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Growth implications of creation and discovery behavior among family firms: the moderating role of venture age

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Francis Donbesuur
University of Leicester School of Business, Leicester, UK and Goodman School of Business, Brock University, St. Catharines, Canada
Magnus Hultman
Goodman School of Business, Brock University, St. Catharines, Canada
Nathaniel Boso
Kwame Nkrumah University of Science and Technology, Kumasi, Ghana and Gordon Institute of Business Science, University of Pretoria, Johannesburg, South Africa, and
Pejvak Oghazi
Hanken School of Economics, Helsinki, Finland; Sodertorn University, School of Social Sciences, Stockholm, Sweden and University of Economics and Human Sciences in Warsaw, Warsaw, Poland

Abstract

Purpose – The aim of the study is to examine the effects of opportunity creation and discovery on the performance of family firms. Specifically, from the tenets of dynamic capabilities and organizational contingency perspectives, this study proposes and tests a framework of how family firms' creation and discovery behavior impact venture growth and the conditions under which such impact can vary.

Design/methodology/approach – The study uses moderated-hierarchical regression to analyze survey data from 156 family-owned small and medium-sized enterprises (SMEs) operating within a sub-Saharan African economy.

Findings – The findings indicate that creation behavior has a curvilinear U-shaped relationship with venture growth, while discovery behavior has a direct positive relationship with venture growth. Further analysis reveals that the curvilinearity of the U-shaped relationship between creation and venture growth will be stronger for older family firms than for younger ones.

Research limitations/implications – The study findings may be limited by the cross-sectional nature of the data and the specific focus on family firms only.

Practical implications – The results highlight the significance of pursuing both opportunities among family firms. In fact, both creation and discovery opportunities are significant drivers of family firm growth, albeit in different capacities. Relatedly, managers of older family firms (compared to younger firms) can invest more in exploiting creative opportunities.

Social implications – From these findings, governments and other stakeholders should create enabling environment and institutional frameworks conducive to exploiting opportunities by entrepreneurial firms.

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Originality/value – The study is novel – as it provides unique findings on the performance implications of creation and discovery behavior of entrepreneurial family firms within developing economies.

Keywords Opportunity creation behavior, Opportunity discovery behavior, Family firm growth, Firm age, Family business

Paper type Research paper

Introduction

Recent family business research underscores the need for family firms to grow in order to stimulate long-term success continuously (e.g. Miroshnychenko *et al.*, 2021). As with nonfamily firms, the pursuit of entrepreneurial opportunities continues to be dominant in family business strategies and decision making because it is one of the surest ways to ensure family firm competitiveness and prosperity (De Massis *et al.*, 2021). The extant literature makes us understand that entrepreneurial actions, decisions and the seizure of opportunities are characterized by the contexts of creation and/or discovery. For example, entrepreneurial actions regarding human resources, marketing and leadership in the venture creation process can be explained through creation and discovery perspectives (Alvarez and Barney, 2007; Hmieleski *et al.*, 2015).

Drawing from previous conceptualizations (Alvarez and Barney, 2007, 2013; Chetty *et al.*, 2018) and working within the context of this study, we define *opportunity discovery* as the exogenous entrepreneurial behavior of recognizing and seizing market imperfections and favorable circumstances to create value creation and pursue small business growth. On the other hand, *opportunity creation* describes an endogenous entrepreneurial process of constructing, shaping and enacting favorable circumstances for the purposes of creating value and growing the business. For both opportunities, favorable circumstances may include products, services and customers in various markets and industries (Welter and Alvarez, 2015). The entrepreneurial opportunities literature has shed light on the apparent relationship between opportunity creation and discovery, the nature of these opportunities and those that form and exploit them. These relationships include the mutually enabling notion of opportunity creation and discovery (Chetty *et al.*, 2018), the orthogonal nature of creation and discovery (Suddaby *et al.*, 2015), the noncontradictory nature of subjective and objective opportunities (Ramoglou and Tsang, 2016), and the integrative nature of creation and discovery (Hmieleski *et al.*, 2015).

A significant piece missing in these narratives is how the descriptions and characterizations of opportunity creation and discovery benefit family firms' growth and survival. For instance, Chetty *et al.* (2018) queried whether the duality of discovery and creation exerts any long-term impact on the performance of internationalized firms. Arguments have also been proffered on the possible ambidextrous scenario between the process of creation and discovery (see Alvarez *et al.*, 2013). However, organizational outcomes (including boundary conditions) born out of such simultaneous behavior have yet to be examined. Thus, whether firms choose to engage in one type of behavior or integrate both may have significant implications for subsequent entrepreneurial outcomes (Henderson and Graebner, 2020). However, there is a dearth of research on the evolving nature of creation and discovery relative to the performance outcomes of family firms.

Furthermore, past studies reiterate how the notions [liability] of newness, variations in firm development and age can influence strategies, processes, routines and performance (e.g. Arend, 2014; Sirén *et al.*, 2017; Coad *et al.*, 2016). At the same time that aging might be a catalyst for organizational processes and outcomes, it may also diminish the benefits thereof (Coad *et al.*, 2016; Liu *et al.*, 2015). This either presents a paradox or lack of clarity regarding the venture age–performance nexus. Specifically, in terms of our thesis, the opportunity creation construct is often described as iterative, path-dependent and tacit (Alvarez and Barney, 2007, 2013, 2020), which means that the extent of newness and experience of a

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venture may alter the magnitude and direction of the opportunity–performance relationship. Thus, the characteristics and processes of opportunity formation and exploitation mean that their effects on family business growth will depend on how long the venture has existed. In effect, we take a cue from recent studies that have highlighted the role of firm age in appropriating value from certain entrepreneurial strategies (Sirén *et al.*, 2017), and we posit that a distinction between older and younger firms holds promise in critically analyzing the effects of creation and discovery opportunities on family business growth.

Against this backdrop, we contend that the performance implications of creation and discovery behaviors are diverse, nonlinear and may vary based on other significant contextual factors, including firm characteristics. Accordingly, we ask the questions: (1) how do family firms' opportunity creation and discovery behaviors function to drive venture growth, and (2) to what extent do these impacts vary among older and younger family businesses? From the tenets of dynamic capabilities and the organizational contingency perspective (Richard *et al.*, 2007; Gupta and Batra, 2016), we attempt to provide answers to these questions based on an empirical study from a sample of 156 family-owned small and medium-sized enterprises (SMEs) operating in a sub-Saharan African developing economy.

Our study extends extant research on opportunity creation and discovery and presents implications for the growth and management of family-owned businesses. Specifically, the study contributes to the entrepreneurship and family business literature in three major ways. First, we propose (1) a linear relationship between discovery behavior and venture growth, (2) a curvilinear U-shaped relationship between creation behavior and venture growth and (3) a positive effect of creation and discovery behaviors on venture growth. These proposed relationships highlight a relatively under-explored area in the entrepreneurial opportunity and family business literature. Although the notion of opportunity creation and discovery has been extensively discussed in the entrepreneurship literature, there is a paucity of empirical evidence on how these two phenomena function to impact firms' competitive advantage and performance (Alvarez *et al.*, 2013). Thus, the current findings confirm earlier propositions suggesting that exploiting discovery and creation opportunities may have implications for the performance of smaller firms (e.g. Chetty *et al.*, 2018).

Second, the study sheds light on the role of venture age and duration which are significant firm characteristics when it comes to shaping the variations in venture growth in conjunction with opportunity creation and discovery. This finding extends previous research on the impact of venture duration on entrepreneurship phenomena (e.g. Liu *et al.*, 2015; Naldi and Davidsson, 2014) but, most importantly, it makes a unique contribution to a hitherto underexamined relationship relative to the discourse of opportunity creation and discovery. By proposing a moderating effect of venture duration on the creation/discovery-firm performance relationships, we highlight a possible contingency effect relative to the paradox of liabilities of newness and/or aging in the context of family businesses.

The remainder of the paper is as follows. The theoretical background and hypotheses are presented. This is followed by a description of the study context and variables and the presentation of empirical results. The article finally concludes with a discussion of findings and implications thereof.

Theory and hypotheses development

Family-owned businesses and entrepreneurship

A family firm is viewed as having the majority of its shares controlled by a single family, having more employees related to the founding family, and holding an ownership percentage that is more than the accepted threshold and controlled by the family (Westhead *et al.*, 2001; Gomez-Mejia *et al.*, 2003; Anderson and Reeb, 2004). The institution of family business is characterized by a system of exchange relationships and different forms of enterprise

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(Schulze and Gedajlovic, 2010). Hence, the family dominates the ownership and control of SMEs in most economies. Indeed, research suggests that a sizeable portion of SMEs are family owned and contribute to the economic growth of countries (Memili *et al.*, 2015; Schulze and Gedajlovic, 2010). Research into family firms has grown over recent decades, albeit within certain contexts. For example, even though family businesses have received considerable attention in developed economies, the same cannot be said of developing economies (Bruton *et al.*, 2008; Khavul *et al.*, 2007). Specifically, the diverse and unique nature of economic and social traditions and institutional frameworks for developing economies suggest a significant opportunity to situate family business research within such contexts, while contributing to the heterogeneous contexts of family businesses (Wright *et al.*, 2014).

Recent literature suggests that there may be differences in the strategic processes and performance outcomes of family firms across different regions, countries and institutional frameworks (Ricotta and Basco, 2021; Soleimanof *et al.*, 2018). Relatedly, the extant literature recognizes the role of entrepreneurship in family-owned businesses and how family businesses can exhibit entrepreneurial characteristics and orientations (De Massis and Rondi, 2020; Uhlaner *et al.*, 2010). Despite the significance of the concept of entrepreneurial opportunity (often described as the heart of entrepreneurship) and the rise of entrepreneurship research in family businesses, there is scant knowledge on the process of opportunity-seeking behaviors, exploitation and the implications thereof (see De Massis and Rondi, 2020). For example, family firms are sometimes seen as conservative, assume less risk and resist change (e.g. Sharma *et al.*, 1997; Naldi *et al.*, 2007) – features at odds with the strategies of opportunity exploration and exploitation. Yet, some characteristics of family firms suggest that they support innovative activities as antecedents to competitiveness, survival and growth, and they tend to recognize opportunities (Nieto *et al.*, 2015: Patel and Fiet, 2011). To this end, there is a need to better understand family firms' opportunity-seeking behaviors and their performance implications in the context of developing economies.

Creation and discovery contexts of entrepreneurial opportunities

The discovery context of entrepreneurial opportunity argues that opportunities are objective phenomena that exist independently of the actions of entrepreneurs and firms. The accurate opportunity exists exogenously due to market imperfections and/or changes in pre-existing markets and demand (Alvarez and Barney, 2007, 2010). This means that the discovery context of entrepreneurial action is characterized by objective and autonomous artifacts (such as pre-existing resources) as well as exogenous market imperfections (Alvarez *et al.*, 2013), all of which are independent of the entrepreneur (Murphy, 2011). Thus, opportunities exist in the objective environment and can be discovered and exploited by any individual or firm with specific entrepreneurial characteristics, such as alertness (Tang *et al.*, 2012; Shane and Venkataraman, 2000) and prior knowledge (e.g. Shepherd and DeTienne, 2005). The continuous exploitation of discovery opportunities will depend on environmental factors, firm factors and individual-level characteristics.

On the other hand, the creation-context tenets of entrepreneurial action argue that opportunities do not exist as an objective phenomenon (independently of the entrepreneur). Rather, they are constructed and enacted upon by the entrepreneur or firm (Goss and Sadler-Smith, 2018; Wood and McKinley, 2010). According to this view, opportunities are not objectively identified but are rather subjective phenomena that are endogenously perceived and enacted by the actions, reactions, social interactions and learning processes of the entrepreneur or firm (Tocher *et al.*, 2015; Alvarez and Barney, 2010). Even though this context of entrepreneurial action could depend on the environment, individuals will have to interpret, judge and derive meanings from the environment to create the opportunity (Companys and McMullen, 2007). In effect, it is the entrepreneur's creative and social construction skills that determine what is perceived as an opportunity for value creation (Suddaby *et al.*, 2015).

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Following recent studies on opportunity exploitation among family firms (e.g. De Massis *et al.*, 2021), the current research argues that the context of entrepreneurial opportunities has significant implications for family firm performance. Thus, previous studies suggest that achieving and sustaining competitive advantage may be a possible outcome for firms that engage in discovery or creation (Alvarez and Barney, 2010; Alvarez *et al.*, 2013). Yet, little is known about how family firms can appropriate value from creation and discovery behaviors.

The tenets of dynamic capabilities and organizational contingency

Our conceptualization and hypotheses development are underpinned by the principle of dynamic capabilities and the organizational contingency literature. First, Teece *et al.* (1997) defined dynamic capabilities *"as the firm's ability to integrate, build, and reconfigure internal and external competencies to address rapidly changing environments"* (1997, p. 516). Thus, the tenets of dynamic capabilities encompass the behavioral orientations of firms to recreate, integrate and reconfigure their resources and capabilities to remain competitive in changing and dynamic environments (Wang and Ahmed, 2007).

Further conceptualizations of dynamic capabilities include sensing opportunities, seizing opportunities and transforming organizations (Teece, 2007, 2014). Specifically, (1) sensing comprises the identification, development, co-development and assessment of opportunities; (2) seizing is mobilizing resources to seize opportunities and capture value, while (3) transforming describes continued renewal (Teece, 2014). Thus, as business environments become dynamic and competitive, all three clusters of dynamic capabilities are necessary to ensure firm growth. These capabilities are explicit and tacit behaviors; they can be path dependent; specific to the firms and developed over time (as with creation and discovery behaviors) to cause performance outcomes. Therefore, we contend that opportunity creation and discovery behaviors are entrepreneurial capabilities crucial to firm performance (Schilke, 2014) and significant influences on family firm growth.

Second, early proponents of the contingency theory (e.g. Lawrence and Lorsch, 1967) argue that the environment (internal and external) within which the firm operates significantly shapes the firm's strategic options and outcomes. This view posits that the nature of the relationship between a dependent and an independent variable is contingent on a third variable. Recent studies (e.g. Deng *et al.*, 2014; Coreynen *et al.*, 2020) explain how internal or firm-level contingency factors could influence the relationships between strategies and performance outcomes. In simple terms, the contingency theory opines that the baseline association between two variables presents rather a simplistic explanation – that does not capture the reality – and that such association may be contingent on external and firm level factors. Specific to this study, we follow the tenets of structural contingency theory (Zona *et al.*, 2013) to explain the significant role of firm age – an important structural characteristic of a firm – in shaping opportunity-seeking behaviors and firm growth (e.g. Assadinia *et al.*, 2019).

The structural contingency theory emphasizes the importance of context and other firm characteristics in appropriating value from resources. For example, firm-level structural factors, such as age and size have influenced knowledge acquisition and innovation performance (e.g. Forés and Camisón, 2016; Naldi and Davidsson, 2014). To this end, our study adopts a contingency approach to probe further the effects of the two opportunity-seeking behaviors on family firm growth. Therefore, we reason that both creation and discovery behavior will impact family firm growth. However, the extent of this impact will vary significantly among different family firms. Thus, the dynamics of old and new firms can shape the effect of creation and discovery behaviors on firm growth. In summary, we combine the dynamic capabilities perspective and the tenets of the contingency theory to explain how the effects of creation and discovery behaviors on firm growth vary among young and old family-owned businesses.

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Hypotheses development

Discovery and venture growth

The discovery approach to forming and exploiting market opportunities describes opportunities as objective phenomena that exist independently of an entrepreneur's actions (Alvarez and Barney, 2007, 2010). Such opportunities can be spotted and acted on by individuals and family firms that are alert to the changes in market conditions and market imperfections (Alvarez *et al.*, 2013). From a dynamic capability perspective, we reason that exploiting discovery opportunities is about applying a set of entrepreneurial capabilities that can drive family firm growth.

First, the discovery context of opportunity exploitation is characterized by opportunity identification and analysis, careful strategic planning and execution and a systematic search of information on markets, industry, customers and competitors (Jones and Barnir, 2019). These carefully planned and dynamic activities put family firms in a competitive position ahead of their competitors. For example, careful planning and execution of strategies (as part of an opportunity discovery capability) can make firms achieve legitimacy (Smolka *et al.*, 2018), which in turn facilitates resource acquisition and venture growth (Lu and Xu, 2006). Specifically, firms that engage in exploiting discovered opportunities and strategies (i.e. systematic analysis of market situations, predictive actions and returns) tend to perform better than those that do not (Mauer *et al.*, 2018).

Second, the risky, codified and objective nature of discovery opportunities implies that family business managers can enhance growth by continuous and timely exploitation. For instance, the process of identifying customer needs and spotting market gaps may become codified to competitors over time. Hence, family firms that can engage in timely and successful exploitation activities are likely to reap the full performance benefits. Thus, performance is enhanced when firms – through their discovery capabilities – exploit market opportunities through first-mover advantage (Roundy *et al.*, 2017; Walter *et al.*, 2006), target premium market segments ahead of competitors and erect entry barriers (Zahra and Covin, 1995; Alvarez and Barney, 2007). To this end, we state the following hypothesis.

H1. The exploitation of discovery opportunities relates positively to family firm growth.

Creation and venture growth

The creation context of entrepreneurial action involves the construction and enactment of market opportunities based on the subjective perception of the entrepreneur (Goss and Sadler-Smith, 2018; Wood and McKinley, 2010). Thus, there are no pre-existing conditions to objectively identify an opportunity (as in the case of discovery context). Rather, the opportunities are subjective phenomena that are endogenously perceived and enacted by the actions, reactions, social interactions and learning processes of the entrepreneur (Tocher *et al.*, 2015; Alvarez and Barney, 2010). To this end, exploiting opportunities within the creation context mostly depend on the subjective interpretation, judgment and constructive skills of the focal family business. Drawing on the dynamic capability view, we posit that exploiting creation opportunities is an entrepreneurial capability that owner–managers of family firms adopt in other to enhance their performance outcomes. Specifically, we argue that, due to the characteristics of the creation context of opportunity exploitation in conjunction with the resource constraint nature of family firms, a U-shaped relationship exists between the entrepreneurial capability of exploiting creation opportunities and family firm growth.

First, the creation context is characterized by uncertainty and unpredictability in market conditions, product development processes and competitor strategies, among others. Thus, family firms that seek to exploit creation opportunities will need to make decisions based on uncertainty and unbounded contexts with most decisions being experimental and made on a trial-and-error basis (Alvarez *et al.*, 2013; Jones and Barnir, 2019). Hence, the actions may come

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at a higher cost that may negatively affect successful firm outcomes. The uncertain nature of the creation context implies that family firm managers may not have timely and sufficient information on whether exploiting a particular opportunity can be of benefit to the firm (Hmieleski *et al.*, 2015).

Second, within the creation context, there are rarely definite targets or specific goals (Sarasvathy, 2001). Decision making is inductive, iterative and intuitive with outcomes being uncertain and probabilities unknown (Alvarez *et al.*, 2013). Firm strategies and business plans are, therefore, mostly based on conjecture and usually not specifically described (Baker *et al.*, 2003). Although the sum of these activities may generate some benefits in the short term and sustained competitive advantages in the long run, they can also hurt the success of family firms in the medium term. This means that the performance benefits of deploying creation capabilities may not remain the same for family firms because the cost and processes of exploiting such opportunities may overtake the performance outcome at some point in time.

On the other hand, creation is a learning and path-dependent process that can lead to causally ambiguous knowledge and sustained competitive advantage when exploited. As opined by the dynamic capabilities view (Teece, 2014), creation activities involve transformation and renewal, sensing and development of opportunities – a process that can lead to competitive advantage. Although creation may lead to high cost and time investments in the medium term, such investments in the long run generate valuable tacit learning and knowledge that is ambiguous to outsiders and, therefore, costly to imitate or substitute (Alvarez and Parker, 2009; Alvarez *et al.*, 2013). Continuous engagement in the creation context, such as development and renewal of activities, can lead in the long term to the generation of new and unique ideas that are idiosyncratic to the originating family firms (Martin and Wilson, 2016; Artz *et al.*, 2010), leading to the attainment of successful performance outcomes. Additionally, the knowledge and experience gained during the creation process can equip family firms with the market information, skills and capabilities necessary to reduce the uncertainties that usually characterize the creation context (Haynie *et al.*, 2009). A reduction in uncertainty means that family firms will be able to make predictable decisions with certain and probable positive long-term outcomes. In sum, we posit that:

H2. Exploitation of creation opportunities has a U-shaped relationship with family firm growth.

Creation, discovery behavior and venture growth

From the forgoing theses in support of H1 and H2, we contend that creation and discovery behaviors, as an entrepreneurial capability, could be mutually enabling and complementary so that their joint effect will be beneficial to venture growth. Specifically, the two behaviors can be conceptualized as mutually enabling rather than opposing (Chetty *et al.*, 2018) and, hence, facilitate performance outcomes when exploited together. For instance, creation opportunities (as subjective elements) have some features of discovery, such as modifying some aspect of a newly created product in the market, while discovery opportunities (as objective elements) may be characterized by elements of creation, such as introducing an existing product to a new market with adaptation (Luksha, 2008; Chetty *et al.*, 2018).

Such dynamic features, when combined, will have significant impact on the growth of family firms. On the dual nature of opportunity creation and discovery, Chetty *et al.* (2018) suggest that the two behaviors can reinforce each other to drive firm growth. Moreover, the exploitation of both creation (characterized by uncertainty) and discovery (characterized by risk) (Hmieleski *et al.*, 2015) opportunities provides two unique contexts that can serve as important antecedents to firm growth. Specifically, when entrepreneurs operate in a risky market (as during discovery behavior), they are able to plan and evaluate opportunities based

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on specific information whereas, in uncertain markets (creation behavior), information is not readily available on the nature of opportunities. Yet, venture success can be achieved in such uncertain contexts (see Hmieleski *et al.*, 2015; Lanivich *et al.*, 2015) because the creation context may become the discovery context (i.e. when industry conditions become less uncertain) over time (Zahra, 2008). To this end, we posit that high levels of both discovery and creation behaviors will complement each other to drive family firm growth. This leads us to the following hypothesis:

H3. The joint exploitation of both creation and discovery opportunities has a positive relationship with family firm growth.

The contingency role of firm age

The organizational contingency perspective explains how the relationship between two variables may be dependent on a third variable (Zona *et al.*, 2013). In entrepreneurship research, such contingent variables include firm characteristics that have the potential of impacting the relationship between strategic processes and performance. For example, entrepreneurship research underscores the significance of the organization's experience in terms of duration when it comes to determining performance outcomes (e.g. Sirén *et al.*, 2017; Arend, 2014). From the organizational contingency perspective, we reason that the development of organizational routines and the effect of opportunity creation and discovery capabilities on performance may be contingent on how old (young) a firm is. Naturally, family firms are not immune to the effect that firm age may have on decision making and performance outcomes (Cucculelli *et al.*, 2014). Thus, we anticipate that venture age (as a contingency factor) will moderate the discovery/creation–venture growth relationships in such a way that (1) the positive relationship between discovery context and venture growth is stronger for younger ventures than older ventures, and (2) the curvilinearity of the U-shaped relationship between creation and firm performance will be steeper and more pronounced for older ventures compared to younger ones.

Younger firms often tend to engage in the discovery context of opportunity exploitation, focusing on predictable decisions and probable outcomes aimed at enhancing firm growth. Specifically, younger firms often lack resources, influence, legitimacy and the well-developed organizational routines (Anderson and Eshima, 2013) needed to engage in a complex creation context. Hence, younger firms are more likely to achieve growth from discovery than older firms. Thus, younger firms possess temporal and shorter-term knowledge resources (Anderson and Eshima, 2013), which are conducive to the context of opportunity discovery. This enables younger firms (compared to older firms) to benefit more from exploiting discovery opportunities.

On the other hand, older firms may possess the relevant skills, experience and knowledge (Withers *et al.*, 2011) to extract the maximum benefit from a creation opportunity. For example, as the firm grows, managers of older firms may gain more experience, confidence and market knowledge during creation activities (Liu *et al.*, 2015). These experiences and stock of knowledge arising from mature firms can help minimize uncertainties in new markets, new product development and new product launches and, thereby, enhance the growth outcomes of creation opportunities. Indeed, operating in a creation context is a costly and time-consuming strategy that may not be conducive to younger firms. Hence, older firms stand a better chance of enhancing the performance effect of creation behaviors. Older firms have perfected routines and structures (Sørensen and Stuart, 2000) by building on existing capabilities (Coad *et al.*, 2016) that can make them rely on creation context activities, such as experimentation, trial and error, and new knowledge exploitation (Naldi and Davidsson, 2014). In effect, the older the firm, the greater the commitment to creation behaviors and subsequent impact on venture growth. From the forgoing arguments, we posit:

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H4a. Firm age moderates the positive relationship between discovery opportunities and venture growth so that the relationship is stronger (weaker) for younger (older) family firms.

H4b. Firm age moderates the U-shaped relationship between opportunity creation and venture growth so that it will be steepened (flattened) older (younger) family firms.

Figure 1 illustrates these hypothesized relationships.

Methods and data collection

Study setting

We test our model on a sample of family-owned SMEs operating in a sub-Saharan African economy (i.e. Ghana). Our choice of Ghana as a suitable context is due to the following reasons. First, Ghana is a relatively collectivist society characterized by social cohesion, communal living and interpersonal relationships: it appreciates family values. These are ideal characteristics for the existence of a family business because recent studies suggest there is a high rate of family businesses in Ghana (e.g. Wu *et al.*, 2020; Acquaah, 2013). Second, the business environment of Ghana is characterized by privately owned businesses – the majority of which are SMEs – and account for about 88% of the country's economic activities (OECD, 2008) as well as 70% of the country's labor force. Thus, the activities of SMEs in recent years have contributed to substantial growth in the country's Gross Domestic Product (GDP). Third, Ghana has in recent times witnessed many economic and socio-political successes in trade liberalization and favorable policies – high growth rate in GDP, competitive business environment and democratic principles that have attracted both internal and external investment in the country (African Development Bank Group, 2018; Amankwah-Amoah *et al.*, 2018). Fourth, Ghana's economic landscape is precarious, suffering from institutional weaknesses and fluidity, which can limit or improve the success and growth of SMEs. Thus, the paradoxical nature of Ghana's economy can provide unique yet challenging opportunities

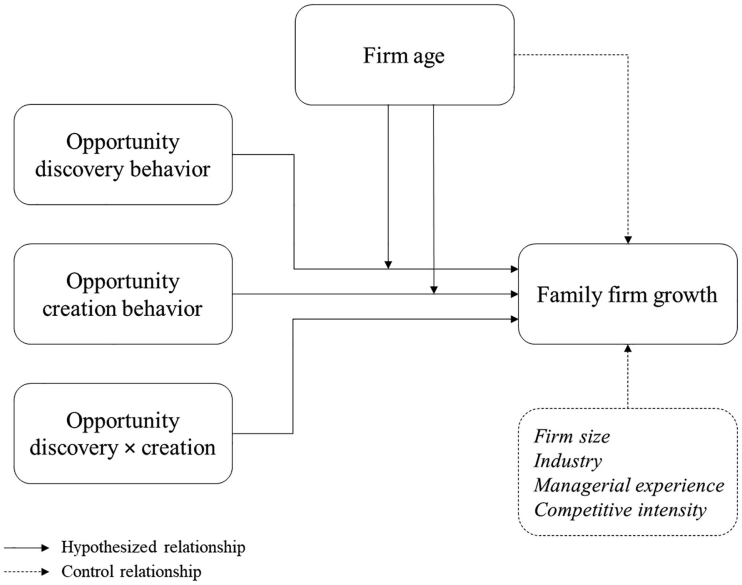

Figure 1.
Conceptual model

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for family-owned businesses to leverage their entrepreneurial capabilities to become competitive and efficient. Accordingly, we use Ghana as a model to contextualize family business research in the field of entrepreneurial opportunity generation and firm growth.

Data collection procedure

The sample frame for firms was developed from two databases: (1) Ghana's company register database and (2) Business Directory (Acquaah, 2007). We contacted 600 SMEs listed in the two directories through emails, phone calls and walk-ins to ask for their participation in our survey. In accordance with prior entrepreneurship studies (e.g. Boso *et al.*, 2013; Wiklund and Shepherd, 2011) and family firm research (e.g. Price *et al.*, 2013), we selected our family-owned SMEs that were not affiliated with any consortium of companies and employed between 5 and 250 full-time employees. At the end of the selection, 365 family-owned SMEs agreed to take part in the study.

Subsequently, 365 surveys were distributed to the sampled family-owned SMEs through face-to-face approaches and postal deliveries. The key informants included managers, owner–managers and finance officers. Specifically, the managers and owner–managers provided information on the phenomena of opportunity creation and discovery as well as the other firm level variables, whilst the finance officers attended to the firm growth indicators. The use of multiple respondents helped to reduce social desirability and possible common method bias that may characterize the data. At the end of the survey period, we received 156 useable and complete questionnaires, representing an effective response rate of 43%. The final sample for the analysis has an average firm age of 11 years and 36 average full-time employees. Among the surveyed family firms, 39.6% were active in the service sector and 60.4% were mainly manufacturers.

Measure development

We measured the study constructs by adapting scales from relevant entrepreneurship and family business literature. All multi-item variables – namely, opportunity discovery, opportunity creation, family firm growth and competitive intensity were measured with 7-point rating scales. Where necessary, some of the items were reworded to suit the study context and the understanding of the respondents based on exploratory prestudy interviews.

Opportunity creation: consistent with extant work on the creation context of entrepreneurial opportunities, we define opportunity creation as a firm's (entrepreneurial) iterative process of creating and enacting subjective artifacts (here, referred to as untapped markets or opportunities) (Alvarez and Barney, 2007). The process may involve acting, observing, learning and reacting in attempt to create and exploit opportunities. Based on observable behaviors, such as decision making, competitive advantage and strategy (Alvarez and Barney, 2007) we measured opportunity creation with four items adapted from Khedhaouria *et al.* (2015) and Ahlin *et al.* (2014).

Opportunity discovery: opportunity discovery is conceptualized as objective opportunities that arise exogenously from competitive market imperfections (Alvarez and Barney, 2007). The discovery context is characterized by search, identification and alertness-type activities. Similar to the creation context, we considered the entrepreneurial firm's observable behaviors and measured opportunity discover with four items adapted from Ozgen and Baron (2007).

Family firm growth: Following Anderson and Eshima (2013), we measured family firm growth using three subjective items – the competitor-centered items (cf. Hultman *et al.*, 2011) of capture sales growth, market share growth and overall firm growth.

The moderating variable *firm age* was finally measured following established procedures for measuring duration (e.g. Assadinia *et al.*, 2019; Hultman *et al.*, 2011) by taking the natural logarithm of the total number of years the family business has been in operation.

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Control variables

Based on the study context, the phenomena being studied and the extant research (e.g. Anderson and Eshima, 2013; Donbesuur *et al.*, 2020), we controlled for several factors that may independently impact firm growth. The control variables included *firm size*, *managerial experience*, *industry type* and *competitive intensity*. We measured firm size by the number of full-time employees in the firm and managerial experience by the number of years the manager or owner has held management positions. For both variables, we used the natural logarithm for analysis purposes (Hultman *et al.*, 2011). We categorized the industries into manufacturing (0) and services (1) and adapted four items from Jaworski and Kohli (1993) to measure competitive intensity.

Reliability and validity of measurement model

We conducted confirmatory factor analysis (CFA) to assess reliability and validity of the multi-item measures. Following established practices (e.g. Bagozzi and Yi, 2012; Kline, 2015), we used normed fit index (NFI) and comparative fit index (CFI); root mean square error of approximation (RMSEA); and standardized root mean square residual (SRMR) to assess the fitness of our measurement model. Accordingly, the CFA results provided the following model fit indices: $\chi^2/df = 1.29$; NFI = 0.94; CFI = 0.98; RMSEA = 0.04; SRMR = 0.04. With regard to the individual constructs and items, the standardized factor loadings for each item are significant at the 1% level, while the composite reliability (CR) values for each construct exceed the required benchmarks of 0.60 in support of acceptable reliability, validity and internal consistency of the measurement items and constructs (Hair *et al.*, 2017). Finally, we assessed discriminant validity of the constructs and found that the average variance extracted (AVE) for each construct exceeded the highest shared variance (HSV) of each pair of constructs as shown in Tables 1 and 2. Table 1 provides details of the measurement items, reliability and validity indicators, while Table 2 provides descriptive statistics and correlations for the study variables.

Common method bias assessment

Even though the survey questionnaire was answered by multiple respondents, we anticipate that common method bias may characterize our findings, given the cross-sectional nature of the study. Accordingly, we followed previous recommendations (e.g. Cote and Buckley, 1987) to statistically examine the presence of common method bias by estimating three competing CFAs. First, we estimated Model 1, a *method-only* model by loading all items on a single factor ($\chi^2/df = 5.23$; NFI = 0.57; CFI = 0.60; RMSEA = 0.29; SRMR = 0.24). Second, we estimated a *trait-only* Model 2 with each item loading on their respective latent factor ($\chi^2/df = 1.29$; NFI = 0.94; CFI = 0.98; RMSEA = 0.04; SRMR = 0.04). Lastly, we estimated a *method and trait* Model 3, which combines Model 1and Model 2 ($\chi^2/df = 1.26$; NFI = 0.95; CFI = 0.98; RMSEA = 0.04; SRMR = 0.04). The fit indices indicate that Model 1 has poor fit and that Models 2 and 3 are superior, fitting the data better than Model 1. Thus, we can conclude that common method bias is unlikely to affect the empirical findings.

Hypothesis testing

We tested the hypothesized relationships using hierarchical-moderated regressions. To test hypotheses 2, 3 4a and 4b, we calculated four interaction terms. Specifically, we calculated (1) opportunity creation × opportunity creation (the square term of opportunity creation), (2) opportunity discovery × opportunity creation, (3) opportunity discovery × venture age and (4) the square term of opportunity creation × venture age; to help reduce the effect of multicollinearity (i.e. biasing the estimates), we mean-centered all variables that were used in

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Table 1. Construct validity and reliability of multi-item scales

Constructs, details of measures, and results of validity tests	Standardized factor loadings
Opportunity discovery CR = 0.85 AVE = 0.60	
Special alertness to new opportunities	0.72
Scanning the environment for new business opportunities	0.69
Identify demand and supply gaps in the market	0.85
Discover opportunities in markets where we have no personal experience	0.82
Opportunity creation CR = 0.84 AVE = 0.57	
Our ideas are often original	0.74
We construct for new solutions when needed	0.73
We rely more on untried ideas	0.82
We source for opportunities that have high degree of uncertainty	0.73
Family firm growth CR = 0.89 AVE = 0.72	
Sales growth	0.89
Market share growth	0.81
Overall firm growth	0.85
Competitive intensity CR = 0.82 AVE = 0.54	
Competition is cut-throat	0.74
Anything that my company can offer, another company can match readily	0.77
We hear of new competitive move in terms of opportunity discoveries everyday	0.79
Our competitors are very strong in discovering new opportunities as well	0.62

Note(s): *Fit indices:* χ^2 / (*df*) = 1.29; NFI = 0.94; CFI = 0.98; RMSEA = 0.04; SRMR = 0.04

creating the interaction terms. As a result, the highest variance inflation factor (VIF) from our estimations is 3.98, less than the commonly used threshold of 10.

We thereafter estimated four models to test the individual hypotheses, Model 1 contains the control variables, Model 2 adds the direct effect of discovery on venture growth. We then estimate the effect of the square term of opportunity creation and the joint effect of opportunity creation and discovery on venture growth in Model 3, while Model 4 tests the interactions. Table 3 shows the regression estimates, *t*-values (in parenthesis) and relevant model fit indices.

From the results, we find that opportunity discovery has a positive significant relationship with venture growth ($\beta = 0.22$; $p < 0.01$), supporting H1. We also find empirical support for H2 that opportunity creation has a U-shaped relationship with venture growth since there is a negative linear relationship between opportunity creation and venture growth ($\beta = -0.23$; $p < 0.01$) and a positive quadratic relationship with venture growth ($\beta = 0.30$; $p < 0.001$). Furthermore, there is support for H3 that the joint effect of opportunity creation and discovery has a positive relationship with venture growth ($\beta = 0.26$; $p < 0.001$). With regard to the moderating effects, we find no evidence in support of H4a that venture age moderates the positive relationship between opportunity discovery and venture growth ($\beta = -0.00$; $p > 0.10$). However, concerning H4b, the analysis reveals that the curvilinearity of the U-shaped relationship between creation and firm performance is enhanced for older firms compared to younger firms ($\beta = 0.31$; $p < 0.01$).

To interpret the significance of the quadratic and interactive relationships, we graphed Figures 2–4. Figure 2 shows that medium engagement in the creation context has a less positive effect on family firm growth, while lower and higher engagement in the creation context more positively affects family firm growth as predicted in H2. Figure 3 indicates that

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Table 2. Correlation and descriptive statistics

No.	Variables	M	SD	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*
1	Firm size#	2.25	0.70	–							
2	Firm age#	2.30	0.70	0.27**	–						
3	Managerial experience#	2.18	0.57	0.43***	0.13*	–					
4	Industry type†	–	–	−0.13*	−0.11*	0.01	–				
5	Competitive intensity	4.88	1.13	0.00	−0.12*	0.05	0.07	*0.73*			
6	Opportunity discovery	4.62	1.01	−0.06	0.07	0.03	0.02	0.15*	*0.85*		
7	Opportunity creation	4.75	1.23	−0.10	−0.13*	−0.05	−0.06	−0.05	0.21**	*0.77*	
8	Family firm growth	4.31	1.16	−0.23**	−0.05	−0.03	0.21**	0.11*	0.21**	−0.17**	*0.76*

Note(s): *$p < 0.0.05$; **$p < 0.01$; ***$p < 0.001$; # = Natural logarithmic transformation of the original values; M = Mean; SD = Standard Deviation; † = Dummy variable; square root of AVE values at diagonals

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Table 3. Results of hierarchical moderated regression

Independent variables	Firm growth				
	Model 1	Model 2	Model 3	Model 4	Result summary
Control effects					
Firm size	0.05 (0.64)	−0.00 (−0.03)	0.05 (0.77)	0.03 (0.42)	
Firm age	−0.33*** (−4.09)	−0.31*** (−4.13)	−0.31*** (−4.43)	−0.48*** (−5.76)	
Industry	0.19 **(2.46)	0.17 * (2.30)	0.12 (1.69)	0.11 (1.68)	
Managerial experience	0.04 (0.58)	0.03 (0.45)	0.04 (0.57)	0.08 (1.14)	
Competitive intensity	0.12 (1.61)	0.07 (0.97)	−0.03 (−0.40)	−0.04 (−0.56)	
Linear effects					
Discovery		0.22** (2.86)	0.26*** (3.65)	0.25*** (3.50)	H1: Supported
Creation		−0.23** (−3.17)	−0.05 (−0.62)	−0.04 (−0.48)	
Nonlinear effects					
Creation^2			0.30*** (3.38)	0.25** (2.96)	H2: Supported
Moderating effects					
Discovery × creation			0.26*** (3.32)	0.26*** (3.73)	H3: Supported
Creation × firm age				0.01 (0.07)	
Discovery × firm age				−0.00 (−0.01)	H4a: Not supported
Creation^2 × firm age				0.31** (2.49)	H4b Supported
Model fit indices					
R^2	0.14	0.22	0.31	0.39	
ΔR^2	–	0.08	0.09	0.08	
F-value	5.35***	6.2***	8.45***	8.22***	
VIF	1.13	1.16	1.78	3.98	

Note(s): *$p < 0.0.05$; **$p < 0.01$; ***$p < 0.001$; standardized coefficients and *t*-values (in parenthesis) are reported

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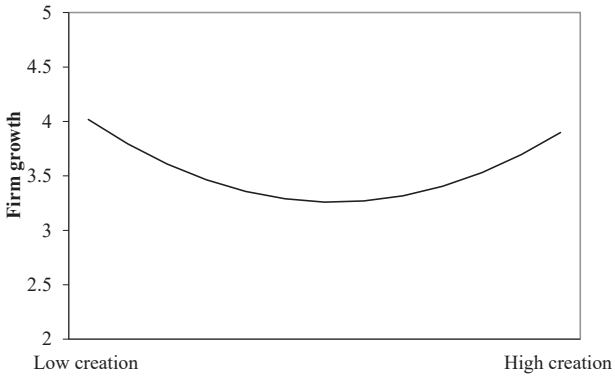

Figure 2. Quadratic effect of opportunity creation on venture growth

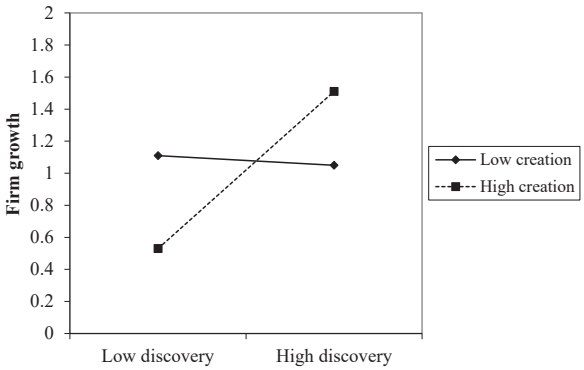

Figure 3. The complementary effects of creation and discovery on venture growth

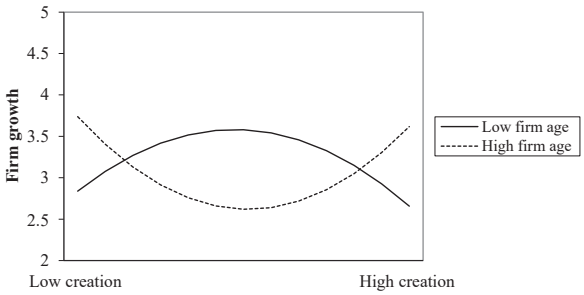

Figure 4. The moderating effect of venture age on the U-shaped relationship between opportunity creation and venture growth

high levels of both discovery and creation behaviors complement each other to drive growth of family firms. Lastly, Figure 4 shows that the U-shaped relationship between opportunity creation and venture growth is enhanced for older family firms in line with H4b, whilst younger family firms tend to even display an inverse relationship. In the next section, we explain the implications of these findings for entrepreneurship research and the growth of family businesses in developing economies.

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Discussion

Research implications

The entrepreneurial opportunity literature makes clear that entrepreneurs operate in different contexts (i.e. creation and discovery contexts) so that the nature, decision making and process of exploiting each opportunity context vary significantly (e.g. Upson *et al.*, 2017; Jones and Barnir, 2019). Notwithstanding these differences, little is known about the extent to which firms benefit from both creation and discovery contexts, although extant research suggests possible variations in competitive advantage for firms that engage in either context of opportunity exploitation, due to different assumptions (Wu *et al.*, 2020; Alvarez and Barney, 2007). In the current family-owned businesses setting, we find that, while both creation and discovery contexts affect the growth of family firms, their respective effect follows different paths. Specifically, discovery behavior has a direct positive relationship with venture growth, while creation behavior affects venture growth positively, but only at lower and higher levels. Furthermore, we observe that creation and discovery opportunities complement each other in driving the growth of family firms. Further analysis reveals that the curvilinear effect of the creation context on venture growth is more pronounced among more mature family firms than younger ones. These findings contribute to entrepreneurship and family business research in several ways.

First, the findings of the individual and joint effects of creation and discovery on venture growth contribute significantly to the creation and discovery view of entrepreneurial opportunities. While past studies have conceptualized and discussed the differences, nature and processes involved in exploiting these two opportunity types (e.g. Chetty *et al.*, 2018; Suddaby *et al.*, 2015; Ramoglou and Tsang, 2016), our study adds to the discussion by highlighting the impact of each opportunity type on venture growth among family firms. Through our findings, we have moved the extant literature beyond the theoretical views of entrepreneurial opportunities to actual performance implications of firms that engage either in creation or discovery contexts of opportunity. Indeed, the findings further extend previous research that explores creation and discovery opportunities in the context of innovation and international entrepreneurship (e.g. Jones and Barnir, 2019; Chetty *et al.*, 2018), while adding to recent research on the need to explore the performance implications of entrepreneurial opportunities (Wu *et al.*, 2020). For instance, the findings on the complementary role of creation and discovery opportunities help answer, in part, previous questions on the nature of entrepreneurial opportunities. Thus, we align with previous studies that hold the duality view of opportunity creation and discovery as mutually enabling and not opposed to each other (e.g. Chetty *et al.*, 2018). Relatedly, our findings contribute to the dynamic capabilities view by highlighting creation and discovery behaviors as entrepreneurial opportunity capabilities that are useful for the growth of family firms (see Zahra, 2018). While adding to the dynamic capability perspective, the findings help extend recent research on individual entrepreneurial capabilities, such as sensing, shaping and seizing opportunities (Thomas *et al.*, 2020).

Second, from the contingency perspective (Richard *et al.*, 2007; Gupta and Batra, 2016), we explore an important boundary condition – firm age – that may shape the relationship between discovery/creation contexts–venture growth relationships. Although previous studies have pointed to the significance of organizational age in shaping decision making and performance outcomes (e.g. Anderson and Eshima, 2013), it has not been clear in the extant entrepreneurship and family business literature how firm age can influence the entrepreneurial opportunity–firm performance nexus. Specifically, by investigating the moderating impact of firm age on the relationship between the two forms of opportunity behavior and venture growth, we find that age moderates the relationship between opportunity creation and venture growth so that older family firms (compared to younger firms) benefit more from creation contexts at higher and lower levels. While this finding highlights the unique role of venture age in the entrepreneurial opportunity creation/discovery–firm growth relationships, it also extends previous studies that view

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organizational age as a significant firm characteristic in driving performance goals (e.g. Coad *et al.*, 2016).

Contrary to our hypothesized relationship, firm age has no significant influence on the relationship between opportunity discovery and growth. Despite the significant implication of the effect of venture age on the relationship between entrepreneurial strategies and performance outcomes (see Anderson and Eshima, 2013), the current study finds no support for a contingent influence of firm age on the opportunity discovery–venture growth relationship. A possible explanation is that, because creation context is characterized by carefully planned activities and well defined, observable environmental conditions (Jones and Barnir, 2019), firms can still achieve their growth objectives without necessarily leveraging on how new or old they are in the industry.

Third, our findings make a significant contextual contribution to the family business literature. Specifically, we contribute to a few rarely discussed fields of family business – namely (1) entrepreneurial opportunity exploitation within family businesses and (2) family business research within the contexts of developing economies. Thus, our findings extend previous research that argues for examination of how family firms engage in opportunity exploitation activities (De Massis and Rondi, 2020) and the need for family business research in underexplored yet unique and heterogeneous contexts, such as those in developing economies (Wright *et al.*, 2014; Khavul *et al.*, 2007)

Implications for family businesses

Besides the research implications, the current findings have significant impact on the management and growth of family firms in developing economies. First, the results highlight the significance of pursing both types of opportunities among family firms. In fact, both creation and discovery opportunities are significant drivers of family firm growth, albeit in different capacities. Specifically, the findings reveal that family firms who exploit creation opportunities can only benefit at high levels of exploitation. Practically, owner–managers of family firms should be mindful that the performance outcome of creation is not a linear path. By implication, managers should anticipate lower levels of growth when engaging in moderate levels of creation activities and high levels of growth when deploying lower and higher levels of creation activities. In simple terms, the findings reveal that family firms have a choice of engaging in either low or high levels of opportunity creation because both spectrums are significant drivers of firm growth – especially when the family businesses are more mature. The combined benefits of creation and discovery capabilities mean that managers should commit resources to exploiting both opportunities, but they need to practice caution with regard to the level of resources and capabilities that deploy to each opportunity type. For example, we have established that simultaneously exploiting high levels of both opportunity creation and discovery is highly beneficial to the growth of family firms.

Second, our results indicate that the effect of creation context on venture growth is more pronounced for older family firms than younger ones. In effect, managers of older family firms should invest more on capabilities and resources that drive opportunity creation. This also means that family firms should consider their experiences, organizational structures and age when deciding to pursue creation or discovery opportunities because the former is more beneficial to older family firms (compared to younger firms). This means that, for younger family firms, the performance implications of opportunity creation will be maximized if such opportunities are exploited at moderate levels.

Limitations and future research directions

Despite these novel and interesting findings, our study has several limitations that open up avenues for future research. First, our study theorizes and measures opportunity creation and

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discovery as distinct phenomena within firms – thus, aligning with the subjective and objective nature of opportunities (Alvarez and Barney, 2007, 2010). However, previous research suggests entrepreneurial opportunities can be conceptualized differently – in such a way that creation and discovery may be interdependent, integrated and/or one may even drive the other (e.g. Ramoglou and Tsang, 2016; Suddaby *et al.*, 2015). To this end, the family business literature will benefit from studies that explore and examine the relationship between opportunity creation and discovery and how such relationship(s) may impact performance outcomes.

Second, as with most cross-sectional studies in entrepreneurship (e.g. Anderson and Eshima, 2013; Boso *et al.*, 2013), our study is limited by predicting the direction of causality between the opportunity creation/discovery–firm growth relationships. Thus, it may be the case that, as firms improve their growth outcomes, they will be able to generate resources and engage in more opportunity exploration activities (see Coad *et al.*, 2021). Specifically, our initial findings of linear and curvilinear effects of opportunity exploitation on firm growth can open up further research that probes these relationships. Third, our model was tested using only a sample of family-owned entrepreneurial firms. However, compared to nonfamily firms, family firms may have different growth aspirations. In consequence, the performance implications of certain entrepreneurial activities may differ (Stenholm *et al.*, 2016). Thus, it will be interesting to see how and when creation and discovery opportunity exploitation behaviors of nonfamily firms exert an impact on their performance outcomes.

Conclusion

Our study set out to investigate how and when family-owned SMEs operating within a resource-constrained environment can leverage their opportunity-seeking behaviors to enhance growth. From the tenets of dynamic capabilities and organization contingency, we find that exploiting both opportunity creation and discovery has very significant implications for the growth of family firms in developing economies. While discovery behavior has a direct positive impact on firm growth, creation behavior has a nonlinear effect on growth, yet both opportunity exploiting behaviors have a complementarity effect on family firm growth. In terms of the contingency effect of firm characteristics, older family firms (compared to younger family firms) benefit more (in terms of their growth aspirations) from engaging in creation behaviors. These findings have important implications for the literature on family business as well as for the growth and management of these firms.

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Corresponding author
Pejvak Oghazi can be contacted at: pejvak.oghazi@sh.se

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