A Gender Analysis of the Relationship Between Entrepreneurial Orientation and Performance: The Case of Tunisian Women Entrepreneurs

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Abstract. Entrepreneurial orientation (EO), a popular concept in science works and management theories, is also often used to advance the company in terms of performance. Recently, many scholars analyzed the relationship between EO and performance. However, the reading and analysis of this relationship by gender remains limited. In the earlier studies, theorists agree that women entrepreneurs are less successful than their male colleagues with lower levels of EO. This study seeks to examine whether gender differences persist in the study of the relationship between EO and performance. Interestingly, the results indicate that gender difference does not moderate the relationship between OE and performance.

Keywords: entrepreneurial orientation, performance, gender, Tunisian women entrepreneurs.

Introduction

Entrepreneurial orientation (EO) is one of the very important concept that has been used extensively to define the degree of success of a firm in terms of its ability for creativity and innovation (Covin, Wales 2012; Rauch and al. 2009). The concept has received a lot of attention from both researchers and entrepreneurships. Several theoretical assertions and empirical results indicate that there may be more extant than simple direct link between EO and performance.

During these last few years of research dedicated to EO, women gain the center of interest (Fellnhofer et al. 2016; Ndubisi, Agarwal 2014;

Goktan, Gupta 2013; Dawson, Henley 2012; Kundu, Rani 2004). Kelley et al. (2016) emphasize that women tend to be less engaged in entrepreneurship than man, especially in economic development or innovation-driven economy.

According to the Tunisian National Gender Report, a number of gender studies in project management shows that gender comparison in several domains has increased. This gap reached its maximum in 2011 with 37 projects for women and 200 projects for men. Since 2012, the number of projects awarded for women and men has taken a downward trend until 2015. According to the research studies on women, the percentage of women among shareholders remains very low (less than 9%) as it slightly increased from 8.4% in 2006 to 8.7% in 2009. Self-employment also remains dominated by men whose share rose from 82.3% in 2006 to 85.6% in 2009.

According to a report assessing progress towards gender equality, only 30% women-owned businesses would survive compared to 70% of those created by men (launched at the same age, between 25 and 44). This result shows that women often have trouble in getting their "Baby Business" and women-owned firms have lower levels of starting financial capital. This phenomenon is linked to both psychological barriers and lack of risk taking when it comes to large loans or large investments.

This gap in entrepreneurial activities inspires us to emphasize gender differences particularly within the EO context. In this research, we analyze the women's EO compared to that of men.

Various researchers (Lumpkin, Dess 1996; Chatterjee, Hambrick 2007) spoke about the positive performance consequences of a great and strong EO. However, this relationship depends on several factors. According to some scholars, top management positions, particularly those of the entrepreneurs, can play a major role in converting EO into high performance.

Hambrick and Mason (1984) show that CEO's traits may play a crucial role in driving entrepreneurship behavior. The CEO's personality is important since CEOs are typically confronted with so much information, ambiguity, complexity, and contradiction (Nadkarni, Herrmann 2010) that it would not be surprising if CEO's personality is important in the successful conversion of EO into superior performance (Engelen et al. 2013).

Previous research analyzed the moderating effect of the external environment (e.g., Zahra, Covin 1995; Kreiser et al. 2002) and organizational level factors (e.g., Covin, Slevin 1988; Stam, Elfring 2008) and its impacts on the relationship between EO and firm's performance (Yeniaras, Unver 2016).

In this research, we focus on the concept of EO, especially on its relationship with performance. We have found that various research studies (Lupmkin, Dess 1996; Lumpkin, Dess 2001; Chatterjee, Hambrick 2007)

have paid attention to the concept of OE and its relationship with performance without analyzing the mediating role of gender in this relationship.

Johnson and Powell (1994) underline the significance of differences between male and female entrepreneurial behavior and their impacts on the success of businesses because of their EO in decision contexts. Gender differences in behavior may be caused by gender differences in EO preferences, but they may also be caused by situational factors such as options provided to women and the advice they receive.

The question that will be studied in gender approach is whether gender has an effect on EO and performance. In order to answer this research question, this study will be divided into three sections. The first section will be dedicated to a literature review in which we will define and describe the most important theories that deal with the concepts of OE and performance, and we will formalize the basic hypothesis to be verified. In the second section of our research, we will describe our research methodology, measurement criteria, and the concepts used in the empirical study. The third section deals with different statistical treatments and the interpretation of the results.

Literature review

In this part, we highlight the relationship between gender, EO and firm's performance. We establish the relationship between them. We present these concepts and the relationship that may exist between themas comprehensively as possible. EO is a strategic concept that can characterize the organization attitude and test its entrepreneurial behavior through its five dimensions: innovation, risk taking, proactivity, aggressive competitiveness and autonomy (Fayolle, Legrain 2006). Performance is an important goal of each firm that characterizes its activities.

The performance and gender

The notion of performance is described as a complex word because of various factors including its multidimensional traits: strategic, competitive, socio-economic characteristics and its organizational order through the creation of partnership value. For some authors, performance is synonymous with survival while for others it is associated with success. In addition, researchers have placed performance at the same level as personal development or profits, benefits, and amounts yielded. Others have referred to profitability. The performance can also be described in terms of the development of the

company translated into larger investments and an increase of the turnover (CA) declared and / or an increase of the wage bill (Brush et al. 2005).

Researchers also raised the question of gender in the study of business performance but their results differ according to the definition of this concept. Some studies argue that gender in itself does not influence business performance (Chell, Baines, 1998; Kariv 2008). Thus, according to Kalleberg and Leicht (1991), the survival rate of women-headed enterprises is equal to or higher than that of men-created and male-dominated firms (Watson, Robinson 2003).

However, other studies reported completely opposite results (Boubaker et al. 2014; Fischer et al. 1993; Kochan et al. 2003). Indeed, the survival rate of women-headed businesses is lower than that of men (Boden, Nucci 2000; Carter, Williams, Reynolds 1996). Besides, other authors have attempted to present the notion of performance in terms of success, which generally refers to the size of the company (turnover and number of employees). Given the small size of women-owned firms, women are generally referred to as under performing in comparison to men-dominated large firms (Watson 2002; Rosa et al. 1996; Fischer, Reuber, Dyke 1993).

In addition, when measuring performance in terms of growth or performance, studies cannot provide a definite conclusion. Some demonstrate that there exist similar growth rates between men and women entrepreneurs (Kalleberg, Leicht 1991). But in most studies, the growth rates of maleowned firms are higher than those of women-owned firms (Du Rietz, Henrekson 2000; Rosa, Carter, Hamilton 1996; Fischer, Reuber, Dyke 1993). Thus, many authors such as Watson (2002), Boden and Nucci (2000), Rietz and Henrekson (2000), Carter et al. (1996), Rosa et al. (1996), and Fischer et al. (1993) have shown that company-specific risks illustrate the performance gap between men and women entrepreneurs.

Despite the claim that there is equal performance between womenheaded businesses and their male counterparts, the under performance of women-owned businesses is overwhelmingly supported in the theoretical literature.

Hence, we hypothesize that performance differs according to the gender. Women-led enterprises perform worse than men-led firms.

H1: The performance of firms managed by women is less competitive than firms managed by men.

EO and gender

The concept of EO emerged in the work of Miller (1983). The author distinguished three dimensions to define OE, namely, innovation, proactivity,

and risk taking. Many researchers have referred to his work (1983) to define the characteristics of EO (Lumpkin, Dess 1996; Covin, Slevin 1989; Lee, Peterson 2000; Kreiser et al. 2002; Tarabishy et al. 2005).

Thus, Lumpkin and Dess (1996) sought to clarify the concept of EO and to describe it in terms of current, futuristic and competitive management. For them, EO is comprised of the propensities, processes and behaviors that lead to entering new markets with new or existing goods and services. As a result, five characteristics are distinguished as key indicators to evaluate EO of a company. According to Lumpkin and Dess (1996) and Antoncic and Hisrich (2001), it is related to autonomy, risk-taking, innovation, proactivity and competitive aggression. Other researchers with a more focused description have defined EO as a future-oriented concept (Acar et al. 2013). For them, EO can be described as the response of a company to the future and potential needs of the market. This summary definition presents EO as a futuristic concept that deals with future market developments.

The analysis of EO according to gender has not been the subject of many studies. Indeed, few academic studies have focused on the differences between the EO of women and men (Yordanova, Alexandrova-Boshnakova 2010). According to Ayubet al. (2013), research on woman entrepreneurs is increasing rapidly, but little is known about gender differences of entrepreneurs. This can be due to a lack of conceptualization of female entrepreneurship sphere (Brindley 2005). Yet gender studies can enrich theoretical knowledge in the entrepreneurial field (Chasserio, Pailot, Poroli 2016). The authors focus on "entrepreneurial socialization" to identify the influence of gender on the field of entrepreneurship, in other words, they attempt to understand how "gendered" interactions can characterize female entrepreneurship.

Gender inequalities in the entrepreneurial field are of several types. We can identify inequalities in access to professional activities and inequalities in career progression and access to positions of responsibility (Champy 2009). In addition, there are unequal access to finance affecting women entrepreneurs (Koreen 2000). Cavalluzzo et al. (2002, 2003) and Storey (2004) reported that there exists a gender gap in financing and a significant gender gap in the rate bank loans are provided to men and women. The reality is that banks are less and less interested in investing in small projects, particularly in the food service, retail and personal care sectors, which are mostly chosen by women (Cornet, Constantinidis 2007). As a result, the creation of technology companies is more important to men than women, as Ayadi et al. (2005) argued. According to these authors, 80% of technological entrepreneurs are males.

The disparity in risk preferences observed between women and men explains the differences in EO (Jianakopolos, Bernasek 1998; Williams, Narendran 1999; Croson, Gneezy 2009). Moreover, Fellnhofer, Puumalainer and Sjogrén (2016) emphasize that gender inequalities are present in every organization and exist at various organizational levels. Thus, women and men evaluate their EO level differently within the same organization (Wales et al. 2011).

The analysis of innovation by gender has shown that women entrepreneurs are less innovative than their male counterparts (De Vita, Mari, Poggesi 2014). Moreover, according to Verheul, Van Stel and Thurik (2006), men are more open to new markets than women. As a result, innovation is highly correlated with firm's performance (Masona, Floreania, Miania, Beltramea, Cappellettoa 2015).

As far as autonomy is concerned, there is a great debate among researchers. Some authors have found a positive relationship between autonomy and performance (Awang, Khalid, Kassim, Ismail, Zain, Madar 2009). Other studies demonstrate the lack of a significant relationship between autonomy and performance. Jalali, Jaafar and Ramayah (2014) emphasized that proactive businesses are innovative and can gain a high competitive advantage. According to Masona et al. (2015) and Craig et al. (2014), proactive businesses are improving their performance.

The link between competitive aggression and company performance was highlighted by Roux and Bengesi (2014) who found a positive relationship between competitive aggression and corporate performance. Based on previous theoretical discussion we can develop the following hypothesis:

H2: Female entrepreneurs has lower EO than male entrepreneurs.

The relationship of EO to performance: the moderating role of gender

An entrepreneurial firm is one that engages in product-market innovation, undertakes somewhat risky ventures, and first comes up with "proactive" innovations, beating competitors to the punch (Basso et al. 2009). These characteristics are associated with an improved firm's performance in contemporary business environments where product and business model life cycles are shortened (Hamel 2000).

H3: EO will be positively related to a firm's performance.

The aim of this study is to demonstrate how gender can be perceived as a significant moderator of association between EO and performance. The contribution of EO to national growth has been documented in the literature (Chaw 2006). Drawing on the growing importance of EO and gender inequalities in the entrepreneurial field, we try to evaluate gender as a moderator in the relation between EO and performance.

Various researches (Lumpkin, Dess 1996; Chatterjee, Hambrick 2007) spoke about the positive performance consequences of a great and strong EO. However, as it was suggested, this relationship is dependent on several factors. From some scholars' perspective, top management traits, particularly those of the entrepreneurs, can play a major role in converting EO into high performance.

Previous research analyzed the moderating effect of the external environment (Zahra, Covin 1995; Kreiser et al. 2002) and organizational level factors (Covin, Slevin 1988; Stam, Elfring 2008) on the relationship between EO and firm's performance (Yeniaras, Unver 2016). In this research, we focus on the concept of EO, particularly its relationship with gender and performance. We have found that various research studies have paid attention to the concept of OE, its relationship with gender and performance (Neneh 2016; Ayub et al. 2013) but they failed to analyze the moderating role of gender in this relationship.

The main idea that will be studied in gender approach is the moderating effect of gender on EO-performance relationship.

H4: Gender moderates the relationship between EO and performance.

Research methodology

At this stage of our research we present our working methodology and the research tools used to validate the hypotheses described in the first part.

In the first part, we will focus on the analysis of the selected sample and its characteristics. The second part deals with research methodology in order to explore the relationship between EO, gender and performance. At the end of this paper, we will present the results and discussion.

The sample

To carry out this survey, we have employed the stratified sampling. With this technique, we have a higher statistical precision compared to simple random sampling. Because this technique has high statistical precision, it also means that it requires a small sample size.

To conduct this study, we have contacted 4 nurseries which are considered among the most important nurseries in Tunisia. We note that the sample is representative as we tried to interview the same proportion of businesses housed in each nursery compared to the population. We also sought to respect the same proportion of existing business sectors and business size. The enterprises of this sector are generally located in the nurseries of Sousse (Soft-Tech and Sousse Tech), Mahdia (Mahdia Entreprendre) and Tunis (Techno pole el ghazela).

Our questionnaire was addressed to entrepreneurs, executives and business leaders of Tunisian companies in various economic sectors. The questionnaire was submitted to 89 enterprises belonging to various regions in Tunisia. The companies in this sample were engaged in technological (67.41%,) commercial (28.08%), industrial (11.23%) and artisanal (5.61%) activities. Accordingly, the technological sector occupied the highest attention in this survey.

Variables measures

The measures utilized in this study are based on the findings of the previous research (Lumpkin, Dess 1996; Miller 1983; Murphy and al. 1996).

Independent variable: EO

Drawing upon prior studies (e.g. Lumpkin, Dess 1996; Miller 1983), the concept of EO is measured according to five elements: innovativeness, risk-taking, proactivity, autonomy and aggressive competitiveness. The instrument includes 13 items that inscribe different dimensions on EO. The latter is measured on 5-point Likert scale (1 for Strongly Agree and 5 for Strongly Disagree).

Innovativeness (EOI) refers to the ability to support creativity in introducing new products, adapting technological leadership and research and developing and establishing new processes. This instrument contains 3 items measured on 5-points Likert scale (1 for Strongly Agree and 5 for Strongly Disagree).

Risk-taking (EOR) refers to the tendency to take bold actions such as entering new markets, engaging a large portion of the firm's resources to take risks with uncertain outcomes or borrowing heavily. This instrument

incorporates 2 items measured on 5-point Likert scale (1 for Strongly Agree and 5 for Strongly Disagree).

Proactivity (EOP) refers to the ways companies react to market opportunities by taking initiatives in the marketplace. This instrument comprises 3 items measured on 5-point Likert scale (1 for Strongly Agree and 5 for Strongly Disagree).

Competitive aggressiveness (EOC_A) refers to how companies are related to competitive movements and demands that exist in the market place. This instrument involves 2 items measured on 5-point Likert scale (1 for Strongly Agree and 5 for Strongly Disagree).

Autonomy (EOA) is manifested in the independent action of an individual or team workers attempting to bring out new business concepts or new visions and accomplishing them (Yong-Hui Li et al. 2009). This instrument encompasses 3 items measured on 5-point Likert scale (1 for Strongly Agree and 5 for Strong Disagree).

TABLE 1. THE ITEMS CORRESPONDING TO EO

EO dimensions

1. Innovation

- Our managers give a lot of importance to new technologies.
- We have all the capabilities that could help us exploit the opportunities to meet the needs of process clients.
- We have a great ability to adapt to any change.

2. Risk taking

- -Our company is in the habit of undertaking risky projects.
- -Our managers believe that making risky decisions is necessary to achieve the objectives set.

3. Pro-activity

- -In general, our managers have a tendency to be ahead of competitors in presenting new ideas or products with respect to competitors. Our company is very often the first to present new control tools (management, performance, results, etc.).
- We have managers who have the spirit of initiative.

4. Aggressive competitivity

- We are characterized by our responsiveness to competitors and new entrants.
- Competitors represent only incentives to improve our position on the market.

5. Autonomy

- Each group or individual in the company can bring us a vision or idea in an independent way.
- We have sufficient capacities to be "self-directed" towards opportunities.
- We act without exceeding the organizational structure.

Gender

In this study gender is considered as a dichotomous variable: it is coded as 0 for male and 1 for female. We defined gender as a moderator variable.

We will test if this variable will influence the form or magnitude of the relationship between EO and the firm's performance. Testing is carried out by evaluating the multiplicative interaction of the independent variable and the moderator on the dependent variable (Justin et al. 2010). We create a multiplicative interaction terms as new variables.

The dependent variable: firm's performance

Our measure is based on the study of Murphy and al. (1996) to analyze the firm's performance variable towards three dimensions: efficiency, growth, and profit. The respondents assess the firm's performance on a 5-point Likert scale in relation to competitors. Three items measure efficiency: return on investment, return on equity, and return on assets in the past three years. Three items measure growth: sale growth, employee growth, and market share growth. Referring to Murphy and al. (1996), three items measure profit: return on sales, net profit margin, and gross profit margin (Yong-Hui Li et al. 2009).

Results and discussion

Descriptive statistics, independent sample T-test, and moderated regression analysis are done by using SPSS software.

Descriptive statistics and T-test result

Table 2 shows the following descriptive statistics, i.e. mean and standard deviation and also reveals the result of the independent sample t-test on the gender differences across the EO dimensions and the firm performance.

Table 2 demonstrates that the performance of female-owned businesses is lower than performance of male-owned businesses. However, this result is not statistically significant. This result doesn't support our first hypothesis H1. Women have slightly lower innovativeness but this result is not statistically significant. This is in concordance with the results found by Neneh et al. (2016) but in discordance with other studies (Ayub et al. 2013; Wagner 2007) which found that female entrepreneurs have a slightly lower innovativeness than their male counterparts.

As far as risk taking is concerned, the result shows that there is not gender difference between man and woman. This is contrary to evidence from prior studies (Neneh et al. 2016; Ayub et al. 2013; Wagner 2007) which

establish that male entrepreneurs have a significantly higher risk-taking behavior than female entrepreneurs.

Moreover, this research found that female entrepreneurs have a slightly lower pro-activity, than male but this difference isn't statistically significant. This finding contradicts prior studies (Neneh 2016; Ayub 2013) that show that female entrepreneurs are more proactive than male. In addition, the results show no gender difference between male and female in aggressive competitivity and autonomy. This confirms the findings of Neneh et al. (2016).

All these results don't support hypothesis H2 which means that female entrepreneurs have the same EO as their male counterparts.

Gender N Mean Std. Std. Error t-student p-value Deviation Mean 0.199 0.843 66 3.0859 1.46563 .18041 EOI 1 23 1.53898 .32090 3.0145 0.575 0.566 2.8712 0 66 1.37927 .16978 **EOR** 1 23 2.6739 1.51963 .31687 0.592 0.555 0 66 2.9646 1.53270 .18866 EOP 1 23 2.7391 1.68462 .35127 0 66 3.0000 1.49100 .18353 EOC_A 23 2.7609 1.55117 .32344 0.656 0.514 0.704 0 66 2.9293 1.42567 .17549 0.382 **EOA** 1 23 2.7971 1.44509 .30132 66 2.9702 1.39257 .17141 EO 1 23 2.7971 1.50484 .31378 0.482 0.631 0 **PERF** 66 2.8249 1.45487 .17908

TABLE 2. THE DESCRIPTIVE STATISTICS AND T-STUDENT TEST

Regression results

1

23

2.7729

This study is undertaken to analyze the effect of EO on performance in the context of gender. The objective of this study is to evaluate gender as a moderator of the association between EO and performance. By examining the moderating role of gender on the relationship between EO and performance, we contribute to the existing scholarly literature. We use regression and moderated regression analyses to test the hypothesis 3. In this first regression model, we test the direct relationship between EO and the firm's

1.38757

.28933

performance. The result of the model 1 using only EO is presented in Table 3. EO seems to be significant. This result is consistent with hypothesis 3. This confirms the assertion that EO is positively related to the performance.

The result of the moderate regression can be seen in Model 2 and 3 (Table 3). The multiplicative term EO x GENDER is regressed against the dependent variable (firm's performance). The moderating influence of GENDER on the EO-performance relationship is not supported, rejecting H4. This result suggests that gender difference doesn't moderate the relationship between OE and performance.

TABLE 3 THE RESULTS OF REGRESSION ANALYSES FOR PERFORMANCE

	Model 1	Model 2	Model 3
Dependent Variable	Performance	Performance	Performance
OE	0,869***	0,870***	0,894***
GENDER		0,099	0,335
OE*GENDER			0,083
F	247,295***	122,813***	81,503
Sig	0,000	0,000	0,000
R ²	0,740	0,741	0,742
ΔR^2	0,735	0,737	0,733

Conclusion

This study is conducted to examine the mediator role of gender in the relationship between EO and performance. Research in the field of EO is based on gender approach that continues to represent a rich area of study. In fact, the low survival rate of projects led by women deserves to be examined.

This article discusses the relationship between EO and performance according to a gender approach in Tunisia that has undergone significant transformations and evolutions after the period of the 2011 revolution. Moreover, the gender approach in entrepreneurship broadens the interpretation of the social and economic processes in the Tunisian context. It also helps to better characterize Tunisian women entrepreneurs. Contrary to what we believe, women entrepreneurs in Tunisia do not have a weaker EO than men and businesses owned by women do not perform worse than businesses owned by men.

From a practical point of view, the results of this study have entrepreneurial implications. The results are very significant for both managers and entrepreneurs and researchers. The results of the moderate regression show that gender difference does not moderate the relationship between OE and performance. We can suggest that research on women entrepreneurs needs new directions. Moreover, because our empirical study covers a range of firms in terms of sector and size, further qualitative investigations are necessary to provide explanations for gender differences observed in female-dominated sectors. Finally, case studies on equal opportunities in relation to gender issues will provide additional insights. As a consequence, new research questions arise that require qualitative research methods in order to deeper examine the subject.

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Santykio tarp verslo orientacijos ir veiklos rezultatų analizė lyties aspektu: tunisiečių verslininkių atvejis

Santrauka

Verslo orientacijos terminas yra plačiai priimtas moksliniuose tyrimuose ir vadybos teorijose, taip pat jis vartojamas įmonių pasiekimams analizuoti. Pastaruoju metu mokslininkai nemažai gilinasi į santykį tarp verslo orientacijų ir pasiekimų. Tačiau, atliekant tokius tyrimus, per mažai dėmesio skiriama lyties aspektui. Ankstesnėse studijose laikomasi nuomonės, kad moterys verslininkės yra ne tokios sėkmingos kaip jų kolegos vyrai, tvirtinama, jog jų verslo orientacijos nėra tokios stiprios. Šiame straipsnyje siekiama išsiaiškinti, kokį vaidmenį vaidina lyčių skirtumai, analizuojant santykį tarp verslo orientacijų ir pasiekimų. Atlikto tyrimo rezultatai rodo, kad lyčių skirtumai nėra reikšmingi, formuojant santykį tarp verslo orientacijų ir pasiekimų.

Reikšminiai žodžiai: verslo orientacija, pasiekimai, lytis, tunisietės verslininkės.