

Innovation Heterogeneity in Family Firms: Evidence from the Date Industry in Saudi Arabia

Abstract

Family firm innovation is argued to be a paradoxical in nature, in that family firms often display less innovation than their non-family counterparts, yet they are able to be more innovative. The aim of this paper is to unpack this paradox by exploring how differences in family firms' ability (as discretion and as resources) and willingness (economic and non-economic) affect their innovation activities. In so doing, we adopt a qualitative interpretive methodology based on four case studies of Saudi family firms operating in the indigenous Date industry. The findings emphasize the importance of having all four sources of ability and willingness in order for innovation to take place and how the innovation posture of the family firm changes when the new generation enters the business, to either "lagging" or "reviving. By exploring innovation in the date sector in Saudi Arabia, we contribute to the ability-willingness paradox by distinguishing between the different sources of ability and willingness and to an emerging narrative which acknowledges that the integration of past knowledge into new innovative practices as an important and unique mechanism by which family firms can harness innovation.

Keywords: Family Firms; Innovation Heterogeneity; Innovation Paradox; Saudi Arabia, Dates Industry.

Introduction

Family ownership of business organizations is ubiquitous around the world and dominant in many countries (Schulze and Gedajlovic, 2010). Although exact numbers for the prevalence of family firms vary, research has consistently shown that family firms dominate global economies (La Porta et al., 1999; Xi et al., 2015; Filser et al., 2016). In Saudi Arabia, 63% of registered companies in Saudi Arabia are family businesses, contributing to approximate 32% of the country's GDP (Alrubaishi and Robson, 2019). Family firms are organizations that are characterized by individuals, related by family ties, who exert substantial influence, for example, via ownership stakes or significant management positions held by family members (König et al., 2013). Since such firms, contribute substantially as employment generators and to GDP on a global basis, family firms can be considered an omnipresent and important organizational form which make important contributions to innovation endeavours of economies worldwide (Xi et al., 2015; Filser et al., 2016).

Innovative businesses are key drivers of economic growth (Freeman, 2002). Innovation is linked to high firm performance (Brown and Eisenhardt, 1995) and is considered a source of competitive advantage (Utterback and Abernathy, 1975). For the purposes of this paper, we conceptualize innovation as the set of activities through which a firm conceives, designs, manufactures, and introduces a new product, service, process, or business model (De Massis

et al., 2015a). While extant innovation research has investigated firm level drivers of innovation (Ahuja et al., 2008), there is a scarcity of understanding in relation to the influence of family involvement on such drivers of innovation (De Massis et al., 2013; Duran et al., 2016). Unsurprisingly, therefore, research on innovation in family firms is in its infancy (Uhlaner et al., 2012) and has only recently received growing attention from both family business and innovation perspectives (Duran et al., 2016; Filser et al., 2016; 2018). Consequently, more research is required on this important sector of the global economy, especially as family firm innovation processes and outcomes are likely to differ from those in other governance and ownership archetypes due to the influence of family involvement on organizational goals (Chrisman et al., 2012; Weismeier-Sammer et al., 2013; Cassia et al., 2012), risk taking (Gómez-Mejía et al., 2007; Zahra, 2005) and investment horizons (Lumpkin and Brigham, 2011). As such, an understanding of the role of family involvement and its effects on innovative behaviour is both of managerial and theoretical importance (Filser et al., 2016).

Innovation in family firms has been suggested to be paradoxical in nature, in that family firms often display less innovation than their non-family counter parts despite being able to be more innovative (De Massis et al., 2015a). To resolve this paradox, scholars argue that in addition to this ability, family firms should be willing to innovate and that both ability and willingness are required conditions for family firms' behaviour (De Massis et al., 2014). Ability is related to discretion, stemming from the family involvement in ownership, management, and governance, while willingness is related to the intention to pursue family-oriented goals (Chrisman et al., 2015; De Massis et al., 2014). While empirical family business innovation research often focuses on the ability side by investigating the relationship between family involvement and innovation (Cucculelli et al., 2016; Arzubiaga et al., 2018; Matzler et al., 2015; Block et al., 2013; Sciascia et al., 2015), willingness has received less attention. Furthermore, family business ability is argued to be based on both the authority to act as well as on the resources needed to achieve desired goals (De Massis et al., 2015a). The sources of family willingness on the other hand are a combination of both economic and noneconomic goals (Chrisman et al., 2015). As such, investigating both sources of the ability and willingness is critical to understanding innovation in family firms.

Moreover, family businesses are not a homogenous group of organizations (Chua et al., 2012; Memili and Dibrell, 2019), with their heterogeneity originating from their governance structure, vision, and goals (Jaskiewicz and Dyer, 2017) as well as from the context in which they operate (Wright et al., 2014), whether historical, temporal, institutional, spatial, and social contexts (Welter, 2011). Thus, family firms are heterogeneous in their ability and willingness

to innovate (Calabro et al., 2019; Filser et al., 2018). Despite this, innovation research to date has been dominated by US and Western Europe perspectives, suggesting a need for research from a broader geographical and cultural base in order to advance our understanding of innovation. Accordingly, this paper aims to explore how the differences in family firms' ability (as discretion and as resources) and willingness (economic and non-economic) affect their innovation activities across generations in the indigenous Date industry in Saudi Arabia.

Saudi Arabia is considered the second largest producer of dates in the world, with the highest average per capita consumption (Alsughayir, 2013; Intezar et al., 2016; Al-Shreed et al., 2012). Date palm is one of the oldest fruit trees in the world with its origins tracing back to 6000 BC (Al-Qarawi et al., 2003; Al-Abdoulhadi et al., 2011). The nutritional and functional benefits of dates as being a rich source of minerals and vitamins are well recognized (Al-Farsi and Lee, 2008). Dates also have a religious significance; during the month of Ramadan Muslims around the world break their fast at sunset by eating dates (Alsughayir, 2013; Intezar et al., 2016). Furthermore, the palm tree and dates hold particular importance in the Saudi society, not only as a national food source, but also because of its association with customs, traditions and social values. There are around 28 million palm trees in Saudi Arabia producing more than 450 kinds of dates with an estimate production of a million tons of dates annually (Bushara et al., 2018; Al-Shreed et al., 2012). As such, date palm is considered an important part of the country's economic development (Alshuaibi, 2011; Intezar et al., 2016).

Given the increasing surplus of dates supply in the local market, there is a huge opportunity for exporting, however, exporting has not achieved its full potential due to quality requirements (Al-Abdoulhadi et al., 2011). Indeed, quality measurement is found to be an important factor in the dates sector productivity and profitability (Alsughayir, 2013). Nevertheless, palm dates have potential for derivative manufacturing other than the fruit itself such as date paste, jams, dates syrup, and ethanol (El-Sharnouby et al., 2009; Zohri and Etnan, 2000), thus creating an opportunity for innovation in the industry.

This paper makes the following contributions. First, we contribute to the ability-willingness paradox by distinguishing between the different sources of ability (discretion and resources) and willingness (economic and non-economic) (De Massis et al., 2015a; Chrisman et al., 2015). In doing so, we illustrate how the absence of any of these sources can hinder innovation in family firms. Second, we provide insight into the heterogeneity of family firms (Jaskiewicz and Dyer, 2017; Chua et al., 2012) by revealing the degree of family firm's innovation based on the differences in their ability and willingness and the role of the next generation in the

business; with the innovation posture of the family firm changing when the new generation enters the business, to either “lagging” or “reviving. Finally, given on our focus on the indigenous date industry in Saudi Arabia, we contribute to an emerging narrative which acknowledges that the integration of past knowledge into new innovative practices as an important and unique mechanism by which family firms can harness innovation. Although the context in which the family firm operates is habitually intertwined with social, family and business environments (Berrone et al., 2010; Welter, 2011; Zahra and Wright, 2011), the spatial context in which family firms operate currently remains absent from family business research in general (Wright et al., 2014) and innovation research in particular (Miller and Le Breton-Miller, 2014). This is of significance in understanding regional and industry specific factors related to family firm innovativeness, given the call for a wider geographical (e.g., non-American/Western context) and sectoral research in the field (Filser et al., 2016; Calabro et al., 2019).

This paper is structured as follows. We commence by outlining the key constructs of our theoretical framing namely family firm innovation paradox and the role of innovation through tradition. Next, we outline our research design, detailing the empirical context, method, and data collection and analysis. This is followed by the critical evaluation of four family firm case studies in the Date industry. Finally, we consider the implications of our arguments to advance theoretical and practical understanding of family firm innovation in emerging economies.

Literature Review

Innovation and Entrepreneurship in Family Firms

In contributing to both profitability and growth, entrepreneurship is considered a key factor in driving economic prosperity, job creation and wealth generation (Hitt et al., 2001). Entrepreneurship enhances the performance of companies and therefore their growth in a variety of contexts, including developing countries (Naudé, 2010), minority businesses (Bates, Jackson, and Johnson, 2007), rural businesses (De Rosa, McElwee, and Smith, 2019), farming (McElwee, 2006) and family firms (Uhlener et al., 2011). Family business research recognises entrepreneurship as playing a significant role in the survival of these kinds of organisations (Jaskiewicz et al., 2015). Indeed, the term family entrepreneurship, refers to those family firms that consistently engage in entrepreneurial activities including innovation, new venturing and/or strategic renewal across multiple generations (Sharma et al., 2012).

Since Schumpeter's seminal work in 1934, innovation has been a recognized element in the survival (Wiklund and Shepherd, 2005), competitive advantage (D'Aveni et al., 2013; Utterback and Abernathy, 1975), and financial performance (Brown and Eisenhardt, 1995; Calantone et al., 2002) of organizations. Innovation is the process through which new products, services, processes, or business models are introduced (Drucker, 1985). Innovation can take many forms such as research and development (R&D), technological advancement, patents, new product development (NPD), manufacturing processes, advances in marketing, and organizational structuring (Diaz-Moriana et al., 2018). In this era of environmental uncertainty and complexity (Chen et al., 2019), managers of all firms, be them family or non-family, need to implement innovative strategies in order to steer their organizations towards sustainability and longevity (Kraiczy, 2013). However, models created to predict the success and failure of innovation in organizations have long neglected the effect of family involvement in firms (Urbinati et al., 2017); thus, leading to a recent interest among scholars to explore the innovation determinants of family firms (Cassia et al., 2012; Chrisman et al., 2015; Calabro et al., 2019; De Massis et al., 2014, 2015a; Rondi et al., 2018; Filser et al., 2018).

The development of family business as field of research is characterised by two streams of research; the first focuses on differences between family and non-family businesses, whilst the second investigates differences within samples of family businesses (Xi et al., 2015). This is also reflected in the domain of innovation in family firms, where the literature is fragmented with inconsistent findings (Filser et al., 2018; 2016). Initially, a stream of literature started to emerge which empirically investigated differences in innovation between family and non-family firms with contradicting findings (Duran et al., 2016). For example, Chrisman and Patel (2012) and Block et al. (2013) found that family ownership had a negative relationship with R&D intensity. They explained this finding using a socioemotional wealth (SEW) perspective as their theoretical framework, arguing that family firms invest less in R&D to protect family control. However, drawing upon the resource-based view (RBV), Llach and Nordqvist (2010) found that family firms are more innovative than non-family firms, arguing that the unique resources of family firms such as human, social, and marketing capital provide family firms with a competitive advantage over their non-family counterparts. Moreover, Matzler et al. (2015) found that while family firms invest less in innovation input such as R&D, they exhibit a higher innovation output. Indeed, family firms are found to be more efficient in transforming innovation inputs into innovation outputs (Duran et al., 2016). To investigate these differences further, De Massis et al. (2015b) utilized several theories including RBV, agency, stewardship, and behavioral theories to show that family firms differ from non-family firms with regards to

strategies of product innovation and organization of the innovation process. Indeed, scholars agree that that when it comes to innovation, there are differences between family and non-family firms (Matzler et al., 2015; Duran et al., 2016; De Massis et al., 2015b; Cassia et al., 2012).

Given the idiosyncratic nature of family firms in relation to their non-family firms counterparts (Chrisman et al., 2012, Cassia et al., 2012), an emerging stream of literature has now begun to emerge which aims at exploring the sources of innovation within family firms. Asserting ability and willingness to innovate are the two main drivers that cause differences in behavior between family and non-family firms (Chrisman et al., 2015; Calabro et al., 2019; De Massis et al., 2014, 2015a; Rondi et al., 2018). Ability originates from family involvement in ownership, management, and governance, that enables them to manage and allocate the firm's resources, while willingness is the motivation to pursue family related goals (De Massis et al., 2014). Put differently, ability is the "discretion to act" while willingness is the "disposition to act" (Chrisman et al., 2015, p.310). Since innovation requires considerable commitment in terms of resources and time, family firms have proven their ability to innovate by having control over the firm and for having a long-term orientation (Miller and Le Breton-Miller, 2005; Diaz-Moriana et al., 2018). Family firms are also said to be more responsive in innovation decision making due to lower bureaucracy and being less hierarchical, but this responsiveness appears to be limited to short term rather than long term decision making (Roessl, Fink, and Kraus, 2010). On the other hand, family firms' willingness is argued to be low as they are often characterized by being conservative, traditional and risk-averse (Block et al., 2013; Sciascia et al., 2015), due to their SEW endowment i.e., the affective value that a family derives from the firm influencing their decisions (Gomez-Mejia et al., 2007). It also has been argued that family firms' characteristics of risk avoidance, nepotism, resistance to change, conflicts between family members as well as a reluctance to hand control over to non-family skilled managers, makes family business less able to innovate (Roessl et al., 2010). As such, ability and willingness can cause a paradoxical tension as family firms are known to have superior ability to innovate but may lack the willingness to do so (Chrisman et al., 2015; McAdam et al., in press). Yet, both ability and willingness are necessary conditions that enable family firms to innovate, with the absence of either, determinantal (De Massis et al., 2014). Moreover, in order to unlock the ability - willingness paradox, ability is argued to have a resource component in addition to a discretion component (De Massis et al., 2015a). With regards to willingness, family business scholars investigating innovation have widely relied on the non-economic goals of family firms in terms of SEW endowment (Hauck and Prüggl, 2015;

Sciascia et al., 2015; Miller et al., 2015). However, family businesses are concerned with both financial and non-financial goals (Chrisman et al., 2005, 2012), with their willingness constructed as a result of both economic and non-economic considerations (Chrisman et al., 2015).

Moreover, family firms are known for their long-term orientation (Lumpkin and Brigham, 2011; Diaz-Moriana et al., 2018); with their business operations typically spanning across generations. Research to date has examined the variation across generations in terms of succession (Sharma et al., 2003; Weismeier-Sammer and Hatak, 2014); retained earnings (Vandemaele and Vancauteran, 2015); entrepreneurial orientation (Cruz and Nordqvist, 2012); and transgenerational entrepreneurship (Jaskiewicz et al., 2015). With regards to innovation, the evidence is inconclusive. While some research found that the involvement of the next generation is detrimental to innovation in family firms (Block et al., 2013; Bloom and Van Reenen, 2007), others maintain that generations enhance innovation (Carvalho and Williams 2014; Cruz and Nordqvist, 2012; Hillebrand, 2019). This conflicting finding may be attributed to the heterogeneity of innovation in family firms (Filser et al., 2018).

An important gap in current family business innovation research is the assumption of homogeneity within family firms and as a consequence, their innovation activities (Calabro et al., 2019). In order to advance the family business domain, scholars have attempted to understand the differences *among* family firms (Chua et al., 2012). Whilst the heterogeneity of family firms in terms of family involvement in ownership and management (Fiegener, 2010) and the context in which the family firm operates (Wright et al., 2014) has warranted initial exploration, innovation to date has received little attention, thus leading to calls for considering the heterogeneity of family firms when investigating their innovation activities (De Massis et al., 2014). This heterogeneity can stem from the differences in ability and willingness as well as from the generation managing the business (Calabro et al., 2019). This paper responds to this call by exploring how the heterogeneity of family firms' ability (in terms of discretion and resources) and willingness (in terms of economic and non-economic goals) affect their innovation activities across generations in the Dates industry.

Innovation through Tradition

Formerly, family firms were assumed to be conservative and anchored to past practices (Roessl et al., 2010), however, it has been argued that their innovative behaviour changes over time, particularly when the next generation takes over leadership of the family firm (Suess-Reyes and Fuetsch, 2016). Moreover, there has been an emerging narrative which acknowledges that

the integration of past knowledge into new practices is an important and unique mechanism by which family firms can harness innovation (De Massis et al., 2016; Erdogan et al., 2019; Rondi et al., 2018). The premise of this narrative is based on family firms' longevity (Miller and Le Breton-Miller, 2005) and long-term orientation (Lumpkin and Brigham, 2011). Such temporality creates a competitive advantage in innovation for family firms (Le Breton-Miller and Miller, 2011). Nevertheless, family firms are faced with a contradiction between the necessity of adhering to traditional practices for preserving their identity and the pull towards the adaptation of new practices (Erdogan et al., 2019).

Combining the insights from prior research and findings of their own study, De Massis et al. (2016) presented a new strategy called innovation through tradition (ITT), whereby they categorized the sources of past knowledge into two domains: firm tradition and territorial tradition. They argue that long-lasting family businesses do not adhere rigidly to their traditions but rather they recognize those traditions as an opportunity to discover and amalgamate new knowledge, thereby translating it into innovation. Working along the same lines, Erdogan et al. (2019) coined a new term called 'trad-innovation' and asserted that family firms must reconcile past traditions with innovative knowledge in order to succeed. Knowledge from territorial traditions can therefore be used to reinterpret product functionalities and/or enable product meanings.

Methodology

Method

The methodology adopted was qualitative and interpretive in nature, involving a case study-based data collection method in relation to four Saudi family firms operating in the Date industry. Family business innovation field is dominated by quantitative research, despite this, there have been calls for qualitative research in order to provide a more nuanced understanding of innovation in this type of particular type of organization (Filser et al., 2016). The appropriateness of case studies in ascertaining relevance and understanding of unexplored phenomena is acknowledged by other scholars (Lettl et al., 2006), and in particular by family firm scholars (De Massis and Kotlar, 2014; Cassia et al., 2012). For example, it has been suggested that case studies represent a legitimate and interpretative approach to fieldwork and analysis for exploratory research into family firms (Hall et al., 2001). Moreover, the application of case study methods in family business research is advocated by De Massis and Kotlar (2014:

15-16), who describe them as a “powerful methodology that can be used in a rigorous, creative and wide-ranging variety of ways to advance family business research.”

Our sampling is purposive in nature, in which four multigenerational family firms were selected. The sample consists of family firms in the Saudi Arabian date palm industry echoing recent calls for sectoral studies in family business innovation research (De Massis and Foss, 2018; Calabro et al., 2019). Although there is no optimum number of cases when it comes to multiple case study design, Eisenhardt (1989) endorses four to ten cases as fewer than four would sustain difficulties in formulating complex theories, whilst greater than ten would suffer from superfluity or convolution of data. Consequently, four cases were deemed appropriate for the current study in order to observe replication logic and, in particular, to pursue distinctive patterns of theoretical replications (Yin, 2015). Our unit of analysis is the family firm, building on a previously operationalized definition of the family firm (Kellermanns et al., 2012), we defined our sample by the following criteria: First, the firm must be controlled and influenced by a single family and at least two-family members actively involved in managing the business. Second, the family aspire to pass the business onto the next generation which reflects succession intentions and therefore the long-term orientation.

We conducted semi-structured case interviews, follow-up interviews and observations (plant/office tour, family visits) were conducted supplemented by archival data from various sources, including industry reports, government documents, company website, and news articles. Interviews started with background questions about the participants, the family, and the firm, then moved to questions about innovation, governance, resources, and goals (See Table 1 for our interview schedule). Interviews were conducted in Arabic with two family members from the Top Management Team (TMT) in each firm. All interviews were translated, digitally recorded with the permission of participants, then transcribed verbatim by one of the research team and translated by a professional translator. The duration of interviews was on average 61 minutes, with the longest interview lasting nearly 2hrs. An overview of the four family firm cases is provided in Table 2.

[INSERT TABLE 1 ABOUT HERE]

[INSERT TABLE 2 ABOUT HERE]

Data Analysis

The data analysis procedure followed four stages which was facilitated by the NVivo 12 qualitative data analysis software (Richards and Richards, 1994). First, we read the transcripts in order to immerse ourselves in the data. Then, we assigned codes to the text by looking for patterns and themes within and across cases. During this first order coding process, we utilized existing frameworks and at the same time allowed for new emerging themes. Next, we grouped codes together to create higher-order themes. For instance, codes related to “financial resources”, “human resources”, and “know how” were grouped to form “ability as resources”. During the last stage, we iteratively analyzed the data by moving between the transcripts and prior literature until a satisfying set of themes that reflected the data was reached. This process resulted in two major theoretical themes, namely: Innovation Posture and Innovation Through Tradition, that enabled us to answer our research aim. The themes were shared and discussed with the research team throughout the analysis process to ensure the soundness and inter-reliability of our analyses. Finally, the themes were contrasted within and between cases resulting in a further categorization of the themes based on the firm being in the founder phase or next generation phase. Table 3 illustrates the data structure for first order codes, higher-order themes, and theoretical themes on which the presentation of our findings is organized.

[INSERT TABLE 3 ABOUT HERE]

Findings and Discussion

We now present and discuss our findings, which are explored in detail and illustrated with fragments of the narrative or “power quotes” (Pratt, 2009). In addition, associated proof quotes (Pratt, 2009) are outlined in Appendix 1.

Innovation Posture

Our cross-case analysis revealed that the presence of all four sources of innovation (ability as discretion, ability as resources, willingness economically, and willingness non-economically) as necessary for innovation to take place; with the absence of any one of these four conditions hindering innovation in family firms. Moreover, the innovation posture of the family firm changes when the new generation enters the business, to either “lagging” or “reviving”. Two of the cases were found to be lagging in innovation from the founder phase, namely Barhi and Sultana. While in the two other cases, namely, Sukkari and Khalas, the next generation were found to revive the founder’s business by engaging in innovative activities. Table 4 present the findings from our four cases and their respective innovation postures.

[INSERT TABLE 4 ABOUT HERE]

The differences in innovation posture when the next generation enters the business highlights not only heterogeneity of family firms based on their ability and willingness, but also their heterogeneity based on the generation managing the business (Calabro et al., 2019). This is of significance as previous research revealed contradicting findings when it comes to innovation in family firms across generations (Block et al., 2013; Cruz and Nordqvist, 2012). Our findings reveal that such contradicting results may be due to overlooking the ability and willingness conditions of innovation in family firms.

Lagging in Innovation

Barhi and Sultana were innovative in the founder phase, with their innovation activities stemming from the founder's vision and from being pioneers in the industry. As Barhi-2 state: *'During the time of the factory's initiation, the first in our region. The machines were from Germany and Switzerland, chocolate machines, my father transformed them to become dates machines. My dad built something that was unique back then!'* While Sultana-1 (founder) explained *'We got the idea of pressing the dates because people from Nejd region like the pressed dates at that time... and the pressed dates at that time were bad and the quality was poorthe machine that we imported from Germany, was a unique machine,no one was in the market at that time'*.

Such innovation in the founder phase reflects what Kellermanns et al. (2012: 90) refers to as "founder effect", where family firms' founders are essentially entrepreneurs (Salvato, 2004). Yet, this innovation is argued to diminish over time with increased generational involvement (Block et al., 2013). Indeed, our findings revealed that when the next generation entered the business, they failed to maintain previous innovation, with innovation failure due to the absence of one or more of the ability and willingness sources (De Massis et al., 2014). As Barhi-1 explained, *'I wanted to develop the business and make it more innovative, but that didn't work because I was shocked by the reality, I wanted to get into other industries like medical alcohol and sugar, but these kinds of ventures require big investment!'* while Barhi-2 declared, *'Before we were more innovative, now honestly weren't. We are at the same level of others'*. This was supported by archival data whereby certificates of excellence/achievements were issued in and referred specifically to the founder's phase. Additionally, the next generation appeared to show little interest in the business (Hauck and Prügl, 2015), which

indicates lower willingness as Sultana-1 explained *'one of our farms is more than 50 km², it contains 4500 palms and produces delicious dates! But I sold the farm because my sons didn't have any interest in the business'*. While the son confirmed *'in our case it's difficult to innovate!'* (Sultana-2). Observational factory site visits made by the research team also revealed that machinery currently utilized is machinery that was implemented during the founder's phase without upgrade or modifications.

Barhi case exhibited the lack of ability as discretion, an important condition for innovation to take place (De Massis et al., 2014), where the decision-making process differed during the next generation phase (Mitchell et al., 2009), as Barhi-1 remarked, *'when the owner is one person, he usually sets policies and so on. When we transitioned to become a company owned by multiples, we faced real problems'* and Barhi-2, *'it's a partnership company and has things that if you were the owner, you might go ahead and do, but you need consensus, you need voting in'*. In Sultana's case less willingness to innovate was due to limited economic incentive, another source of willingness (Chrisman et al., 2015), *'nowadays we have more than 30 date factories, so competition has increased, and the prices changed because the products are everywhere, so we have huge production of dates which negatively impacts the scale of income ranking'* (Sultana-1). Such limited financial incentives resulted in the firm focusing more on the profitable businesses within their portfolio which was observed during firms site visits as well as the firm's website.

Reviving Innovation

Our cross-case comparison revealed that Sukkari and Khalas cases showed no innovative activities during the founder's phase. For example, talking about his father's leadership, Sukkari-1 explained *'My father didn't have a vision. he wasn't thinking about kinds of dates, specifying a type and working on marketing it. He would plant anything! He was then shocked to have 200,000 palm trees that only 20% of them were useful, and this was wrong!'* While the founder of Khalas tried establishing an innovative date business but failed due to lack of willingness and a unified vision: *'We tried, our ambition was really high, we believed we would benefit from dates, palm trees, and palm trees wastes, we established a company, but it failed. Some of our family didn't like what was going on, they didn't believe in it'*. However, the next generation revived innovation activities when they entered the business. This comparison to the Barhi and Sultana cases is supported by the narrative that the next generation boost innovation in family firms (Carvalho and Williams 2014; Hillebrand, 2019). In the case of Sukkari, the next generation capitalized on their ability and willingness after the founder's

departure to create an international brand of dates related products. As Sukkari-1 stated *'So our brand started 7 or 8 years ago, and we got it registered in Saudi Arabia and other countries.... the innovation is our determination in the brand, to specialize in the supply chain, to deliver dates from farms to shelves.'* (Sukkari-1). The next generation's innovation activities in laboratories and branding were triangulated by talking to employees, reading news related articles, and by the firm's website.

Moreover, Khalas revived their innovation after gaining willingness by re-establishing the firm with close family members and introducing innovative derivatives from palm trees, such as biofuel and wood: *'We came up with a very good induce that we can benefit from in a way that we create organic fertilizers, in the sense that we first create clean biofuel because we can have methane. At the same time, we can use the rest to fertilize palm trees.'* (Khalas-1). They also produced nutritional products out of dates such as dates spread, dates powder, and dates jam; *'There is great potential for dates instead of our children eating Nutella containing large amounts of fats and white sugar! Through our project, we will produce dates similar to Nutella spreadable, so you can make sandwiches for kids and all.'* (Khalas-1).

Innovation Through Tradition

Dates were confirmed to be part of the Saudi culture and tradition across all cases, this was obvious in family home visits of the cases where Arabic coffee and varieties of dates were offered to the research team as a sign of hospitality. As Barhi-1 remarked *'Dates are part of our daily lives, our product is an everyday food in our culture and heritage... dates are integrated in our culture, when someone visits you, you give them dates and naturally they will talk about the dates; what type of date is it? How did you sort them out? so even the sorting process is an interesting topic in our culture'*. Dates are deeply embedded in Saudi Arabian society (Alsughayir, 2013) and are considered a national food source, as Sultana-1 noted *'I was born in a dates farm! But it is not us only, people of Njad survived starvation by dates, some people didn't have anything except those dates and water'*. While Barhi-2 affirmed, *'It goes without saying that dates are a national wealth, meaning that it is a must!'*, and *'this is a national product, no one in the world has what we have!'* (Khalas-2).

The integration of past knowledge, which was contextually embedded within the region and seen as a leverage for innovation practices, (De Massis et al., 2016), was an important driver with regards to economic development of the country (Alshuaibi, 2011) as Khalas-1 explained *'I'm one of the 70's students who went to the USA as an undergraduate and corn really caught my attention in the states, So, I started wondering how people all around the*

world make the best out of their fruits, you find juices, powder, you find syrup, you find creams, I mean they transform them into many products of added-value! In fact, innovation in the dates industry was considered an opportunity in the country still not fully realized in terms of its innovation potential - *'Our advantage is that the Arabian Peninsula is the essence, Makkah and AlMadina have their impact on 2.2 billion Muslims! Even if you say I'll market for the product in Makkah and AlMadinah, this has an added-value, it has an added-value compared to any other place in the world. So, the base to us is very strong and I think when it's well-used, it's very important! So that's why I'm telling you we didn't do it justice!'* (Sukkari-1). The advantage of the importance of dates for Muslims (Intezar et al., 2016) was also noted by Barhi-1 who commented, *'I always think of it this way, earth has maybe 1 billion Muslims, so in Ramadan, what if each one of them eats one! This is how I think of it when I go to buy dates now, because there will always be demand no matter what!'*. Thus, integrating this tradition into new innovative practices is an effective mean by which family firms in the region can boost their innovativeness (De Massis et al., 2016; Erdogan et al., 2019; Rondi et al., 2018).

Conclusion and Implications

The aim of this paper was to explore how the differences in family firms' ability (as discretion and as resources) and willingness (economic and non-economic) affect their innovation activities across generations. In order to achieve this, we focused on the Date industry in Saudi Arabia, thus responding to calls for sectorial studies in family business innovation research. This focus has enabled us to contribute to an emerging narrative which acknowledges that the integration of past knowledge into new practices is an important and unique mechanism by which family firms can harness innovation (De Massis et al., 2016; Erdogan et al., 2019). Additionally, our findings highlight that in the case of family firms, it is critical to have both ability (as discretion and as resources) and willingness (economic and non-economic) for innovation to take place. Moreover, the heterogeneity of this ability and willingness is observed with the innovation posture of the family firm changing when the new generation enters the business, to either "lagging" or "reviving. We also contribute to research acknowledges that the integration of past knowledge into new innovative practices as an important and unique mechanism by which family firms can harness innovation. We also respond to calls for family firm research in a non-American/Western context which is currently lacking in family business research in general (Wright et al., 2014) and innovation research in particular (Miller and Le Breton-Miller, 2014).

Additionally, our findings have important policy implications. Family business leaders should be encouraged to exercise their discretion when it comes to innovation, particularly with regards to decision making and resource allocation. This is particularly relevant in the Saudi Arabian context, where innovation and entrepreneurship are considered main drivers in the diversification of the Saudi economy away from a dependence on the oil industry (Miniaoui and Schiliro, 2016), as articulated in its ambitious economic reform plan Vision 2030. Thus, the nurturing and development of entrepreneurship and innovation is considered pivotal in the Kingdom's future.

Of course, our study is not without limitations that provide pathways for future research. The study is exploratory in nature, as our aim was to gain understanding of family business innovation in the dates industry in Saudi Arabia. Thus, our findings cannot be generalized to other populations or sectors. Nevertheless, our findings will hopefully motivate family business researchers to examine if our findings can be statistically tested, especially in relation to the importance of the presence of all four sources of innovation that enables family firms to engage in innovation activities. Moreover, given the temporality of family firms, a longitudinal study across multiple generations would be a fruitful path of research in family business innovation.

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Table 1: Semi- Structured Interview Schedule

Interviewee background	Age, education, current position, years of experience in the family business, years of experience outside the family business
Firm background	year of establishment, main product/service, number of employees, other activities
Family Background	family structure, branches, how many family members working in the business, what are their positions/ responsibilities
Innovation	self-evaluation of current and future innovation (input/ process/ output) (product, process, service, radical, and incremental innovations), factor enhancing innovation in the firm, sources of innovation (firm tradition/ territorial tradition/ new practices), role of family in innovation (supporting /hindering).
Governance (Family Ability as Discretion)	ownership structure/authority/ management/ monitoring and incentive system/ BOD effectiveness.
Family Ability as Resources	Important resources for innovation (social, human, financial, reputational, familiness), availability of resource, challenges in sourcing/employing resources.
Family Willingness to Innovate	family business goal (financial/ non-financial), goal changes over time, family first or business first.

Table 2: Cases Overview

Case	Name	Firm History	Business Age	No. of Employees	Family Ownership	Number of family member ownership	Generation working in the business	Number of family working in the business	Family Member Position	Age	Generation	Relationship
1	Barhi	The founder established it as a sole proprietorship; he died 4 years later, and the firm has since been transformed to partnership between siblings.	35	150	100%	8 (Siblings)	2 nd	2	Consultant	47	2 nd	Brother
									CEO	31	2 nd	Brother
2	Sukkari	After the founder died, one of his sons took over the business and restructured it as a brand.	50	500	100%	1 (Father)	2 nd & 3 rd	2	CEO	51	2 nd	father
									Department Manager	25	3 rd	Son
3	Sultana	The founder started the business as a hobby and as a sole proprietorship, then added his brothers to create a partnership. He now supervises remotely and has handed over daily operations to his sons and nephews who have diversified into other more profitable sectors.	37	250	100%	3 (Brothers)	1 st & 2 nd	4	Founder/Chairman	78	1 st	Father
									Department Manager	34	2 nd	Son
4	Khalas	The founder is passionate about dates. He started a corporation 15 years ago with over 100 shareholders, but it failed. He relaunched the business again with his cousins as partners and his sons as managers.	5	30	75%	3 (cousins)	1 st & 2 nd	3	Founder/Chairman	72	1 st	Father
									CEO	33	2 nd	Son

Table 3: Data Structure

First Order Codes	Second Order Codes	Aggregate Theoretical Dimensions
<p>Statements about: importance of dates (A, B); national food source (A, B); nutrition (A); dates as a fruit (A); patriotism (A); passion (A, B); social relationship (A, B); innovation source (A, B).</p>	<p>Tradition Culture</p>	<p>Innovation Through Tradition</p>
<p>Statements about: corporate governance (A); Board of directors, decision making, financial resources (A); human resources (A); know how (A); family relationship (A); meaning of business (A); reputation (A); financial goals (A); non-financial goals (A, B); generational gap (A); challenges; entrepreneurship (A); national competition; exporting (A, B).</p>	<p>Ability as discretion Ability as resources Willingness economically Willingness non-economically</p>	<p>Innovation Posture</p>

‘A’ evidence from interviews; ‘B’ evidence from archival types.

Table 4: Findings

Case	Name	Founder Phase	Next Generation Phase				Innovation Posture
			Ability		Willingness		
			<i>Discretion</i>	<i>Resources</i>	<i>Economic</i>	<i>Non-economic</i>	
1	Barhi	Innovative	X	X	✓	✓	Lagging
3	Sultana		✓	✓	X	✓	
2	Sukkari	Not innovative	✓	✓	✓	✓	Reviving
4	Khalas		✓	✓	✓	✓	