

GROWTH ASPIRATIONS IN OPPORTUNITY DRIVEN ENTREPRENEURSHIP

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Abstract

This paper tries to identify the contribution of opportunity driven entrepreneurship to growth aspirations. Based on a Global Entrepreneurship Monitor sample of 461 Mexican new entrepreneurs, we propose a conceptual model of the independent and interaction effects of opportunity motives and household income on their aspirations to grow. We point out that individuals, who get involved in an entrepreneurial process, have encountered a situation of opportunity that can have two motives, increase wealth or independence. First, we show the effect of increase wealth motive, independence motive and household income variables on future job creation expectancies. Then, we stress the moderating effect of household income on higher growth aspirations. Our results suggest that household income positively moderates the effect of increase wealth motive on growth aspirations of Mexican new entrepreneurs, while the interaction effect of household income and independence motive on their growth aspirations was not found to be crucial.

Keywords: Growth aspirations, Theory of Planned Behavior, Global Entrepreneurship Monitor.





Introduction

There is growing evidence that certain types of entrepreneurs matter more than others when it comes to fostering long term economic growth (Morris, 2011). High Impact Entrepreneurs are the individuals that launch and lead companies with above average impact in terms of job creation, wealth creation and the development of entrepreneurial role models. These entrepreneurs represented only a small minority of the entrepreneurial activity in 2006-2010 Global Entrepreneurship Monitor (GEM) surveys, only 9% of participants were entrepreneurs and very few have achieved high or even moderate rates of growth. For example, only three out of every 1,000 respondents to the GEM surveys had founded a business that achieved high rates of growth (20% job growth). Entrepreneurs with high estimated growth rates create significantly more jobs than other entrepreneurs. Even though they represent only 4% of the total entrepreneurs who responded to the GEM surveys, the business they have founded created close to 40% of the total jobs generated by all entrepreneurs who responded the survey.



New entrepreneurs with high growth aspirations should be associated with established firms with higher growth trajectories. A number of studies based on ex post information about performance, have shown that a small portion of the new firms (6 to 10 percent) are responsible for at least half of the total jobs created by new firms that are still in operation 7 to 10 years after they were started (Storey, 1994; Birch, 1997). Thus, knowledge of the determinants of growth expectations of newly founded firms has become a primary focus for researchers, policy makers and other social enterprise organizations interested in scalable ways to drive economic development.



In GEM studies, opportunity driven entrepreneurs are viewed as individuals who start a business in order to pursue an opportunity in the market. They have usually prepared their entry into self-employment on a more solid basis and they start their businesses in an area of their particular expertise. These factors lead to a longer survival rate and a higher business growth. Studies by Terjesen and Szerb (2007) and Verheul and van Mil (2011) found that opportunity motivated entrepreneurs were more likely to focus on growth. According to Autio (2005) high expectation entrepreneurs are found to be motivated by a business opportunity more often than low expectation entrepreneurs.



Opportunity driven entrepreneurs has various motives, such as increase wealth and independence, and a number of studies relates opportunity motives to growth aspirations. Regarding wealth motive, authors such as Hessels et al. (2008) find that there is a positive relationship between wealth motivated entrepreneurs and the high job growth. Cassar (2007) show that this is the most important factor that affects the entrepreneurial growth preferences. In this paper, we argue that entrepreneurs that created a firm in order to achieve a





higher level of wealth and independence may also be as motivated to expand their firm.

The growth of a small firm also depends on the type and amount of resources controlled by, or made available to it (Covin and Slevin, 1997). As most entrepreneurs provide a substantial percentage of start-up capital, household income is closely connected to the new firm financing. Access to personal wealth is a key barrier to entrepreneurial activity and a lack of personal wealth typically restricts the scale of entrepreneurial activity engaged in by the individual (Casson, 1982). Therefore, securing funding may be important in achieving the growth objectives. Additionally, high income households may reinforce the contribution of opportunity motives to growth aspiration. According to Dunn and Holtz-Eakin (2000), individuals from high income households would place greater demands for the quality of entrepreneurial opportunities. High income households may also provide fertile environments for accessing high quality opportunities because the social connectivity associated with financial wealth would enable individuals from high income households to see more entrepreneurial growth opportunities.



Framed in the Planned Behavior and Resource-based theories, this paper extends previous work by addressing the following question: can opportunity motives and household income combined contribute to higher growth aspirations of new firms than they do it individually? As a standpoint, we propose an integrative predictive model for growth aspirations with three explanatory variables: increase wealth motivation, independence motivation and household income, whose interaction contributes to significant effect on high growth aspirations.



Such an approach is relevant for several reasons. First, in spite of extensive evidence pointing to the importance of high growth firms for economic development (Acs, 2008), there is little research on the determinants of entrepreneurial growth aspirations in newly founded firms. This is an important gap given the multitude of studies that point to the important role of entrepreneurial entry for job creation (Henrekson and Johansson, forthcoming). Second, according to the GEM data high income countries appear to exhibit higher entrepreneurial growth ambition compared to those of middle and low income countries (Autio, 2005). This paper analyzes Mexico, a middle income country, with GEM Data. Third, rather than assuming linear, additive effects, this research focuses on interaction effects where research on firm growth stands today (Gilbert et al. 2006).

After this introduction, the next section outlines the relevant theory and the hypotheses derived from it. Section 3 describes the empirical analysis. Section 4 presents the results and in section 5 the paper ends with a brief conclusion.





1. Theory and Hypothesis

In this section, theoretical approaches to determinants of firm growth are discussed regarding two widely utilized approaches. Motivational theories provide a plausible explanation for the differences in growth rates and thus the first part of this section focuses on The Theory of Planned Behavior in perspective of entrepreneurial growth. However, The Theory of Planned Behavior does not alone explain all the differences between growth rates. The link between the resources controlled by the firm and performance of the firm has recently attracted growing interest and is considered as an important area for research (Wiklund et al., 2009). Thus the second theory discussed here is The Resource-based View. It views firm as a bundle of resources and explains performance differences with different resource profiles.



1.1. The Theory of Planned Behavior

In most economic literature, growth attitude is taken for granted – people act in ways to maximize their profits (Wiklund et al., 2009). Psychologists, concerned with all aspects of human behavior, have a more diverse view of the motives and attitudes underlying economic behavior. All human actions are result of motivational and cognitive factors on the one hand and result of external factors on the other (Tominc and Rebernik, 2007).



Motivation theories build on the premise that motivation affects the choice of behavior, the longevity of the behavior, and the level of effort. Thus the psychological construct of motivation is important especially in entrepreneurship research. Variation among people in their motivation and abilities to act has important effects on all phases of the entrepreneurial process (Tominc and Rebernik, 2007). One of the areas in entrepreneurship where motivation is potentially of great importance relates to firm growth (Delmar and Wiklund, 2008). In a small firm, the importance of owner's or manager's willingness to grow is likely to be relatively greater than in a large firm (Tominc and Rebernik, 2007). But not all entrepreneurs are willing to grow their business, since they may expect some consequences of growth to be negative and in conflict with their goals (Storey, 1994). Growth motivation of a small business manager affects his or her choice to expand the business, the willingness to sustain this choice over time, and the level of effort put in the endeavor (Delmar and Wiklund, 2008).

Motivation has to be relatively stable over time in order to affect firm growth. If the small business manager is motivated to expand his or her firm during a short period of time but later prioritizes other goals and behaviors, there is likely only little effect of growth motivation on actual growth during extended periods of time. Unless motivation remains relatively constant over time until the behavior is performed, prediction will be weak (Ajzen 1995, as cited in Delmar and Wiklund 2008). Therefore, an implicit assumption in the literature on growth motivation is that the motivation remains stable over time.





The strength of the relationship of motivation and behavior is affected by the individual's degree of volitional control, i.e. the ability to perform the behavior at will (Delmar and Wiklund, 2008). The expansion of a firm is an example of a behavior that is under limited volitional control. Unless the manager of the firm has the ability to develop suitable strategies and can spot growth opportunities, the firm will not grow irrespectively of the motivation to expand the business (Wiklund and Shepherd, 2003).



New firm growth may be under some volitional control, but it is unlikely to be under total volitional control (Wiklund and Shepherd, 2003). In other words, a range of factors in addition to motivation probably affect growth outcomes. Environmental constraints and insufficient ability or task comprehension diminish the effect of motivation on behavior (Delmar and Wiklund, 2008). Therefore, motivation theories suggest that growth motivation should have a positive effect on growth, but the effect cannot be expected to be very large given that the behavior is under limited volitional control and that the task of expanding a business can be regarded as complex and fuzzy (Delmar and Wiklund, 2008). Several psychological theories deal with behavior that is under limited volitional control (Wiklund and Shepherd, 2003). They share a common feature that behavioral outcome is modeled as a joint function of motivation and individual ability (Ajzen, 1991).



A theory that considers limited volitional control is called the Theory of Planned Behavior (TPB) developed by Ajzen (1991). It is a well-established and validated psychological theory purporting to explain and predict specific actions in specific contexts (Wiklund and Shepherd, 2003). The theory of planned behavior is an extension to the theory of reasoned action, adding aspects of individual ability (Ajzen, 1991), thus incorporating behaviors over which people have incomplete volitional control. As expected, this theory has been shown to outperform the theory of reasoned action in situations of limited volitional control (Netemeyer, Burton, and Johnston, 1991). More specifically, the TPB has been successful in predicting other behaviors under limited volitional control (Ajzen, 1991).



Central to this theory is the role of intentions: Intentions are assumed to capture the motivational factors that influence behavior. They are indications of how hard people are willing to try and how much of an effort they are planning to exert in order to perform the behavior (Wiklund and Shepherd, 2003). Generally, the stronger the intention to engage in a behavior, the more likely is its performance (Ajzen, 1991).



1.2. The Resource Based Theory

Some researchers have argued that the Resource-based View can be important to consider when addressing entrepreneurial phenomena, such as growth (Wiklund et al., 2009). The Resource-based Theory (RBT) is strongly based



on the seminal work of Penrose (1995), which was the first book to move the emphasis from analyzing firm's advantages of being of particular size, and rather considered growth as a separate phenomenon. According to Penrose, no optimum size exists for a firm. The firms tend to grow due to their natural tendencies to reach for economies of scale. However, although no optimum size exists, there may still be an optimal pattern of firm expansion, which requires a balanced use of internal and external resources in a particular sequence (Rugman and Verbeke, 2002). The RBT perceives a firm as a bundle of resources and the focus is on the activities it can perform with those resources (Davidsson and Wiklund, 2006). The RBT uses firm's resource characteristics to explain the existence, boundaries, and the success of the firm. Differences in firm performance are considered to signal differences in resource profiles.



The RBT is concerned with performance relative to its competitors (Peteraf and Barney, 2003). Therefore attaining and sustaining competitive advantage is an important aspect of the Resource-based perspective. Barney defines competitive advantage as follows: a firm is said to have a competitive advantage when it is implementing a value creating strategy not simultaneously being implemented by any current or potential competitors. Further, a firm is said to have sustained competitive advantage when it is implementing a value creating strategy not simultaneously being implemented by any current or potential competitors and when these other firms are unable to duplicate the benefits of this strategy (Barney, 1991).



According to Barney (1991), the RBT of the firm substitutes two alternate assumptions in analyzing sources of competitive advantage. The first assumption is that firms within an industry, or otherwise defined group, may be heterogeneous in terms of the strategic resources they possess or control. The second assumption is that these resources may not be perfectly mobile across firms. This suggests that the resource heterogeneity can be long lasting. According to Barney (1991), these assumptions are valid as it seems reasonable to expect that most industries will be characterized by at least some degree of resource heterogeneity and immobility.



Firms, in general, cannot expect to obtain sustained competitive advantages when strategic resources are highly mobile and evenly distributed across all competing firms. By definition, a firm enjoys a competitive advantage when it is implementing a value creating strategy not simultaneously implemented by large number of other firms. If a particular strategic resource is possessed by large numbers of firms, then each of these firms have the capability to exploit that resource in the same way, thereby implementing a common strategy that gives no one firm a competitive advantage.



According to Barney (1991), not all firm resources hold the potential of sustained competitive advantage. This potential depends on whether or not the resource has the following four attributes: it must be valuable, rare,



imperfectly imitable, and non-substitutable. Value refers to the resource enabling a firm to create or implement strategies that improve its efficiency. Rarity means that the resource cannot be possessed by a large number of competitors. As explained earlier, a firm cannot expect to obtain competitive advantage from resources simultaneously possessed by large number of firms, as they are all capable to similarly exploit the resources and thus implementing the same value-creating strategies. Therefore by the definition of competitive advantage, no competitive advantage can be obtained by any of the firms. Imperfectly imitable refers to the feature that despite of their efforts, firms not possessing the resources cannot obtain them by imitation. Non-substitutability means that firms cannot substitute similar resources for resources they cannot imitate.



In the RBT, managers are in the key position to control the performance of the firm by utilization of the resources that firm possesses (Grant, 1991). Managers have to select an appropriate strategy in order to make the most effective use of the firm's resources and capabilities. Thus managers' inabilities to effectively utilize the resources can set limits for firm growth. This is consistent with Penrose's (1995) argument that managerial abilities constitute the limiting factor for firm growth.



There are several different definitions for resources. For example, in his article Barney (1991) refers firm's resources including all assets, capabilities, organizational processes, firm attributes, information, and knowledge controlled by a firm that enable the firm to conceive of and implement strategies that improve its efficiency and effectiveness. On the other hand, Wernerfelt (1984) defines resources as including anything that might be thought of as a strength or weakness of a given firm, and thus could be defined as those assets which are tied semi permanently to the firm.

Resources can be further categorized according to their economic properties. Several different categorizations have been suggested. For example, Hofer and Schendel (1978) suggested six major categories of resources: financial, technological, physical, human, reputation, and organizational resources. According to Barney (1991), numerous possible firm resources can be conveniently classified into three categories: physical, human, and organizational capital resources. Granstrand (1998) on the other hand suggests that firm resources are decomposable into physical, financial and immaterial capital.

Another common division of resources is into tangible and intangible resources. Tangible resources are, in general, those resources for which there are well defined markets and therefore can be priced accordingly to their value (Chrisman, Bauerschmidt and Hofer, 1998). On the other hand, intangible assets lack well defined markets, making them more difficult to price in a manner reflecting their true value. According to Chrisman et al. (1998), the survival of a firm will in general depend on its ability to secure tangible





resources, such as capital, credit, land, facilities, and labor with which to do business.

1.3. Opportunity Driven Entrepreneurship, Household Income and Entrepreneurial Growth Aspirations

Entrepreneurial growth aspirations have been subject of several studies, each choosing their own labels and applying their own measures. Some studies examine the growth willingness of entrepreneurs (Davidsson, 1989; Wiklund et al., 2003; Cassar, 2007), whereas others pay attention to both willingness and the extent to which an entrepreneur puts in effort, i.e., intention or aspirations (Kolvereid, 1992; Cliff, 1998; Dutta and Thornhill, 2008). Particularly, the label “ambitious entrepreneurship” first appears in 2001 in the work of Gundry and Welsch (2001) and Guzmán and Santos (2001). Those authors are interested in the quality of entrepreneurial activity, which refers to the initiatives and behaviors exhibited by the entrepreneurs to boost their businesses along the lifespan of the company (Guzmán and Santos 2001).

Entrepreneurship is not about self-employment or new firm formation per se, as most of the persons involved in this do not have an ambition to grow (Henrekson, 2005). Growth motivation is a necessary factor for actual firm growth. Davidsson (1989) explained that expectations of financial reward and of increased independence were positively related to ambition to grow. Stimulated by a new panel survey focused on nascent entrepreneurs (the PSED database), scholars such as Cassar (2006, 2007) and Liao and Welsch (2003) also explore the mechanisms behind growth ambitions. In particular, they link growth expectations with complementary determinants such as social and financial capital (Liao and Welsch, 2003), household income (Cassar, 2006) and wealth-attainment motivation (Cassar, 2007).

In GEM studies, opportunity entrepreneurs are viewed as individuals who start a business in order to pursue an opportunity in the market. Opportunity entrepreneurs have usually prepared their entry into self-employment on a more solid basis and they start their businesses in an area of their particular expertise. These factors lead to a longer survival rate and a higher business growth. Studies by Terjesen and Szerb (2007) and Verheul and van Mil (2011) found that opportunity motivated entrepreneurs were more likely to focus on growth. According to Autio (2005) high expectation entrepreneurs are found to be motivated by a business opportunity more often than low expectation entrepreneurs. Opportunity entrepreneurs may have motives, such as increase wealth and independence, and a number of studies relate such motives to growth aspirations.

In the present study we are interested in investigating the extent to which opportunity motivations are driving entrepreneurial growth aspirations. In line with Cassar (2006; 2007) and Liao and Welsch (2003), expected performance





in five years' time is a common conceptualization of entrepreneurial growth ambitions (Tominc and Rebernik, 2007; Autio and Acs, 2010) or ambitious entrepreneurship (e.a. Bosma and Schutjens, 2007; Hessels et al. 2008a; Bosma and Schutjens, 2009). We consider two types of GEM start-up motivations: the independence motive and the increase-wealth motive. Regarding wealth motive, authors such as Cassar (2007) show that this is the most important factor that affects the entrepreneurial growth preferences. Hessels et al. (2008) find that there is a positive relationship between wealth motivated entrepreneurs and the high job growth. Hence, if Mexican entrepreneurs chose for wealth, we expect a positive relationship on their aspirations to grow.



H1a: Increase wealth motive has a positive effect on Entrepreneurial Growth Aspirations.

Since independence is another reason to choose for entrepreneurship, we argue that entrepreneurs that created a firm in order to achieve a higher level of independence may also be motivated to expand their firm. Hence, if Mexican entrepreneurs chose for greater independence, we also expect a positive relationship on their aspirations to grow.



H1b: Independence motive has a positive effect on Entrepreneurial Growth Aspirations.

As most entrepreneurs provide a substantial percentage of start-up capital, household income is closely connected to the new firm financing. Access to personal wealth is a key barrier to entrepreneurial activity and a lack of personal wealth typically restricts the scale of entrepreneurial activity engaged in by the individual (Casson, 1982). Therefore, securing funding may be important in achieving the growth objectives. Family characteristics have implication on emergence of new business, recognition of opportunity, start up decisions and resource mobilizations (Aldrich and Cliff, 2003). Financial resources in the family have direct bearing on entrepreneurial intentions (Rajman, 2001). Thus, individuals from high income households may be better able to finance the business and to access necessary resources for business growth as lack of finance is a main obstacle of business growth (Terjesen and Szerb, 2008).

Besides, individuals from high income families may be interested in more gainful opportunities than individuals from low income. Individuals with greater wealth will intend to achieve something that is large enough to make a difference to their wealth (Bhide, 2000). Greater wealth provides greater financial resources which allow entrepreneurs to undertake larger size venturing before using outside sources of funding. Cassar (2006) found that the opportunity cost of being a nascent entrepreneur measured by the household income had a positive influence on growth ambition. Autio (2005)





found that high expectation entrepreneurial activity is overrepresented in high income groups. Therefore, we predict:

H1c: Household Income has a positive effect on Entrepreneurial Growth Aspirations.

1.4. The Interaction of Household Income and Motivations on Entrepreneurial Growth Aspirations

Financial support, among other factors, indirectly affect the attitudes, the intentions and behaviors to become entrepreneurs (Shapero and Sokol, 1982). Individuals from high income households would place greater demands for the quality of entrepreneurial opportunities. High income households provide fertile environments for accessing high quality opportunities because the social connectivity associated with financial wealth would enable individuals from high income households to see more entrepreneurial growth opportunities (Dunn and Holtz-Eakin, 2000). Thus, it is likely that the effect of opportunity motives on entrepreneurial growth aspirations is moderated by higher household income.

The evidence in literature leads us to the research question whether significantly higher growth aspirations of new entrepreneurs can be the result of the interaction effect of opportunity entrepreneurship motives and household income. We argue that high income households may reinforce the contribution of opportunity motives to entrepreneurial growth aspiration. This manner, Hypothesis H2a and H2b are suggested:

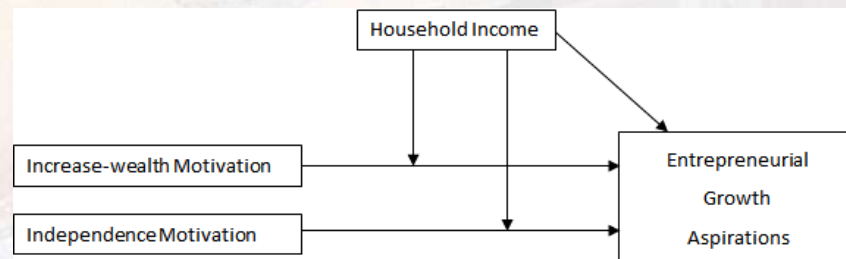
H2a: Household income positively moderates the effect of increase wealth motive on entrepreneurial growth aspirations.

H2b: Household income positively moderates the effect of independence motive on entrepreneurial growth aspirations.

To identify the determinants that might increase the growth aspirations of new entrepreneurs, we propose and empirically test a resource and motivation based model of growth aspirations (Figure 1).



Figure 1. A Conceptual Model of the Independent and Interaction Effects of Motivations and Household Income on Entrepreneurial Growth Aspirations



2. Data and Methodology

The data used in this paper were collected by means of the national adult population survey (APS) from the Global Entrepreneurship monitor project (Reynolds et al., 2005) conducted in Mexico, merging cross-sectional data of the years 2001-2011. The combined dataset consisted of over 14,763 interviews with a representative sample of adults (18-64 years old). In this study, we use young firms as our proxy for entrepreneurial entry. This category serves well the purpose of our study because growth aspirations refer to firms already in existence. Also unlike an alternative measure, nascent entrepreneurship, the young firm category provides good coverage of the current level of employment used in defining our dependent variable.

Dependent variable: According to the Global Entrepreneurship Monitor (GEM), opportunity driven entrepreneurs are those who, despite being able to obtain employment choose instead to start their own business. An interesting but small sub segment of opportunity driven entrepreneurs is made up of individuals who aspire to create a growth oriented firm. GEM's data on growth expectations of young entrepreneurs is measured in terms of the number of jobs to be created within the next five years. Because the distribution was biased, a natural logarithm of expected jobs was used.

Predictor variables: Wealth (the new entrepreneurs that declare that their motive to become entrepreneur was to increase their personal income); Independence (the new entrepreneurs that declare that their motive to become entrepreneur was to obtain a greater independence); Household income (the new entrepreneurs that declare their household income is in the upper level: 1=Lower 33%, 2=Middle 33%, 3=Upper 33%).

Control variables: Age (squared and mean centered); Gender (Male=1); Education (Tertiary); Fear of Failure (yes=1); Good career choice (inhabitants of a country that think that most people in their country consider starting a new business a desirable career choice=1); Business angel (indicating whether the individual had, during the past 3 years, invested his own funds into privately-held entrepreneurial firms started by others=1); Current jobs (we





controlled for the individual’s current number of employees so as to capture idiosyncratic variation in initial conditions when analyzing influences on growth expectations. Industry structure (as a methodological control, we controlled the GEM established business ownership rate (EBO); and Year dummies 2001-2011.

The hypotheses were tested using hierarchical regression analysis. The hierarchical approach is necessary since an interaction effect exists but it is only relevant if the interaction term gives a significant contribution over and above the individual predictor effects model (Cohen and Cohen, 1983).

Table 1. Sample Descriptives

	Mínimo	Máximo	Media	Desv. típ.
age mean centered	-21.34	35.66	.0049	10.78063
age squared	225.00	5184.00	1436.9219	870.19578
male	0.00	1.00	.5370	.49918
female	0.00	1.00	.4630	.49918
educacion	0.00	1.00	.3519	.47829
fearfail	0.00	1.00	.2048	.40403
good career choice	0.00	1.00	.7021	.45814
business angel	0.00	1.00	.2386	.42670
current jobs	0	69	3.24	5.682
GEMEBO Rate	.40	5.80	3.6846	1.86626
increase wealth motive	0.00	1.00	.4851	.50165
independence motive	0.00	1.00	.3582	.48127
household income	0.00	1.00	.4407	.49717

Table 2. Correlation Matrix

	1	2	3	4	5	6	7	8	9	10	11	13
1 age mean centered	1											
2 age squared	0.984	1										
3 male	.006	.005	1									
4 educacion	-0.15	-0.16	-0.050	1								
5 busang	.043	.028	.050	-.092	1							
6 fearfail	.006	.009	.003	.052	.057	1						
7 good career choice	.022	.012	-.038	-.108	0.14	-.029	1					
8 current jobs	-.050	-.050	.108	-.030	.039	-.090	.072	1				
9 GEMEBO Rate	-.001	.019	-.01	-.015	-.067	-.052	-.007	.031	1			
10 increasewealth	-.082	-.128	-.117	.009	-.017	.074	.169	-.044	-.065	1		
11 independence	.039	.057	.087	-.071	.029	-.155	-.022	-.053	.152	-.073	1	
12 householdincome	.011	.002	0.16	.032	-.005	-.084	-.030	0.33	-.080	-.006	.129	1



Table 3. Independent and Interaction Effects on Entrepreneurial Growth Aspiration

	1	2	3
<i>Individual level controls</i>			
Age mean centered	0.033	-0.003	0.019
Age squared	0	8.11E-07	0
Male	0.504***	0.562***	0.485***
Education	0.321	0.38*	0.455**
Fearfail	-0.39*	-0.323	-0.406**
Bussines angel	0.127	0.111	0.162
Good career choice	-0.382*	-0.341	-0.423**
Current Jobs	0.087***	0.09***	0.11***
<i>Individual level predictors</i>			
Increase wealth motive		0.509*	0.223
Independence motive		0.333	0.309
Household income		0.383*	-0.736
<i>Cross-level interactions</i>			
Increase wealth x household			1.455**
Independence x household			0.53
(Constante)	1.452	0.193	0.734
N	78	78	78
F	4.33	4.08	4.15
R2	0.44	0.49	0.54

Note: *p<.10; **p<.05; ***p<.01

Results

The control variables of age, male, education, business angel, fear for failure, good career choice, current jobs, and GEM business owner-manager rate were first entered in a base model reported in column 1 (Table 3). This model explain a statistically significant share of the variance of the growth aspirations dependent variable (R2 0.44, $p < 0.001$).

The predictor variables were entered as a second model: wealth, independence, and household income. The results are reported in column 2 of the table. The predictors effects model makes a significant contribution over and above the base model (R2 = 0.49, $p < 0.001$). Within the model, the findings suggest that wealth, necessity and household income have a statistically significant influence on growth aspirations. There was no evidence that independence had a predictor effect relationship with growth aspirations.

The addition of the interaction terms in a third model give an explanatory contribution over and above the individual predictor effects model (Column 3). Explained variance increases by 0.49 to 0.54 and the increase is statistically significant at $p < 0.001$. This suggests that interaction effects are indeed present. Examining the regression coefficients of the interaction terms, it is evident that household income moderates the relationship between





increase wealth motive and growth aspirations, but not in the case of the independence and growth aspirations relationship.

Conclusions

This study takes an important step towards an increased understanding of entrepreneurial growth aspirations in Mexico. A substantial part of this paper focuses on investigating the extent to which opportunity entrepreneurship and household income is related to entrepreneurial aspirations in new firms. While there is a relationship between the opportunity entrepreneurship and growth aspirations, the relationship is more complex – it depends on the motivation and household income level of the entrepreneur. We used the theory of planned behavior and Resource based Theory as a framework from which we empirically investigated the moderating role of household income and motives.

There is considerably more to learn about entrepreneur's growth aspirations. We have taken an important step, however, we must point out that the measurement of resources and motives are relatively coarse-grained in the present study. The measurement of household income as proxy variable of financial capital should also be strengthened by a multi-item operationalization. While we believe that the results are likely to be generalizable to entrepreneurs outside Mexico, care must be taken in assessing country effects such as culture and income level. They may stem from individual differences in opportunity driven entrepreneurship, motives, resource structures and the combination of these.

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