Applying Theory of Planned Behavior to understand entrepreneurial intentions of senior executives pursuing MBA program



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The role of entrepreneurs in generating employment is well-known. To promote and initiate sustainable venture creation a better understanding the 'push' and 'pull' factors that affect the entrepreneurs is needed. Experienced professionals often quit their jobs to start their own ventures. However, existing research offers few theory-backed, consistent frameworks that throw light on entrepreneurial intentions of such individuals. This paper aims to test the relevance of an intentions model by applying it on a select group of. The behavior-intention link is probed using Ajzen's Theory of Planned Behavior.A questionnaire consisting of 31 items was administered online to senior executives pursuing distance learning courses in management from a private university. The questions were Likert-type questions with 7 scales. Items used in the questionnaire probed into the respondents' views on why people start their own business and the various factors that promote or deter this process. Analysis of the data obtained from the respondents was found to correspond to the three parameters of the Theory of Planned Behavior- namely attitude, subjective norms and perceived behavior control. The data was found to have high reliability.Though there was a great deal of variance in the entrepreneurial intent of the respondents, there was no difference on the impact of the three parameters on entrepreneurial intent. This finding suggests that intentions exist in all individuals which transform into desired behavior (venture creation).In future, the results of this study are proposed to be tested on a group of nascent/yet-to-start entrepreneurs to further establish the intention-behavior link.

Key Words : Theory of applied behavior, entrepreneurial intentions, senior executives, work experience, entrepreneurship.

Introduction

An entrepreneur is 'a person who undertakes a wealth-creating and value adding process, through incubating ideas, assembling resources and making things happen' (Kao, 1993). The characteristic of opportunity identification enables the entrepreneur to start and succeed in starting own business, notwithstanding adverse economic conditions. Therefore, the entrepreneur and his/her behavior become central to the process of venture creation. As the entrepreneur is a complex combination of interacting factors, understanding the behavior of entrepreneurs becomes significant before understanding the dynamics of the process of venture creation.

There is a large amount of focused research on entrepreneurship but most of it is focused on western populations. Studies in this field use a number of theories like career-choice theory, causation/effectuation theory, etc are used to understand the process of venture creation. Theory of Planned Behavior (TPB) is the basis of this study. TPB has been extensively used in research to study entrepreneurial intentions. According to this theory, developed by Ajzen, behavior intentions are a function of three determinants: an individual's attitude toward behavior (EA), subjective norms (SN), and perceived behavioral control (PBC) (Ajzen, 1991) (*see Fig 1*). Studies by Carr and Sequeira (2007), Kautonen *et al*. (2009, 2010), Schwarz *et al*. (2009) (to name a few) have revealed many more determinants of entrepreneurial intentions. The present study aims to study the impact of 3 factors of TPB on entrepreneurial intentions of Indian populations.

The respondents of this study are final semester students of business administration of a private university. All of them are pursuing Master of Business Administration program through distance learning mode. As this is an accelerated program for senior executives, all the respondents have prior work experience of not less than 4 years.

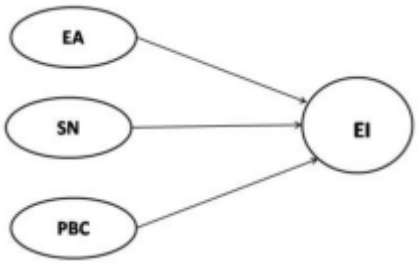

Fig.-1 : Theory of Planned behavior

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Literature Review

Review of research reveals that entrepreneurship is viewed as a type of planned behavior and use of intention models is appropriate for investigating entrepreneurial intentions (Autio et al, 2001). The results have been found to vary depending on geographical regions and population characteristics. Studies by Tkachev & Kolvereid (1999) on University students in Russia, Linan & Chen (2009) on University students of Taiwan and Spain, Peng et al (2012) on University students of China, Shaik Karim, Lokanadha Reddy (2014) on Students of Chittoor District, Andhra Pradesh reveal that all the three constructs of TPB, EI-EA, EI-SN and EI-PBC are found to be significant. However, some studies have indicated non-significance of EI-SN construct (Kreuger et al, 2000; Moriano et al, 2014).

For the present study, work done by Linan & Chen (2009) is used as basis to understand the models on intentions. Based on the findings of the literature review, the following important factors are proposed to be studied.

Attitude (EA)

Attitude refers to the degree to which a person has a favorable appraisal of the behavior. It refers to the degree to which the individual holds a positive or negative valuation about being an entrepreneur (Bagozzi, 1978 and Baron, 2008). The construct will be studied using the three components of attitude-Innovative behavior (IB), Innovative Orientation (IO) and Innovation-focused Cognition (IFC) (Robinson et al, 1991),

Subjective norms (SN)

This refers to the perceived social pressure to perform the behavior. Approval of family members, friends and other social groups has been shown to have a significant impact on entrepreneurial intentions and also intention-based behavior in general (Cotte & Wood, 2004, Ham et al, 2005, Kolvereid & Isaksen, 2006). While some studies have indicated a positive significance, some have reported no/insignificant influence on EI. In this study, the reference people who would approve of the respondents' decision to become entrepreneurs would be parents (P), close friends (CF) and other important people (IP) like teachers, relatives, etc

Perceived Behavior Control (PBC)

The third antecedent of intention is the degree of perceived behavioral control. This refers to the perceived ease of performing the behavior and to the perceived control over the outcome of it. It is linked to control beliefs, which refers to beliefs about the presence of factors that may facilitate or impede performance of the behavior (Rhodes et al, 2006, Sparks et al, 1997). Some studies have given precedence to PBC and shown that EA and SN play a supporting role to PBC in forming intentions (Autio et al, 2001). This construct will be analyzed using the three components of personal control (PC), fear of failure (FOF) and confidence of one's skills (CON) regarding setting up own business.

The model proposed in this study gives equal importance to all the three aspects EA, SN and PBC. A conceptual model which reflects the influence of the three factors on entrepreneurial intentions is shown in fig 2.

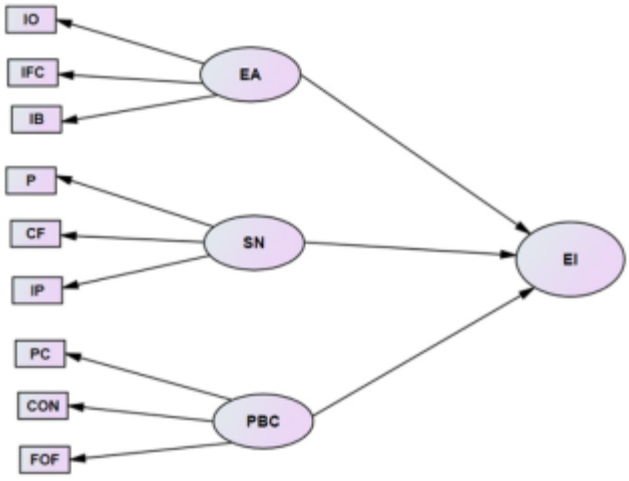

Fig. 2 : Analytical model of impact of EA, SN and PBC on entrepreneurial intentions

Methodology

The primary data required for this study was collected using a questionnaire, which was designed after a comprehensive literature review. The Entrepreneurship Intention Questionnaire (EIQ) operationalized by Linan & Chen (2009) is used in this study. Four-point Likert-scale questions were used in the questions, with options strongly disagree (ranked 1), disagree (2), agree (3) and strongly agree (4).

Questionnaire is made of 4 general items which elicit information regarding gender, total work experience, career intentions and opinion regarding setting up own business. 19 items are variable-specific and are meant to collect information regarding the four variables-1 dependent variable and 3 independent variables. (EA-5; SN-3; PBC-5; EI-6)

The population for this study comprised of students enrolled in accelerated MBA program. Students in the final semester were contacted and their consent was obtained for participation in the study. Interested students were sent questionnaires via e-mail. 112 questionnaires were sent to students from which 50 sent completed forms which were used in the study.

The data was checked for gaps and outliers. All the 50 forms were found to be usable. In order to analyze more accurately the impact of attitude, norms and control factors on entrepreneurial intentions, correlation and exploratory factor analysis (EFA) are used. The reliability and validity of constructs is demonstrated using factor loadings, % of variance and Cronbach α values (Nunnally, 1978 and Hair, 2001). Structural equation modeling (SEM)

was used to verify the conceptual model. Amos 21.0 software was used to run SEM. Both exploratory factor analysis (EFA) using SPSS and confirmatory factor analysis (CFA) using SEM were used to test the validity and reliability of the constructs.EFA was conducted using SPSS 21.0 version and CFA was performed using AMOS 21.0. The reliability and validity of constructs is demonstrated using factor loadings, % of variance and Cronbach α values (Nunnally, 1978 and Hair, 2001). Degree of model fit can be demonstrated using the values of GFI, CFI, RMSEA (Byrne, 2001).

Data Analysis

Initial analysis of general items revealed the general mindset of the respondents and their general intentions towards venture creation. All the respondents were pursuing MBA program in distance mode. Among the respondents, 52% were found be born before 1980 and 48% were found to be born after 1980. 66% were male and 34% were female. 40% of respondents reported that there are no entrepreneurs in their family or friends. 22% of their parents own business while 12% of respondents reported that people they know have own business. 52% of respondents have studied entrepreneurship as a subject while 48% have not studied this subject at all.

Means and standard deviations of general and specific variables are given below.

Statistics

		GENDER	EDU	SUBJ	EA1	EA2	EA3	EA4	EA5	SN1	SN2	SN3	PBC1	PBC2	PBC3	PBC4	PBC5	EI1	EI2	EI3	EI4	EI5	EI6
N	Valid	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50
	Missing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mean		1.34	1.98	1.96	4.26	4.54	4.94	4.92	4.76	4.42	5.14	4.74	3.06	3.40	3.98	3.78	4.30	3.86	3.98	4.42	4.52	4.20	4.58
Std. Deviation		.48	.14	1.01	1.86	1.92	2.09	2.04	2.05	1.90	1.70	1.55	1.67	1.69	1.85	1.75	1.68	1.99	2.06	1.93	1.92	2.05	2.14

The research model has 3 constructs with 19 independent variables. Bivariate correlation carried out on the data revealed linear relationship between variables that falls into a pattern as indicated in the research design. However, some variables also showed significant relationship with few other variables.

As the number of variables is large, Exploratory Factor Analysis (EFA) is conducted. The correlated, observed variables are found to associate with 4 latent variables or factors. This largely confirms the association as indicated by the bivariate correlation. 4 factors with Eigen value more than 1 are considered. This is supported by results of Scree plot. In the sample, the Kaiser–Meyer–Olkin test for sample adequacy (KMO) was notably high (.820) and Bartlett's sphericity test was highly significant ($p < .001$). Both statistics suggest that data is suitable for factor analysis.

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		**.820**
Bartlett's Test of Sphericity	Approx. Chi-Square	765.482
	df	136
	Sig.	.000

Component	Eigen value
1	9.160
2	1.671
3	1.500
4	1.158

EFA results are submitted in Table-2. All the items loaded highly on their respective factors / constructs and variances were above 70 percent indicating high convergent validity.

Table-2: EFA results: Factor Loadings and Cronbach α value (N=50)

Construct Name	Item acronym	Factor loadings	Cronbach α value
Entrepreneurial Intentions (EI)	EI1	.978	0.944
	EI2	.939	
	EI4	.894	
	EI5	.875	
	EI6	.791	
	PBC4	.727	
Entrepreneurial Attitude (EA)	EA1	.970	0.935
	EA2	.901	
	EA3	.756	
	EA4	.738	
	EA5	.675	
Subjective Norms (SN)	SN1	.972	0.836
	SN2	.886	
	SN3	.735	
Perceived Behavioral Control (PBC)	PBC1	.919	0.815
	PBC2	.916	
	PBC3	.640	

From the EFA results shown in Table 2 it is evident that the constructs have high reliability. All the constructs display Cronbach α values that are >0.7. So it can be inferred that the constructs have good reliability. 5 items pertaining to attitude (EA), 3 related to subjective norms (SN), 3 items of perceived behavior control (PBC) are identified after performing EFA. 6 items pertaining to intentions (EI) are also identified, taking the total number of items to 17. One item from PBC construct was found to cross-load into EI. This is in line with the view that perceived behavioral control items are strong predictors of intentions (Kraft et al, 2005). Two items of PBC did not load cleanly and were rejected.

While EFA revealed the number of constructs involved in the study, the relationship between latent constructs and overall model fit is determined by confirmatory factory analysis (CFA). This is used to verify factor structure of a set of observed variables and their underlying latent contructs. The present study applied Structural Equation Modeling (SEM) using AMOS 21.0 software. Fit for all models was evaluated using the following fit indexes Root mean square error of approximation (RMSEA) with a value

Good fit index	Values
CFI	0.914
IFI	0.917
TLI	0.893
CMIN/df	1.603
RMSEA	0.111

0.06 indicates a good model fit, and 0.08 indicates an acceptable model fit. The Tucker-Lewis index (TLI) and the comparative fit index (CFI) is also reported : for both values, .0.90 indicates sufficient model fit (Vandenberg and Lance, 2000; Kline, 2011).

CFI=0.914 and IFI=0.917 are values >0.9 indicating a moderate fit of the model. TLI (also called NNFI) =0.893. As it is customary to report only CFI or TLI, CFI values are reported for this study as the values are >0.9. RMSEA values depend on sample size and degrees of freedom (df). If RMSEA values are between 0 and 0.8, it indicates an excellent fit of the model (see Fig 3). The obtained value of 0.111 indicates a mediocre or moderate fit of the model with the data. Overall, the model can be considered to be a moderate fit.

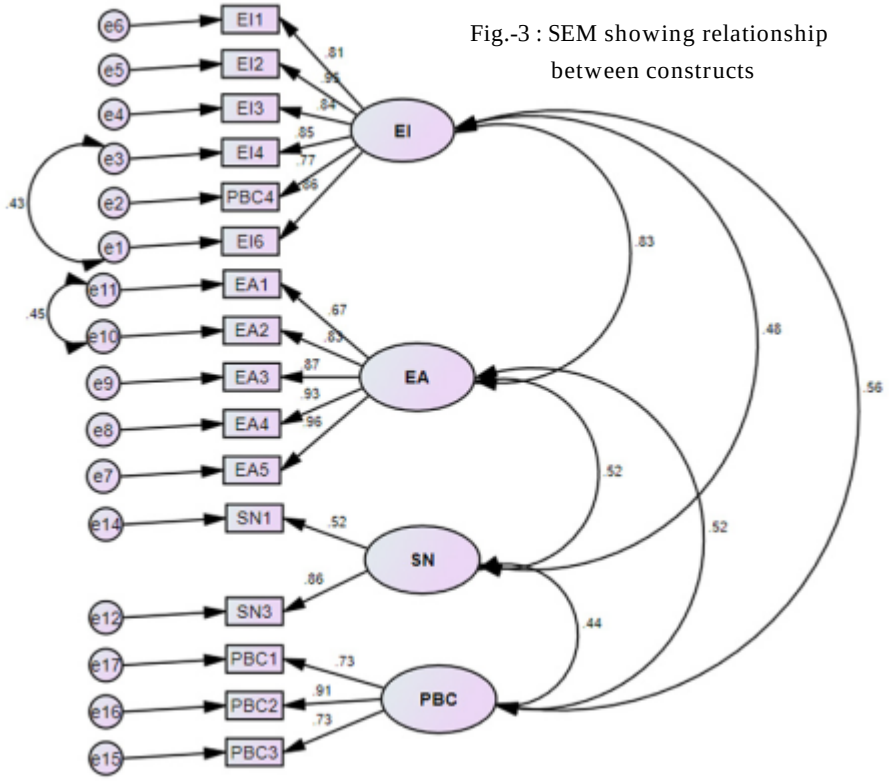

Fig.-3 : SEM showing relationship between constructs

Results

It is evident from the structural model that of the three parameters, EA, SN and PBC, exert a positive impact on entrepreneurial intentions moderate as evident from the figure. EI ? EA is found to be of highest valued followed by EI ? PBC. The relationship between EI and SN was found to be least. Also, covariance was found between some items of all the three constructs. The attitude item 'To me, being an entrepreneur means more advantages than disadvantages' Is linked to the attitude item 'Being an entrepreneur would give me great satisfaction' The entrepreneurial intention item 'I am ready to do anything to be an entrepreneur' is linked to the intention item 'I am determined to start a firm in future'.

Conclusions

This paper systematically explores the influence of three psychological / internal aspects of individuals on their entrepreneurial intentions. The results show that all the three factors exert significant influence on intentions thus play a major role in shaping the entrepreneurial intentions of individuals. The significance of subjective norms having the weakest impact on intentions needs to be examined in the context of the age and experience of the respondents. The strong impact of attitude on intentions places the individual at the centre of the entrepreneurial ecosystem. Various programs / schemes designed to promote small and medium-scale businesses have to suit the individual needs.

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