



Presented at the DLSU Research Congress 2017
De La Salle University, Manila, Philippines
June 20 to 22, 2017

FACTORS INFLUENCING THE ENTREPRENEURIAL INTENTIONS OF UPLB AGRI-BASED GRADUATES

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Abstract: Entrepreneurial intention is the starting point of a decision to engage in any business or venture, hence, making it a more important predictor of future entrepreneurial engagement compared to trait and demographic models or attitudes and external factors which are usually situational. This study aimed to identify the factors that influence the entrepreneurial intentions of UPLB graduates with agriculture-based degrees. To determine their entrepreneurial intentions, a framework integrating Shapero's Model of Entrepreneurial Event, Ajzen's Theory of Planned Behavior and Krueger's Entrepreneurial Potential Model was utilized. A questionnaire based on previous researches on entrepreneurial intention was designed to gather information from 307 UPLB graduates. Results showed that among the behavioral factors, entrepreneurial self-efficacy, personal attitude towards entrepreneurship and knowledge on the availability of entrepreneurial support were the most important predictors of entrepreneurial intention. The likelihood of realization of business ideas increases when potential entrepreneurs were made aware of the existence of entrepreneurial support such as financing, incubation programs and trainings. Furthermore, the results of the study showed that having entrepreneur grandparents, parents and close friends, one's role in family financing, and gender were the significant predictors of EI levels among the socio-demographic factors. The results of the study lends support to utilizing entrepreneurial education as a major strategy to increase the entrepreneurial intention of students.

Key Words: entrepreneurship; entrepreneurial intention; UPLB graduates

1. INTRODUCTION

1.1 Background of the Study

Entrepreneurship is believed to be the driver of economic growth. Filipinos as young as 18 years old engage in business for various reasons like helping out their families financially, paying for their tuition fees or saving up for their future. Further, people engaged in entrepreneurship believe that they are able to exercise freedom, boost their self-esteem and have 'greater sense of control over their own

lives' (Ramos, 2014).

Entrepreneurship is the process of innovating to change the status quo of existing products and services and develop new ones (Schumpeter, 1965). He defined entrepreneurs as 'individuals who exploit market opportunity through technical and/or organizational innovation.' Licaros-Velasco (2013) defined entrepreneurship as 'any attempt at new business or new venture creation, such as self-employment, a new business organization, or an expansion of an existing



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business.'

However, entrepreneurial behavior is difficult to observe or predict as it involves uncertainties in timing (Krueger et. al., 2000). Nonetheless, entrepreneurial behavior falls clearly into the category of intentional or planned action (Grassl & Norbert, n.d.). According to Bird (1988) entrepreneurial intention is the starting point of the decision to engage in any business or venture, making it a more important predictor of future entrepreneurial engagement compared to trait and demographic models (Katono et. al., n. d.) or attitudes and external factors which are usually situational (Krueger et. al., 2000). It is an action-soliciting process that aims at achieving something in line with the goal. Being a process, it is an intentional conceptualization or transformation in order to create or add value through the organized use of resources.

Rasli, Khan, Malekifar & Jabeen, (2013) defined entrepreneurial intention as a state of mind that promotes the development or establishment of new business. In other words, it is a mindset influencing the choice of entrepreneurship (Peng, Lu and Kang, 2012) and offering critical insights into underlying processes including opportunity recognition (Krueger, et. al, 2000). Krueger, et. al. concluded that a strong entrepreneurial intention should result to an eventual attempt to start a business despite immediate changes in circumstances like marriage, childbearing, graduation, employment which may cause delays.

Researchers agree that no one model can characterize the entrepreneurial intentions of a group of people. Thus, three models were used to come up with the conceptual framework of the study - Shapero's Model of the Entrepreneurial Event, Ajzen's Theory of Planned Behavior and Krueger's Entrepreneurial Potential Model.

The Model of Entrepreneurial Event (EE), developed by Shapero and Sokol in 1982, proposes that the interaction between cultural and social factors can lead to positive entrepreneurial intentions, thereby, business creation. The factors in the EE model are perceived desirability, perceived propensity and perceived feasibility. Propensity to act also has an indirect influence as a person's behavior depends on the level of motivation that the other factors generate. *Perceived desirability* refers to the person's perceived attraction to the undertaking based on his given behavior or traits (Bataller, n. d.), shaped by culture, family, peers,

colleagues and mentors (Shapero & Sokol, 1982). The proponents of the model defined perceived feasibility as the individual's perceived capability to carry out certain behavior, considering the external factors like financial support, demonstration effects, models, mentors and partners. Meanwhile, *perceived propensity* or propensity to act is a person's disposition to act on his intentions and decisions.

Ajzen's Theory of Planned Behavior (TPB) developed in 1991 is based on the premise that a certain amount of planning and effort are required for any intention, in this case, entrepreneurship, to materialize. TPB suggests that personal attitude towards entrepreneurship, the social or subjective norms and the perceived behavioral control or the perceived feasibility of engaging in entrepreneurship predict the intentions towards a behavior. *Attitude towards the behavior* or personal attitude refers to the person's desire to pursue entrepreneurship based on the valuation of expectations and beliefs about the personal impacts and benefits that he would gain from it. *Subjective norms* refer to what other people think of the engagement that is in consideration. Ajzen (2002) claims that subjective norms are based on the approval of the decision from the people that matter to the one making the decision. *Perceived behavioral control* is the sense of belief of the individual in his own capacity to achieve certain things and perform his responsibilities (Solesvik, et. al, 2012).

Krueger's Entrepreneurial Potential Model, on the other hand, posits that the perceived desirability is a result of a combination of the perceived social norms and the attitude or personal perception of entrepreneurship. *Perceived feasibility*, as mentioned in Shapero's model, is a result of the person's *perceived self-efficacy* or sense of competence and collective support for the intention or behavior from other members of the organization who matter in one's decision making (i.e. family and relatives) (Elfving, et. al., 2009). Further, the *propensity to act* is the psychological component of the model that influences the translation of the plan or intention into action with respect to the person's internal locus of control. It is a function of self-confidence based on factors like level of education and available opportunities (Dehkordi, et. al., 2012). Meanwhile, *perceived collective* involves the support that the aspiring entrepreneur perceives to have, enforcing the social norms or even the individual's low self-efficacy (Elfving, et. al., 2009).



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1.2 Objectives of the Study

The main objective of the study was to identify the factors that influence the entrepreneurial intentions of graduates of five UPLB agri-based undergraduate degree programs - BSA, BSAE, BSAEC, BSAC, and BSABM. Specifically, the study aimed to:

- 1.2.1 present a profile of the UPLB graduates of the five degree programs;
- 1.2.2 determine the factors that influence the level of entrepreneurial intentions of the graduates;
- 1.2.3 assess the levels of entrepreneurial intention of the graduates; and
- 1.2.4 analyze the relationship among the different demographic factors and level of entrepreneurial intention.

1.3 Conceptual Framework

For the purpose of this study, Shapero's, Ajzen's TPB, and Krueger's models were used. Specifically, the framework looks into the influence of perceived desirability which is related to the perceived definition of entrepreneurial success, perceived propensity or propensity to act, personal attitude, perceived behavioral control, self-efficacy, and social or subjective norms.

Moreover, the influence of personal and demographic factors, prior entrepreneurial experience, entrepreneurial support and entrepreneurial competency were considered. Figure 1 shows the conceptual framework of the study.

2. METHODOLOGY

The research employed descriptive and explorative research design techniques. The respondents were chosen through stratified proportionate sampling to ensure that all degree programs were well-represented.

The survey questionnaire used in the study was based on the Entrepreneurial Intentions Questionnaires (EIQ) developed by Liñan and Chen (2009), Niewenhuizen and Swanepoel (2015), and Ngugi, Gakure, Waithaka and Kiwara (2012). The questionnaire included socio-demographic questions and Likert scale items on the level of agreement and knowledge of respondents to statements in relation to EI.

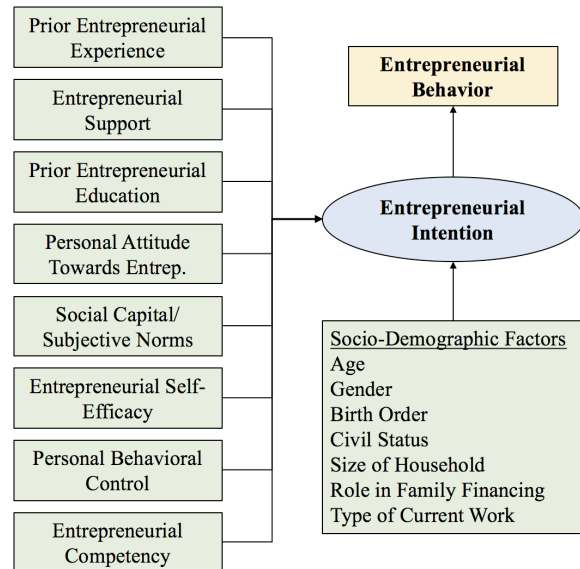


Fig. 1. Conceptual Framework of the Study

In the interest of time and to minimize the possibility of the respondents' being influenced by the researchers, an online survey questionnaire created using Google Forms based on Google platform was used. Out of around 408 respondents who received the online invitations to the survey, 307 were able to accomplish the online form resulting to a response rate of about 75.25%.

Descriptive statistics was used to present the socio-demographic profile of the respondents. Meanwhile, factor analysis was used to derive patterns from the responses to items associated with the entrepreneurial intention (EI).

Factor analysis was also used to generate factor estimates or scores for each observed variable per respondent. The sum of the factor scores corresponding to the eight components for each respondent was considered as the respondent's arbitrary EI score. With respect to the median EI, each respondent's EI was assessed as high or low.

Consequently, logistic regression analysis was conducted to determine the socio-demographic variables that influenced the entrepreneurial intentions of graduates. Chi Square Test was used as a preliminary to logistic regression to see which among the variables had significant relationship with the EI level.



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The general logistic regression equation is therefore written as:

$$p = \frac{\exp(\beta_0 + \beta_1x_1 + \beta_2x_2 + \dots + \beta_ix_i)}{1 + \exp(\beta_0 + \beta_1x_1 + \beta_2x_2 + \dots + \beta_ix_i)}, 0 < p < 1$$

where:

- p = probability of having high EI
- β_0 = constant
- β_1 to β_i = coefficients for i
- x_1 to x_i = significant explanatory variables

3. RESULTS AND DISCUSSION

3.1 Objective 1. Socio-Demographic Profile of Respondents

The 307 respondents were composed of graduates of BSA (89), BSAC (15), BSABM (86), BSAEC (67) and BSAE (50) chosen through stratified proportionate sampling. Majority were female (59%), single (86%), first and second-born (47% and 24%, respectively), belonging to medium-sized households of 5 to 7 members (54%) and contributed significantly to their family's financing (64%).

Majority of the respondents (85%) were employed while a few (13%) were either full-time or part-time entrepreneurs.

Disregarding their current circumstance, almost all respondents (91.53%) answered that they would choose to be entrepreneurs.

3.2 Objective 2. Behavioral Factors

Influencing the EIs of Respondents

Eight factors were generated using factor analysis. A summary of the results with the corresponding contribution of individual factor to the total variance is presented in Table 1.

The *first factor* was composed of items based on an individual's entrepreneurial self-efficacy accounting for about 23.65% of the variance. This factor is related to the individual's stable belief that he could perform under different circumstances and changing environment increases the level entrepreneurial intention as entrepreneurship entails risks and uncertainties.

Table 1. Factor analysis results

Characteristics/Traits	Factor Loading
<i>Factor 1. Entrepreneurial Self-Efficacy (23.65%)</i>	
• Ability to generate new product ideas	0.894
• Ability to identify needs for new products	0.886
<i>Factor 2. Attitude Towards Entrepreneurship (11.56%)</i>	
• determination to create a firm in the future	0.826
• putting effort to start and run a business	0.821
<i>Factor 3. Availability of Support (10.95%)</i>	
• favorable policies to start businesses	0.873
• market accessibility in favorable terms	0.860
<i>Factor 4. Personal Behavioral Control (7.20%)</i>	
• ease of starting and maintaining a business	0.712
• having control in business creation process	0.704
<i>Factor 5. Social Support (6.66%)</i>	
• Culture highly favors entrepreneurship	0.818
• Entrepreneurship is considered a worthwhile activity despite the risks	0.739
<i>Factor 6. Prior Entrepreneurial Education (6.13%)</i>	
• The courses enhance one's preference to be an entrepreneur.	0.870
• The courses create greater recognition of the entrepreneur's figure.	0.869
<i>Factor 7. Perceived Definition of Entrepreneurial Success (5.395%)</i>	
• Achieving great social recognition.	0.718
• Carrying out the kind of job you really like.	0.672
<i>Factor 8. Social Network (3.426%)</i>	
• I personally know entrepreneurs.	0.808
• I have a friend who is an entrepreneur.	0.783

The *second factor* was comprised of items related to attitude towards entrepreneurship explaining 11.56% of the total variance. The highest loadings came from the individual's determination to start a business (0.821) and to exert effort (0.826). Past studies reveal that this factor was directly linked to the individuals risk-taking propensity and internal locus of control (Dehkordi, et. al., 2012).

The *third factor* represents the individual's knowledge on the availability of entrepreneurial support and contributes to about 10.95% of the total variance. Favorable business policies, availability of market centers and business networks loaded highly on this factor with 0.873, 0.860 and 0.862 loadings, respectively. The knowledge of support turned out to have a high influence on EI as it strengthens the internal foundations of the intention.



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The *fourth factor* labeled as the personal behavioral control was found to explain 7.20% of the total variance. Among the statements, the item that pertained to the perceived ease of putting up and growing a business was found to have the highest loading of 0.712. This result suggests that having confidence on performing all the activities related to entrepreneurship influences one's EI.

The *fifth factor* was related to the perception of the respondent's environment towards undertaking entrepreneurial ventures and accounted for 6.66% of the total variance in EI. It was labeled as social support.

The *sixth factor*, which contributed about 6.13% to the total variance, included items related to the respondent's prior entrepreneurial education. This result can be linked to the claim of Kolvereid (1996) that individuals with entrepreneurial education are more likely to exhibit entrepreneurial behaviors.

The *seventh factor* was associated to the perceived definition of entrepreneurial success and comprised about 5.40% of the total variance. It seems that for the respondents, success in entrepreneurship is measured by job satisfaction, social recognition, social responsibility, and business profitability and sustainability.

Finally, the *eighth factor*, which constituted 3.43% of the total variance in EI, was labeled as social network. In relation to this result, Davidsson (1995) cited that the presence of entrepreneurs who can serve as role models and whose entrepreneurial behavior can be adopted increases the tendency of individuals to become entrepreneurs themselves.

3.3 Objective 3. EI Levels of Respondents

The analysis of individual EIs using the factor scores derived showed that more males (58.73%) had relatively higher EIs than females (43.65%). Unlike the study conducted by Yaghmaei, et. al. in 2015 among postgraduate students in Malaysia, the results of this study showed that there was a very significant difference between the EIs of male and female respondents and that the males were more likely to have higher entrepreneurial intention than females.

Meanwhile, more married (55.81%) respondents had higher EI than the single respondents (48.81%). Moreover, breadwinners (55.88%) were found to have higher EI levels than those with lesser as well as no contribution to family financing (53.33% and 38.46%, respectively).

Further, there were more respondents from small households (58.47%) who possessed higher EI levels compared to those from medium and large households (44.31% and 45.35%, respectively).

Majority of the BSA, BSABM, BSAC and BSAEC had higher EIs. BSAE graduates, on the other hand, exhibited the opposite with only 34.00% of the respondents having a high EI. The results of the study seemed not to be that consistent with the results of past researches by Pretheeba (2014) and Kolvereid and Isaken (2006), which found that engineering students had better entrepreneurial attitude compared to management students.

On the other hand, majority of those who were currently unemployed (46.14%) and those who were working for other companies (45.83%) were found to have lower EIs. This finding could be linked to the claim of Müller (2008) that the more entrepreneurial ones are those working for small companies as they can closely observe what the head of the business is doing, and can easily assess whether they can do the same or not.

Prior entrepreneurial experience also turned out to have a positive influence on entrepreneurial intentions. The results showed that majority of those with grandparents (57%), close relatives (52.31%) and close friends (56.31%) who were entrepreneurs had high EIs. In relation to this, Müller (2008) contends that actual exposure to entrepreneurship helps make the idea (of entrepreneurship) more tangible and concrete rather than abstract.

Lastly, majority of those who had entrepreneurial plans regardless of their current situation had high EIs and thus, increased intention for developing entrepreneurial activities.

3.4 Relationship Among the Demographic Factors and the EI Levels

After conducting a Chi Square Test, gender, type of employment, having outright entrepreneurial plans, having entrepreneur grandparents, parents and close friends, the size of household, and the respondent's role in family financing turned out to each have significant relationships with EI. Logistic regression was then performed with EI as the dependent variable and the identified significant variables as the explanatory variables.

The results as presented in Table 2 shows that the odds that females will have a high EI level is 0.572 times lower than men. Meanwhile, compared to those who are currently unemployed, the likelihood



of employed respondents to have a high EI level is 0.620 times lower but 2.745 times higher for those who are self-employed. Having outright entrepreneurial intentions increased the odds of having high EI level by 12.641 times. Moreover, having entrepreneur grandparents, parents, and close friends increased the likelihood of having a high EI level by 1.201, 2.316, and 1.812 times, respectively compared to not having them.

Table 2. Coefficients and odds ratios of variables in the logistic regression equation

Variables	β	Exp(b)
Gender (Female)	-0.559	0.572
Employment type: Employed	-0.478	0.62
Self-Employed	1.01	2.745
Both	0.102	1.108
Having entrepreneurial plans	2.537	12.641
PEE Parents (Yes)	0.84	2.316
PEE Close Friends (Yes)	0.594	1.812
Household: Medium	-0.508	0.602
Large	-0.572	0.564
Role Financing: Contributor	-0.172	0.842
None	-1.007	0.365
PEE Grandparents (Yes)	0.183	1.201
Constant	-1.904	0.149

On the contrary, as the household increased to medium and large sizes, the odds of having a high EI level decreased by 0.602 and 0.564 times compared to the respondents from small households. Moreover, as the role in family financing becomes less major, the likelihood of having high EI level also decreased. Contributors to family financing are 0.842 times less likely to have a high EI level than the main breadwinners in the family. Similarly, those who do not contribute to the family's finances have 0.365 times lower chances of having a high EI level.

The respondents' inclination towards agricultural entrepreneurship was also looked into. It was found that BSAE and BSA graduates were more inclined to agricultural entrepreneurship. Based on cross-tabular analysis, it appeared that gender, bachelor's degree and the type of business of the respondent's employer was associated with the level of inclination to agri-entrepreneurship.

4. CONCLUSIONS

Entrepreneurial intention is considered an important predictor of entrepreneurial behavior.

The results of the survey among 307 agri-based graduates of UPLB showed that entrepreneurial self-efficacy, attitude towards entrepreneurship, and knowledge on the availability of entrepreneurial support had the highest influence on EI.

Furthermore, it was found that gender, type of employment, size of household, role in family financing and prior entrepreneurial experience significantly influenced the EI level (i.e., high or low) of the respondents. Males, respondents with smaller family size, and those who have a bigger role in family financing emerged as having higher possibilities of exhibiting a high EI level. Moreover, those who were self-employed and those who had entrepreneur grandparents, parents and close friends were also found to be those most likely to have a high EI level.

Since the respondents were graduates of agriculture-based degree programs, their inclination towards agricultural entrepreneurship was also looked into. The results of the study showed that this was influenced by the line of business of the respondents' employer, their having entrepreneurial plans, gender, prior entrepreneurial experience from parents' and relatives' business, and number of siblings.

It was noted that prior entrepreneurial education only contributed a small percentage to the total variance in EI whereas most past studies stressed the influence of education on EI. The researchers note however that the factors determining EI (e.g., entrepreneurial self-efficacy) can actually be enhanced through entrepreneurial education. To cite, Bandura (1997), as cited by Müller (2008), enactive mastery through education and experience is the most important way of strengthening one's self-efficacy. Entrepreneurial education also enables one to use these capabilities to take control of events, thus increasing perceived behavioral control. Aside from these, perceived desirability, and feasibility of entrepreneurial action can also be shaped through education. Potential entrepreneurs look up to their peers, classmates, professors and mentors for support, assurance, and guidance in their first steps into entrepreneurship (Muller, 2008). Through education and other entrepreneurial learning activities, students can also



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gain access to information on the availability of entrepreneurial support within and outside the university, which in turn can help potential entrepreneurs develop their startups.

To sum up, the results of the study lend support to utilizing entrepreneurial education as a major strategy to increase the entrepreneurial intention of students.

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