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KEY FACTORS ASSOCIATED WITH THE PROPENSITY TO START A BUSINESS AND THEIR DIFFERENTIAL EFFECT IN WOMEN OF EFFICIENCY-DRIVEN ECONOMIES.

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Abstract : The importance and economic impact of female entrepreneurship is becoming increasingly important in global economy, especially in developing countries. This paper aims to determine the key factors that had a significant association with the propensity to start a business controlling the effect by gender variable in developing countries in 2017. For this purpose, the data from the Adult Population Survey (APS) of Global Entrepreneurship Monitor (GEM) were analyzed for Efficiency-driven economies, 35 countries. In turn, a hierarchical logistic model was carried out to observe the relationship between the predictive variables and the propensity to start a business in selected sample of countries, identifying in a second model the differential effect of predictor variables controlling by gender. One of the most important results was that the education variable gains significance for the secondary level compared to first model, in turn, the intervals of age (18 to 34, 45 - 54) become significant. At the same time, the variable of knowing other entrepreneurs and self-confidence in entrepreneurial skills increases their level of significance.

Key Words: Female Entrepreneurship, Efficiency-driven economies, Economic Development, Education, Self-efficacy.

JEL: J10, J21, M10, M20, M21

INTRODUCTION

Despite the emerging interest in public policy related to the role women play in social and economic development, research has been scarce in showing evidence of the real impact of female entrepreneurship (Williams & Keddir, 2018). However, in the past few years a greater comprehension has begun to emerge of the motivations, restrictions, behavior and concerns which defy women entrepreneurship. (Williams and Gurtoo, 2011a, 2011b, Williams and Martinez-Perez, 2014; Williams and Yousef, 2013; Williams et al., 2012). Also, as well as a matter of study that is emerging regards the impacts of women's involvement in firm ownership on firm performance (De Vita et al., 2014; Minniti and Naude, 2010).

Considerable amount of Literature assert that, in terms of new business creation and self-employment, women face higher opportunity cost than men, mainly because of the role they play in the family. Edwards and Field Hendrey (2002) found a greater probability of women to choose self-employment when fixed costs are high, especially for women who grow small children. Other studies have revealed the gender asymmetry is a phenomenon that affect several countries included emerging markets as Latin America (Kuschel, Katherina & Lepeley, Maria-Teresa & Espinosa, Fernanda & Lillo, Sebastian. (2017). Urbano, David & Aparicio, Sebastian & Noguera, María. (2017). For example, Honig (1998) found that female in Jamaica obtained considerably lower returns to self-employment than men.

Other works have suggested that other factors affecting gender differences in self-employment like discrimination and cultural factors. Clain (2000), for example, found that US women who are self-employed have personal characteristics that are less valued in the market place than women who work full-time, phenomenon totally opposed to self-employed men who are better valued as entrepreneurs. A study in Italy concluded that women are more likely to self-employment from inactivity or unemployment whereas men enter driven more for an improvement in their careers or as a result of a disadvantage in paid employment.

Recent research conducted by Terjesen and Amorós 2010 aimed to understand the characteristics, drivers and relationships to economic development of female entrepreneurship in Latin America and the Caribbean, showed that average rates of women entrepreneurship are relatively high compared to men, but a considerable proportion of women are necessity motivated, as a consequence a low percentage of women entrepreneurs indicated that they expected their firms to grow over the subsequent five years.

The objective of this present study is oriented to understand female entrepreneurial intention in efficiency driven economies. The theoretical background used to explain such intention is Ajzen's (1991) theory of planned behavior (Nabi et al., 2010) as it is one of the most accepted theories (Nabi et al., 2010). This model is based on three factors – social norms, attitudes, and perceived control. Social norms refer to the perceived acceptance or rejection toward a specific behavior from significant persons of the individual. Attitudes are personal judgments and evaluations related to a certain action. Intentions, in spite of not being actual behaviors, are considered one of the best predictors of the entrepreneurial.

With the purpose of testing the hypotheses this research uses a logistic hierarchical model. The model analyses perceptual variables related to Azjen´s Theory. In order to evaluate social norms the selected variable is social status of entrepreneur. Fear of failure as a predictor of attitude; the variables to understand perceived control are self-efficacy and easiness of doing business. Other variables employed in this research are demographics, such us: age and education. Aforementioned variables are some of the strongest predictors of entrepreneurial intentions found in diversity of research, and they are highly correlated with the resolution to start a new venture, (Arenius and Minniti, 2005; Koellinger et al., 2007, Camelo-Ordaz et al.,2016).The variable to indicate Intention is entrepreneurship as attractive career choice

LITERATURE REVIEW

The literature on entrepreneurship has constantly recognized that perceptual factors have a major influence on the probability that a particular individual will become involved in entrepreneurial activity (Arenius and Minniti, 2005; Gatewood et al., 1995; Györfy, 2014; Koellinger et al., 2007, 2013), and these group of factors influence on the decision to start a business (Evald et al., 2011; Minniti and Nardone, 2007).Likewise, literature has also shown that perceptual factors could play a crucial role in explaining the differences in the entrepreneurial behavior of men and women (Koellinger et al., 2007; Camelo-Ordaz et al., 2016). Moreover, when it comes to studying the influence of gender on the likelihood of starting a new business, scholars have found a higher explanatory power of individuals' perceptual characteristics with respect other variables normally employed, such us: age, household income, education, level. (Lefkowitz, 1994; Minniti and Nardone, 2007). In this regard, Koellinger et al. (2013: 229) concluded, in their study developed in 17 countries, that "a significant portion of the gender gap in entrepreneurial propensity is explained by subjective perceptions whereas socio-economic variables appear to play a smaller role. In fact, when perceptual variables are considered, the explanatory powers of age, education, work status, and household income decrease or disappear completely, suggesting that these variables may influence startup decisions primarily because of their influence on perceptions".

One of the most influential theories of human behavior is the theory of planned behavior (TPB), having been applied in the majority of disciplines interested in considerate some kind of human behavior (Armitage & Conner, 2001; Cooke & Sheeran, 2004; rivis & Sheeran, 2003; Schwenk & Möser, 2009), this theory of planned behavior seems appropriated to explain and predict entrepreneurial behavior (Krueger & Carsrud, 1993; Krueger, reilly & Carsrud, 2000). In accordance with TPB, entrepreneurial intention indicates the determination that and individual would perform to concrete

that entrepreneurial behavior (Liñan and Cheng 2009). The theory assets three drivers influencing behavior (Ajzen, 1991; Liñán, 2004). First, the individual attitude (PA) towards startup refers to the personal valuation about being an entrepreneur (Ajzen, 2001; Autio et al., 2001; Kolvereid, 1996b). It includes affective and evaluative considerations, such us: how attractive is entrepreneurship, assessing advantages, tolerance to frustration. Second, Subjective norm (SN) which measures the perceived social pressure to accomplish or nor accomplish entrepreneurial behaviors. Particularly, it would refer to the perception that significance persons would approve of the decision to become an entrepreneur, or not (Ajzen, 2001). Third, Perceived Behavioral Control (PBC) is defined as the individual perception of how ease or how difficulty is becoming an entrepreneur. Therefore, the concept somewhat similar to self efficacy (SE) (Bandura, 1997), both referring to the sense of capacity regarding the fulfillment of firm-creation behaviors.

Afterwards these arguments, below is a review of the literature devoted to analyze the mediating role of perceptual factors on the relationship between gender and entrepreneurial intention, as well as demographics components from which we derive the resultant research hypotheses.

ENTREPRENEURSHIP AND SELF-EFFICACY

The conception of entrepreneurial self-efficacy is derivative from Social Learning Theory. Self-efficacy is built on individuals' perception of their own skills and/or abilities and their competence to perform particular tasks, and succeed in such tasks (Bandura, 1989; Kickul et al., 2008). In an entrepreneurial context, self-efficacy can be defined as an individual's confidence in his or her ability to succeed in entrepreneurial roles and tasks (Chen et al., 1998).

Entrepreneurial self-efficacy is an important factor in the development of an intention to stablish and mange a new business (Kickul et al., 2008). Also, it is crucial influencing choices, aspirations, and perseverance when entrepreneurs are challenged. Wilson et al 2007 focused on whether self-efficacy is a key factor in explaining why some individuals are motivated to become entrepreneurs and others are not. Further authors has addressed the analysis of entrepreneurial self-efficacy and entrepreneurial intention from a gender perspective (Kirkwood, 2009; Laviolette et al., 2012; Wilson et al., 2007; Zhao et al., 2005). As conclusions of this research stream, the empirical evidence has shown that a higher proportion of women than men reject the choice of an entrepreneurial career and because they perceive themselves as lacking the necessary abilities (Chen et al., 1998; Kickul et al., 2008; Wilson et al., 2007).

Finally, works in social sciences have recognized the importance of knowing other entrepreneurs for entrepreneurial decisions. For example, Baron (2000) and Begley and Boyd (1987) have argued about the importance of role models because of their ability to boost self-efficacy. Also, Aldrich (1999), has pointed out the role of personal networks as they facilitate the improvement of entrepreneurial confidence by providing advice, support and examples. Similarly, Minniti (2004) has discussed increases in individuals' confidence produced by the presence of role models and their ability to reduce ambiguity.

According to these arguments, the following hypothesis is formulated:

HYPOTHESIS 1.

Female Entrepreneurial intention in **Efficiency-driven economies** is influenced positively by the perceived ability of women.

ENTREPRENEURSHIP AND THE ABILITY TO RECOGNIZE OPPORTUNITIES

Some research in the entrepreneurship field have found that the ability to recognize opportunities increases the likelihood of people becoming entrepreneurs (Baron and Ensley, 2006; Clarysse et al., 2011). According to the theory of planned behavior, individuals' attitudes influence their own behavior (Ajzen, 1991). The ability of recognize opportunities is possessed by some individuals who are strongly determined to create new business. (Ozgen and Baron, 2007). A little research has analyzed this matter with a gender perspective, and some of it concerns about the relationship between the ability to recognize opportunities and entrepreneurial intentions. Authors has shown evidence of a positive relation being stronger in men. Langowitz and Minniti (2007).

In an article published in 2016, authors (Camelo-Ordaz 2016) suggested that the differentiated perception of entrepreneurial opportunities from a gender perspective significantly influences the lower intention displayed by female non entrepreneurs, this result affirms the significant gender differences in human capital, as fisher et al asserted (2003), permit men and women to develop a particular human capital that impacts the ability to recognize opportunities and entrepreneurial intentions.

Definitely, women frequently exhibit a deficiency of prior experience, training, business experience and social capital if they are compared with men (Ettl and Welter, 2010). Underpinning this argument, Venkataraman (1997) postulated that the stock of knowledge among men and women is different, and these differences are important, consequently the search for and the decision to exploit and opportunity is significantly affected.

Thus, this study examines the moderating roles of gender toward the entrepreneurial intention of business start-up and the ability to recognize an opportunity.

HYPOTHESIS 2:

Recognizing opportunities is a significant positive predictor of Female Entrepreneurial intention in **Efficiency-driven economies**

ENTREPRENEURSHIP AND FEAR OF FAILURE

Research evidence shows that entrepreneurs suffer a certain degree of fear of failure, this perception can affect entrepreneurial intentions and the level of any entrepreneurial activity (Arano et al., 2010; Langowitz and Minniti, 2007; Gómez, L; López, S; Parra, L; Matíz, F; Orozco, J, 2018a). The theory of planned behavior states that individuals' fear of failure leads to the perception that they are not capable to control the behavior necessary to start a new venture (Ajzen, 1991). In regards of this matter Minniti (2009: 50) argues that a reduced perception of the possibility of failure may increase the probability that an individual engage in a new venture. Zhao et al. (2010) and Shinnar et al. (2012) proved that entrepreneurial intention is positively related to risk tolerance, and that risk aversion decreases individuals' probability of becoming self-employed.

From a gender perspective some empirical studies have evidenced the moderation of gender on fear of failure. Recent research has postulated not only the influence of gender on fear of failure, but also the relationship between gender, fear of failure and entrepreneurial intention (Koellinger et al., 2013). Minniti (2009) found more frequency of women than men perceiving fear of failure in all the countries belonging GEM sample, with the exception of japan. The majority of studies has concluded that, in general, women perceive more risk aversion that men (Neelakantan, 2010; Wagner, 2007; Abu Bakar, et al.,2017; Chidambaram and Vikkraman, P. 2016)

Drawing these arguments this study proposes the following hypothesis:

HYPOTHESIS 3

Fear of failure has a positive significant influence with female entrepreneurial intention in Efficiency-driven economies.

ENTREPRENEURIAL INTENTION AND DEMOGRAPHICS

A lot of research observes the demographic profile of individuals as part of the entrepreneurial analysis, such components are age (Szivas, 2001), gender (Minniti and Nardone, 2007), educational level achieved (Dolinsky et al., 1993; Lakshmi, Idhenya, and Padmavathi, 2017) and household income (Koellinger, 2008).

Many studies agreed, that the predominant age of individuals to become entrepreneurs is in the group of middle-age and older, that is, from 25 to 50 years (Ahmad and Xavier, 2012, 2015) 30 to 45 years (Ahmad, 2005) and 45 years and older (Szivas, 2001). An explanation of that phenomenon may be related to the increment of personal wealth, as older is the individual the higher is the potential period to grow his/her wealth. On the other hand, Reynolds et al. (2003) found relatively young entrepreneurs with the highest entrepreneurial intention in the range of 25 to 34 years, this statement could be related to aversion to risk. Younger are less averse to risk and it has a positive relationship with propensity of entrepreneurship.

HYPOTHESIS 4. IN EFFICIENCY-DRIVE ECONOMIES AGE IMPROVE THE ENTREPRENEURIAL INTENTION OF FEMALE.

The entrepreneurial literature has found evidence that higher education increases the likelihood of becoming entrepreneur (Robinson and Sexton 1994). Authors assert that through education, individuals are enable to identify business opportunities and provide themselves with the necessary skills and abilities to start a business. (Davidsson and Honig, 2003). In the same way, Arenius and De Clercq (2005) confirmed the argument evidencing a positive correlation between education level and opportunity recognition. According to Bates (1990) as higher education an individual obtains the likelihood to stablish new business increases. However other studies discover an inverse relationship between education level and venture creation, that relationship may occur due to a diversity of motivations to start a new firm, such us necessity and opportunity drivers (Storey, 1994). Indeed, the relationship between education and entrepreneurship is mixed (Arenius and Minniti, 2005) it is suggested that higher levels of education attained would be more likely to be associated with entrepreneurship efficiency driven economies, in which opportunity rather than necessity appears to drive business venturing.

HYPOTHESIS 5

In efficiency-drive economies, the higher education attained by female individuals the higher entrepreneurial intentions to start new businesses.

SOCIAL STATUS OF ENTREPRENEURS

Anderson and Warren pointed out (2011) that when an entrepreneur is considered a cultural and economic protagonist, his or her status, social acceptance of such position is a trigger to motivate other individuals to engage and entrepreneurial behavior. (Carsrud and Brannback, 2011) (Niklas, Cunningham, Anderson 2017). In fact, the human being is a social animal who convey their decisions taking into consideration others in their context. (Bisin and Verdier, 1998). For this reason, the culture and social norms that environs them are able to conduct their behaviors and perceptions.

Literature underpin that if the role is seen as important for economic and social well-being, then the status associated with entrepreneurship will be high. Hence, entrepreneurship is been seen as a good behavior towards a new venture (Liñán and Chen, 2009; Liñán, Urbano and Guerrero2011). Thus, affective will shape its consequent attractiveness and encourage entrepreneurial intention (Fayolle, Liñan and Moriano 2014)

As a matter of fact social status of entrepreneurs depends on the values and beliefs of a society, and their role will be perceived in different manners. Therefore, in some cultures the role that entrepreneurs play is vital to the community whereas, in others, it is not (Fisher et al., 2017). In particular, Anderson et al. (2009) posit the dissimilar ways in which young Europeans understand the entrepreneur: "from predatory opportunists to victim of their vulnerable position against incumbents or from maverick explorers to the engines of economic growth".

Meek, Pacheco, York (2010) highlight the role of social norms and how entrepreneurs are culturally depicted in influencing new business venturing and new business behavior. Indeed when it comes to study societies where women face distinctive social norms as male. Abounding research is full of discussion about the existence of an entrepreneurial gender gap. (Gupta, Turban, Wasti and Sikdar (2009), (Hechavarria,…). Frequently this gap is studied through social role theory and gender role theory (Eagly and Carli, 2003; Rigg and Sparrow, 1994).

THE LATTER THEORY POSTULATES THAT:

"Sexes adopt stereotypical gender roles in order to gain societal acceptance. Males exhibit more dominant, achievement-oriented behaviors and females display more affiliative and nurturing behaviors. For instance, females 'take care' while males 'take charge'" (Furst and Reeves, 2008).

Building upon gender role theory, female entrepreneurs differs from male, in the fact that women might face more obstacles due to gender stereotypes, although existent literature is deploying the trend to be a convergence between both sex referring to engaging a new venture.

In regards to these arguments, the following hypothesis is formulated:

HYPOTHESIS 5:

In efficiency-drive economies, social status of entrepreneurs enhance the propensity of female individuals to start new businesses.

RESEARCH METHODOLOGY AND DATA

The Global Entrepreneurship Monitor (GEM) classifies the economies in three different groups according their stage of development: Stage 1 'factor'-driven economies, where countries compete primarily on the use of unskilled labor and natural resources and companies compete on the basis of price as they buy and sell basic products or commodities. Stage 2 'efficiency'-driven economies, where growth is based on the development of more efficient production processes and increased product quality. Stage 3 'innovation'-driven economies, where companies compete by producing and delivering new and different products and services by using the most sophisticated processes (Kelly et.al. 2012).

According to the above, this paper focus its analysis for Stage 2 'efficiency'-driven economies using the APS (Adult Population Survey) database-level individuals from the Global Entrepreneurship Monitor (GEM) in 2017. The APS - GEM survey is done adult population aged 18 and 64 years old, in order to capture the entrepreneurial potential of a country from its entrepreneurial spirit and entrepreneurial activity (Kelly et.al. 2012). The GEM survey has representation at country level and processed nearly three thousand questionnaires to adults by country who meet the characteristics of selected sample. Entrepreneurial activity is measured through TEA (Total Early Stage Entrepreneurial Activity) or rate of entrepreneurial activity in a country, that includes both, nascent entrepreneurs, i.e those who are involved in a business project but not yet had some cost of production, and new entrepreneurs, that are companies with less than two years from its creation (Kelley, et.al. 2012; Gómez, L; López, S; Hernández, N; Galvis, M; Varela, R; Moreno, J; Pereira, F; Parra, L; Matíz, F; Cediel, G; Martínez, P; 2018b)

On the other hand, the GEM survey difference the kind of entrepreneurship according with its motivation into two types: entrepreneurship by necessity, which is classified to entrepreneurs who chose this alternative because they had no choice of work; and entrepreneurship by opportunity, which is classified to entrepreneurs who chose this alternative because they identified a business opportunity at the market (Kelley, et.al. 2012). Finally, GEM assumes as Established Entrepreneurs those who have more than two years old in their business (EB)

Previously to classify the kind of entrepreneurship is very important to establish the key factors that could affect the entrepreneurship propensity and its difference by gender. In this sense, we identify as dependent variable the decision to start up a new business. The dependent variable in this study is the decision to start up a new business, where 0 indicates the decision NOT to create a business and 1 is the decision to start a new venture. Based on Arenius and Minniti (2005) and Rahin, Zamberi, Wright and Soko (20017), we adopted the {BSTART} item 'Are you, alone or with others, currently trying to start a new business, including any self-employment or selling any goods or services to others?' in each country of efficiency driven economies. On the other hand, the independent variables are dichotomous equal to 1 if the respondent answer affirmatively to the question and 0 for the opposite, at the same time predictor variables were dived in two blocks of hierarchy: In the first block it introduced the variables related with personal characteristics of individual: level of education {UNEDUC}, age {AGE9C}, Knowing other entrepreneurs {knowent} and Confidence in one's skills related with business {subskill}: in a second block of hierarchy it introduced in the model variables related witth the self-perception of each individual related to: fear of failure {fearfail}, opportunity perception {opport}, good conditions for to make business perception {nbgoodc}, level of status that have the entrepreneurship as professional career {nbstatu}, ease of doing business perception {easystart} and the specific motivation to start a business {suoptype}. The selection of independent variables was based on theoretical framework described previously and they are associated with theories of entrepreneurial growth (Dealmar, Davidsson, Gartner, 2003) and the factors associated to the entrepreneurial propensity (Ripolles and Blesa, 2005, Davidsson and Honig, 2003, Arenius and Minniti, 2005, and Rahin et al,. 20017)

Statistical Model

For the purpose of this investigation, a logistic hierarchical model was used to answer the research questions. The model represent in a dependent variable and a group of independent variables related by the logistic

function that allows to predict the result of the categorical variable Y with "0" as individual decision not to create a business initiative and "1" as the opposite. The model target is to find the likelihood based in the number of cases and the information that the predictor variables can offer in order to estimate a final occurrence rate, as in equation 1.

$$\text{logit}(p_i) = \ln\left(\frac{p_i}{1-p_i}\right) = \beta_0 + \beta_1 x_{1,i} + \cdots + \beta_k x_{k,i}. \quad (1)$$

The odds ratio are modeled by the lineal function of the predictor variables. The beta variables are the additive effects in the odds ratio logarithm corresponding to a change unit in the $j-esima$ explicatory variable (as shown in the equation 2).

$$\frac{P_i}{1 - P_i} \quad (2)$$

In order to evaluate the variable significance in the model it used the p value for to accept or reject the null hypothesis. If the p-value is lower to the significance level, the null hypothesis is rejected, while lower is the p value the result is more significant. In the case, the null hypothesis is that the independent variable, or predictors, x_i has no incidence on dependent variable y_i "business start Propensity". On the other hand, one of principal interest was identify the differential effect of variable "gender" in combination with other predictors on the depend variable, in this regard a second model was used for to measure the differential effect of gender consider each independent variable on business start propensity as shows in equation 3.

$$logit\ (Pi) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_1 * X_2 \ldots + \varepsilon \quad (3)$$

Consider

$X_2 = Gender$

X_{i-n} = *Independent Variables*

KEY FINDINGS

The sample was limited to efficiency driven economies that involved in 2017 to 32 countries of different continents. In this sense, it was obtained 84.420 valid cases distributed according their entrepreneurial propensity by gender as shows in table 3.1

INSERT HERE TABLE 3.1

According to previous table, only the 21 percent of male and 16 percent of female in efficiency driven economies are trying to start a new business, this data is significant as percentage of whole population in these economies and allows the use of a hierarchical logistic model such as proposed.

Due to the sample is equivalent with the country ratio of male to female 1 by 1, and the database has equal representation of respondents from all ages with a slightly more representativeness from the "productive age" group (25-44 years old), inferences can be made for population as a whole for efficiency-driven economies at national level. In order to test the research hypothesis, it was made two different models. The first was oriented to test the effect of predictor variables on depend variable of Entrepreneurial Propensity without any interaction with gender variable, in this model it was consider Age and Education as categorical variables with the purpose to measure the specific effect of each age group and level of education on depend variable.

In Table 3.2, it is observed according to the two levels of hierarchy established that while the variables of first hierarchy block referred to the personal characteristics of individual were significant, with the exception of age, in the second block the variables of fear to failure and the driver- motivator to start a business were significant at 0.05 and 0.10 respectively.

INSERT HERE TABLE 3.2

The previous situation is at the same direction of several studies of self-efficacy perspective in relation to the influence of the competences and aptitudes of individual on the intention to start a business and their subsequent performance as entrepreneur (Arenius and Minniti, 2005; Camelo-Ordaz et al., 2016; cite others). In that sense, education, as well as the relationship of individual with other entrepreneurs and possessing skills or business training, would positively affect the entrepreneurial propensity. In this regard, when the person is related to other individuals who have already start a business he or she could be more motivated to follow the same way by himself or join to another ventures that are already starting (Arenius and Minniti, 2005, Sorenson and Audia, 2000 and Rahin et al., 20017) even more in driven-efficiency economies in which the incidence of so-

cial capital in the decisions of individuals is relevant, as some studies of World Economic Forum indicate.

In turn, the self-perception of owning skills and competences in the business area increases self-confidence in the individuals and thereby reduces their aversion to adopting new risks and to start a business (Stouck quotes). However, it is striking that in the education variable only the levels of "Lower secondary or second stage of basic education" and "Post-secondary non-tertiary education" were significant, meaning that the intention to start a new business could increase at certain times in the schooling process but not in all. Furthermore, the fear to failure and the driver to start a business have a significant effect on the propensity to start a business due to the perception of individual is affected by their environment and the particular socio-economics conditions of each economy, this support the third hypothesis raised in this study

Table 3.3 shows the results of the second logistic model in which the interaction of gender variable with other independent variables was included. The central purpose of inclusion of gender as a mediating variable was to check whether the effect of selected variables on the propensity to start a business varied in some way considering their interaction with the gender of the individual. In this sense, the results show that although the effect of predictor variables on the intention to start a business did not vary significantly in relation to the previous model, even more so in relation to the two selected hierarchy blocks, some changes can be identified in relation to the significance level of variables.

INSERT HERE TABLE 3.3

In the second model, the education variable gains significance for the secondary level compared to first model, in turn the intervals of age (18 to 34, 45 - 54) become significant. At the same time, the variable of knowing other entrepreneurs and self-confidence in entrepreneurial skills increases their level of significance; on the other hand, the variables of the second block of Fear to Failure and the driver-motivator to start a business remained significant but increase their level to 0.05. This indicates several interesting aspects to be highlighted: First, it can be observed that the education variable has an important effect on intention to start a business, which is increased by analyzing its effect mediated by gender variable, the data thrown by the model they would be indicating that the propensity to start a business in women increases at secondary level of education with respect to their male peers. Second, age would have a differential effect on women in their intention to start a business in comparison to men in the first stage of their productive age, which could be correlated with the intention of women to start a business as an option of autonomous professional career (Arenius and Minniti, 2005; Goméz, L et al., 2018a y b)

4. DISCUSSION

This paper was oriented to test the variables related with the propensity to start a business consider two main analysis dimensions: The personal characteristics of individual like the level of education, age, network and skills of business training, and on the other hand, his perception in relation to fear to failure, opportunities, entrepreneurship as career choice and social status of entrepreneurs. At the same time, one of main hypothesis of the study was that the effect of predictor variables on the propensity to Start a business increase with the interaction of gender variable, this assumption was argued in the theoretical framework indicating that the propensity in women could be different of men depending of their education level, age and perceptions in front of the context.

One of the main results was that in the second block of variables related with the perception of individuals the fear to failure and the driver-motivator to start a business were the only variables that were significant on the propensity to start a business for efficiency-driven economies in both tested models. That means that intention to start a new company of a person is strongly affected by the aversion to risk that the individual has and the way that he perceives uncertainty in his environment. At the same time, the key motivators related with the need or seeking new opportunities have a strong effect on the propensity to start a business even more when the situation is differentiated by gender, this support the third hypothesis of study and is in the same direction to other investigations. However, the variables entrepreneurship as attractive career choice, the social status of entrepreneurs and the perception of ease to doing business were not significant, result that in part contradicts what the literature argues in this regard, given that variables such as the perception of doing business

and entrepreneurship as attractive career choice would be expected to have a positive impact on entrepreneurial propensity, however for the case of efficiency-driven economies in 2017 the evidence of this relationship was not significant and representative.

Regarding the personal characteristics of individual it was found that the level of education as well as the knowing another entrepreneur and confidence in his own skills has a significant effect on the propensity to start a business, however the effect and the significance level increase in the second model with the gender interaction. This situation could means that the personal attributes of individuals has a strong correlation with their propensity to start a business corroborating what the self-efficacy and planned behavior approaches indicates.

Finally, the changes in the level of significance in the variables of education and age shows the differential effect of these variables for the case of women in comparison with men, supporting the idea that female entrepreneurs at the beginning of their working life are more likely to start a business in relation to their male peers. This could be correlated with the motivation of women to increase their freelance working parallel to a higher level of education.

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Table 3.1
Entrepreneurial or Business Propensity in Efficiency-Driven Economies

	¿Are you, alone or with others, currently trying to start a new business, including any self-employment or selling any goods or services to others?		
	Male	**Female**	**Total**
Valid Cases for 32 Efficiency Driven Economies	41282	42869	84151
Valid Cases For Answer Yes	8812	6899	15711
% of involved people in start a business	21%	16%	19%

Source: APS 2017 for Efficiency-driven economies

Table 3.2

Logistic Hierarchical Model Without Interactions in Efficiency-Driven Economies in 2017			
Valid Cases of Model			5172
(-2) log of likelihood			2068,038
R cuadrado de Cox y Snell			0,15
R cuadrado de Nagelkerke			0,036
Hosmer y Lemeshow			0,675
	Sig.		**Exp(B)**
Block 1 of Hierarchy			
Education Level	0,00063	***	
Primary education or first stage of basic education	0,25255	N. S	0,591
Lower secondary or second stage of basic education	0,03666	**	2,321
(Upper) secondary education	0,20884	N. S	1,530
Post-secondary non-tertiary education	0,05321	**	1,821
First stage of tertiary education	0,80469	N. S	1,082
Second stage of tertiary education	0,93123	N. S	1,027
Age by Group	0,98502	N. S	
18-24	0,99661	N. S	0,000
25-34	0,99663	N. S	0,000
35-44	0,99663	N. S	0,000
45-54	0,99663	N. S	0,000
55-64	0,99665	N. S	0,000
Knowing other entrepreneurs	0,08324	*	1,261
Confidence in one's skills	0,09825	*	1,331
Block 2 of Hierarchy			
Fear of Failure	0,08890	*	0,979
Entrepreneurship as Attractive Career Choice	0,55759	N. S	1,085
Social Statutus of Entrepreneurs	0,50269	N. S	0,910
Ease of doing business perception	0,83003	N. S	1,029
Motivation to start a business	0,05282	**	0,847
Constante	0,99623		852163515,572
* Significant to 0.10			
** Significant to 0.05			
***Significat to 0.01			

Table 3.3

Logistic Hierarchical Model With Interaction By Gender in Efficiency-Driven Economies in 2017			
Valid Cases of Model			5172
(-2) log of likelihood			2068,038
R cuadrado de Cox y Snell			0,145
R cuadrado de Nagelkerke			0,043
Hosmer y Lemeshow			0,262
	Sig.		**Exp(B)**
Block 1 of Hierarchy			
Education Level ** Gender	0,00018	***	
Primary education or first stage of basic education ** Gender	0,68133	N. S	0,881
Lower secondary or second stage of basic education ** Gender	0,00332	***	2,283
(Upper) secondary education ** Gender	0,01569	*	1,747
Post-secondary non-tertiary education ** Gender	0,00326	***	1,831
First stage of tertiary education ** Gender	0,27015	N. S	1,261
Second stage of tertiary education ** Gender	0,30194	N. S	1,228
Age by Group ** Gender	0,42758	N. S	
18-24	0,04077	**	0,585
25-34	0,09719	*	0,662
35-44	0,10816	N. S	0,667
45-54	0,08296	*	0,636
55-64	0,32891	N. S	0,751
Knowing other entrepreneurs ** Gender	0,03219	**	1,226
Confidence in one's skills ** Gender	0,02541	**	1,291
Block 2 of Hierarchy			
Fear of Failure ** Gender	0,04490	**	1,001
Entrepreneurship as Attractive Career Choice ** Gender	0,46057	N. S	1,076
Social Statutus of Entrepreneurs ** Gender	0,68814	N. S	0,960
Ease of doing business perception ** Gender	0,65110	N. S	1,044
Motivation to start a business ** Gender	0,01647	**	0,920
Constante	0,99623		852163515,572
* Significant to 0.10			
** Significant to 0.05			
***Significat to 0.01			