Innovation mediating and moderating internationalization in family and non-family businesses: embeddedness in Egypt, Madagascar, Morocco and Turkey

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Abstract

Purpose of the paper: According to most previous research, family businesses tend to internationalize less than non-family businesses. However, previous research has been conducted mainly in developed countries, where strong institutions support non-family businesses more than family businesses. Conversely, in developing countries with weak institutions, family businesses may conceivably have a comparative advantage for internationalization, especially if they are innovative. This paper focuses on how innovation may mediate and moderate the effect of governance upon internationalization in the form of exporting, as this dynamic is embedded in developing societies with weak institutions.

Methodology: The research method is quantitative data analysis. Our account is based on a representative sample of 4,004 family and non-family businesses in Egypt, Madagascar, Morocco, and Turkey, surveyed for the Global Entrepreneurship Monitor.

Findings: Analyses show that governance hardly affects innovativeness, but affects internationalization, in that exporting is especially high for family businesses in Morocco. Moreover, innovativeness boosts exporting in family business more than in non-family business. Furthermore, the comparative advantage of family businesses is larger in Morocco than in Egypt, Madagascar, and Turkey.

Research limits: Although an essential feature of our research design is based on a comparative approach, rather than the typical single-country studies, we compared four similar societies in developing countries with weak institutions. Therefore, a significant limitation is that our findings concerning the internationalization of family businesses should not be generalized to all kinds of societies. Moreover, due to the small number of countries (four developing countries), it is statistically impossible to test the effects of the macro-institutional factors affecting family firms exporting. Therefore, we can only measure country contexts' overall impact without elaborating effects of specific institutional factors enhancing or hampering the internationalization process.

Practical implications: The practical implication is relevant for family firms' policies to know that innovation in family firms is not a waste of investment, but innovation especially can boost exporting in family business more than in non-family firms, thereby enhancing the economic performance of family firms.

Originality of the paper: These results contribute to understanding internationalization in family businesses as shaped by innovation and as embedded in society's context.

Key words: family business; internationalization; exporting; innovation; developing countries
1. Introduction

According to numerous studies, internationalization, and also other business endeavors such as innovation, tend to be less intensive in family businesses than in non-family businesses (e.g., Andersson et al., 2017; Boellis et al., 2016; Erdogan et al., 2019; Diaz-Moriana et al., 2018, De Massis et al., 2019). However, most of the empirical results arise from advanced economies, where strong institutions support non-family businesses more than family firms (Webb et al., 2019; Ge et al., 2018). Contextual influences lead to different outcomes in family and non-family businesses (Arregle et al., 2017; Ray et al., 2018). In contrast to the prevailing paradigm, in less advanced economies with weak formal institutions, family businesses may compensate for the institutional void by higher commitment and trust and thereby perform well, not only in internationalization but also in other endeavors such as innovation. Mazzelli et al. (2018) examined the different propensity for innovation between family and non-family businesses. They concluded that family businesses have the potential to achieve higher innovation outputs despite lower R&D investment.

Empirical and conceptualization research on family business internationalization indicates that family management and ownership influence the firms' internationalization tendency (Minetti et al., 2015; Arregle et al., 2017; Ray et al., 2018). However, opposite effects of family involvement in different societies caused some studies to suggest that the impact of family governance on internationalization may be moderated or mediated by some specific factors (Ray et al., 2018). Among these factors, innovation and country contexts seem essential components altering the effects of family ownership and management upon internationalization tendency. According to prior research, innovation can increase export performance (Cassiman et al., 2011; Girma et al., 2008). Hence innovative activities may affect family firms' internationalization, and internationalization allows family owners to take advantage of their local opportunity for innovation (De Massis et al., 2018).

Several studies have researched innovation (e.g., Erdogan et al., 2019; Mazzelli et al., 2018) and internationalization behaviors (e.g., Arregle et al., 2017, De Massis et al., 2018) in family firms. However, the role of innovative activities has not been investigated in family firms' internationalization. Furthermore, previous research has studied the internationalization of family firms mostly in the contexts of developed countries and China (Ray et al., 2018), and the impact of family involvement on business endeavors in developing economies has not been adequately studied. Developing countries have been pointed to for further investigation (Gaur et al., 2014; Ratten, 2014), mainly for contemporary models of international business (Ramamurti, 2004). It poses another gap of research in the field of family firms' studies.

This study aims to analyze the effects of innovation on family firms' internationalization in developing contexts where family businesses substitute for ineffective regulations by financial markets (Visser and Chiloane-Tsoka, 2014) and offer a compelling performance by relying on family ties and informal institutions. Therefore, our research question is,
how does governance (in terms of family and non-family involvement in ownership and management) influence innovation and internationalization in less advanced economies? And does innovation, directly and indirectly, enhance the internationalization of family businesses more than non-family businesses?

This study contributes to the literature in two ways. First, we compare the effects of family and non-family involvement in ownership and management (family governance vs. non-family governance) on innovation and internationalization tendency in developing countries, here Egypt, Morocco, Madagascar, and Turkey. Second, we examine the effects of innovative activities and developing economies on family businesses’ internationalization propensity.

2. Governance, internationalization and innovation

Governance structure, i.e., family governance versus non-family governed businesses, seems to affect internationalization (Minetti et al., 2015; Arregle et al., 2017; Ray et al., 2018). Some studies in developed countries (e.g., Calabrò et al., 2013; Arregle et al., 2012) have examined the direct and moderating effects of family governance (i.e., family involvement in ownership and management) on internationalization tendency in family-owned companies. There are some researches in this area in China (e.g., Liang et al., 2014.). However, the findings are inconsistent, heterogeneous, and, therefore, inconclusive. A range of results illustrates the positive impact of family governance on internationalization (e.g., Arregle et al., 2007; Claver et al., 2009) while other findings indicate the adverse influence (Berrone et al., 2012; Gomez-Mejia et al., 2010). The opposing views may be reconciled if some factors influence the family owners’ ability and willingness to internationalize. These factors may increase or hamper the family firms’ internationalization tendency and provide different outcomes for family firms. According to Chrisman et al., 2012, increasing understanding that family business is heterogeneous means that research should focus on factors mediating and moderating family businesses’ behavior and performance.

Prior studies highlight the decisive role of innovation to support international expansion and growth (Girma et al., 2008; Singh, 2009; Yi et al., 2013; Corsi and Prencipe, 2018). Knowledge and technology enhance international operations (Simba, 2015; Corsi and Prencipe, 2018; Brock and Yaffe, 2008).

Resource-based theorizing (Barney, 1991) explains the link between innovation and internationalization in firms. Innovation as a strategic resource can construct a sustainable competitive advantage for businesses, specifically in the international markets (Álvarez, 2004; Corsi and Prencipe, 2018).

Family businesses are a distinctive type of business and are characterized by dual systems of family and business. They pursue non-economic goals based on family values and norms, which is not always in line with business objectives, and this feature distinguishes them from non-family
counterparts. Family owners rely on social capital, enduring relationships, stewardship behavior, and trust to overcome their business barriers. They focus on reputation, long-term horizon, survival, and preservation of family resources. Family businesses benefit from the informal institutions in less-developed contexts; they overcome the formal institutional void in developing countries by relying on family ties and other informal institutions.

Based on family firms’ distinctive characteristics, both innovation and country context may influence family business internationalization differently than in non-family firms.

3. Hypothesis development

Based on the above review of issues around the internationalization of family businesses, we specify the hypotheses about the effects of governance on internationalization and innovation.

3.1 Family governance and innovation

Family involvement in ownership and management generates particular advantages for businesses such as prompt decision making, flexibility, and a long-term horizon. These organizational characteristics identify family businesses as sources of innovative activities and increase the owners’ willingness to invest in business expansion, pursue promising opportunities, and support innovative actions to improve growth (Corsi and Prencipe, 2018). In a similar vein, some scholars explained that family governance positively impacts innovation (Lodh et al., 2014; Chen et al., 2013; Sciascia et al., 2015).

Nevertheless, a meta-analysis study (Duran et al., 2016) confirmed that family businesses invest less in innovation than non-family firms, but they have an increased conversion rate of innovation input.

In family-owned companies, the strong tradition is constructing a leading structure for family business organizations. Tradition is defined as “consciously transmitted beliefs and practices expressing identification with a shared past” (Dacin et al., 2019). Tradition is transferred from the predecessor to the next generation in family firms. It implies the reliable identification of antecedents that imprinted the organizational tradition at the first stage (Erdogan et al., 2019). Tradition and innovation can be considered as antithetical concepts. While tradition emphasizes commitment and stability, innovation is concerned with changing and novelty. The tension between innovation and tradition leads to a paradox in family firms. Family owners need to renew products and processes to maintain their competitiveness in the markets; they also need to preserve and sustain organizational tradition. This paradoxical situation distinguishes family firms from non-family counterparts concerning innovative activities (Erdogan et al., 2019).

Drawing on ability and willingness (De Massis et al., 2014), we formulate our first hypothesis. Ability highlights two different aspects of family
involvement in the business. First, ability (as a resource) is related to family owners-managers’ capabilities to lead firms in the preferred direction. Second, ability as discretion refers to the family owners’ discretion to allocate or dispose of firms’ resources. Willingness explains family owners-managers’ favorable disposition to engage in a particular behavior (De Massis et al., 2018). In terms of innovative activities, family firms are more able to innovate due to higher discretion to allocate firm resources; however, they are less willing to engage in innovative actions (Chrisman et al., 2015). The lack of willingness may arise from preserving traditional manners or a lack of capability of managing the paradox between tradition and innovation (Erdogan et al., 2019).

In addition to the effects of governance on innovative activities, national context can influence the ability and willingness of family owners-managers concerning innovation. Family firms benefit from family involvement in less developed contexts; they rely on family ties and other informal institutions such as social capital, trust, and stewardship behavior to cope with weak formal institutions in developing contexts (Soleimanof, 2018). Hence, family firms are more sensitive about informal institutions, specifically in less-developed context. As a result, family firm owners may prefer to preserve their traditional manners as an essential part of informal institutions. Moreover, managing the paradox between innovation and tradition requires high managerial capabilities (Erdogan et al., 2019). Family firms are known as less management-capable organizations than non-family firms (Graves and Thomas, 2006). Family owners are reluctant to hire external professional managers, especially in less developed societies. Involving non-family members in family firms deteriorates the family firms’ advantages in less developed countries contexts by increasing agency costs resulting from the conflicts between family owners and outside agents (principal-agent) and family owners and minority shareholders (principal-principal) (Soleimanof, 2018).

Considering the effects of developing context on family firms’ ability and willingness for managing the paradox between innovation and tradition and preserving traditional manners as an essential informal institution we posit:

_Hypothesis 1: Family versus non-family governance affects innovation, in that innovativeness tends to be lower in family businesses than in non-family businesses in developing countries._

3.2 Governance influences exporting tendency

According to the ability and willingness perspective (De Massis et al., 2014), family businesses’ particularistic behaviors stem from the family owners’ ability and willingness to act idiosyncratically. Family owners should have the ability in terms of discretion to perform distinctively and willingness in terms of their commitments to pursue family-oriented objectives (Ray et al., 2018). Lower managerial capability, risk aversion and, fear of losing socio-emotional wealth lead to family owners’ inability and unwillingness to internationalize. In contrast, stewardship behavior,
A substantial social capital, a higher level of trust, and long-term orientation in family businesses facilitate international operation in family firms (Arregle et al., 2017).

Furthermore, the national context affects internationalization propensity and performance, particularly on family-owned companies (Arregle et al., 2017). Family firms’ export shares are more sensitive to contextual factors than non-family firms (Bassetti et al., 2015). Less developed contexts are characterized by a weak institutional environment (Gaur et al., 2014). Family firms benefit from informal institutions to overcome undevolved formal regulations in less developed countries. However, a high-risk strategy may require legal support specifically for family firms restricted by a higher level of risk aversion and less managerial capabilities concerning internationalization. (Sciascia et al., 2012 It misses in references; Verbeke and Kano, 2012; Graves and Thomas, 2006).

Weak formal institutions in developing contexts may increase family owners’ narrowness and lead family firms to local expansion instead of international growth. This leads us to assume that, in general, family businesses export less than non-family firms in less-developed countries due to unsupportive formal institutions and conservative behavior of family owner-managers. Consequently, their greater needs for government supports, especially in internationalization strategy. Hence the second hypothesis is:

**Hypothesis 2: Family versus non-family governance affects exporting, in that exporting tends to be less in family businesses than in non-family businesses.**

### 3.3 Innovation and exporting

Innovative activities are an increasingly essential factor of competitiveness and internationalization (Gorodnichenko et al., 2010). Export performance depends on technology and producing new products in the global markets (Yi et al., 2013). In addition to the role of context, particular resources may alter the governance effects on the ability and willingness of family owners and lead to their particularistic behavior. Innovation as a specific competency enables family business owners to overcome their restrictions, accept the risk associated with international growth, and allocate resources for international expansion. Previous research shows that there is a relationship between the internationalization and innovative activities in family-owned businesses as well as non-family businesses. Family and non-family businesses that display higher interest for innovation objectives are more likely to internationalize (e.g., Braga et al., 2017). Therefore, innovation may counteract the negative effect of developing contexts in terms of weak informal institutions on the internationalization process.

According to the resource-based view (Barney, 1991), firms’ specific heterogeneous resources and capabilities determinate firms’ strategic choices. As a particular resource, innovative activities can provide sustainable competitive advantages for firms and positively influence firms’
internationalization (Yi et al., 2013). Although family firms’ narrowness may negatively impact family firms’ internationalization, innovation as a definite competitive advantage can encourage family owners to internationalize.

Hence, we propose:

**Hypothesis 3:** Innovation affects exporting positively (so innovation may mediate the effect of governance upon exporting).

This hypothesis is neither new nor about a difference between family and non-family business. Rather, the hypothesis is merely restated here as part of the causal scheme of effects between governance and exporting.

### 3.4 Innovation moderating effect of governance upon exporting

A multi-theoretical perspective seems to be efficient in explaining the family firms’ complicated strategic behavior of internationalization and innovation. Drawing on the resource-based view (Barney, 1991) and the ability and willingness perspective (De Massis et al., 2014), we develop our fourth hypothesis. Resource-based-view theory (RBV) explains that the firms’ specific heterogeneous resources and capabilities determine their strategic choices. Drawing on RBV, innovation as a strategic resource positively influences firms’ internationalization (Yi et al., 2013).

Furthermore, innovation may also modify the effects of governance upon exporting. It creates a sustainable competitive advantage for firms (Corsi and Prencipe, 2018) and may present an additional guarantee for successful internationalization. Hence negative impacts of family involvement, such as risk aversion and narrowness concerning the internationalization, may be reduced by innovative activities. Lack of managerial capability is an essential weakness for family owners concerning internationalization, and managing innovation in family businesses reveals effective managerial skills. Given that innovation requires high managerial ability, particularly in family firms, to manage the paradox between tradition and innovation, innovative family companies have the capability needed for managing the internationalization process as well.

Family owners have a greater ability due to higher discretion (than non-family owners) for allocating resources. Innovation can increase family owners’ willingness to engage in international operations as it can lead to a successful expansion in foreign markets. These considerations lead us to posit that:

**Hypothesis 4:** Innovation moderates the effect of governance upon exporting, in that innovation boosts exporting in family business more than in non-family business.

### 3.5 Embeddedness in society

Prior researches explain that the effect of family involvement in businesses on internationalization is context-dependent (Wright et al.,
and related to the embeddedness in macro-level institutional environments. Therefore, the effect differs among countries (Arregle et al., 2017). Application of the institutional-based view theory (IBV) (Peng, 2009) and the ability and willingness perspective (De Massis, 2014) can assist us in developing the last hypothesis.

IBV explains the role of institutions in creating competitive advantages for organizations. IBV is a combination of both institutional economics (North 1990; Williamson, 1985) and institutional sociological perspective (DiMaggio and Powell, 1983; Scott, 1995) in the context of business strategy. According to IBV, firms’ strategic choice arises from the interaction between organizations and formal and informal institutions (Peng, 2002). An essential application of IBV is the globalization process to understand the origin of competitive advantages in international markets (Garrido et al., 2014).

Family firms in developing countries rely on informal institutions to cope with formal institutional voids. Although there are similarities in macro-level institutional environments in developing countries, the variation of two components of the institution, formal and informal institutions, may lead to different organizational behavior and performance in different societies.

The variety of formal and informal institutions also leads to particularistic behavior in family firms in different contexts. Institutions affect family business owners’ ability in terms of capability and discretion to allocate their resources for internationalization and their willingness to engage in an international operation. Family businesses are the dominant type of businesses in less developed contexts due to advantages that family involvement creates for businesses (Liu et al., 2012).

Although less developed economies are beneficial for family firms (Carney, 2005; Liu et al., 2012), international expansion may require governmental supports, particularly for family-owned companies, as family firms face more challenges concerning internationalization. Family businesses suffer from a lack of managerial capability for internationalization (Graves and Thomas, 2006; Menéndez-Requejo, 2005) as family owners are not willing to hire external professional managers. They have limited financial resources since they are reluctant to secure external financial resources due to the fear of losing control over the firm (Sciascia et al., 2012). Family firms tend to risk-avoidance because family owners have a larger share of capital bound in the firm leading to less risky investment (De Massis et al., 2018; Casson, 1999). These characteristics of family firms restrict their choice of international operation.

Nevertheless, the institutional environment may alter the negative impacts of family involvement regarding internationalization. In some less developed countries, governments promote internationalization through specific policies and supports. The legal supports and beneficial informal institutions for family firms in developing countries may increase family firms’ internationalization more than non-family firms in some developing countries.

Based on this, we hypothesize,
Hypothesis 5: The effects of different developing countries’ contexts differ for family and non-family governance concerning internationalization (i.e., moderation effects of the country on family and non-family exporting).

The hypotheses are summarized in Figure 1.

Fig. 1: Hypothesized effects

4. Research design

We apply a unique sample from the Global Entrepreneurship Monitor survey (2018) to analyze the effects of innovative activities on family and non-family businesses internationalization. We also intend to measure the impacts of different developing countries on family and non-family internationalization behavior and tendency. The sample includes 4,004 family businesses and non-family businesses that report their exporting and innovations in Egypt, Madagascar, Morocco, and Turkey.

Today, more than 50 countries are participating in GEM, which makes the GEM initiative a global research reference for the entrepreneurship phenomenon and a valuable tool for policymakers in each participating country.

The Global Entrepreneurship Monitor surveys the adult population and identifies entrepreneurs worldwide every year (Bosma, 2013; Global Entrepreneurship Research Association; 2017). GEM is unique because it uses data sets that measure early-stage entrepreneurs’ entrepreneurial behavior (TEA) and established businesses that are more mature for all sizes firms, including small startups (Lepoutre et al., 2013). TEA rates are calculated as the sum of entrepreneurial activities that are nascent at the setting up phase and the new businesses that are less than 3.5 years old, of adults age between 18 and 65. TEA and its components are the main concepts of many GEM related reports and research topics (Bosma, 2013). The overall and detailed description of GEM data, the Adult Population Survey questionnaire, methods, and design have been explained by Reynolds et al. (2005).

Sample

A representative national sample of at least two thousand (2000) adults, including all 18 to 64, was collected in each of the four countries.
geographic regions of the country, including urban and rural areas, must be included in the sample universe. The specific location of the interview should be indicated with a variable identifying geographic detail. Covered in the 2018 GEM cycle are results from GEM’s 2018 survey of 164,269 adults in 49 economies.

The sample available for this study was conducted on a multiple sampling phase. First, a random selection of municipalities was collected according to the population quotas. Second, telephone numbers corresponding to the different municipalities were randomly obtained, and finally, persons between the ages of 18 and 64 years inclusively were selected. The analysis of a sample of 4,004 family businesses and non-family businesses reporting their exporting and innovations in Egypt, Madagascar, Morocco, and Turkey is employed in this research.

4.1 Measurements

4.1.1 Exporting

In line with the objective of the study, our dependent variable is export. Exporting is a low-risk strategy for operating in international markets compared with other internationalization strategies such as foreign direct investment (FID), which requires a more significant commitment of resources (Guer et al., 2014). The export intensity of businesses has been measured as the percentage of sales to foreign countries. This measure has been used in several international business studies (Ray et al., 2018; Elango and Pattniak, 2007; Caper and Kotabe, 2003). Exporting is highly skewed, with most businesses not exporting and few exporting much, so the percentage is transformed logarithmically to reduce the skew. The GEM question for exporting is as follows:

What percentage of your annual sales revenues will usually come from customers living outside your country?

4.1.2 Innovation

Three components operationalize innovation in this study:
1. Innovation process as the newness of the technology used in producing goods or services
2. Product innovation as the newness of the product to customers
3. Competitiveness in innovative products or services on the market

Accordingly, the GEM questions for innovation measurement are the following three:

Have the technologies or procedures required for this product or service been available for less than a year, or between 1 to 5 years, or longer than five years?

Do all, some, or none of your potential customers consider this product or service new and unfamiliar?

Right now, are there many, few, or no other businesses offering the same products or services to your potential customers?
Each response is here coded on a 3-point scale from -1 through 0 to 1 according to increasing innovativeness. The three measures correlate positively and are combined, averaged, into an innovation index, going from -1 to 1.

4.1.3 Governance

The GEM survey defines family business as a business with more than one person working in it, which is mostly owned by the family and managed mainly by the family. The 2018 GEM surveys define the family business by asking these the following questions:

Is this business, for the most part, owned by you and your family and relatives?

Is this business mostly managed by you and your family and relatives?

Responding affirmatively to both questions identifies a family business as a business that, for the most part, is owned by the responding owner-manager and family and relatives, and that is mostly managed by them also. The negative answer for both questions identifies non-family businesses that, in the most part, neither owned nor managed by respondents' family. Sole-person businesses are excluded. Therefore governance is a dichotomous variable that we code 1 for family businesses and 0 for non-family firms.

4.1.4 Country

The country is a categorical variable. To analyze how the four countries differ, we select Egypt as the reference to which each other country will be compared. We use three dummy variables; one dummy coded 1 for business in Madagascar and 0 for others; another dummy coded 1 for businesses in Morocco and 0 for others, and yet another dummy coded 1 for businesses in Turkey and 0 for others.

4.1.5 Control variables

We have controlled several variables to deal with potential endogeneity of our independent variables; type of businesses and innovation, and other firm-level unobserved heterogeneity.

Based on previous studies, firm size is associated with firms’ exporting (Caldera 2010, Guar et al., 2014). We include firms size as a natural logarithm of a total number of persons (owner-managers plus employees) working for the business. Firm age influences exporting activities because it can facilitate the accumulation of knowledge and experience (Guar et al., 2014). Firm age is the number of years since the firm was founded, logged. We also controlled for the industrial sector, with four sectors, by creating three dummy variables for each, referencing the consumer-oriented sector. The three other sectors include extractive, transforming, business services.

Moreover, some attributes of owners and entrepreneurs can affect firms’ exporting. We control for the age of entrepreneurs, coded as the number of years of age. We also control for education, coded as the number of years
of education. We control for gender, coded 1 for male and 0 for female. We control for the business’s motive, a dichotomy coded 1 for opportunity motive, and coded 0 for necessity.

5. Results

First, we look at the differences between family businesses and non-family businesses in their exporting and innovation, and then we test our hypotheses in multivariate models.

5.1 The difference between family businesses and non-family businesses in their exporting

The first introductory question is whether family businesses differ from non-family businesses in their exporting. This question is addressed by the average levels of exporting, Table 1.

In Morocco, family businesses export significantly more than non-family businesses (p=.005 in a t-test of difference between the mean log of export in family businesses and the mean log of export in non-family businesses). In other countries, we cannot discern a significant difference.

Tab. 1: Exporting by family businesses and non-family businesses in each country

<table>
<thead>
<tr>
<th></th>
<th>Egypt</th>
<th>Madagascar</th>
<th>Morocco</th>
<th>Turkey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean exporting in family businesses</td>
<td>17.5%</td>
<td>1.0%</td>
<td>21.0%</td>
<td>9.2%</td>
</tr>
<tr>
<td>Mean exporting in non-family businesses</td>
<td>16.4%</td>
<td>.5%</td>
<td>13.8%</td>
<td>8.7%</td>
</tr>
<tr>
<td>Mean log of exporting in family businesses</td>
<td>1.37</td>
<td>.18</td>
<td>1.87</td>
<td>1.21</td>
</tr>
<tr>
<td>Mean log of exporting in non-family businesses</td>
<td>1.40</td>
<td>.19</td>
<td>1.40</td>
<td>1.20</td>
</tr>
<tr>
<td>Number of family businesses</td>
<td>1,208</td>
<td>486</td>
<td>333</td>
<td>252</td>
</tr>
<tr>
<td>Number of non-family businesses</td>
<td>1,221</td>
<td>29</td>
<td>151</td>
<td>209</td>
</tr>
</tbody>
</table>

Source: Global Entrepreneurship Monitor (GEM), Adult Population Survey (APS) 2018

To better account for exporting, we will control for effects of characteristics of the businesses and their entrepreneurs (section 5.3 below).

5.2 The difference between family businesses and non-family businesses in their innovation

Another introductory question is whether innovation differs between family businesses and non-family businesses. This question is addressed by the average levels of innovation, Table 2.

The difference between family businesses and non-family businesses is not significant in any country (the p-value in each t-test exceeds .05; also, in Madagascar, where the number of non-family businesses is quite small).
**Tab. 2: Innovation by businesses in each country**

<table>
<thead>
<tr>
<th></th>
<th>Egypt</th>
<th>Madagascar</th>
<th>Morocco</th>
<th>Turkey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean innovation in family businesses</td>
<td>-.22</td>
<td>-.62</td>
<td>-.18</td>
<td>-.35</td>
</tr>
<tr>
<td>Mean innovation in non-family businesses</td>
<td>-.22</td>
<td>-.48</td>
<td>-.17</td>
<td>-.36</td>
</tr>
<tr>
<td>Number of family businesses</td>
<td>1,208</td>
<td>502</td>
<td>391</td>
<td>252</td>
</tr>
<tr>
<td>Number of non-family businesses</td>
<td>1,221</td>
<td>28</td>
<td>177</td>
<td>209</td>
</tr>
</tbody>
</table>

Source: Global Entrepreneurship Monitor (GEM), Adult Population Survey (APS) 2018

To better account for innovation we will now analyze the distinct effect of governance upon innovation, controlling for the characteristics of the businesses and their entrepreneurs.

### 5.3 Effect of governance upon innovation

Hypothesis 1 states that governance affects innovation in that family businesses tend to innovate less than non-family businesses. We test the effect within each country by linear regression, holding other conditions constant - Table 3.

Governance has no discernible effect on innovation in any of the countries, controlling for other conditions. It is mainly consistent with the result without controlling other conditions, which we obtained in Table 2.

**Tab. 3: Innovation dependent on governance; within each country**

<table>
<thead>
<tr>
<th></th>
<th>Egypt</th>
<th>Madagascar</th>
<th>Morocco</th>
<th>Turkey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Governance: Family vs non-family</td>
<td>.020</td>
<td>.027</td>
<td>.020</td>
<td>.031</td>
</tr>
<tr>
<td>Business age</td>
<td>-.048 **</td>
<td>-.074</td>
<td>-.038 †</td>
<td>-.034</td>
</tr>
<tr>
<td>Business size</td>
<td>-.008</td>
<td>.014</td>
<td>.091 ***</td>
<td>-.049 †</td>
</tr>
<tr>
<td>Sector: extracting</td>
<td>-.065</td>
<td>-.120 **</td>
<td>-.276 ***</td>
<td>-.100</td>
</tr>
<tr>
<td>Sector: transforming</td>
<td>.010</td>
<td>.091 *</td>
<td>-.018</td>
<td>.076</td>
</tr>
<tr>
<td>Sector: business services</td>
<td>-.056</td>
<td>.263 *</td>
<td>-.060</td>
<td>.070</td>
</tr>
<tr>
<td>Motive: opportunity</td>
<td>.043 *</td>
<td>.056</td>
<td>.123 **</td>
<td>.044</td>
</tr>
<tr>
<td>Gender: male</td>
<td>-.026</td>
<td>-.009</td>
<td>-.114 **</td>
<td>.015</td>
</tr>
<tr>
<td>Age</td>
<td>-.003 **</td>
<td>.002</td>
<td>-.002</td>
<td>-.003</td>
</tr>
<tr>
<td>Education</td>
<td>-.006 **</td>
<td>.006</td>
<td>.000</td>
<td>.013 *</td>
</tr>
<tr>
<td>Intercept</td>
<td>.017</td>
<td>-.670 ***</td>
<td>-.130</td>
<td>-.031</td>
</tr>
<tr>
<td>N businesses</td>
<td>2,073</td>
<td>505</td>
<td>487</td>
<td>300</td>
</tr>
<tr>
<td>R-square</td>
<td>.026 ***</td>
<td>.109 ***</td>
<td>.109 ***</td>
<td>.064 ***</td>
</tr>
</tbody>
</table>

† p<.10  * p<.05  ** p<.01  *** p<.00

Source: Global Entrepreneurship Monitor (GEM), Adult Population Survey (APS) 2018

### 5.4 Effects upon internationalization from governance and innovation

Hypothesis 2 posits that governance affects internationalization, in that family businesses export less than non-family companies. We test the effect within each country by linear regression, controlling for characteristics of the businesses and their entrepreneurs - Table 4.
Governance affects internationalization in Morocco in that exporting is higher in the family business than in non-family business, holding firm characteristics constant. Governance does not discernibly affect exporting in the other countries, controlling for other conditions. It is consistent with the earlier Table 1.

The conclusion that internationalization in Morocco is higher in family businesses than in non-family businesses is thus, in part, the opposite of Hypothesis 2.

Tab. 4: Export dependent on governance and innovation; within each country

<table>
<thead>
<tr>
<th></th>
<th>Egypt</th>
<th>Madagascar</th>
<th>Morocco</th>
<th>Turkey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Governance: family</td>
<td>.009</td>
<td>.000</td>
<td>.022</td>
<td>.356</td>
</tr>
<tr>
<td>Innovation</td>
<td>.340</td>
<td>**</td>
<td>.142</td>
<td>**1.256</td>
</tr>
<tr>
<td>Business age</td>
<td>-.047</td>
<td>*</td>
<td>.032</td>
<td>.000</td>
</tr>
<tr>
<td>Business size</td>
<td>.308</td>
<td>***</td>
<td>.075</td>
<td>**.365</td>
</tr>
<tr>
<td>Sector: extracting</td>
<td>-.218</td>
<td></td>
<td>.014</td>
<td>-.801</td>
</tr>
<tr>
<td>Sector: transforming</td>
<td>-.139</td>
<td>†</td>
<td>.085</td>
<td>-.108</td>
</tr>
<tr>
<td>Sector: business serv</td>
<td>.092</td>
<td></td>
<td>.369</td>
<td>.537</td>
</tr>
<tr>
<td>Motive: opportunity</td>
<td>.246</td>
<td>**</td>
<td>.012</td>
<td>.686</td>
</tr>
<tr>
<td>Gender: male</td>
<td>.212</td>
<td>*</td>
<td>.061</td>
<td>-.491</td>
</tr>
<tr>
<td>Age</td>
<td>-.018</td>
<td>***</td>
<td>.002</td>
<td>.003</td>
</tr>
<tr>
<td>Education</td>
<td>-.014</td>
<td>†</td>
<td>.023</td>
<td>.087</td>
</tr>
<tr>
<td>Intercep</td>
<td>1.476</td>
<td>***</td>
<td>-.330</td>
<td>-.141</td>
</tr>
<tr>
<td>N businesses</td>
<td>1.935</td>
<td></td>
<td>492</td>
<td>429</td>
</tr>
<tr>
<td>R-square</td>
<td>.047</td>
<td>**</td>
<td>.056</td>
<td>.195</td>
</tr>
</tbody>
</table>

† p<.10 * p<.05 ** p<.01 *** p<.00

Source: Global Entrepreneurship Monitor (GEM), Adult Population Survey (APS) 2018

Hypothesis 3 states that innovation promotes exporting. This hypothesis is also tested in Table 4, controlling for other conditions. In every country, the effect of innovation upon exporting is positive, thus supporting Hypothesis 3.

The question of whether innovation is mediating an effect of governance upon internationalization can now be answered. Governance is not discernibly affecting innovation - Table 3. Therefore, innovation cannot be channeling an impact of governance upon exporting.

Rather, we see that businesses' innovation has its own distinct or separate effect upon exporting in the businesses.

5.5 Innovation and country moderating effect of governance on internationalization

The last question is whether the effect of governance upon internationalization is moderated by innovation and embedded in society's context.

Hypothesis 4 posits that innovation moderates the effect of governance on internationalization, in that innovation boost exporting in family businesses more than in non-family businesses. This hypothesis is tested by forming governance and innovation interaction and including this...
interaction in the regression. We here model the effect for all the surveyed businesses - Table 5. The interaction is significantly positive, so innovation boosts exporting in family businesses more than in non-family businesses. This supports Hypothesis 4.

Tab. 5: Exporting affected by governance and innovation

<table>
<thead>
<tr>
<th></th>
<th>Madagascar</th>
<th>Morocco</th>
</tr>
</thead>
<tbody>
<tr>
<td>Governance: Family vs non-family</td>
<td>.045</td>
<td>.055</td>
</tr>
<tr>
<td>Innovation</td>
<td>.458 ***</td>
<td>.270 **</td>
</tr>
<tr>
<td>Governance * Innovation</td>
<td>.332 **</td>
<td></td>
</tr>
<tr>
<td>Country: Madagascar</td>
<td>-.789 ***</td>
<td>-1.026 **</td>
</tr>
<tr>
<td>Country: Morocco</td>
<td>.446 ***</td>
<td>.079</td>
</tr>
<tr>
<td>Country: Turkey</td>
<td>-.211 *</td>
<td>-.148</td>
</tr>
<tr>
<td>Governance * Madagascar</td>
<td>.344</td>
<td></td>
</tr>
<tr>
<td>Governance * Morocco</td>
<td>.539 **</td>
<td></td>
</tr>
<tr>
<td>Governance * Turkey</td>
<td>-.095</td>
<td></td>
</tr>
<tr>
<td>Business age</td>
<td>.008</td>
<td>.001</td>
</tr>
<tr>
<td>Business size</td>
<td>.306 ***</td>
<td>.307 ***</td>
</tr>
<tr>
<td>Sector: extracting</td>
<td>-.169</td>
<td>-.166 †</td>
</tr>
<tr>
<td>Sector: transforming</td>
<td>-.071</td>
<td>-.063</td>
</tr>
<tr>
<td>Sector: business services</td>
<td>.187</td>
<td>.186</td>
</tr>
<tr>
<td>Motive: opportunity</td>
<td>.275 ***</td>
<td>.268 ***</td>
</tr>
<tr>
<td>Gender: male</td>
<td>.017</td>
<td>.020</td>
</tr>
<tr>
<td>Age</td>
<td>-.010 ***</td>
<td>-.010 ***</td>
</tr>
<tr>
<td>Education</td>
<td>.002</td>
<td>.002</td>
</tr>
<tr>
<td>Intercept</td>
<td>1.145 ***</td>
<td>1.131 ***</td>
</tr>
<tr>
<td>N businesses</td>
<td>3.147</td>
<td>3.147</td>
</tr>
<tr>
<td>R-square</td>
<td>.134 ***</td>
<td>.140 ***</td>
</tr>
</tbody>
</table>

† p<.10 * p<.05 ** p<.01 *** p<.001

Source: Global Entrepreneurship Monitor (GEM), Adult Population Survey (APS) 2018

Hypothesis 5 states that the effect of governance on internationalization is embedded in society in that countries differ in the impact of governance on export. The moderation is tested by including interactions, the dummy product for governance with the dummy for each country - Table 5.

The interaction effect is positive for Morocco. in other words, the effect on exporting from governance by family rather than by non-family is boosted in Morocco compared to Egypt. This lends some support for Hypothesis 5.

For Madagascar and Turkey, the interaction is insignificant. That is, the effect upon exporting from governance is somewhat similar in Madagascar, Turkey, and Egypt.

6. Conclusions

The above analyses address the research question. How does governance (i.e., family versus non-family governance) influence innovation and internationalization in less advanced economies? And does innovation,
directly and indirectly, enhance the internationalization of family businesses more than non-family businesses?

The following discusses our findings concerning previous research, pinpoints the contribution, admits limitations, and suggests further research.

6.1 Discussion of findings

Most previous research has found that family businesses tend to internationalize less than non-family companies. However, most previous studies have been conducted in developed countries, where strong institutions support non-family businesses more than family businesses. We raise the issue of whether this is due to the context. Conversely, in developing countries with weak institutions, family businesses may conceivably have a comparative advantage for internationalization, especially if they are innovative.

This problematic issue motivates our focus on how innovation may mediate and moderate the effect of governance upon internationalization in the form of exporting, as this dynamic is embedded in developing societies with weak institutions.

Our analyses show that family businesses do not internationalize less than non-family businesses in any of the four developing countries examined here. Indeed, family businesses even export more than non-family businesses in one of the countries, Morocco.

Moreover, we find that innovation not only promotes exporting in businesses in general but that innovation boosts exporting, especially in family businesses.

6.2 Contributions

The findings contribute to understanding internationalization in the family business as shaped by innovation and as embedded in society's context.

Specifically, finding shows that innovation boosts internationalization more in family businesses than in non-family businesses contributes to theorizing about internationalization processes in family firms.

It is relevant for family firms' policies to know that innovation in family firms is not a waste of investment, but that innovation in family firms, more than in non-family firms, can benefit exporting, thereby enhancing economic performance.

Our results confirm that countries differ in the effect of governance i.e., family vs. non-family upon internationalization; it is a warning against an assumption of the universality of firms' behavior. It may be safer to think that the behavior of businesses may well differ across societies.

6.3 Limitations

Although an essential feature of our research design is that it is comparative, rather than the typical single-country studies, we compared
four similar societies in that they are developing countries with weak institutions. Therefore, a significant limitation is that our findings concerning the internationalization of family businesses should not be generalized to all kinds of societies. Also, due to the small number of countries (four developing countries), it is statistically impossible to test the effects of the macro-institutional factors affecting family firms exporting. Hence, we can only measure country contexts’ overall impact without elaborating effects of specific institutional factors enhancing or hampering the internationalization process.

6.4 Further research

For a more general understanding of family businesses’ internationalization, the present study may be extended to cover more than these few developing countries. Extending the analysis to developed countries will be expected to add much to the finding that the internationalization of family businesses is not universal but differs worldwide.

Extending the analysis to cover many countries, preferably a representative sample of countries, would enable researchers to not only assess differences across countries but to test hypotheses concerning how specific institutions are shaping the internationalization of family businesses contrasted to non-family firms.

References


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