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Examining entrepreneurial orientation's dimensions – performance relationship in Saudi family businesses

Role of family involvement in management

Contingency role of family involvement in management

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Abstract

Purpose – The purpose of this paper is to contribute to family firm and entrepreneurship literature by providing an examination of how family involvement in management (FIM) moderates the relationship between entrepreneurial orientation (EO)'s dimensions and family firm performance (FFP).

Design/methodology/approach – Through a survey study, the research was developed using a sample of 175 family firms in Saudi Arabia to test the proposed hypotheses using hierarchical linear regression.

Findings – The findings revealed a strong positive and significant linkage of proactiveness and FIM with FFP, but, no significant relationship between innovativeness and risk-taking with FFP. However, when FIM contingencies were hypothesized, a new significant influence from the interaction between risk-taking and FIM on FFP was found.

Research limitations/implications – The main limitation lies in the fact that it is not possible to claim generalization of findings to family firms in other emerging or transitional countries as the research is focused on Saudi family firms. Theoretical and practical implications are discussed in order to produce new knowledge on EO of family firms and to help these firms not consider FIM as an impediment to the development of resources and capabilities necessary to the promotion of entrepreneurial activities within their operations.

Originality/value – There is a contribution to the literature on EO by showing that EO construct and its dimensions have great generality within family firms in a transitional context.

Keywords Innovativeness, Firm performance, Entrepreneurial orientation, Family firm, Saudi Arabia, Risk-taking, Proactiveness, Family involvement in management

Paper type Research paper

1. Introduction

Studying family businesses in Arab world has increased in interest by the scientific community (Alaya *et al.*, 2017; Basly, 2017; Zgheib, 2017). Attention has recently been focused on such businesses because of their crucial role and contribution to the job creation and employment; and also to the promotion and stimulation of entrepreneurship in their operations (Al Masah, 2011; Ramady and Sohail, 2010; Zain and Kassim, 2012; Zahra *et al.*, 2004). In Arab world, this role is worth questioning due to the making of deeply transformations of most of Arab countries' economies and to the adoption of structural and developmental plans that may influence the performance of family businesses. Consequently, doing research and producing knowledge in such topic in similar contexts is a challenging issue scholars are likely to encounter (Zahra, 2011).

Probably the only thing on which everyone agrees is that entrepreneurial activity, for every country, is recognized as one of the main promoters of industrial dynamism, economic development and growth. It increases the competitiveness of established firms (Carlsson *et al.*, 2013) by adopting an entrepreneurial orientation (EO) that helps them



explore new opportunities, grow and achieve profitability under conditions of globalization (Chow, 2006; Stenholm *et al.*, 2016; Zain and Kassim, 2012).

The transitions taking place in the Arab Middle East, and especially in Saudi Arabia, offer the opportunity in this paper to focus on Saudi family businesses and question their strategic orientation as they seek to adapt entrepreneurially to a rapidly changing competitive landscape. Such firms have to make sure that they are able to respond to environmental changes and acquire the necessary knowledge in order to take advantage of new business opportunities and perform better (Aloulou, 2018).

Since the last decade, researchers become interested by studying EO in family firms and its influence on family firm performance (FFP hereafter) in different sectors and contexts (Akhtar *et al.*, 2015; Casillas *et al.*, 2011; Hernández-Perlines *et al.*, 2017; Naldi *et al.*, 2007; Peters and Kallmuenzer, 2018; Schepers *et al.*, 2014; Sciascia *et al.*, 2010; Serafimovska and Stefanovska Ceravolo, 2013; Stenholm *et al.*, 2016; Tomski, 2014; Vecchiarini and Mussolino, 2013; Yordanova, 2011; Zahra, 2005; Zainol, 2013; Zellweger *et al.*, 2010; Zellweger and Sieger, 2012).

Attempting to contribute to the literature of family firms in Arab world, this paper investigates the relationships of EO dimensions to FFP in accordance with the foundational works of Miller (1983), Covin and Slevin (1989) and Lumpkin and Dess (1996); and studying the contingency role of family involvement in management (FIM hereafter) to affect these relationships (Casillas and Moreno, 2010; Casillas *et al.*, 2011; Powell and Eddleston, 2017).

The context of Saudi Arabia is characterized by a deeper transformation of its economy after the drop in the oil and energy prices and revenues (McKinsey and Company, 2015). The country has revealed an ambitious economic development program, which aims at widespread diversification of its economy by 2030 (Porter, 2012; Saudi Council of Economic and Development Affairs (SCEDA), 2016). Achieving higher diversification requires building capacities in high-end industries and services sectors and stresses the development of a sustainable knowledge-based economy (Khorsheed, 2015; Nurunnabi, 2017; SCEDA, 2016; Schwab and Sala-I-Martin, 2016).

One of the major pillars of the Saudi economy is represented by Saudi family businesses, as they represent an extension of private entrepreneurship in the economy, as well as the size of their economic contribution to providing the society with goods and services, securing large employment opportunities and participating actively in achieving higher economic performance. Indeed, official statistics from the Council of Saudi Chambers of Commerce and Industry (www.csc.org.sa/) emphasize on the economic importance of family enterprises as follows:

- The Kingdom accounts for 48 percent of family businesses in the Middle East.
- In total, 62 percent of the wealth of family enterprises is concentrated.
- Family firms in Saudi Arabia represent about 90 percent of operating firms. The average life expectancy of those establishments does not exceed 24 years.
- The average wealth of family businesses in Saudi Arabia is estimated at 22.5 billion riyals (\$6 billion) and is the main tool for diversifying the country's economic base, contributing 50 percent of non-oil GDP.

The primary purpose of the paper is to clarify the nature of EO construct in the context of Saudi family firm, and to propose a contingency framework for investigating the relationship between EO dimensions and FFP in accordance with previous studies (e.g. Naldi *et al.*, 2007; Casillas and Moreno, 2010). In fact, considering EO as a multidimensional construct (Kreiser *et al.*, 2002, 2013; Kreiser and Davis, 2010; Lomberg *et al.*, 2017; Runyan *et al.*, 2012; Rauch *et al.*, 2009; Wales *et al.*, 2011) and drawing on examples from EO dimensions-related contingencies literature (Wiklund, 1999; Wiklund and Shepherd, 2003, 2005), we suggest to add FIM as a potential moderator for testing the relationship of EO dimensions to FFP (Casillas and Moreno, 2010; Casillas *et al.*, 2011; Hatak *et al.*, 2016; Hernández-Perlines *et al.*, 2017; Meroño-Cerdán *et al.*, 2018; Naldi *et al.*, 2007; Powell and Eddleston, 2017; Poutziouris *et al.*, 2015; Schepers *et al.*, 2014; Sciascia *et al.*, 2010).

2. Theoretical framework and hypotheses

2.1 *Family firm and family involvement in management*

Family businesses have a significant economic force for a country's economy (Zahra *et al.*, 2004; Naldi *et al.*, 2007; Ramady and Sohail, 2010). The research on such topic has grown exponentially in the last decade as an emerging concept of interest globally and in Arab world (Zellweger, 2017; Basly, 2017).

The challenge of defining the phenomenon of family businesses is particularly important given that what distinguishes them from other types of organizations is the influence of the family on the firm in terms of its involvement in the ownership and/or management's dimensions. Despite the multiple definitions of the family firm concept, it is argued that a firm only qualifies as a family business if it is family owned or managed. In fact, family firms share certain characteristics that render them unique in terms of patterns of ownership, governance/management, and succession (Chua *et al.*, 1999; Litz, 1995; Naldi *et al.*, 2007). Thus, they are considered as unique type of organization to integrate knowledge from practitioners and scholars (Zellweger, 2017).

As a social system, family firm is a "metasystem" comprises of three board subsystem components: the controlling family; the business entity which represents the strategies and structures utilized to generate wealth; and the individual family member representing the interests, skills and life stage of the participating family owners/managers (Habbershon *et al.*, 2003). Each subsystem has its own action and outcome interactions. Moreover, the mix between family and firm is seen as resulting in an idiosyncratic and unique bundle of resources and capabilities in terms of family and organizational process. This mix shapes the behavior of the business and primes it for sustainable competitive advantage and growth (Habbershon *et al.*, 2003; Collins and O'Regan, 2011).

Family involvement refers to the degree in which the members of a family control the ownership of the company and participate in its management organization and structure (Casillas and Moreno, 2010; Chua *et al.*, 1999; Zahra, 2005). Admittedly, it is generally accepted that a family's involvement in the business makes the family business unique. Family business is proposed to be defined by behavior which is based on firm's intention, vision and mission (Chrisman *et al.*, 2005; Chua *et al.*, 1999). That is the key defining issue that differentiates family business from non-family business (Collins and O'Regan, 2011; Wright and Kellermanns, 2011).

FIM is conceived as potential source of competitive advantage through the provision of idiosyncratic bundle of resources and capabilities (Litz, 1995; Chrisman *et al.*, 2005; Hatak *et al.*, 2016; Meroño-Cerdán *et al.*, 2018; Powell and Eddleston, 2017). Moreover, it has been reported that several gaps in family business research have been reported and among them is the link between FIM and its effect on FFP (Collins and O'Regan, 2011). In this study, FIM is considered as having a potential influence as moderator on the EO – performance relationship (Casillas and Moreno, 2010). This choice is made following calls from previous research to focus on investigating internal moderators of this relationship (Lumpkin and Dess, 1996; Escribá-Esteve *et al.*, 2008; among others).

2.2 *EO, its dimensions and family business*

In entrepreneurship and strategic management literature, a firm's EO is a well-known concept of strategic orientation that has been widely studied in the last few decades (Aloulou, 2018; Aloulou, 2002; Aloulou and Fayolle, 2005; Covin and Slevin, 1989; George, 2011; George and Marino, 2011; Kreiser and Davis, 2010; Kreiser *et al.*, 2013; Lomberg *et al.*, 2017; Lumpkin and Dess, 1996; Lyon *et al.*, 2000; Miller, 2011; Rauch *et al.*, 2009; Runyan *et al.*, 2012). Based on the Work of Miller (1983), Covin and Slevin (1989) conceived a firm's EO as encompasses three dimensions: innovativeness, proactiveness and risk-taking. With Lumpkin and Dess (1996), EO may be understood as processes, practices and decision-making activities that lead to an

entrepreneurial behavior in firms. Therefore, EO's dimensions have proven to be key antecedents to the success of firms (Wiklund and Shepherd, 2003). And since, environment becomes hostile and dynamic, family firms should behave entrepreneurially to survive (Covin and Slevin, 1989).

In family firm research, EO is a very promising topic (Dess *et al.*, 2011; Rogoff and Heck, 2003; Stenholm *et al.*, 2016; Zellweger *et al.*, 2010). Recent empirical research has shown that entrepreneurial activity is a common characteristic of many family firms (Zahra *et al.*, 2004; Zahra, 2005) and their EO is a crucial aspect for family firms to successfully compete in the market and ensure its continuity between generations (Zellweger *et al.*, 2010).

EO and its dimensions were explored in different contexts and types of firms such as family firms and compared with non-family firms (Casillas and Moreno, 2010; Casillas *et al.*, 2011; Craig *et al.*, 2014; Cruz and Nordqvist, 2012; Dess *et al.*, 2011; Naldi *et al.*, 2007; Peters and Kallmuenzer, 2018; Short *et al.*, 2009; Uhlaner *et al.*, 2012; Yordanova, 2011; Zahra, 2005; Zainol, 2013; Zellweger and Sieger, 2012).

However, literature review on this concept shows that findings were highly controversial (George and Marino, 2011), and this is due to the family dimension. In fact, family business characterized by a strong family objectives and orientation may create a tension that can pull away the business from or create a complementary function with an EO (Lumpkin *et al.*, 2008; Uhlaner *et al.*, 2012). Moreover, this is due also to several factors such as the willingness to survive across generations (Cruz and Nordqvist, 2012; Zellweger and Sieger, 2012); the influence of some environmental factors (Cruz and Nordqvist, 2012; Casillas *et al.*, 2011); the existence of different types of family firms (Salvato, 2004); the influence of the family firm's organizational culture (Zahra *et al.*, 2004); the dimensions of socio-emotional wealth of the family firms' owners (Gómez-Mejía *et al.*, 2007; Schepers *et al.*, 2014); the degree of family involvement in ownership, management or governance (Sciascia and Mazzola, 2008); or the dimensions of the owner family's commitment to the firm (Zahra *et al.*, 2008; Hatak *et al.*, 2016).

2.3 EO's dimensions and FFP relationship

The dimensions of EO are viewed as separate but related constructs, rather than as one unifying characteristics (e.g. Lumpkin and Dess, 1996; Lyon *et al.*, 2000; Kraus *et al.*, 2012). The dimensions of EO need to be defined then explored empirically among family firms.

Innovativeness and FFP. Innovativeness is identified as the firm's propensity to promote and support actions in terms of ideas, experimentations and creative processes that lead to the pursue of new opportunities in order to gain and sustain competitive advantage, including both product-market or technological attributes (Miller, 1983; Lumpkin and Dess, 1996).

It was acknowledged that innovativeness has a positive relationship with performance (Rauch *et al.*, 2009). With regard to family firms, innovativeness is regarded as a highly relevant dimension EO in the context of family firms (Casillas and Moreno, 2010). The efforts in innovativeness leading to the development and launch of new products are translated into improved firm performance (Naldi *et al.*, 2007; Hatak *et al.*, 2016). From above, we seek to confirm the previous findings by proposing to test the following hypothesis:

H1. There is a direct positive relationship between innovativeness and FFP.

2.3.1 Proactiveness and FFP. Proactiveness refers to the ability of a company to be the first mover and take the initiative by anticipating and pursuing new opportunities and by participating in emerging markets (Lumpkin and Dess, 1996). From a meta-analysis of 37 empirical studies, Rauch *et al.* (2009) found that like innovativeness, proactiveness provides an intensive relationship with firm performance. In their empirical investigation of 532 Finnish firms, Craig *et al.* (2014) considered that proactive family firms influence their product innovation output more positively than proactive non-family firms do.

For Casillas and Moreno (2010), the dimension of proactiveness can be a source of growth (Lumpkin and Dess, 1996). Additionally, in Pakistani context, Akhtar *et al.* (2015) found that proactiveness and autonomy are the most significant dimensions in the success of an enterprise. Therefore, we state the following hypothesis:

H2. There is a direct positive relationship between proactiveness and FFP.

2.3.2 Risk-taking and FFP. Under an EO perspective, risk-taking refers to the family firm's proclivity to engage in risky projects and its preference for bold vs cautious acts to achieve family firm objectives (Miller, 1983).

Nevertheless, Rauch *et al.* (2009) identified a lower relationship in intensity between risk-taking and performance. Therefore, when analyzing a sample of Swedish SMEs, Naldi *et al.* (2007) identifies risk-taking as a distinct dimension of EO in family firm and positively associated with proactiveness and innovation. In their study, the authors found that even if family firms do take risks while engaged in entrepreneurial activities, they take risk to a lesser extent than non-family firms. Their findings support the notion that family firms tend to be more conservative and risk averse and risk-taking in family firms is negatively related to their performances.

However, Zahra (2005) pointed out the ability of a firm to take risks is important for the creation of new technologies, jobs, and wealth. Lumpkin and Dess (1996) stated that firms with an EO are often typified by risk-taking behavior.

From above, we propose a positive relationship between risk-taking and firm performance in the following hypothesis:

H3. There is a direct positive relationship between risk-taking and FFP.

2.4 Defining FIM and FFP

FIM is a type of family governance among other types of involvement in ownership, in new entrepreneurial activity, and in philanthropy (Zellweger, 2017). Thus, there is a difference between the involvement of the owning family in management and in ownership (Sciascia and Mazzola, 2008).

In our study and similar to other studies (Casillas and Moreno, 2010; Zahra, 2005; Chua *et al.*, 1999), FIM refers to the extent to which family members exercise management control in daily operations (as family CEO, CEO founder, participation of family members in the TM, or in the formulation of strategy and decision making).

Literature review showed that FIM mostly affects the managerial resources and capabilities and decision-making processes of a firm. Several works have highlighted the role played by FIM in explaining entrepreneurial behavior of family firms and their performance (Chrisman *et al.*, 2005; Kellermanns *et al.*, 2008; Kellermanns and Eddleston, 2006; Sciascia and Mazzola, 2008; Revilla *et al.*, 2016). For example, in their empirical study using a sample of 449 small- and medium-sized companies in Spain, Casillas and Moreno (2010) reported that FIM has a boosting effect that enables better results. Moreover, from an empirical study Poutziouris *et al.* (2015) found evidence to support the thesis that the involvement of family members in management (founder or family descendant CEO) enhance the performance of the UK listed family companies on the basis of accounting profitability and market value. In a study of 211 American founders of small and medium-sized enterprises, Powell and Eddleston (2017) indicated that family involvement in the firm was indirectly related to business performance through family-to-business support. In sum, FIM may exert a significant influence on firm performance (Sciascia and Mazzola, 2008; Poutziouris *et al.*, 2015; Kellermanns *et al.*, 2012). We posit the following hypothesis:

H4. There is a direct relationship between FIM and FFP.

2.5 Contingency role of FIM in the EO's dimensions – firm performance relationship

Recent research has called for studies to be focused on investigating internal moderators of the strategic orientation – performance (particularly of EO – FP) relationship (Lumpkin and Dess, 1996; Escribá-Esteve *et al.*, 2008; Wiklund, 1999; Wiklund and Shepherd, 2003, 2005; among others). Several studies have responded to calls for incorporating other organizational factors such as FIM as moderators of the relationship between EO and performance (Zahra, 2005; Naldi *et al.*, 2007). But, there is still a need to learn about the potential effects of FIM on this relationship in specific contexts. Several authors studied the direct effect of FIM on EO and behaviors (Salvato, 2004; Kellermanns *et al.*, 2008), but, fewer have explored the contingency role of FIM on the EO – FP relationship (Vecchiarini and Mussolino, 2013; Casillas and Moreno, 2010; Hatak *et al.*, 2016; Akhtar *et al.*, 2015; Sciascia *et al.*, 2010).

From a qualitative research using a multiple-case studies approach, Vecchiarini and Mussolino (2013) considered the effect of family involvement on the EO and its dimensions in family-owned healthcare organizations. In their study, Casillas and Moreno (2010) posited that FIM has a boosting effect that enables better results when the firm demonstrates clear innovativeness. In a longitudinal study on 106 Finnish family firms, Hatak *et al.* (2016) demonstrated the moderating effect of the owner family's commitment to the firm on the relationship between innovation and firm performance and an interplay between innovativeness and family commitment as specific resources affecting performance.

In family business, Casillas and Moreno (2010) found that FIM moderates the relationships between risk-taking and growth, in such a way that a firm's risk-taking will have a less intense influence on growth when family involvement is higher. In the same vein, Vecchiarini and Mussolino (2013) proposed that FIM decreases risk-taking inclination of family organizations.

According to several authors (Casillas and Moreno, 2010; Naldi *et al.*, 2007; Vecchiarini and Mussolino, 2013), we posit the following hypothesis:

- H5. FIM will moderate the relationship between innovativeness and FFP in such a way that a firm's innovativeness will have a more intense influence on FFP when FIM is higher.
- H6. FIM will moderate the relationship between proactiveness and FFP in such a way that a firm's proactiveness will have a less intense influence on FFP when FIM is higher.
- H7. FIM will moderate the relationship between risk-taking and FFP in such a way that a firm's risk-taking will have a less intense influence on FFP when FIM is higher.

Figure 1 represents the hypothesized research model.

3. Methodology

3.1 Data collection

For this study, the gathering of data was conducted from September 2016 to March 2017. Originally, the survey instrument was drafted in English and then translated into Arabic language. The use of back-translation ensured that the meanings of the item statement were not changed and the language were accurate and appropriate (e.g. Kreiser *et al.*, 2002). A first Arabic version of the questionnaire was drafted and, then reviewed by two academics and pre-tested on ten firms (not included in the final sample). Some changes on questionnaire were made on the wording of measurement items to improve its readability, format and relevance of its instruments. Then, the questionnaire was developed in two languages: Arabic and English. After that, the survey was conducted through a specialized online inquiry tool (two Arabic- and English-enabled online Google Form questionnaires). The use of such tool helps the researcher to easily approach the respondents and ensure that

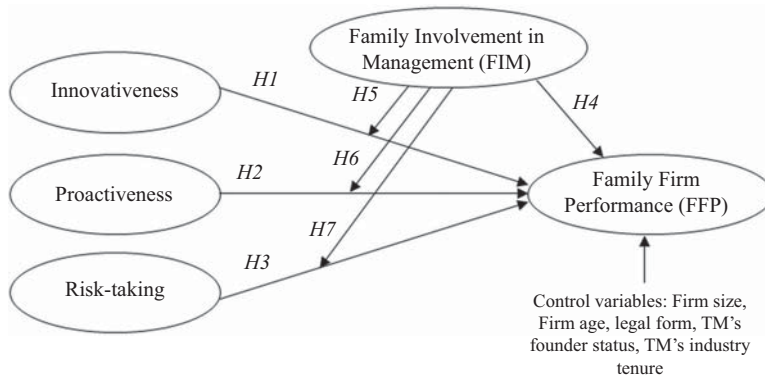


Figure 1.
Hypothesized research model

they fill in the survey instrument and the required items, and to reduce the probability of having missing data. A second traditional inquiry, paper-and-pencil survey, was also used as complementary tool to bring other observations with the help of well-trained graduate students in the collect of data.

This second inquiry seems to be equivalent to the online inquiry (Weigold *et al.*, 2013).

The questionnaire used in the study (in each version) consisted of four parts: EO dimensions, FFP, FIM and general information about firms (firm size, age, legal form, founder status and industry tenure of the top manager) and respondents (occupation and work experience).

3.2 Sample and descriptive statistics

A list of Saudi firms operating in the Saudi market was prepared and based on information collected from official websites data based on different sources (e.g. Chambers of Commerce and Industry, Ministry of Industry, Ministry of Commerce and Investment, Saudi Industrial Property Authority, Saudi Exports). The completed list comprised more than 2,500 Saudi firms and included firm name, address, contacts, and names and contacts of its key managers. But, in this list, there was no mention about the family status of these firms. With the available information, it was possible to send the survey via emails containing a cover letter that provides information about the survey and its research purpose and targeting the concerned respondents to fill in the survey in priority.

The goal of sampling was to contact executive-level respondents, preferably owners, founders, CEOs, or any other members of top management and of the board of directors who are involved in strategy formulation and planning of their family firms. Respondents were also invited to classify their businesses as family businesses or not. The respondents had to answer yes to the following question: "Do you consider your business to be a family business?"

The sampling frame contained 353 respondents who filled in the survey correctly. Only 175 are found to be family businesses which are located in main regions of the KSA with economic potential. In total, 33.71 percent of the sample is small businesses employing up to 49 people, 30.29 percent employing from 50 to 249 people (medium) and 36 percent employing more than 250 people. The majority of respondents (66.5 percent) are active in the industrial sector and 33.5 percent operate in non-industrial sector (personal and professional services, building and construction sector). In total, 43 percent of the firms have 20 years or more of existence. A total of 41 percent of them are in sole proprietorship as legal form, 35 percent of them are in private limited company. Also, 77.14 percent of family firms have TM with founder status. The TM's industry tenure is with a mean of 16 years of experience. An overview of the sample statistics can be found in Table I.

	No. of firms	Percentage
<i>Size of the firm</i>		
Less than 50	59	33.71
Between 50 and 249	53	30.29
Between 250 and 499	26	14.86
500 and more	37	21.14
<i>Age of the firm (missing = 2)</i>		
Less than 5	23	13.14
Between 5 and 9	38	21.71
Between 10 and 19	34	19.43
20 and more	78	44.57
<i>Sector</i>		
Industry	98	56.00
Services	33	18.86
Building and construction	38	21.71
Other	6	3.43
<i>Legal form of the business</i>		
Sole proprietorship	72	41.14
General and limited partnership company	20	11.43
Private limited company	62	35.43
Joint-stock company	18	10.29
Other	3	1.71
<i>TM's founder status</i>		
Yes	135	77.14
TM's industry tenure	Mean = 16.22, min = 1, max = 48, SD = 10.860	
Total	175	100

Table I.
Description
of the sample

4. Variables and measures

4.1 Independent variables: EO's dimensions

These dimensions were measured by adapting the widely used eight-item, five-point scale proposed by Covin and Slevin (1989) for parsimony and credibility (Runyan *et al.*, 2012). The scale encompasses three different dimensions, namely, the company's proactivity, innovativeness and risk-taking. With this scale, EO and its dimensions have been found to be highly valid and reliable at cross-cultural levels (Knight, 1997; Kreiser *et al.*, 2002; Runyan *et al.*, 2012). In our study, we measured and analyzed the EO's dimensions separately in order to focus on their interrelationship and test their effects on FFP (e.g. Naldi *et al.*, 2007; Lomberg *et al.*, 2017; Covin and Wales, 2012; George, 2011; George and Marino, 2011; Kreiser and Davis, 2010; Kreiser *et al.*, 2013; Lyon *et al.*, 2000; Miller, 2011; Rauch *et al.*, 2009).

4.2 Dependent variable: FFP

The FFP variable was measured, in literature, with different approaches: objective vs subjective (Dawes, 1999). We opted for the subjective way according to Dess and Robinson (1984) due the reluctance of respondents to disclose information confidential.

In addition, earlier studies (e.g. Dess and Robinson, 1984; Venkatraman and Ramanujam, 1986) demonstrate that subjective measures show high convergent validity with objective measures of performance. Indeed, Venkatraman and Ramanujam (1987) note that a broad conceptualization of business performance reflects the organization's overall effectiveness in meeting multiple goals. In our study, FFP is measured by five items five-point scale which

measures the owners' perceived satisfaction with their company's performance, profitability and growth in comparison to its competitors, and the status of the overall FFP, and relative to competition in the last year. Respondents were instructed to provide the extent of relative performance. For the FFP, the items were adapted from previous studies (Aloulou, 2018; Hakala and Kohtamäki, 2011; Sciascia and Mazzola, 2008).

4.3 Moderator variable: FIM

FIM was measured through three variables related to the presence of members of the owner's family as employees and their involvement in the firm's management (Casillas and Moreno, 2010; Litz 1995; Powell and Eddleston, 2017). These three dummy variables used referred to whether in the company: the managing director is a member of the owner's family; more than half the members of the top management team (TMT) belong to the owner's family; and whether the firm's long-term strategy and guidelines are designed essentially by members of the owner's family. These three dummy variables were added in a single scale of FIM (from 0 without family involvement to 3 with fully family involvement).

4.4 Control variables

There are four control variables in this study to control for the effect that these variables could have on the EO-FP relationship (Boling *et al.*, 2016; Escribá-Estevé *et al.*, 2008; Kraus *et al.*, 2012; Richard *et al.*, 2009; Wiklund, 1999):

- firm size (number of employees who were working in the firm at the time of the survey);
- firm age (number of years from its establishment);
- firm legal form (from sole proprietorship to joint-stock company);
- top manager status as founder (1 if TM is founder vs 0 if not);
- and top manager's industry tenure (number of years in which the TM has been employed in his or her current position in the industry).

5. Factor analysis, reliability and other statistical checks

5.1 Factor analysis and reliability

Using SPSS software (version 21), an exploratory factor analysis was performed to test the multidimensionality and gauge the validity of the constructs. We used a principal component analysis with Varimax rotation. The scale items, their numbers, variance explained in percent, KMO and Cronbach's α are reported in Table II. We excluded the

Variable	No. of items	Factor loadings	KMO	Accumulative variance explained (%)	Cronbach's α
<i>Independent variable</i>					
EO	8 items	–	–	–	–
Innovativeness	3 items	0.809-0.833	0.693	67.351	0.757
Proactiveness	3 items	0.585-0.740	0.663	66.244	0.745
Risk-taking	2 items	0.813-0.813	0.500	81.306	0.769
<i>Dependent variable</i>					
FFP	5 items	0.726-0.920	0.832	69.084	0.887
<i>Moderator variable</i>					
FIM	3 items	0.749-0.808	0.662	61.569	0.664

Table II. Exploratory factor analysis with explained variance, KMO and cronbach's α

factor loadings that were less than 0.4 to consider any factor loading as significant. The lowest variance explained counted for 61.569 percent and the highest for 81.306 percent.

The internal consistency of each scale is estimated by Cronbach's α test. A Cronbach's α above 0.7 is generally preferred (Nunnally and Bernstein, 1994). We consider that the α counted for the innovativeness scale is quite acceptable. The family involvement variable showed an α value of 0.664 with a low reliability. We can, however, accept it according to Hair *et al.* (2014).

5.2 Correlation between variables

Correlation was obtained for the variables of the study to ascertain the significant associations. Table III gives an overview of the relationships between control, independent and dependent variables with Spearman's ρ correlations and two-tailed test of significance.

It shows that all EO's dimensions showed a positive and significant correlation between each other. These dimensions have received wide support in entrepreneurship research (e.g. Naldi *et al.*, 2007; Wiklund and Shepherd, 2003). This finding means that the EO dimensions seem to have also generality in the context of family firms.

FIM, innovativeness, proactiveness and firm size have positive and significant association (at 1 percent) with firm performance. A significant correlation at (10 percent) was found between risk-taking and firm performance. Positive and significant correlations were found between some control variables: TM's industry tenure with firm size, firm age and TM's founder status at (1 percent); FIM with firm age; and also firm size with firm age at (1 percent), firm legal form and TM's industry tenure at (10 percent). However, negative and significant associations were found between TM's founder status with firm size, age and legal form at (5 percent). A significant correlation was found between TM's founder status and FIM at (10 percent).

5.3 Common method variance

With regard to the Common bias problem, following the recommendations of Podsakoff and Organ (1986) and Podsakoff *et al.* (2003), we proceeded to key in all the variables (independent, dependent and control) into a factor analysis and extracted six factors with eigenvalues superior to 1.0, which accounted for 69.363 percent of the variance. The first factor accounted for 25.142 percent of the variance, while the remaining factors accounted for 44.221 percent of the variance. We concluded that common method bias was not a problem since no single factor accounted for the majority of the variance and the individual factors separated cleanly (Podsakoff *et al.*, 2003).

5.4 Multi-collinearity among constructs

In order to check any violation regarding multi-collinearity among variables, the results indicate that there is no auto-correlation issue (the value of Durbin-Watson in the regression analysis varies from 1.889 to 2.008, see Table IV) and no multi-collinearity problem. Condition index was estimated too in all cases, no VIF values exceeded 10.0 (see Table IV). The condition index varied from 12.255 to 12.740, so there is no evident problem with co-linearity for the estimation of regression models. No outliers were detected and a possible collinearity among the constructs was passed the recommended standards: correlations between independent variables were less than 0.90; VIF < 10; tolerance > 0.1; and condition index < 30) as suggested by Hair *et al.* (2014).

5.5 Strategy of analysis

Based on previous statistical checks, regression analysis was conducted to identify the significant influences of EO's dimensions and of FIM on FFP. In addition, regression was

	Mean	SD	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	10
(1) FFP	3.41	0.72	1									
(2) Firm size	2.23	1.13	0.273***	1								
(3) Firm age	2.23	1.09	0.127*	0.513***	1							
(4) Firm legal form	2.17	1.14	0.074	0.426***	0.265***	1						
(5) TM's founder status	0.77	0.42	-0.125	-0.191**	-0.156**	-0.153**	1					
(6) TM's industry tenure	16.22	10.86	0.063	0.274**	0.560***	0.142*	0.223***	1				
(7) Risk-taking	2.99	1.09	0.131*	0.061	0.066	-0.153**	0.092	0.095	1			
(8) Innovativeness	3.40	1.01	0.234***	0.152**	0.110	0.000	0.102	0.036	0.421***	1		
(9) Proactiveness	3.41	0.93	0.310***	0.076	0.086	0.001	0.062	0.098	0.418***	0.669***	1	
(10) FIM	2.15	0.99	0.199***	-0.018	0.213***	-0.097	0.126*	0.153*	-0.062	0.063	0.173**	1

Notes: ***, **, *Correlation is significant at the 0.01, 0.05, 0.1 level (two-tailed), respectively

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Table III.
Descriptive statistics and correlations between main variables

Dependent variable	FFP					
	Model 1 β	Model 2 β	Model 3 β	Model 4 β	Model 5 β	Model 6 β
<i>Control variables</i>						
Firm size	0.236**	0.220**	0.253***	0.228**	0.220**	0.248**
Firm age	-0.002	-0.043	-0.079	-0.043	-0.036	-0.050
Firm legal form	-0.023	-0.027	-0.009	-0.042	-0.035	-0.044
<i>Independent variables</i>						
Top manager's founder status	-0.080	-0.099	-0.143	-0.101	-0.101	-0.104
Top manager's industry tenure	0.004	0.015	0.016	0.009	0.010	0.005
Innovativeness		0.040		0.038	0.038	0.026
Proactiveness		0.285**		0.278**	0.273***	0.294***
Risk-taking		-0.041		-0.046	-0.039	-0.055
FIM			0.246***			
<i>Interactions</i>						
Innovativeness \times FIM				0.108		
Proactiveness \times FIM					0.083	
Risk-taking \times FIM						0.169**
R^2	0.062	0.147	0.116	0.159	0.154	0.175
Adjusted R^2	0.031	0.101	0.080	0.107	0.102	0.124
ΔR^2	0.062	0.085	0.054	0.011	0.007	0.028
F value	2.006	2.197	3.275	3.079	2.973	3.462
F change (ΔF)	2.006	4.920	9.081	1.974	1.160	4.907
Significance of F	0.081*	0.003***	0.003***	0.163	0.283	0.028**
Durbin-Watson	1.926	1.926	2.008	1.889	1.927	1.948
Mean VIF	1.499	1.651	1.469	1.586	1.588	1.590
Condition index	12.255	12.436	12.740	12.447	12.436	12.457
Hypotheses	-	$H1$ and $H3$ not supported	$H4$ supported	$H5$ not supported	$H6$ not supported	$H7$ supported

Table IV.
Hierarchical
regression analysis

Notes: $n = 175$. * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$

also used to test the moderating role of FIM on the EO's dimensions – FFP relationship with the Baron and Kenny (1986) method by entering the interactions between EO's dimensions and FIM as variables.

6. Results

The proposed hypotheses were tested using hierarchical linear regression models with firm performance as dependent variable (six models, $n = 175$). The control variables were added first, then the independent variables and finally the interactions terms. Table IV gives an overview of the regression analysis.

Of the EO dimensions used within the empirical study, only proactiveness is significantly and positively associated with firm performance ($p < 0.05$). However, the EO dimensions of innovativeness and risk-taking are not significantly associated with FFP. This provides support for $H2$ but no support for $H1$ and $H3$. Therefore, the findings show that FIM is significantly and positively associated with FFP. This provides support for $H4$. Firm size is the only variable that is significantly related to FFP in the different regression models. The other control variables are not associated with the dependent variable.

To check the influence of FIM as a moderating variable, the regression analysis (models 4, 5, and 6) shows that only the interaction term of risk-taking with FIM is significantly and negatively related to FFP. The data supported *H7*. However, the interactions terms of innovativeness and proactiveness with FIM are positively related to FFP, but their relationships are not significant. We therefore reject hypotheses *H5* and *H6*. It has also been noted that the direct relationship of proactiveness with FFP is still significant in the different run models. The regression analysis shows also that the control variables explain 6.2 percent of the variance in FFP. After adding the EO variables, the model explains 14.7 percent of the variance in FFP, an additional 8.5 percent. After adding the interaction terms, the variance in FFP is explained from 15.4 percent to 17.5 percent in models 4, 5 and 6, an additional up to 2.8 percent.

7. Discussion

The aim of the paper was to investigate the influence of EO dimensions on FFP and the moderating role of FIM on the EO dimensions – FFP relationship. To achieve this, we collected data on 175 family businesses. Our findings show that proactiveness was directly related to the performance of Saudi family businesses and its relationship was not moderated by FIM. Innovativeness did not show a direct significant relationship with FFP and its relationship was not also moderated by FIM. However, even if risk-taking did not show a direct significant relationship with FFP, this relationship was moderated by FIM. The interaction of risk-taking with FIM was significantly but negatively related to FFP. Firm size was shown to be in significant relationship with FFP.

The data reveal interesting findings regarding proactiveness, risk-taking and FIM. First, proactiveness was positively and significantly related to FFP. This finding confirms previous studies about proactiveness as cornerstone of EO in driving FFP (e.g. Kraus *et al.*, 2012). This reveals that top managers who are proactive in their market place and seeking opportunities are gaining in terms of FFP regardless of the contingent role FIM may play. Second, although a positive relationship between risk-taking and performance was considered the predominant view (Rauch *et al.*, 2009) and conversely the findings show a negative but non-significant relationship with performance, then, a significant one in presence of FIM as moderator. That means that top managers in Saudi family businesses did not focus on their risk-taking to increase performance. Our findings confirm also the moderating negative effect of family involvement on the risk – performance relation. Thus, Saudi family businesses with higher involvement of family members tend to be more conservative and risk averse in their strategy making (Naldi *et al.*, 2007). Family members tend to adopt careful management practices and non-risky strategies inhibiting an important dimension of EO and choose not to take any risks in order to insure the continuity of their firms and preserve the financial and non-financial wealth (Zahra, 2005; Naldi *et al.*, 2007). For instance, this finding supports the argument that elements of management and governance need to be taken into account in order to understand the relationship between risk-taking and other dimensions of entrepreneurship in established family firms (Lumpkin and Dess, 1996; Lyon *et al.*, 2000; Naldi *et al.*, 2007). Moreover, it opens debate on adding another type of family involvement for future research: e.g. family involvement in ownership that may determine firm performance, moderate the relationship of EO's dimensions to firm performance and explain better the relationship between risk-taking and performance (Sciascia and Mazzola, 2008; Naldi *et al.*, 2007).

This study highlights certain implications for future entrepreneurship and family business research in such transitional context. First, it contributes to entrepreneurship and family business literature on the most popular construct of EO developed by Covin and Slevin (1989), which has received robust theoretical and empirical support in firm context

(e.g. Aloulou and Fayolle, 2005; Aloulou, 2018; Chow, 2006; Covin and Slevin, 1989; Kreiser *et al.*, 2002, 2013; Kraus *et al.*, 2012; Wiklund, 1999) and which is receiving also support in the context of family firms in specific context (Casillas *et al.*, 2011; Casillas and Moreno, 2010; Cruz and Nordqvist, 2012; Naldi *et al.*, 2007; Peters and Kallmuenzer, 2018; Schepers *et al.*, 2014; Sciascia *et al.*, 2010; Serafimovska and Stefanovska Ceravolo, 2013; Short *et al.*, 2009; Stenholm *et al.*, 2016). To the best of our knowledge, this study is one of the few empirical studies on the subject line in Saudi Arabia. Second, it addresses the question of how FIM moderates in the relationship between EO's dimensions and FFP. Most of our empirical results support previous studies showing positive performance impact of proactiveness and FIM (Kraus *et al.*, 2012; Casillas and Moreno, 2010; Hatak *et al.*, 2016; Powell and Eddleston, 2017). More importantly, our findings extend those by identifying a negative moderation of FIM related to risk-taking.

Our paper also has practical implications. Our results suggest that the involvement of family members in firm's management should not be considered as an impediment to the development of resources and capabilities necessary to the promotion of entrepreneurship within their operations. In contrary, family firms should prepare and integrate its members to lead successfully the company by capitalizing on their talents, skills and connections to spur entrepreneurial activities and entries that support firm performance (Zahra, 2005).

8. Limitations and future research

This study has several limitations that should be kept in mind. First, this work has limited itself to the generalization of the findings. In fact, this study used a sample of 175 family firms while small, but, can still be representative of an "accessible" database available to date.

Second, like most other EO studies, our study used cross-sectional data relied considerably on self-reported and perceptual measures. While no respondent bias was found in the sample, future research would benefit from other key informants to bring a more complete picture of the firm's situation and behavior, and from developing other measures of firm performance (e.g. growth [...]) and of family involvement.

It would be interesting to incorporate other moderating and/or mediating variables such as those related to the environmental turbulence (Casillas *et al.*, 2011; Kraus *et al.*, 2012), to entrepreneurial and innovative behavior (Stenholm *et al.*, 2016; Schepers *et al.*, 2014), or to other family characteristics such as generation, family involvement in ownership, or socio-emotional wealth (Gómez-Mejía *et al.*, 2007; Meroño-Cerdán *et al.*, 2018; Schepers *et al.*, 2014). Such family characteristics may have greater influence in undertaking EO activities and enhancing performance (Short *et al.*, 2009).

Since the population of family firms is heterogeneous (private family firms, small vs large, family-owned firm, listed family firm, long-lived family firms) and does not show similar patterns in terms of EO (Naldi *et al.*, 2007), it would be interesting to conceive a contextual family EO (Tomski, 2014; Zellweger *et al.*, 2012) and make comparison of the EO's dimensions in different types of family firms and investigate the contingent role of family involvement over time (Zellweger and Sieger, 2012; Zellweger *et al.*, 2012).

9. Conclusion

Research on family business and EO will advance by paying greater attention to the involvement of family members in the management of their firms. In this paper, we have focused not only on the proactiveness as a source of performance of family firms, but also, on the moderating negative role of FIM on risk-taking – performance relationship. There is a contribution to the literature on EO by showing that EO construct and its dimensions have great generality within family firms. We conclude that even if family firms do take risks while they are engaged in entrepreneurial activities by innovating, competing proactively in

their markets, they take risk to a lesser extent especially when the family members are involved in the management of firm activities. This is a contribution in the literature of family firms by opening debate on other types of governance of these firms to be monitored in presence of firm owners and family members as managers (e.g. such as family involvement in ownership, or in the TMT [...]).

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