded as the base group) in our models. The period in which the firm is under family control might affect the emotional disposition and obligation toward the family firm (Uhlaner et al., 2007) and so is controlled for (i.e., *1901–1945*, *1946–1980*, and *after 1980*; *before 1900* excluded as the base group). Finally, we control for the first generation as the youngest generation at the firm to capture founder generation effects (Lahti et al., 2019). Appendices 2 and 3 depict the summary statistics, pairwise correlations, and frequencies for all variables.

Empirical strategy and estimation

We conduct all our analyses with *STATA 16* statistical software. To test our hypotheses, we used multiple linear regressions with robust standard errors (H1 and H2) and conditional process modeling (CPM) with bootstrapped standard errors (for H3-H5) (Hayes, 2017). Our H3 involves a mediation relationship, whereas H4 and H5 are moderated mediations in the first stage. To test H3, we derived the coefficients for the first and second stage of the argued mediation relationship and bootstrapped the product of these coefficients more than 6,500 times. For H4, we took a similar approach, but we also probed the coefficient for the different values of the moderator. Finally, H5 posits a moderation of this already moderated relationship (i.e., a three-term interaction) in the first stage and also involves examining the effect with varying values of the second moderator. Please refer to Appendix 4 for further details of effect derivation.

Dealing with common methods bias

To ensure that the common method bias (CMB) is not a problem, we designed our survey to be short, concise, and terminology-free (Podsakoff et al., 2012). Further, complex models with mediations, moderations, and many covariates alleviate the CMB problem a priori (Siemsen et al., 2010). In addition, we conduct a Harman one-factor test and observed 13 factors with an eigenvalue greater than one, with the largest component accounting for 16% of the total variance, ruling out CMB concerns (Podsakoff & Dennis, 1986). Following Lindell and Whitney (2001), we also utilized a marker variable approach using a brief version of the civic engagement scale by Doolittle and Faul (2013). This measure has three Likert-scale (1–5) items ("I like to do voluntary work," "I like to maintain social contacts," "I would like to have social influence") (α = 0.66). Lack of a clear theoretical and empirical relationship (i.e., low correlations far below the 0.30 threshold) between this variable and our variables of interest makes it a suitable marker variable (Siemsen et al., 2010; Simmering et al., 2015). Further, the similarity of question type (i.e., Likert scale) and its nature tapping into the approximate affective and cognitive mechanisms of interest in this study make it an apt marker variable (Williams et al., 2010). Therefore, we include this marker variable into our models, run them, and observe that our inferences do not change indicating a non-significant effect of CMB.

Results

Hypothesis testing

Table 1 shows the results of the regression models we utilized to test our hypotheses. Models 1 and 5 serve as base models including only control variables for both AC and TGO as dependent variables. To test our first hypothesis, we regressed the CEFF on the AC in Model 2. The positive significant coefficient of the CEFF ($\beta = 0.107$, $p < .050$) offers support for our H1 positing a positive effect of CEFF on the AC. For the test of H2, which hypothesizes a positive effect of AC on TGO, we refer to Model 6. In this model, a positive significant coefficient of AC ($\beta = 0.946$, $p < .001$) supports H2.

Table 2 shows the effect sizes we derived from the regression coefficients in line with Hayes (2017) (see Appendix 4 for further details). To test the mediation of the CEFF and TGO relationship by AC (H3), we utilize the coefficients from models 2 and 7. The product of the coefficients of CEFF ($\beta = 0.107$) and AC ($\beta = 0.946$) constitutes the effect size of an unconditional mediation (Hayes,). We bias-corrected this effect size and bootstrapped it with more than 6,500 repetitions to estimate its confidence interval (CI). As Table 2, section A shows, the effect (0.101) is significantly positive in the 95% CI (95% CI: [0.022; 0.199]). These results support H3.

H4 posits a positive moderation of the abovementioned mediation in the first stage by the non-manager status. To test this mediation effect, we use the coefficients from Models 3 and 8 in Table 1 and a bootstrapping process to derive standard errors. Table 2, section B shows the effect sizes for managers and non-managers. As the non-significance of the mediation effect size when we probe it for managers indicates (0.013; 95% CI: [−0.095; 0.082]), a mediation does not exist for the managers. When we probe the moderated effect size for non-managers, however, we obtain a significantly positive coefficient (0.215; 95% CI: [0.062; 0.421]) in line with our expectations. As a significant index of moderated mediation also indicates (0.203; 95% CI: [0.020; 0.426]), these results show support for H4 as the management status of the shareholder positively moderates the mediation effect and makes it significantly positive only for non-managers.

Our H5 involves a three-term interaction since it posits that the material expectations of a non-manager shareholder will *negatively moderate* the abovementioned *moderated mediation*. To test this hypothesis, we use the coefficients from models 4 and 9 and utilize mean, mean ± standard deviation (SD), and mean ±2 * SD values to probe the material expectations variable for both managers and non-managers, resulting in 10 effect sizes. In addition to those, section C of Table 2 displays two coefficients resulting from testing these effect sizes for difference. Again, effect sizes (1) to (5) indicate no significance in 95% CI, implying that the mediation does not exist for the

Table 1. Regression models.

	AC				TGO				
Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
AC						**0.946***** **(0.102)**	**0.940***** **(0.107)**	**1.028***** **(0.106)**	**1.035***** **(0.113)**
CEFF		**0.107**** **(0.051)**	**0.012** **(0.039)**	**−0.044** **(0.126)**			**0.017** **(0.053)**	**0.082** **(0.072)**	**0.481** **(0.305)**
Non-manager			**−1.092**** **(0.439)**	**−3.172**** **(1.234)**				**0.878*** **(0.449)**	**2.375** **(1.616)**
CEFF & non-manager			**0.197**** **(0.100)**	**0.664**** **(0.278)**				**−0.153** **(0.106)**	**−0.502** **(0.387)**
Material expectations				**−0.061** **(0.165)**					**0.493** **(0.406)**
CEFF & material exp.				**0.019** **(0.039)**					**−0.124** **(0.093)**
Non-manager & material exp.				**0.656**** **(0.315)**					**−0.468** **(0.488)**
CEFF & non-manager & material exp.				**−0.148**** **(0.072)**					**0.109** **(0.118)**
Age: 18–30	−0.111 (0.252)	−0.046 (0.259)	−0.007 (0.252)	0.019 (0.262)	−0.122 (0.432)	−0.017 (0.344)	−0.007 (0.348)	−0.031 (0.333)	0.004 (0.333)
Age: 31–50	−0.014 (0.117)	0.015 (0.113)	−0.029 (0.121)	−0.049 (0.119)	−0.341* (0.206)	−0.329* (0.171)	−0.325* (0.174)	−0.284 (0.186)	−0.263 (0.182)
Age: 51–65	−0.020 (0.114)	0.003 (0.111)	−0.045 (0.114)	−0.052 (0.109)	−0.194 (0.186)	−0.176 (0.158)	−0.173 (0.159)	−0.130 (0.165)	−0.117 (0.163)
Gender: Male	0.142 (0.117)	0.109 (0.118)	0.023 (0.123)	−0.010 (0.115)	−0.138 (0.203)	−0.273 (0.172)	−0.277 (0.174)	−0.212 (0.169)	−0.208 (0.172)
Married	0.027 (0.118)	0.013 (0.116)	−0.030 (0.104)	−0.018 (0.105)	−0.125 (0.213)	−0.150 (0.187)	−0.152 (0.186)	−0.116 (0.179)	−0.131 (0.185)
Divorced	−0.086 (0.194)	−0.121 (0.187)	−0.174 (0.177)	−0.193 (0.174)	−0.449 (0.357)	−0.367 (0.293)	−0.374 (0.294)	−0.317 (0.272)	−0.315 (0.276)
Widowed	−0.502 (0.417)	−0.565 (0.398)	−0.568 (0.416)	−0.644 (0.457)	−0.869** (0.399)	−0.394 (0.305)	−0.407 (0.308)	−0.355 (0.333)	−0.344 (0.353)
Separated	−0.013 (0.276)	−0.041 (0.286)	−0.101 (0.251)	−0.090 (0.251)	0.175 (0.501)	0.188 (0.306)	0.183 (0.309)	0.246 (0.308)	0.245 (0.318)
Children exist	0.162	0.167	0.153	0.145	−0.123	−0.276	−0.274	−0.277	−0.279

(*Continued*)

Table 1. (Continued).

Variables	AC (1)	AC (2)	AC (3)	AC (4)	TGO (5)	TGO (6)	TGO (7)	TGO (8)	TGO (9)
	(0.115)	(0.111)	(0.096)	(0.096)	(0.203)	(0.179)	(0.179)	(0.171)	(0.175)
Vocational training	0.137	0.061	0.176	0.188	−0.118	−0.248	−0.259	−0.360	−0.266
	(0.508)	(0.533)	(0.413)	(0.395)	(0.612)	(0.630)	(0.625)	(0.609)	(0.627)
Bachelor's degree	0.601	0.453	0.505	0.483	0.363	−0.206	−0.226	−0.306	−0.208
	(0.408)	(0.447)	(0.335)	(0.341)	(0.486)	(0.596)	(0.589)	(0.568)	(0.589)
Master's degree	0.401	0.233	0.263	0.230	−0.487	−0.867	−0.891	−0.939	−0.880
	(0.439)	(0.476)	(0.371)	(0.385)	(0.634)	(0.689)	(0.681)	(0.660)	(0.662)
Doctoral degree	0.583	0.453	0.519	0.499	0.448	−0.104	−0.122	−0.215	−0.095
	0.165	0.153	0.181	0.187	0.373	0.210	0.209	0.179	0.165
Number of employees: 251–500	0.147	0.124	0.142	0.141	0.279	0.140	0.137	0.109	0.065
	(0.157)	(0.145)	(0.136)	(0.127)	(0.256)	(0.212)	(0.212)	(0.211)	(0.214)
Number of employees: 501–1000	−0.104	−0.102	0.026	0.041	−0.159	−0.061	−0.061	−0.164	−0.218
	(0.163)	(0.155)	(0.163)	(0.152)	(0.290)	(0.230)	(0.230)	(0.234)	(0.244)
Number of employees: 1000+	0.127	0.108	0.195	0.219*	0.480**	0.359**	0.357**	0.271	0.211
	(0.148)	(0.134)	(0.133)	(0.121)	(0.217)	(0.169)	(0.170)	(0.171)	(0.183)
Family ownership from 1901–1945	0.094	0.084	0.079	0.072	−0.284*	−0.373***	−0.374***	−0.377***	−0.369***
	(0.084)	(0.081)	(0.081)	(0.083)	(0.162)	(0.138)	(0.139)	(0.138)	(0.141)
Family ownership from 1946–1980	−0.096	−0.089	−0.062	−0.057	−0.619***	−0.528***	−0.528***	−0.545***	−0.520***
	(0.098)	(0.090)	(0.081)	(0.078)	(0.180)	(0.152)	(0.152)	(0.154)	(0.158)
Family ownership after 1980	−0.209	−0.135	−0.162	−0.108	−0.544**	−0.346*	−0.336*	−0.306	−0.298
	(0.159)	(0.172)	(0.145)	(0.150)	(0.228)	(0.186)	(0.189)	(0.192)	(0.196)
First generation	−0.017	0.051	0.040	0.037	−1.196*	−1.180**	−1.170**	−1.173**	−1.165**
	(0.354)	(0.401)	(0.333)	(0.338)	(0.700)	(0.466)	(0.475)	(0.500)	(0.532)
Number of shareholders: 1	0.232	0.136	0.002	0.103	0.536*	0.317	0.303	0.410	0.339
	(0.164)	(0.166)	(0.170)	(0.187)	(0.311)	(0.271)	(0.272)	(0.279)	(0.291)
Number of shareholders: 2–10	0.233*	0.173	−0.002	0.085	0.404*	0.184	0.175	0.311*	0.289
	(0.134)	(0.140)	(0.153)	(0.154)	(0.219)	(0.177)	(0.177)	(0.181)	(0.187)
Number of shareholders: 11–20	0.181	0.136	0.052	0.108	0.372	0.200	0.194	0.255	0.263
	(0.168)	(0.173)	(0.178)	(0.177)	(0.278)	(0.216)	(0.218)	(0.210)	(0.210)
Constant	(0.470)	(0.502)	(0.413)	(0.572)	(0.610)	(0.738)	(0.738)	(0.824)	(1.563)
Observations	217	217	217	217	217	217	217	217	217
F test	1.844	2.191	2.606	2.350	2.897	9.454	8.948	9.478	8.595
Prob *F*	0.014	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000

MI estimates with robust standard errors in parentheses. Significance levels: ***$p< .01$, **$p < .05$, *$p < .10$.

Table 2. Conditional and unconditional mediation effects.

A. Mediation analysis results (H3)

No.		Coef.	SE	95% CI	
(1)	**Mediation effect size**	**0.101**	**0.046**	**0.022**	**0.199**

B. Moderated mediation analysis results (H4)

No.	Moderator: Manager status	Coef.	SE	95% CI	
(1)	Manager	0.013	0.043	−0.095	0.082
(2)	Non-manager	0.215	0.090	0.062	0.421
(3)	**Index of the moderated mediation**	**0.203**	**0.103**	**0.020**	**0.426**

C. Moderated *moderated mediation* analysis results (H5)

No.	Moderator: Manager status	Moderator: Material expectations	Coef.	SE	95% CI	
(1)	Manager	Very low	−0.023	0.099	−0.266	0.140
(2)	Manager	Low	−0.003	0.060	−0.156	0.092
(3)	Manager	Average	0.018	0.043	−0.082	0.093
(4)	Manager	High	0.039	0.068	−0.141	0.148
(5)	Manager	Very high	0.060	0.109	−0.213	0.243
(6)	Non-manager	Very low	0.493	0.207	0.130	0.946
(7)	Non-manager	Low	0.355	0.142	0.106	0.663
(8)	Non-manager	Average	0.216	0.086	0.068	0.405
(9)	Non-manager	High	0.078	0.068	−0.053	0.221
(10)	Non-manager	Very high	−0.060	0.110	−0.294	0.143
(11)	**Moderation of mat. exp. for managers [(5) - (1)]**		**0.083**	**0.189**	**−0.460**	**0.305**
(12)	**Moderation of mat. exp. for non-managers [(10) - (6)]**		**−0.553**	**0.284**	**−1.175**	**−0.047**

Bootstrapped (more than 6,500 repetitions) and bias-corrected standard errors and 95% confidence intervals.

managers, regardless of their material expectations. When we look at the effect sizes (6) to (8), we see that these are positively significant in 95% CI. However, insignificant effect sizes (9) and (10) show that the mediation also does not exist for the non-managers when they have high (mean + SD) or very high (mean +2 * SD) material expectations. In line with Hayes (2018), we also calculate the difference between the effect sizes of the mediation for the very low and very high levels of the moderator material expectations when the respondent is a non-manager and bootstrap this difference. Effect size (12) in section C shows the bootstrapped difference of effect size (10) and (6). A significantly negative value of this effect size (−0.553; 95% CI: [−1.175; −0.047]) indicates that material expectations *negatively moderate the moderated mediation* proposed in H4. These findings, considered along with absence of this moderation for managers indicated by the non-significant effect size (11) (0.083; 95% CI: [−0.460; 0.305]), offer support for our H5. Thus, we can conclude that we find support for all our hypotheses (H1-H5) (see Appendix 5 for an overview).

Robustness checks

The variance inflation factor values for all non-interaction coefficients in our models are below the threshold of 10 (Kutner et al., 2013). We run our results without the imputation and complete cases (i.e., pairwise deletion), no bias correction in the bootstrapping, as well as with the marker variable used for CMB test. We also used a dummy variable adjustment by including a separate category for the missing values and imputed 30 additional cases excluded in the beginning due to missing values in control vector. In all these cases our inferences remain robust.

We also slightly alter our variable operationalizations. We include two items reflecting a preference toward active offspring engagement ("training and internship opportunities for the next generation are important to me" and "meetings/events organized for the next generation are important to me") to form the TGO scale. Although the resulting scale had a lower alpha ($\alpha = 0.73$) as well as AVE (0.42), indicating a worse reliability and convergent validity which reaffirms our initial choice of operationalization, our results hold with this scale as well. Similarly, we also altered the single-item material expectation scale by adding the item "income and social status is important for me," reflecting an overall stance toward the material aspects of life. The resulting scale exhibited only satisfactory reliability ($\alpha = 0.67$), but our inferences also hold when this scale is used.

Discussion

The overlap between the family and business systems (Miller et al., 1999; Stafford et al., 1999) and the emphasis on TGO in family firms (Chrisman et al., 2012) make children special actors (Bloemen-Bekx et al., 2021; Jaskiewicz et al., 2015; Pieper, 2010). Children are often exposed to the family firm in a familial setting and assume a shareholder role when they become adults (Astrachan & McMillan, 2003; Jaskiewicz et al., 2015). Sooner or later, they find themselves deciding if they should encourage their own offspring to follow the same path. This in turn makes the generational transfer in family firms a process of bridging one childhood (i.e., that of the current shareholder) to another one (i.e., that of the future shareholder). Although the important nature of childhood is evident, research has mostly neglected a thorough investigation of childhood experiences and their influence on TGO. Since TGO is a defining characteristic of family firms (Chua et al., 1999), it is important to understand its drivers including childhood experiences (Huang et al., 2020; Umans et al., 2021; Zellweger et al., 2012).

We use organizational commitment theory to show that AC mediates the relationship between CEFF and TGO. Furthermore, our results also show that this mediation relationship is contingent on the non-manager status of the shareholder. We argue that this occurs because the focus of AC formation for manager shareholders shifts from outdated childhood experiences to more recent and relevant experiences that managerial responsibilities may entail. In a similar sense, the non-manager shareholders' AC will be negatively moderated by their material expectations. Since material returns may also drive the formation of AC, the current level of material expectations of a passive shareholder would increase the salience of these returns in the formation of AC, thereby effectively substituting and reducing the role of childhood experiences.

Theoretical contributions to family firm research

The indirect effect of CEFF on the emergence of TGO contributes to our understanding of an important mechanism through which family firms may achieve intergenerational continuity. Our findings are also in line with conjectures on the impact of childhood experiences on attitudes toward the family firm (Gersick et al., 1997; Kellermanns et al., 2008; Miller & Le Breton-Miller, 2005). In fact, in a recent and similar study, Gimenez-Jimenez et al. (2021) show that prior exposure in form of operational or executive involvement of self or parents in the firm increases the AC and willingness of the next generation to become family firm successors. We substantiate these findings by using CEFF and further specify them by showing that this coherence is contingent on the non-managerial status of shareholders and moderated by their material expectations. Our results also extend these findings and show that beyond affecting the willingness of the offspring to assume firm ownership, such exposure in childhood can also influence the willingness of current shareholders to transfer the firm ownership to the next generation in adulthood. Accordingly, CEFF in *the past* of shareholders may affect their attitudes toward their family firm in *the present* by influencing their AC and result in a transgenerational transfer in *the future*. This temporal bridging nature of our study reaffirms the importance of considering that historical accounts and latent factors hidden in the past affect the family firm shareholders in different life stages (Dawson & Hjorth, 2012; Hjorth & Dawson, 2016). This also implies that children, although underaged and without economic agency, should not be passive subjects or omitted from family firm research but included in analyses to improve family firm theorization (Carr & Sequeira, 2007).

Understanding the effects of socialization and interactions with the family firm context and how these effects develop in different life stages of family shareholders is crucial to understand firm-level goals and behavior in family firms (Daspit et al., 2016; Jaskiewicz & Dyer, 2017; Pieper, 2010). Our study shows that early socialization with a family firm in a familial setting may increase the AC of a shareholder, but the salience of such experiences may also decrease with time depending on career paths and needs. We highlight that differing levels of responsibilities in the firm as well as divergent needs may reduce the effects of CEFF (Eddleston et al., 2013). This, in turn, results in heterogeneous effects of CEFF on the formation of AC and TGO for different groups of shareholders, which can also explain heterogeneity observed across and within family firms (Chua et al., 2018; Kotlar & De Massis, 2013; Vazquez & Rocha, 2018). Thus, in line with the current research (Daspit et al., 2016; Dibrell & Memili, 2019; Garcia et al., 2019; Williams et al., 2018), our study highlights the importance of considering the shareholders as a heterogeneous sum of individuals. In other words, although firm-level outcomes such as transgenerational transfer of the firm seem to emerge at the family firm level, researchers should not neglect the fact that these outcomes are rooted in the attributes, experiences, and decisions of individual family members. Seemingly mundane factors such as geographical distance to the firm or relationships to distant relatives could be crucial factors affecting individual-level attitudes toward the family firm (Bertrand & Schoar, 2006; De Massis & Foss, 2018; Gomez-Mejia et al., 2011). Thus, future research should make sure that family firm–level phenomena are not only predicted on the basis of inputs of single shareholders aggregated to family or firm level (even if these are top managers), as this reduces a possibly highly heterogeneous group of people to a coalition of like-minded individuals. Along with other methods focusing on mapping the explicit relationships, multiple respondent designs could offer a way to capture variation of attitudes among individual shareholders (Rovelli et al., 2021).

The contingent nature of our mediation on the non-manager status bears another important implication for the field. It shows the merits of non-manager shareholders as informants given that family firm–level outcomes are affected “not only by the family members who act [. . .] in the management sphere, but also by other family members who voice opinions” (Bieto et al., 2010, p. 168). Thus, managing the attitudes of these shareholders is highly important for transgenerational transfer and survival of the organization. Research already shows that especially in older family firms with a growing number of shareholders, passive shareholders tend to act myopically (Borralho et al., 2020; Eddleston et al., 2013; Schulze et al., 2003). Accordingly, leveraging initial contacts and experiences with the family firm from an early age can be an important way to increase shareholders’ commitment and ensure the transgenerational survival of the firm. However, our findings also indicate that childhood experiences may lose their prominence in the formation of AC if shareholders increase their managerial participation. This suggests a shift from *broader and more distant* family firm experiences to *more specific and recent* ones in affective processes (Murphy et al., 2019). Thus, formation of AC to the family firm should be considered and managed as *a dynamic and contextual process* that evolves over the lifetime of shareholders (Jennings et al., 2014). Our findings, which demonstrate the moderating effect of material expectations on the relationship between non-manager shareholders’ CEFF and AC, also emphasize this intricate nature of the AC formation process and how material factors play a significant role in shaping it (Le Breton-Miller et al., 2011; Michiels et al., 2015; Vilaseca, 2002). Accordingly, studying shareholders' material expectations may play a crucial role in understanding how successful family firms cultivate committed partners among less involved shareholders to achieve long-term survival (Michiels et al., 2015).

Theoretical contributions to AC research

Our results also make important contributions to AC research. In one of the most recent systematic literature reviews, Mercurio (2015) calls for "research that studies the effects of potentially new antecedents of AC" (p. 406). By focusing on childhood experiences that span the conventional spatial and temporal boundaries of organizations, our study offers a novel antecedent and encourages researchers to look beyond what is immediately visible. The formation of AC seems to be best analyzed in a longitudinal perspective (e.g., Houle et al., 2022) and may even precede membership of the organization. The antecedents of AC external to the workplace, such as organizational image, may be helpful factors to consider in these analyses (Almeida & Coelho, 2019; Herrbach & Mignonac, 2004). Relating an employee's brand perception of their organization's products as a child to their current AC could be an example of such insightful inquiries.

Our study also highlights material antecedents of AC and the conditions under which these become salient. Material aspects have "not been considered as a major antecedent of AC, because AC has traditionally been viewed as a product of the symbolic, as opposed to tangible/material, relationship between the organization and employee" (Gao-Urhahn et al., 2016, p. 518), although under certain circumstances organizational members "regard income as an important aspect of the 'support' they receive from their organization, which should then foster feelings of affective attachment" (Gao-Urhahn et al., 2016, p. 518). We show that non-manager shareholders seem to rely more on material gains from their firm to drive their AC. Accordingly, it can be said that family firm shareholders consider the economic exchanges with the firm less as short-term oriented and instrumental (see Loi et al., 2009) and more as an organizational support mechanism (see Eisenberger et al., 1990). This can be due to a perception of family firms as more altruistic entities with stewardship-oriented leaders at the helm (Le Breton-Miller et al., 2011). Accordingly, less active shareholders of family firms may be driven by a higher *exchange ideology* toward the material benefits from the firm and try to reciprocate with positive attitudes (Eisenberger et al., 2001). Furthermore, the substitution mechanisms we argue in AC formation opens a promising avenue for investigating the interactions between a large vector of AC antecedents (see Bodjrenou et al., 2019 for a recent review). Research could also benefit from using configurational analyses to identify optimal combinations for achieving high AC (e.g., Bos-Nehles et al., 2021).

Practical contributions

Our results show that enterprising families should actively and carefully manage the exposure of their offspring to the family firm context from very early ages. CEFF is a valuable tool parents can use to imprint a strong bond between their offspring and the firm in the sensitive period of early childhood (Marques et al., 2022). Family firms can actively support their shareholders by working with child development experts to develop materials that parents can use such as storybooks or toys. However, parents must also be made aware of potential adverse effects such exposure may entail (Criaco et al., 2017). Given such exposure is still embedded in family relationships at large (Zellweger et al., 2019), a negative familial atmosphere may render CEFF as a negative experience. Thus, parents should ensure a positive familial atmosphere and harmony as a hygiene factor for an effective use of CEFF and should consider professional consultation if needed.

As they get older, children may build on the emotional foundation created by CEFF by assuming more responsibilities in the firm, which could in turn also strengthen their *need* and *obligation* to maintain the firm (McMullen & Warnick, 2015). However, parents should be aware that this is not an imminent outcome (Parker, 2016). Children with less exposure to concrete facts about the family firm, such as its structure and operations, would be less likely to incorporate it in their future plans (Garcia et al., 2019). Thus, organizing annual events in which children (accompanied by parents) learn about these facts in an entertaining setting could be the next step to increase chances of further engagement. Moreover, even if exposed to such information, offspring may have divergent interests and plans (Pittino et al., 2018). Some could find the business interesting and plan an active participation in its management and governance, whereas some could prefer pursuing other interests and leave the firm as a happy memory from the past, or just an additional source of income. In all these cases, families should respect these choices, restrain from overly controlling behavior (Garcia et al., 2019), and still cater appropriately to the needs of these groups since their role is crucial for long-term survival. Organizing events or creating nostalgic galleries can help to maintain emotional ties of passive shareholders. For those with higher material needs, investing resources to provide material returns could work better. It is also crucial that family firms frame these material returns to shareholders as a demonstration of a caring attitude to facilitate the emergence of AC. All in all, despite its effectiveness, CEFF is not the only tool for family firms to forge the next generation, and its use does not always result in the desired outcomes.

Limitations and future research suggestions

Our study is not without limitations. Although implicitly causal, we cannot guarantee that our mediation analyses prove causality, especially given our cross-section data. Longitudinal data collection would be more apt, especially for the constructs involving past experiences such as CEFF in order to avoid temporal ordering issues. Furthermore, measuring particular family firm activities (see Jaskiewicz et al., 2015) also beyond the binary work experience (e.g., Carr & Sequeira, 2007; Gimenez-Jimenez et al., 2021) could provide further objectivity and depth in the analyses. There might be certain settings where such activities work better (i.e., in specific firm context, at specific age, etc.) to form AC. It is also possible that under some settings such activities and CEFF would result in other forms of commitment. Thus, similar studies should consider including normative and continuance commitment in their analyses to explore the conditions under which they relate to CEFF. Considering the effect of different commitment profiles on TGO could also be highly insightful.

We use interval variables to measure firm- and person-related characteristics to maximize the participation and unbiasedness of highly data privacy–sensitive respondents. However, such operationalizations may result in decrease of variance and explanatory power. Thus, future research should focus on other contexts with fewer privacy concerns and operationalize these variables (including exact management role, ownership ratio, familial ties, and firm industry) with higher accuracy. This would extend the findings of our study to other contexts with different societal dynamics in terms of patriarchy, collectivism, or short-term orientation. Researchers can also enhance these efforts with a structured multi-informant approach and hierarchical modeling, which would neutralize unobserved heterogeneity of different family firms for stronger inferences. Moreover, as our sample primarily comprises large family firms, our findings may be less representative of smaller firms. However, the inclusion of these larger family firms allows us to better capture the hypothesized effects, as they are more likely to possess complex shareholding structures spanning multiple generations, unlike smaller firms that are typically owned and managed by a single individual or a very small group. Consequently, larger firms afford us the necessary variance to examine the distinct impact of CEFF on AC also for non-manager shareholders and shareholders with diverse material expectations.

Although our results suggest that formation of AC to a family firm is a dynamic and contextual process characterized by shifts and substitutions of antecedent factors, these interaction mechanisms warrant further and closer investigation. For instance, such an investigation could show that a weak AC emerging from CEFF antecedes higher material expectations of non-manager shareholders. This could especially be the case if the childhood experiences were not associated with positive emotions, directing the shareholders to other ways to form AC. Accordingly, investigating the following questions could prove fruitful: What kind of experiences in childhood decrease the emergence of an AC? What other factors could moderate the CEFF–AC relationship?

We also encourage future researchers to explore the merits of CEFF and its application in explaining other individual-, family-, and organizational-level phenomena. At the individual level, it is possible that CEFF influences not only the willingness of shareholders to ensure firm longevity and survival but also their ability to do so. For instance, CEFF may influence the formation of cognitive biases and heuristics that might affect the decision-making quality of family firm owners (Picone et al., 2021). Researchers may start with an investigation of attribution, authority, status quo, and story biases since these biases can be induced by prior experiences and might negatively affect executive performance in family firms (Istipliler et al., 2023). On the other hand, CEFF might also affect shareholders' task performance positively. Shareholders who were able to observe successful parents and family members might become more likely to mirror the personal characteristics central to the firm's survival and success. Especially in industries such as luxury, fashion, or design, CEFF may be highly important in formation of a distinct sense of aesthetics and taste, which can be crucial to understand and govern the firm (Atwal et al., 2022; Carcano et al., 2011).

At the family level, researchers focusing on enterprising families may investigate the role of CEFF in formation of family social capital as a crucial factor for family harmony and family firm continuity (De Groot et al., 2022). Researchers may examine various dyadic relations (beyond the ones formed with parents) that may lead to CEFF and analyze how the divergent nature of these relations moderates the impact of CEFF. Moreover, conducting a similar analysis over time may also reveal intriguing insights. For instance, during certain periods (such as early adolescence), interactions with others might carry more positive connotations in the formation of CEFF than interactions with parents.

Finally, at the organizational level, researchers may investigate how the nature and extent of CEFF may affect the perception of power and legitimacy of family shareholders by other members of the organization. Especially in certain contexts in which the blessing of the elderly is important, CEFF may signal an heir apparent position and grant further power and legitimacy to the next-generation shareholder (see Kandade et al., 2021). Researchers may also investigate the effects of CEFF as a potential driver of organizational reputation and image. This is the case since family firms may communicate CEFF-enhancing activities to signal a well-planned transgenerational strategy and a strong dedication to shaping the next generation of the shareholders for firm longevity.

Conclusion

Our principal aim was investigating the effect of CEFF as an antecedent of shareholders' AC to the firm and consequently to their TGO. We show that CEFF drives shareholders' *emotional attachment to*, *identification with*, and *involvement in* the organization forming the AC. AC in turn leads to TGO by driving reasons for shareholders to leave their firm to their offspring. Our results contribute to family firm literature by empirically demonstrating the importance of early socialization with a firm for TGO. We also contribute to AC research by articulating how factors more (temporally and spatially) distant from an organization could affect AC formation. Another aim of our study was to investigate how different contingencies affect the above coherences. Accordingly, we show that the relationship argued above is contingent on the non-manager status since manager shareholders' AC is likely to be driven by more up-to-date experiences with higher relevance. Our results also indicate that CEFF results in high AC (and consequently in TGO) for non-manager shareholders only if they do not have high material expectations decreasing the salience of such childhood experiences on AC formation. Accordingly, we contribute to the family firm literature by showing that divergent responsibilities and expectations of shareholders affect their AC and TGO. We also contribute to AC research by showing the circumstances under which material benefits could generate AC and substitute non-material aspects. Taken together, our study highlights the importance of childhood as a crucial factor in understanding individual shareholders' attitudes toward the longevity of their family firms.

Acknowledgments

We would like to thank the handling editor Esra Memili and anonymous reviewers for their valuable comments and improvement suggestions. We would also like to thank Marc Kowalzick for his friendly input.

Disclosure statement

No potential conflict of interest was reported by the author(s).

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Appendix

Appendix 1. Measurement of the scales

Constructs and items	Loading
Childhood exposure to family firm (CEFF) *(α = 0.80; CR = 0.82; AVE = 0.61)*	
I found the family business interesting as a child.	0.80
The family business was a regular topic of conversation in our family.	0.85
I was familiar with the family business as a child.	0.92
Affective commitment (AC) *(α = 0.90; CR = 0.88; AVE = 0.59)*	
The firm is close to my heart.	0.68
I am attached to the firm.	0.67
My values are in line with those of the company.	0.66
I like being a shareholder of the firm.	0.88
I agree with the company's goals, plans and strategy.	0.93
Transgenerational orientation (TGO) *(α = 0.77; CR = 0.82; AVE = 0.69)*	
Continuing the family business tradition is important to me.	0.85
I find it hard to imagine ever selling the company or my shares.	0.92
Material expectations	
The material benefits from my position as a shareholder are important to me.	(.)
Non-manager	
I have a top management position in the firm (r).	(.)

Notes: Reverse-coded items are indicated with "(r)."

Appendix 2. Frequency table

Variable	Value	Obs.	Percentage
Manager status	Manager	121	55.76%
	Non-manager	96	44.24%
Age	18–30	19	8.80%
	31–50	93	43.06%
	50–65	72	33.33%
	65+	32	14.81%
Gender	Female	39	19.21%
	Male	164	8.79%
Marital status	Single	42	19.35%
	Married	156	71.89%
	Divorced	14	6.45%
	Widowed	2	.92%
	Separated	3	1.38%
Children	Yes	165	76.04%
	No	52	23.96%
Education	School education	3	1.38%
	Vocational training	14	6.45%
	Bachelor's degree	154	7.97%
	Master's degree	9	4.15%
	Doctoral degree	37	17.05%
Number of employees	below 250	30	13.82%
	251–500	31	14.29%
	501–1000	19	8.76%
	1000+	137	63.13%
Family ownership from	before 1900	76	35.02%
	1901–1945	64	29.49%
	1946–1980	62	28.57%
	after 1980	15	6.91%
First generation	Yes	2	.92%
	No	215	99.08%
Number of shareholders	1	16	7.48%
	2–10	139	64.95%
	11–20	30	14.02%
	20+	29	13.55%

Notes: 217 observations except for the imputed variables (age, gender, number of shareholders).

Appendix 3. Pairwise correlations and summary statistics

No.	Variable	Mean	SD	Min.	Max.	1	2	3	4	5	6	7	8	9	10	11	12
1	TGO	4.21	0.94	1.00	5.00	1.00											
2	AC	4.63	0.53	1.40	5.00	0.53*	1.00										
3	CEFF	4.01	0.97	1.00	5.00	0.15*	0.29*	1.00									
4	Non-manager	0.44	0.50	0.00	1.00	0.01	−0.31*	−0.12	1.00								
5	Material expectations	3.19	1.07	1.00	5.00	0.01	0.09	−0.05	−0.00	1.00							
6	Age: 18–30	0.04	0.20	0.00	1.00	0.05	−0.17*	−0.21*	0.12	−0.18*	1.00						
7	Age: 31–50	0.38	0.49	0.00	1.00	−0.13	0.07	−0.03	−0.26*	0.13	−0.16	1.00					
8	Age: 51–65	0.37	0.48	0.00	1.00	0.03	−0.02	−0.02	−0.04	0.05	−0.16	−0.60*	1.00				
9	Gender: Male	0.81	0.39	0.00	1.00	−0.03	0.15*	0.17*	−0.25*	0.07	−0.28*	−0.01	0.05	1.00			
10	Married	0.72	0.45	0.00	1.00	0.03	0.19*	0.07	−0.14*	−0.00	−0.28*	−0.07	0.07	0.17*	1.00		
11	Divorced	0.06	0.25	0.00	1.00	−0.09	−0.10	0.02	0.07	−0.01	−0.05	−0.08	0.10	−0.16*	−0.42*	1.00	
12	Widowed	0.01	0.10	0.00	1.00	−0.05	−0.13*	−0.00	0.11	0.03	−0.02	−0.09	0.03	−0.08	−0.15*	−0.03	1.00
13	Separated	0.01	0.12	0.00	1.00	−0.05	−0.01	0.04	−0.11	0.02	−0.03	−0.01	−0.01	0.05	−0.19*	−0.03	−0.01
14	Children exist	0.76	0.43	0.00	1.00	−0.03	0.17*	0.07	−0.07	0.05	−0.42*	−0.10	0.09	0.09	0.63*	−0.03	0.05
15	Vocational training	0.06	0.25	0.00	1.00	−0.16*	−0.24*	−0.15*	0.11	−0.01	−0.06	−0.19*	0.16	−0.12	−0.00	0.16*	0.17*
16	Bachelor’s degree	0.71	0.45	0.00	1.00	0.13	0.18*	0.12	−0.19*	0.03	−0.01	0.18*	0.05	−0.02	0.12	−0.12	−0.15*
17	Master’s degree	0.04	0.20	0.00	1.00	−0.19*	−0.09	0.06	0.05	−0.12	0.15	−0.07	−0.14	0.04	−0.08	−0.05	−0.02
18	Doctoral degree	0.17	0.38	0.00	1.00	0.07	0.02	−0.03	0.14*	0.02	−0.10	−0.02	−0.12	0.05	−0.10	0.08	0.08
19	Number of employees: 251–500	0.14	0.35	0.00	1.00	−0.04	0.02	−0.00	−0.15*	0.06	0.04	0.17*	−0.13	−0.07	−0.07	−0.05	−0.04
20	Number of employees: 501–1000	0.09	0.28	0.00	1.00	−0.14*	−0.05	0.02	0.02	−0.02	−0.06	0.10	−0.09	0.11	0.01	0.05	−0.03
21	Number of employees: 1000+	0.63	0.48	0.00	1.00	0.22*	0.08	0.03	0.28*	−0.06	−0.06	−0.20*	0.13	0.03	0.07	0.05	0.07
22	Family ownership from 1901–1945	0.29	0.46	0.00	1.00	−0.01	0.10	0.02	−0.05	0.12	0.08	0.14	−0.11	−0.13	−0.00	0.04	−0.06
23	Family ownership from 1946–1980	0.29	0.45	0.00	1.00	−0.19*	−0.07	0.05	0.03	−0.04	−0.04	−0.11	0.03	−0.02	−0.08	0.04	−0.06
24	Family ownership after 1980	0.07	0.25	0.00	1.00	−0.07	−0.09	−0.18*	−0.02	−0.13*	0.09	0.03	−0.02	0.04	0.01	−0.07	−0.03
25	First generation	0.01	0.10	0.00	1.00	−0.15*	−0.04	0.02	0.01	−0.06	−0.02	−0.06	−0.06	0.05	−0.15*	−0.03	−0.01
26	Number of shareholders: 1	0.07	0.26	0.00	1.00	−0.05	−0.02	0.15*	−0.03	−0.17*	−0.05	−0.08	0.04	0.04	−0.07	0.08	−0.03
27	Number of shareholders: 2–10	0.65	0.48	0.00	1.00	−0.04	0.08	0.06	−0.36*	−0.06	0.04	0.16*	−0.09	0.03	0.08	−0.10	−0.03
28	Number of shareholders: 11–20	0.14	0.35	0.00	1.00	0.09	0.03	−0.01	0.19*	0.08	0.05	−0.19*	0.07	−0.01	0.03	0.01	−0.04

(*Continued*)

(Continued).

No.	Variable	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
13	Separated	1.00															
14	Children exist	−0.03	1.00														
15	Vocational training	−0.03	0.06	1.00													
16	Bachelor's degree	−0.01	−0.03	−0.41*	1.00												
17	Master's degree	0.17*	−0.10	−0.05	−0.33*	1.00											
18	Doctoral degree	−0.05	0.05	−0.12	−0.71*	−0.09	1.00										
19	Number of employees: 251–500	−0.05	−0.11	−0.11	0.09	−0.08	−0.05	1.00									
20	Number of employees: 501–1000	−0.04	0.02	−0.08	0.02	0.02	0.03	−0.13	1.00								
21	Number of employees: 1000+	−0.07	0.13	0.01	−0.05	−0.03	0.09	−0.53*	−0.41*	1.00							
22	Family ownership from 1901–1945	0.01	0.03	0.04	−0.01	−0.08	0.03	−0.12	0.05	−0.47*	1.00						
23	Family ownership from 1946–1980	0.01	−0.00	0.04	−0.07	0.12	−0.04	0.24*	−0.02	−0.46*	−0.41*	1.00					
24	Family ownership after 1980	−0.03	−0.06	0.00	0.01	0.03	−0.03	0.10	−0.08	−0.20*	−0.18*	−0.17*	1.00				
25	First generation	0.40*	−0.17*	−0.03	−0.04	0.22*	−0.04	0.10	−0.03	−0.07	−0.06	0.15*	−0.03	1.00			
26	Number of shareholders: 1	0.12	−0.09	−0.08	0.02	0.21*	−0.08	0.04	−0.02	−0.02	−0.15*	0.22*	−0.08	0.34*	1.00		
27	Number of shareholders: 2–10	0.00	0.03	0.04	0.01	−0.04	−0.04	0.21*	0.08	−0.18*	0.01	0.15*	0.05	−0.13	−0.39*	1.00	
28	Number of shareholders: 11–20	−0.05	0.03	0.00	0.08	−0.02	−0.07	−0.16*	0.02	−0.01	0.12	−0.13	0.05	−0.04	−0.11	−0.55*	1.00

Notes: Pearson correlation coefficients. For brevity, values are marked with a single "*" when significant in 95% confidence interval.

Appendix 4. Derivation of the indirect effects in line with Hayes ()*

Unconditional mediation effect (H3):

$$a_1 \times b_2$$
$$= .107 \times .946 = .101$$

where parameters are the coefficients from the following regression models:

(Model 2, Table 1)

$$\widehat{\boldsymbol{AC}} = \gamma_1 + a_1 \times \boldsymbol{CEFF} + \sum\nolimits_{i=1}^{N} (z_{1i} \times CONTROL_i)$$

(Model 7, Table 1)

$$\widehat{\boldsymbol{TGO}}. = \gamma_2 + a_2 \times \boldsymbol{CEFF} + b_2 \times \boldsymbol{AC} + \sum_{i=1}^{N} (z_{1i} \times CONTROL_i)$$

Conditional mediation effect (H4):

$$(a_1 + NonMan. \times c_1) \times (d_2)$$
$$= (.012 + NonMan. \times .197) \times (1.028)$$
$$= (.012 + 1 \times .197) \times (1.028) = 0.215 \text{ (Effect size for non-managers)}$$
$$= (.012 + 0 \times .197) \times (1.028) = 0.013 \text{ (Effect size for managers)}$$

where parameters are the coefficients from the following regression models:

(Model 3, Table 1)

$$\widehat{\boldsymbol{AC}} = \gamma_1 + a_1 \times \boldsymbol{CEFF} + b_1 \times \boldsymbol{NonMan.} + c_1 \times \boldsymbol{CEFF\ \&\ NonMan..} + \sum\nolimits_{i=1}^{N} (z_{1i} \times CONTROL_i)$$

(Model 8, Table 1)

$$\widehat{\boldsymbol{TGO}} = \gamma_2 + a_2 \times \boldsymbol{CEFF} + b_2 \times \boldsymbol{NonMan.} + c_2 \times \boldsymbol{CEFF\ \&\ NonMan.} + d_2 \times \boldsymbol{AC} + \sum_{i=1}^{N} (z_{2i} \times CONTROL_i)$$

Conditional mediation effect (H5):

$$(a_1 + (NonMan. \times d_1) + (Mat.Exp. \times e_1) + (NonMan. \times Mat.Exp. \times g_1)) \times (h_2)$$
$$= (-.044 + (1 \times .664) + (3.192 \times .019) + (1 \times 3.192 \times -.148)) \times (1.035)$$

$= 0.216$ (Effect size for non-managers with average material expectations. Please refer to Table 2, Section C for the effect sizes for different levels of the moderators *non-manager* and *material expectations*) where parameters are the coefficients from the following regression models:

(Model 4, Table 1)

$$\widehat{AC} = \gamma_1 + a_1 \times \boldsymbol{CEFF} + b_1 \times \boldsymbol{NonMan.} + c_1 \times \boldsymbol{Mat.Exp.} + d_1 \times \boldsymbol{CEFF\ \&\ NonMan.} + e_1 \times CEFF\,\&\,\boldsymbol{Mat.Exp.} + f_1 \times \boldsymbol{NonMan.\ \&\ Mat.Exp.} + g_1 \times \boldsymbol{CEFF\ \&\ NonMan.\ \&\ Mat.Exp.} + \sum\nolimits_{i=1}^{N} (z_{1i} \times CONTROL_i)$$

(Model 9, Table 1)

$$\widehat{TGO} = \gamma_2 + a_2 \times \boldsymbol{CEFF} + b_2 \times \boldsymbol{NonMan.} + c_2 \times \boldsymbol{Mat.Exp.} + d_2 \times \boldsymbol{CEFF\ \&\ NonMan.} + e_2 \times \boldsymbol{CEFF\ \&\ Mat.Exp.} + f_2 \times \boldsymbol{NonMan.\ \&\ Mat.Exp.} + g_2 \times \boldsymbol{CEFF\ \&\ NonMan.\ \&\ Mat.Exp.} + h_2 \times \boldsymbol{AC} + \sum\nolimits_{i=1}^{N} (z_{2i} \times CONTROL_i)$$

* Manual calculation results may marginally vary since effects are rounded to the nearest three decimal digits. We also validated our indirect effect calculations via using the PROCESS macro in SAS.

Appendix 5. Overview of hypothesis test results

No.	Hypothesis	Effect Size	Support?
1	CEFF is positively associated with shareholders' AC to their family firm.	**0.107**** (see Table 1, Model 2)	**Yes**
2	Shareholders' AC to their family firm is positively associated with TGO.	**0.946***** (see Table 1, Model 6)	**Yes**
3	Shareholders' AC positively mediates the relationship between CEFF and TGO.	**0.101**** (see Table 2, Section A)	**Yes**
4	The non-managerial role of shareholders positively moderates the positive mediation of shareholders' AC between CEFF and TGO, such that the non-managerial role positively influences the relationship between CEFF and AC, and thus leads to a higher TGO.	**0.203**** (see Table 2, Section B)	**Yes**
5	The material expectations negatively moderate the positive mediation of AC between non-manager shareholders' CEFF and TGO, such that material expectations negatively influence the relationship between CEFF and AC for non-manager shareholders, and thus lead to a lower TGO.	**−0.553**** (see Table 2, Section C)	**Yes**

Significance levels: ***$p < .01$, **$p < .05$, *$p < .10$.