## Empirical paper

# An empirical analysis of the impact of family moral support on Turkish women entrepreneurs ${ }^{\text {T}}$ 

Dianne H.B. Welsh ${ }^{a, *}$, Esra Memili ${ }^{a}$, Eugene Kaciak ${ }^{\text {b,c }}$<br>a 441 Bryan School of Business \& Economics, The University of North Carolina at Greensboro, 516 Stirling Street, Greensboro, NC 27402-1760, USA<br>${ }^{\mathrm{b}}$ Goodman School of Business, Brock University, St. Catharines, ON, Canada<br>${ }^{\text {c Kozminski University, Poland }}$

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#### Abstract

It is well documented that women entrepreneurs add exponential growth to the economic well-being of countries. The impact of family moral support on Turkish women entrepreneurs' is examined including major challenges (i.e. personal problems and recognition of poor managerial skills and knowledge) and advantages (i.e. perceptions of helpfulness of education and work experience). Our findings show that family moral support can have both positive and negative impact on Turkish women entrepreneurs. Implications and future research are discussed. © 2016 Journal of Innovation \& Knowledge. Published by Elsevier España, S.L.U. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).


Un análisis empírico del impacto del apoyo moral de la familia sobre las mujeres emprendedoras turcas

RESUMEN

Existen antecedentes teóricos que señalan que las mujeres emprendedoras tienen efecto en el bienestar económico de los países. El impacto del apoyo moral de la familia sobre las mujeres emprendedorares turcas analiza los principales retos (los problemas personales, habilidades directivas) y las ventajas (educación y experiencia en el trabajo). En

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nuestra investigación hemos encontrado que el apoyo moral de la familia puede tener ambos impactos, negativo y positivo en las mujeres emprendedoras turcas. Se analizan las implicaciones y las futuras investigaciones asociadas a este proceso.
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## Introduction

It is well documented that women entrepreneurs add exponential growth to the economic well-being of countries by reducing poverty and increasing the overall level of family income, which translates into better education and health for their children. International experience shows that it leads to better governance and increases the ability of a country to compete globally. Scholars, as well as government policy experts and practitioners, have all focused on the importance of this issue. In fact, Entrepreneurship Theory and Practice, one of the top journals in the field, devoted an entire special issue on new directions in women's entrepreneurship in May 2012.

In Turkey, labor force participation overall by women is low, less than $22 \%$ compared to an average of $62 \%$ in OECD countries and compared to an average of $33 \%$ in a group of selected comparison countries with similar levels of economic development (Turkey's State Planning Organization (SPO) and The World Bank, 2010). In fact, women's share of participation in the labor has fallen from 34.3\% in 1988 to $21.6 \%$ in 2008 (The World Bank, 2009a, 2009b); and now, Turkey has the distinction among OECD countries or any country in the Europe and Central Asia region as having the fewest women participating in its economy development (Turkey's State Planning Organization (SPO) and The World Bank, 2010).

To date, enough is not known about Turkish women entrepreneurs' challenges and advantages and how family may play a role in these. In an attempt to fill this gap in the literature, we examine the impact of family support on the challenges (i.e. personal problems and recognition of poor managerial skills and knowledge) and advantages (i.e. perceptions of helpfulness of education and work experience). We develop and test our hypotheses on a sample of 140 Turkish women entrepreneurs. Then, we present and discuss our findings and provide implications for future research.

## Literature overview

## Challenges faced by Turkish women entrepreneurs

There are many reasons for this phenomenon. The report entitled, "Female Labor Participation in Turkey: Trends Determinants and Policy Framework," found that poor women in urban areas with low education levels face major barriers. They work in the informal economy with little pay, no benefits, and harsh working conditions development (Turkey's State Planning Organization (SPO) and The World Bank, 2010). Landig (2011) summarized the challenges facing women in Turkey and broke these into social and structural challenges.

## Social challenges

The social challenges include a lack of self-confidence, facing dominant patriarchal mindsets and sexism that is institutionalized, bearing the responsibility for the household and childrearing, and getting only one chance at being in business or in the workforce because the family's and the Turkish society's lack of support (Moghadam, 1993). According to Moghadam (1993), women's subordination in Muslim countries is connected to urbanization, industrialization, the governments' development role, women's subordination by class and region, state policies, economic processes, and dynamics. The Central Intelligence Agency (2012) and The World Bank (2012) determined that women's status in Turkey is due to a growing urban population, an industrialization process that is incomplete, differences between regions, ruling political party, power struggles in government, high external debt, high unemployment, a high account deficit, and an uncertain engagement with the EU. The latest report calls for improved equity and support services, including increasing early childhood education, support services such as childcare, and the development of a private gender equity certification program (The World Bank, 2012). Necessity-based entrepreneurship occurs when women are pushed into starting a business to escape unemployment rather than launching a venture as an opportunity (Orhan \& Scott, 2001).

## Structural challenges

The first structural challenge is a lack of education and knowledge in the areas of skill development, basic business, and women's rights. While women are becoming more educated, it is still the lowest among the EU Member States and the Organization for Economic Co-operation and Development countries (Landig, 2011). As of August 2012, 70.4\% of the total labor force was male and $29.6 \%$ was female. For those having education below high school, it was $70.1 \%$ for males and $26.9 \%$ for females, and for those with higher education, it was $85.6 \%$ for males and $70.9 \%$ for females (Turkish Statistical Institute, 2012). While there is a positive relationship between labor force participation and women's education level (GunduzHosgor \& Smits, 2008), it will take longer for education barriers to break down due to the quality and pace of implementation.

A second structural challenge, according to Landig (2011), is legal discrimination and the lack of economic and political power. When women attempt to gain employment or launch a business, they confront a number of barriers, including access to financing, unequal opportunity in the application process, securing locations to rent or buy, access to reasonable and high quality trade goods or raw materials, lack of customer confidence and respect, sexual harassment, lack of community respect, and wage differentials (Hisrich \& Brush, 1988;

Lee-Gosselin \& Grise, 1990; Ufuk \& Özgen, 2001a, 2001b). In the area of business knowledge and training, women lack knowledge of marketing, strategic planning, human resource management, and tax planning and reporting (Celebi, Tokuroglu, \& Baran, 1993; Hisrich \& Brush, 1988). The Organization for Economic Co-operation and Development (OECD) (2012) recommends lifelong training programs to make up for the inadequate formal education earlier in life. Affordable childcare and elder care was recommended in the latest OECD report (2012) if Turkey expects to improve its women's labor force participation rates.

The third structural challenge is regional differences (Landig, 2011). There is a big divide between rural and industrial growth in Turkey. Overall, however, there is a huge lack of opportunities for women in Turkey. The agricultural sector has been shrinking, which has left many women unemployed. Women's agricultural labor force participation has been nearly $80 \%$ in 1985 and was at $52 \%$ in 2005 , even with the sector decreasing by two million jobs from 2001 to 2007 (The World Bank, 2009a, 2009b). Vocational education is lacking in Turkey (OECD, 2012), which would particularly benefit rural women to gain employment opportunities. The working conditions are very hard, requiring weekends and long hours while they also have the major duties at home. They usually give up working involuntarily due to pressures from the community, family, rules, beliefs, traditions and impressions (Ince, 2009; Tansel, 2001). It was found that a university degree increased employment opportunities by $50 \%$. While the literacy rate among women is improving in Turkey, the country still only spends $2.9 \%$ of GDP on education and Turkey is ranked 136 in the world on education expenditures (Central Intelligence Agency, 2012).

The fourth major challenge is both social and structural and is due to limited government support. The Turkish government needs to take major steps to break down social prejudices against women and assist in empowerment efforts on a national scale (Landig, 2011). Otherwise, permanent change will not occur despite efforts by the EU in investing in women's empowerment projects. The official stand of the government is that no legal obstacles exist for women but they are looked at as marginal citizens in a patriarchal society.

## Women entrepreneurs in Turkey

There is no official report on the number of women entrepreneurs in Turkey. One report shows that the number of women who belong to Chambers of Commerce and the Industries that are members of TOBB (The Union of Chambers and Commodity Exchanges of Turkey) is 25,975 (Tansel, 2001). Another report states that Turkey has increased its number of women entrepreneurs by $74 \%$ from 2003 to 2007, and reached 68,000 in 2007 . However, the report states that the ratio of women to total employers was $6.1 \%$ (Türkoğlu, 2008). The Union of Chambers and Commodity Exchanges of Turkey (TOBB) report (2011) found men entrepreneurs at 1,259,000 compared to 83,000 women entrepreneurs in 2009. The TOBB 2011 Economic Report says that KOSGEB-supplied grants to women entrepreneurs increased from $25 \%$ to $30 \%$ in the early 2000 s to $45 \%$ in 2010-2011, a strong signal that interest by women who completed the training in the Entrepreneurial

Support Program work in high growth businesses including the retail trade, food products, and garment and textile production (Türkoğlu, 2008). The Global Entrepreneurship Monitor 2010 Report for Turkey (Karadeniz, 2011) shows that the entrepreneurial activity rate for women is $3.71 \%$, and for males it is $13.39 \%$. Turkey still has the fourth highest male/female ratio of all GEM participating countries and the ratio of males to females is increasing. More Turkish women are involved in necessity-based entrepreneurship rather than opportunity-based entrepreneurship (Karadeniz, 2011). This mirrors the findings of Cetindamar (2005) that reported Turkish women entrepreneurs most importantly start businesses to become work independent and to create employment opportunities.

Concerning support organizations, there is a national organization of women entrepreneurs in Turkey as well as some regional associations. Kagider (Women Entrepreneurs Association of Turkey) began in 2002 with 38 successful women entrepreneurs and now has 200 members in various industries including textiles, communication, public relations, tourism, mining, chemistry, and health (Kagider, 2015). A survey of 200 women entrepreneur association members in various cities in Turkey found that the majority were 41-45 years of age, married, and university graduates primarily in economics, business, and engineering. About half said they were in the median income group and the other half in the high income group. They mostly worked in the service sector. The major problems they experienced were financial problems, balancing family and work life, and inexperience when starting their business. They saw the government as a major obstacle to their success due to policies on production and financial issues, including complicated tax laws as well as social policies concerning work and family balance that were not being addressed, including childcare and elder care. Discrimination was identified as a major obstacle. The article concluded that sustainable development of women entrepreneurs in Turkey must involve economic and social change reinforced by public policy (Sizmsek \& Uzay, 2009).

## Studies on Turkish women entrepreneurs

There have been few studies on Turkish women entrepreneurs. Hisrich and Öztürk (1999) surveyed two groups of women entrepreneurs - one group that had applied for the entrepreneurship credit designed for women at a state bank to start a business out of their home and the second group were members of the Chamber of Commerce in Eskisehir and Istanbul.

They were between 26 and 35 years old, well educated ( $67 \%$ held a bachelor's degree), married, one to two children, and the spouse's income was not significantly higher than theirs. Most had previous business experience in their chosen area. They were more energetic, independent, social, competitive, self-confident and goal-oriented. The reasons they gave for starting a business included being interested in their chosen area of business, being bored at home, having moved, and being frustrated with their job. They formed ventures in medicine, accounting, advertising, consulting, manufacturing, retailing, and apparel. Most businesses were less than three years old and were small, employing fewer than five people. Seventy percent received financing from the government
through a state bank. Problems identified include in order: financial (loan acquisition), personnel problems, lack of guidance, lack of networking, lack of business experience, and lack of hiring experience (Hisrich \& Öztürk, 1999). The authors concluded that the variation in social structure of Turkey affects the nature of ventures and the women who run them so these distinct differences from western countries should be paid attention to. Social structures, work, family, and social life are likely to be different and will affect motivations and business performance. Hisrich and Öztürk (1999) and Bullough, Kroeck, Newbury, Kundu, and Lowe (2012) found similar findings in a related study examining institutional factors that affect women's participation in leading businesses. In a study of 115 countries, results revealed the importance of local institutions related to the business environment, infrastructure, society, culture, and history as well as economics and technology.

Ufuk and Özgen (2001a, 2001b) conducted a study on just that - social structures, work-family roles, and other roles entrepreneurs play economically and individually. They found that stress occurred for these entrepreneurs between business and family life. The 220 married women entrepreneurs in the Ankara Union of Chambers of Tradesman and Artisans reported that being an entrepreneur affected their roles in family life negatively, while having a positive effect in their roles socially, economically, and individually. A full 88.6\% reported that they were successful (Ufuk \& Özgen, 2001a, 2001b). There was a positive correlation between their individual characteristics (communication ability, self-confidence, courage, patience, and modesty) and the characteristics of successful women entrepreneurs (Ufuk \& Özgen, 2001a, 2001b). The number one reason these women entrepreneurs started their businesses was to meet family needs (Ufuk \& Özgen, 2001a, 2001b). But despite these intentions, the roles of the entrepreneur posed the most conflicts with their roles as a housewife, mother, and wife (Ufuk \& Özgen, 2001a, 2001b). Excessive stress was pinpointed to be caused due to insufficient demand in the market for their products or services, physical exhaustion trying to manage multiple roles, and managing family members' demands. The authors attributed the excessive expectations to societal and cultural values deeply embedded in the Turkish way of life. The authors suggest that deep changes in Turkish society must occur on the macro level as well as on the micro level in families to change role expectations and role performance by sharing among family members home and childcare responsibilities to support women entrepreneurs (Ufuk \& Özgen, 2001a, 2001b).

Gender stereotyping is one aspect that affects societal values that must change for women entrepreneurs to move forward in Turkey. Researchers gathered data from female and male business students in Turkey, India, and the United States and the results were consistent across the three countries. They found that stereotyping plays a major role in the perceptions of entrepreneurs and the intentions to become an entrepreneur. Both males and females viewed entrepreneurship as a male-dominated occupation and females (not males) saw a significant relationship between feminine characteristics and entrepreneurial characteristics. In other words, females saw entrepreneurs as having attributes similar to both males and females, while males saw these attributes as possessed only by males. So based on these results, females have
broader views of gender-role stereotypes of entrepreneurs (Miller \& Budd, 1999). Both sexes that saw themselves as more similar to males had higher entrepreneurial intentions (Gupta, Turban, Wasti, \& Sikdar, 2009). The authors concluded that entrepreneurship is stereotyped as a masculine profession and therefore will not be immune to stereotypes and biases. Carter and Williams (2003) and Marlow and Patton (2005) suggest that it may not be biological sex differences that affect entrepreneurial activity between males and females but socially constructed gender differences that matter most. However, this study emphasizes that it is not one sex but rather a person's gender identification that matters most in choosing entrepreneurship as a career option (Gupta et al., 2009). These results are important because they explain, in part, why women have a harder time succeeding in their entrepreneurial ventures. For example, resource providers including financiers, suppliers, customers, and significant others, such as husbands, partners, fathers, and sons, do not associate being an entrepreneur with female characteristics and this leads to the lack of support in launching their business (Gupta et al., 2009). These authors reinforce the need to study gender and entrepreneurship through social lenses and the strong influence of gender stereotyping on the intentions to become an entrepreneur and the influence on the success of women-owned businesses.

In a study of ethnic female entrepreneurs, Levent, Masurel, and Nijkamp (2003) conducted in-depth personal interviews with 25 female Turkish entrepreneurs in Amsterdam. Basically, the study was trying to discern if being Turkish and a woman posed any advantages to successfully operating their businesses. The researchers concluded that by combining ethnic opportunities available with special ambitious personal characteristics, they performed successfully. They found that if they combined both ethnic opportunities with their opportunities as women, they achieved more success than their female and ethic male counterparts (Levent et al., 2003). Results showed good economic performance of their businesses and the women entrepreneurs wanted their businesses to grow. These women were generally well educated and had considerable experience before opening their business. These women had a very high number of family members that were entrepreneurs and acted as role models. Selfemployment in the extended family was the norm rather than the exception that contributed markedly to their success. Unlike entrepreneurs in their native Turkey, these women received support from their families as well as social networks to run their businesses and some of the family responsibilities, including child and elder care. This study is one example of how supportive environments can make a major difference in the success of women-owned businesses.

## Women entrepreneurs in family businesses

There have been a few studies that have examined women in Turkish family businesses (Kutanis \& Bayraktaroglu, 2003) and found that $69 \%$ of women entrepreneurs are 'independent,' that is, they founded and maintain the business, while $31 \%$ are considered 'dependent entrepreneurs' who maintain the business that was established by either a father, brother(s), or husband. (Karatas-Özkan, Erdogan, \& Nicolopoulou, 2011)
put forth a conceptual framework that includes key drivers, challenges, succession issues, and work/life balance. Their study attempts to answer three main questions: What are the key drivers and what influences Turkish women to become involved in the family business? How do these women contribute to the family business? What are the challenges they face? The researchers conducted interviews with eight women that held key positions in their family businesses. All were in manufacturing except for a foreign trading company and an advertising and publishing company. Exploratory findings were put in a cultural context discussed before in this paper concerning religious conservatism and patriarchal norms that have had the effect of segregating women's roles to mother and housewife. In additions to these factors, limited access to education and training, lack of business experience, lack of role models, and limited financial and social capital, such as support networks, all contribute to the challenges women face in Turkey as family business entrepreneurs. The drivers identified for women's involvement in Turkish family businesses include independence (decision-making, strategic thinking), responsibility, scheduling flexibility, high quality professional and social life, high income, career opportunities, and a sense of belongingness. Most of the respondents play a major role in growing their family business and restructuring the family business. Key problems identified include work-home role conflict, including infringement of their family business into their private lives due to a "clash of commitments" (Kutanis \& Bayraktaroglu, 2003, p. 212). Respondents identified lack of mentors and their mentors were generally their fathers, husbands, and siblings, which is common in Turkey. The networks are also smaller in Turkey as compared to western countries, with very few women that have owner-manager responsibilities. Another problem these women identified was their invisibility, and that businessmen prefer males to women professionally. In Turkey, business is male dominated and men are not used to working with women. While many of the results in the study mirror findings of studies on Turkish women entrepreneurs, some of the findings are unique to Turkish women entrepreneurs in family businesses due to the issues of ownership of the family business through inheritance rather than co-preneurs or successors (Karatas-Özkan et al., 2011). Further study of family business women entrepreneurs in the Turkish context is warranted.

## Hypotheses

To date, there has not been any other study on Turkish women entrepreneurs' perceptions and inner strengths and weaknesses which can play a critical role in entrepreneurial success through self-confidence and efficacy (Wilson, Kickul, \& Marlino, 2007). In an attempt to fill this gap in the literature, we suggest that family moral support can be influential on Turkish women entrepreneurs' perceptions since family plays an important role in Turkish women's personal and career lives. We also expect that family influence through moral support can have both positive and negative effects on Turkish women entrepreneurs' perceptions. Indeed, family dynamics can be even more complex in larger families (Greenhaus \&

Beutell, 1985), with strong ties and family expectations which are common in Turkish cultural and familial context.

First, we expect that family moral support can be influential on Turkish women entrepreneurs' personal problems during the venture start-up and management. Studies (Welsh, Memili, Kaciak, \& Ochi, 2014) show that in patriarchal societies such as Japan, family moral support can empower the family members to interfere with the work, create conflict, and exacerbate the women entrepreneurs' problems. Similarly, Turkish women entrepreneurs' lack of self-confidence and prevalent patriarchal mindsets can enable family members to interfere and elevate personal problems. Therefore:

Hypothesis 1. Family moral support will be positively associated with Turkish women entrepreneurs' personal problems during the establishment and management of their businesses.

Aside from the dark side of family support, we also expect its positive effects on another challenge, namely the recognition of managerial weaknesses. Owing to the open communication and interactions nurtured by family moral support, Turkish women entrepreneurs may be able to recognize their weaknesses in terms of managerial skills. With the help of the free flow of information within the family (Ritchie, 1991), family members are able to play the devil's advocate by drawing attention to red flags and providing constructive feedback and critique concerning poor business strategies and actions and Turkish women entrepreneurs can recognize the flaws better. Hence:

Hypothesis 2. Family moral support will be positively associated with Turkish women entrepreneurs' recognition that their management skills may be poor or fair at best.

Moreover, family moral support may influence Turkish women entrepreneurs' perceptions regarding education, particularly its benefits to the business. Families' increasing regards for education, whether they can provide good education to the children or not, may also encourage Turkish women entrepreneurs to have positive perceptions regarding the benefits of the education for their businesses. Thus:

Hypothesis 3. Family moral support will be positively associated with Turkish women entrepreneurs' perceptions regarding education being beneficial to the businesses.

Furthermore, family moral support may be influential on Turkish women entrepreneurs' perceptions regarding the benefits of work experiences for their businesses. Not all Turkish families are supportive of female family business members' participating at the work force. Some Turkish families may prefer women's involvement and roles primarily within in the household. The families may be willing to accept women's supporting the household only if they are self-employed and can still prioritize the duties at home. This may result in Turkish women entrepreneurs underestimating the benefits of prior work experiences for their businesses. Therefore:

Hypothesis 4. Family moral support will be negatively associated with Turkish women entrepreneurs' perceptions regarding the benefits of work experiences for their businesses.

We test our hypotheses and present the results in the following Methodology section.

## Methodology

## Sample

A self-administered questionnaire adapted from Hisrich, Bowser, and Smarsh (2006) was utilized. The 27 questions were translated into Turkish and three items related to family business were added. Data collection took place in Turkey from May to November of 2012 using online surveys and personal contact with business organizations throughout Turkey. One hundred and forty-seven women responded to the survey. Respondents ranged from under 20 to over 60 years of age. The largest age group is $30-39$ years old, accounting for $33 \%$ of the participants, followed by those who were 40-49 years (32\%) and $50-59$ years old ( $17 \%$ ). Six percent of the participants are over 60 years of age and $13 \%$ of the respondents are less than 30 years old. Sixty-six percent of the respondents were married, $21 \%$ single, and $13 \%$ were separated, divorced or widowed.

Thirty-nine percent of women reported their businesses as a family business. Their businesses are relatively new and mostly were composed of first- or second-generation family members. In addition, more than half of the respondents tended to start the business by themselves ( $46 \%$ ) or with a nonfamily member ( $10 \%$ ) rather than with their family members ( $20 \%$ with a spouse, $15 \%$ with another family member) regardless of whether their business would be classified as a family business or non-family business. Their businesses are small, with $62 \%$ having less than 10 employees, and $27 \%$ not having any employees. Only $4 \%$ of the respondents had more than 50 employees.

The majority of women (69\%) started their businesses locally ( $54 \%$ ) or in a neighboring city ( $15 \%$ ) and remain solely domestic businesses. Only $8 \%$ of women started their business internationally, and $11 \%$ now are operating internationally.

The majority of business owners (70\%) own more than $50 \%$ of their business. Twenty percent of women business owners construct their budget annually and $25 \%$ construct it according to demand. Only $9 \%$ of respondents have a long range plan, while $25 \%$ have a seasonally adjusted plan.

## The variables

## The dependent variables

In each model, we used a different dependent variable to capture the impact of family moral support on Turkish women entrepreneurs' challenges and advantages in establishing and managing their ventures. In Models 1 and 2, we focused on challenges, and in Models 3 and 4, on the advantages related to the establishment and managing their businesses from the perspective of family support.

In the first model (Hypothesis 1), the dichotomous dependent variable measured women's biggest personal problems during the establishment and running of their businesses: (1) the presence of any combination of emotional stress, family stress, loneliness, influence of business on family relationships, influence of business on personal relationships, poor/or lack of support, loneliness, time management, dealing with males and/or dealing with drivers, and (0) the absence of any of such problems. The second dependent variable (Hypothesis 2) indicated poor (1) or good (0) self-evaluation of the current management skills (financial, dealing with people, marketing, sales, idea generation/product innovation, organization and planning, and general management). In the third model (Hypothesis 3), we focused on the perceived importance of education and measured it at two levels: (1) yes, my schooling has been helpful in my business activities and (0) no, it wasn't. Finally, in the last model (Hypothesis 4), we measured the importance of previous work experience similarly.

## The independent variable

In each of the four models, we used the same dichotomous independent variable (family support), measured at two levels: (1) when moral support from the family member (spouse, child, parent, sibling, and/or a relative) was acknowledged by a female entrepreneur and (0) when it wasn't. We used this measure, initially designed to measure altruism, to capture the support of family members (Becker \& Vance, 1993). Unlike Chang, Memili, Chrisman, Kellermanns, and Chua's (2009) measure of family support by adapting four items from Becker and Vance's (1993) measure of altruism, we only adapted the family moral support item considering the economic challenges and human, social, and financial capital limitations of Turkish families owing to some political and governmental instabilities in their country.

## The control variables

We controlled for three demographical factors owing to their potential impact on the dependent variables that are pertaining to perceptions (Rutherford \& Holt, 2007; Stewart, May, \& Kalia, 2008).

Age is a categorical variable measured at two levels: (1) 39 years old or less, (0) 40 or more years old.

Marital status indicates whether the respondent is (1) married, or (0) not married (single, separated, divorced, or widowed).

Education is a dichotomous variable measured at two levels: (1) if more than a high school and (0) if no more than a high school.

The choice of the cut-off levels for the variables' categories was based on theoretical considerations and their frequency distributions.

## Analyses and results

To test the relationships between the family support and the major challenges (Hypotheses 1 and 2) and advantages (Hypotheses 3 and 4) that Turkish women entrepreneurs face and enjoy, respectively, in their business activities, we


Fig. 1 - Study design.
conducted four binary logistic regressions. In each model, the dependent variable was measured sequentially against the control and independent variables by first entering the control variables and then adding the independent variable. The study design is depicted in Fig. 1; descriptive data including zero-order correlations are presented in Table 1, and the results of the binary logistic regressions in Table 2.

The bivariate relationships presented in Table 1 indicate that there are no obvious problems with multicollinearity among the explanatory variables - the absolute values of the correlation coefficients are all below 0.30. Furthermore, VIF
values for each explanatory variable ranged from a low of 1.03 to a high of 1.09. The chi-square difference between the intercept only model and the model with all predictors entered (the log-likelihood $\chi^{2}$ test of the overall model) is significant ( $p<0.05$ ). Prediction success rates overall are moderately good between $66 \%$ and $86 \%$, an improvement on the $53-63 \%$ correct classifications with the constant (the intercept only) models. The Nagelkerke's $R^{2}$ are somewhat low, between 0.15 and 0.33 . The logistic regression models were run against the dependent with the control variables only (the nested model), and then were run again for the full model with the control variables and the independent variable. The results showed a moderate increase in Nagelkerke's $R^{2}$ and the prediction success rates when the independent variable was added to each of the four models. The contribution from the independent variable was also analyzed by comparing successive models using incremental chi-square (the log-likelihood $\chi^{2}$ test for model refinement). The significant increment in chi-square in Models 1,2 , and $4(p<0.05)$ indicates that the independent variable (the family support) makes a significant contribution to explain the variation in three dependent variables (personal problems, self-evaluation of current management skills/knowledge, and helpfulness of previous work experience) after accounting for the controls.

Three hypotheses were confirmed: the greater moral support women entrepreneurs receive from of their families, the more likely they are to experience personal problems (H1), the more likely they are to self-evaluate their management skills/knowledge as poor (H2), and the less likely they are to perceive previous work experience as helpful in their business activities (H4). On the other hand, family moral support has no statistically significant effect on the likelihood

Table 1 - Means, standard deviations, and correlations ( $\mathrm{N}=108$ ).

| Variables | Mean | Min | Max | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. Personal problems | 0.73 | 0 | 1 | 1 | 0.034 | -0.12 | $0.19{ }^{*}$ | 0.45 | 0.07 | 0.01 | -0.14 |
| 2. Self-evaluation of management skills/knowledge | 0.20 | 0 | 1 |  | 1 | -0.07 | -0.08 | $0.17{ }^{*}$ | -0.11 | -0.07 | $-0.20{ }^{*}$ |
| 3. Helpfulness of schooling | 0.62 | 0 | 1 |  |  | 1 | $0.21 *$ | -0.06 | 0.08 | -0.15 | 0.50 |
| 4. Helpfulness of previous work experience | 0.46 | 0 | 1 |  |  |  | 1 | 0.08 | -0.01 | -0.01 | $0.31{ }^{* *}$ |
| 5. Family support | 0.67 | 0 | 1 |  |  |  |  | 1 | $0.19{ }^{*}$ | 0.10 | 0.07 |
| 6. Marital status: married | 0.46 | 0 | 1 |  |  |  |  |  | 1 | -0.08 | $0.21 *$ |
| 7. Age: 39 years old or less | 0.66 | 0 | 1 |  |  |  |  |  |  | 1 | -0.05 |
| 8. Education: more than a high school | 0.66 | 0 | 1 |  |  |  |  |  |  |  | 1 |

[^1]|  | Model 1 $N=118$ | Model 2 $N=116$ | Model 3 $N=108$ | Model 4 $N=118$ |
| :---: | :---: | :---: | :---: | :---: |
| Independent variable |  |  |  |  |
| Family support | $1.20{ }^{* *}$ | $1.73{ }^{* *}$ | -0.63 | -0.84* |
|  | (0.60) | (0.81) | (0.62) | (0.51) |
|  | (H1: confirmed) | (H2: confirmed) | (H3: not confirmed) | (H4: confirmed) |
| Control variables |  |  |  |  |
| Age (below 39 years) | $1.17{ }^{*}$ | -0.65 | -0.24 | -0.16 |
|  | (0.65) | (0.50) | (0.50) | (0.42) |
| Marital status (married) | 0.101 | -0.58 | -0.27 | -0.04 |
|  | (0.598) | (0.50) | (0.50) | (0.42) |
| Education (more than a high school) | -1.39 | $-1.00{ }^{* *}$ | $2.4{ }^{\text {+** }}$ | $1.5{ }^{\text {+"* }}$ |
|  | (0.72) | (0.49) | (0.51) | (0.44) |
| Constant | $1.54{ }^{*}$ | $-1.51{ }^{*}$ | -0.12 | -0.11 |
|  | (0.76) | (0.82) | (0.61) | (0.54) |
| Log-likelihood $\chi^{2}$ test of the overall model (df) | 11.01 (4)******** | 11.83 (4)** | 29.55 (4) ${ }^{*}$ | 15.45 (4)***********) |
| Log-likelihood $\chi^{2}$ test for model refinement (df) | 3.84 (1)* | 6.25 (1)** | 1.09 (1) | 2.80 (1)* |
| Overall \% correct | 86.4\% | $93.3 \%$ | 76.9\% | 66.1\% |
| Nagelkerke $R^{2}$ | 0.16 | 0.15 | 0.33 | 0.16 |
| Barriers |  |  |  |  |
| Model 1. Dependent variable (the dependent variables are all dichotomous with $1=$ yes; $0=$ no): personal problems. |  |  |  |  |
| Model 2. Dependent variable: self-evaluation of current management skills/knowledge. |  |  |  |  |
| Advantages |  |  |  |  |
| Model 3. Dependent variable: helpfulness of schooling. |  |  |  |  |
| Model 4. Dependent variable: helpfulness of previous work experience. |  |  |  |  |
| Note. Regression coefficients: |  |  |  |  |
| * $p<0.10$; two-tailed tests. |  |  |  |  |
| ** $p<0.05$; two-tailed tests. |  |  |  |  |
| *** $p<0.01$; two-tailed tests. |  |  |  |  |

of schooling (H3) being perceived as helpful in the women's business activities.

Concerning the control variables, we found age and education to have statistically significant effects on the dependent variables. Younger women entrepreneurs (no more than 39 years old) are more likely to experience personal problems than those more mature entrepreneurs who are 40 or more years old. Women who have higher than high school education are less likely to experience personal problems and to selfevaluate their management skills/knowledge as poor than those with lower education levels. However, they are more likely to consider both schooling and previous work experience helpful in their business activities than those with lower education levels. Marital status was not found to be significantly related to any of the dependent variables.

## Discussion

In this study, we examined the impact of family moral support on Turkish women entrepreneurs' major challenges (i.e. personal problems and recognition of poor managerial skills and knowledge) and advantages (i.e. perceptions of helpfulness of education and work experience). Our findings show that family moral support can be twofold in terms of the impact on Turkish women entrepreneurs' perceptions. On the one hand, family moral support leads to an increase in the Turkish women entrepreneurs' personal problems. This
may be because of family members' authority, legitimacy, and power to interfere with the business through providing moral support. On the other hand, it also helps Turkish women entrepreneurs recognize managerial skill deficiencies and usefulness of prior work experiences. Interestingly, family moral support does not have a significant impact on the Turkish women entrepreneurs' perceiving education as beneficial for the business. This may be because of the increased perceptions of self-efficacy and confidence through moral support provided by the family. Turkish women entrepreneurs may also value what they learn from family more than what they learn at school when family is supportive emotionally.

## Limitations and future research

This survey was conducted online and mostly through support organizations and networks of women entrepreneurs and is a convenience sample. Therefore, the results are strongly influenced by people who can use the Internet and belong to networking organizations. Future studies should include in the sample women entrepreneurs who do not use the Internet or do not use the Internet on a regular basis. Other means to gather data should also be included, such as student-based businesses, university-based businesses that are launched by women, representative samples throughout Turkey in rural and urban environments, and matched gender-based samples.

Moreover, since $39 \%$ are family businesses owned by Turkish women entrepreneurs, future research could investigate the family firm dynamics, such as family expectations or longterm orientation, and how these affect firm performance.

As another future research avenue, longitudinal studies can investigate the impact of changes in the lifestyles and culture along with government initiatives on Turkish women entrepreneurs over time. Indeed, it would be interesting to explore how the changes encouraging more women's opportunities will affect women entrepreneurs in Turkey in the long run.

Future research can also examine the impact of Turkish women entrepreneurs on innovations in the economy. We expect that if qualified women with higher education and motivation can have the opportunity to utilize their knowledge base by creating their ventures through family and external support (Chang et al., 2009), they may be the drivers of innovations in the Turkish economy.

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    * Corresponding author.

    E-mail address: dhwelsh@uncg.edu (D.H.B. Welsh).
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[^1]:    * Correlation is significant at the 0.05 level (two-tailed).
    ** Correlation is significant at the 0.01 level (two-tailed). Dependent variables:

    1. Personal problems: $1=$ yes; $0=$ no.
    2. Self-evaluation of management skills/knowledge: 1 = poor; 0 = good.
    3. Helpfulness of schooling: $1=y e s ; 0=$ no.
    4. Helpfulness of previous work experience: $1=y e s ; 0=$ no.

    Independent variable:
    5. Family support: $1=$ yes; $0=$ no.

    Control variables:
    6. Marital status: married (vs. not married: single, separated, divorced, or widowed).
    7. Age: 39 years old or less (vs. 40 or more years old).
    8. Education: $1=$ more than a high school; $0=$ no more than a high school.

