

A Study on the Influence of Education and Demographic Variables on the Entrepreneurial Self Efficacy (ESE)

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ABSTRACT

The present study is a modest attempt to examine whether the students pursuing management education in entrepreneurship perceive their Entrepreneurial Self Efficacy (ESE) to be significantly different from those pursuing management educations in other disciplines. The study also investigates the role of demographic variables like gender, family background, prior work-experience, and prior entrepreneurial exposure in influencing ESE. The study is based on a sample of 244 entrepreneurship graduates and 212 management graduates collected from different institutes in Western India, and their ESE was measured through a five-point Likert scale self-administered questionnaire based on a four-phase venture creation model. ESE of entrepreneurship graduates was higher than management graduates but not significantly different. The significant influence of gender, family background, and work experience was observed on ESE of the respondents though prior entrepreneurial exposure did not significantly alter the participants' self-efficacy.

Keywords: Demographic variables, Entrepreneurship, Entrepreneurship education, Entrepreneurial self-efficacy.

Adhyayan: A Journal of Management Sciences (2020); DOI: 10.21567/adhyayan.v10i2.9

INTRODUCTION

Of late, development economists and even policymakers have been on a consensus that the traditional market led policies have failed to generate adequate employment opportunities. The focus is gradually shifting from the Keynesian equilibrium model, which is dependent upon market forces to Schumpeter's structural changes model, which considers innovation as the key for economic development. Especially in developing countries like India, where the government has been vocal about emphasizing on skill development and vocational education as an alternative to formal education in promoting innovation and entrepreneurial skills among the youth from an early age. The Indian government, through its policies like Startup India and Make in India has also tried to influence the social mindset in accepting entrepreneurship as a full-time career option rather than being a second choice to failed employment. In recent times, not only India but even in other countries, governments are making efforts to improve the entrepreneurial ecosystem to motivate and persuade its people to consider entrepreneurship as a career. World Banks' Ease of Doing Business Index' attempts to measure the progress made by various countries in

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How to cite this article: Chawla, N.T., & Bhatia, H. (2020). A Study on the Influence of Education and Demographic Variables on the Entrepreneurial Self Efficacy (ESE). *Adhyayan: A Journal of Management Sciences*, 10(2):64-74.

Source of support: Nil

Conflict of interest: None

relaxing procedures for starting a new business. The report and its findings are considered important to understand the entrepreneurial ecosystem. However, it is equally relevant to understand the mindset of an individual who intends to pursue entrepreneurship. Over the years, the entrepreneurship literature has established that pursuing an entrepreneurial career is a planned behavior. A large number of demographic and environmental factors influence an individual's choice to venture into the domain of entrepreneurship.

Albert Bandura (1977) proposed that the social learning theory considers an individual's self-efficacy as the principal determinant of his behavior. It not only governs the intention of an individual but also influences his/her performance. Self-efficacy refers to an individual's belief in his/her own capability in

performing a given task. It is believed to influence the choice of the task and the level of effort given by an individual, their perseverance, and their level of success.

Entrepreneurial self-efficacy (ESE) is the judgment of an individual about his own capability to perform various tasks involved in entrepreneurial life cycle irrespective of the skills currently possessed by him/her (Chen, Greene, & Crick, 1998). The concept of self-efficacy finds significant mention in the literature of entrepreneurial behavior determining theories like Shapero's Entrepreneurial Event (SEE) Theory proposed by Shapero & Sokol (1982) where it labeled as 'Perceived feasibility' and Theory of planned behavior proposed by Ajzen (1985) where it is incorporated as 'perceived behavioral control'. Boyd & Vozikis (1994) specifically modified Bird's Model of Entrepreneurial Intention to integrate the component of self-efficacy in deeming the individual's entrepreneurial intention as well as action. Due to the significant predictive ability of self-efficacy in determining entrepreneurial behavior, most of the studies measure the respondents' ESE to understand their future entrepreneurial behavior. Moreover, as proposed in the Self-Efficacy Theory by Bandura (1977), self-efficacy is not a static trait and can be modified through various interventions and experiences.

The present study is a modest attempt to examine whether the students pursuing management education in entrepreneurship perceive their ESE to be significantly different from those pursuing management educations in other disciplines. The study also investigates the role of demographic variables like gender, family background, prior work-experience and prior entrepreneurial exposure in influencing ESE.

Figure 1, illustrates the variables determining ESE. In addition, to differentiate between the ESE of management graduates and entrepreneurship graduates, the paper also explores the difference in the self-efficacy of the respondents based on demographic

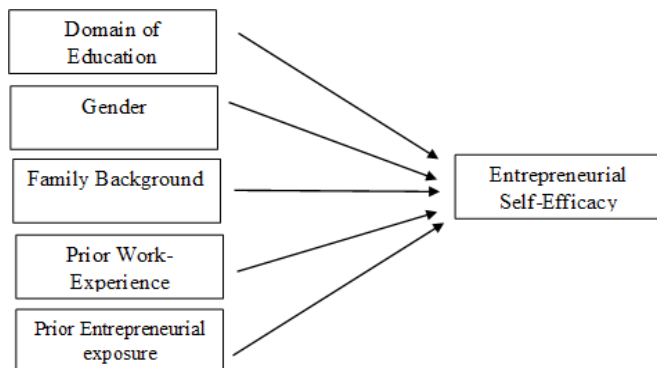


Figure 1: Factors influencing ESE

variables, including gender, family background, work experience, and prior entrepreneurial experience. A sample of 244 entrepreneurship graduates and 212 management graduates were collected from different institutes in Western India using a self-administered ESE questionnaire.

LITERATURE REVIEW

The literature review for the paper is divided in two parts, comprising of influence of education on ESE and influence of other demographic factors on ESE.

1. Influence of domain of education on ESE

Various studies have been conducted to understand the influence of entrepreneurship education on the ESE of the participants. But relatively fewer studies have compared entrepreneurship education with other management discipline education to influence the participants' perceived ESE. Moreover, the studies which have attempted this comparison have obtained contradictory results. Chen, Greene, & Crick (1998), one of the pioneers in studying ESE found that the students who undertook entrepreneurship courses had significantly higher ESE as compared to the students who opted for the course in organizational behavior as well as psychology. The two groups' ESE was primarily different in the tasks related to marketing, finance, and management. Another landmark study in this domain by De Noble, Jung, and Ehrlich (1999) found that entrepreneurship graduates depicted higher ESE than other business graduates, specifically in the entrepreneurial tasks pertaining to opportunity recognition and dealing with ambiguity. Few other studies at American universities revealed the similar results (Menzies & Paradi, 2003; Kilenthong, Hills, and Monllor, 2008; Bernstein and Carayannis, 2012). Karlsson & Moberg (2013) examined the difference in the increase in ESE of entrepreneurship education graduates in Denmark as compared to marketing graduates. ESE of entrepreneurship graduates increased significantly for the tasks involved in searching, planning and marshaling phases of new venture creation. Another similar study in Netherland comparing entrepreneurship graduates with supply chain graduates revealed similar results immediately after completion of education as well as 18 months after the completion of the course (Rauch & Hulsink, 2015). Malebana & Swanepoel (2014) compared ESE of three groups of students at two South African universities consisting of entrepreneurship graduates, those with single course on entrepreneurship and a third group with no exposure to entrepreneurship education.

Significant differences were observed in 14 out of 24 ESE measures taken into consideration.

On the contrary, other studies revealed no significant difference in the ESE of the entrepreneurship graduates compared to other business graduates. Tan, Long and Robinson (1996) found ESE of entrepreneurship business undergraduates was not significantly different than the ESE of other business undergraduates at a polytechnic in Singapore. Another study by Noel (2002) at a mid-sized university in USA revealed that ESE of undergraduates who took entrepreneurship major was neither significantly different from those who took other business majors nor different from non-business undergraduates. Mc Stay (2008) also observed similar results in his study at Australian universities. Though the students' ESE increased after undertaking the respective courses, no significant difference was observed in the final ESE of students who undertook strategic management compared to those who studied entrepreneurship course.

H1: The domain of education (management vs entrepreneurship) significantly influences ESE.

2. Influence of gender, family background, work experience and prior entrepreneurial exposure on self-efficacy

Many studies and social scientists have suggested the role of gender in the choice of self-employment. Others have stated the influential role of family background, work experience and prior entrepreneurial exposure on entrepreneurial intention and its antecedents including ESE.

Gender

Scherer, Brodzinski & Wiebe (1990) in their study of undergraduate students who are on the verge of making a career choice found that males have higher preference towards entrepreneurial career as compared to females. Kolvereid (1996) concluded that gender, prior entrepreneurial experience and family background do not directly influence entrepreneurial intention. However, there is an indirect effect of these demographic variables on entrepreneurial sense through Theory of Planned Behavior components, i.e. attitude, perceived behavioral control, and subjective norm. In their study on Norwegian business graduates, males were found to have a greater preference for entrepreneurship as compared to females.

Matthews & Moser (1996) in their longitudinal study of business graduates in the USA spanning over five years found gender to be the most dominant

factor influencing self-employment preference. Males were found to have higher inclination towards entrepreneurship across all the three time frames taken into consideration. According to Menzies & Paradi (2003) study on Canadian engineering and entrepreneurship graduates, four times, there is a male increase in business ownership chance. Malebana & Swanepoel (2014) observed influence of gender on ESE of South African students was limited to six out of 24 ESE tasks.

On the contrary (Tkachev & Kolvereid, 1999) in their study on medical and engineering Russian students found that gender and entrepreneurial intentions were not related significantly. Zhao, Seibert, & Hills (2005) also did not find any significant relation between gender and ESE of the students across five universities in USA but the entrepreneurial intention of females was found to be significantly lower than their male counterparts. Similar results were obtained in studies by Pruetz, Shinnar, Toney, Llopis, & Fox, (2009) Mueller & Dato-on (2013) in extensive studies across USA, Spain and China.

H2: There will be significant difference in the ESE of male and female respondents.

Family Background

Family background here refers to having self-employed parents, siblings' close relatives or friends. Those belonging to business families or having entrepreneurs in their close circle of friends and relatives are expected to be exposed to entrepreneurship's realities and challenges more than the others, which may influence their self-efficacy towards entrepreneurial tasks. Shapero and Sokol (1982) argued that family background, especially business ownership by father or mother, plays a dominant role in an individual's desirability towards self-employment.

Waddell (1983) in his study of differences in the characteristics of women business owners compared to employed women found significantly higher percentage of business owner among parents of entrepreneurial women compared to employed women. In another study by Scott and Twomey (1988) across USA, UK, and Ireland, it was observed that individuals with parental role models owning a business had significantly higher preference for self-employment.

Matthews & Moser (1996) in the study involving US business graduates, concluded that family background influence the choice of self-employment but the impact is more prominent in males as compared to females. Similar results indicating a significant positive influence of family business background on entrepreneurial intention of individuals were observed across studies



in US, UK and Ireland (Crant, 1996; Scott & Twomey, 1988; Carr and Sequeria, 2007). Pruett *et al.* (2009) also substantiated that presence of entrepreneurs in the immediate family is significantly positively related to entrepreneurial intention across participants in USA, China and Spain. A qualitative study based on Kenyan college graduates also found crucial role of family business in forming entrepreneurial intentions (Maina, 2011). Worldwide research on the influence of entrepreneurship education by Vanevenhoven and Liguori (2013) concluded significant correlation of ESE with the respondents' belongingness to family business.

On the contrary, Malebana & Swanepoel (2014) found minimal impact of parental self employment on very few parameters of ESE. Kolvereid (1996) did not find significant correlation between family background and entrepreneurial intention. Similar results were obtained by (Tkachev & Kolvereid, 1999) among the Russian students. Though the family background had positive impact on entrepreneurial intention but the correlation was not statistically significant. Hamidi, Wennberg, K., & Berglund (2008) also did not observe any significant relation between the entrepreneurial background of family members as well as close relatives or friends with the entrepreneurial intention of Swedish students. Similar results were obtained by Bae, Qian, Miao & Fiet (2014) in their meta-analysis research across 73 studies.

Some studies (Fayolle & Gailly, 2009; 2013; Zhang, Duysters & Cloudt, 2014) also observed the negative influence of presence of entrepreneurial parents, other family members, friends or relatives on the entrepreneurial intention of the respondents. The negative influence may be attributed to higher exposure to the nature of risk and propensity of failure involved in pursuing entrepreneurial career.

H3a: Presence of entrepreneurial parents, siblings, close friends and relatives significantly increases ESE

H3b: Involvement in business significantly increases ESE.

H3c: Level of involvement in business significantly influences ESE

Prior Work Experience

Prior work experience here refers to respondents' employment experience in any type of organization, including start-up, small business, domestic company or multinational company. Scott and Twomey (1988) found respondents with prior work experience depicted greater choice for entrepreneurship, but the difference was not statistically significant. Sandberg and Hofer (1987) found that prior work experience in a start-up is

more important than prior work experience in a related industry for an entrepreneurial venture's success.

Alvarez-Herranz, Valencia-De-Lara, & Martínez-Ruiz (2011) studied the influence of various demographic variables on the participants' across 22 countries, found previous work experience had most significant contribution among all other demographic variables, including age and education in determining the entrepreneurial behavior. Maina (2011) also proposed that small business involvement considerably increases the intention of an individual to pursue entrepreneurial career. Malebana & Swanepoel (2014) found South African students across different study programs differed in their ESE based on prior work experience on six of the 24 ESE parameters taken into consideration. Similar results were observed by Vanevenhoven and Liguori (2013). They concluded that paid and non-paid positions held by an individual in a new venture significantly influence their ESE and entrepreneurial intention in a positive manner.

On the contrary, in an enquiry on the extent of influence of work experience on the different sub scales of ESE of nascent entrepreneurs in North Carolina, Sisco (2014) found weak negative association between the duration of work experience and ESE.

H4a: Prior work experience is positively related to the level of ESE

H4b: Duration of prior work experience influences the level of ESE

Prior Entrepreneurial Exposure

Prior entrepreneurial exposure here refers to the experience of an individual of starting his/her own venture. It does not necessarily include successful venture in operation currently.

Kolvereid (1996) found significantly higher self-employment preference amongst the Norwegian graduates with prior entrepreneurial experience. Similar observations were recorded by Ronstadt (1988) in US with 63% of the practicing entrepreneurs and 43% of ex-entrepreneurs having previous entrepreneurial experience before creating their current venture. Tkachev & Kolvereid (1999) also recorded significantly positive correlation between prior self-employment experience and entrepreneurial intention. Zhao *et al.* (2005) found significantly higher ESE among MBA students across USA with prior entrepreneurial work experience. Prior entrepreneurial experience accounted for 9% variance in ESE and 5% variance in the entrepreneurial intention of the graduates at Australian University (McStay, 2008)

Malebana & Swanepoel(2014) found prior entrepreneurial experience influenced ESE on 5 out of 24 parameters only. Vanevenhoven and Liguori (2013) in their study across 70 countries investigating the influence of entrepreneurship education revealed negative correlation between those who started their venture in the past with their entrepreneurial intention as well as ESE.

H5a: Prior entrepreneurial exposure is positively related to the level of ESE

H5b: Duration of Prior entrepreneurial experience is positively related to the level of ESE

The extensive literature reveals that the difference in ESE pertaining to demographic variables have been inconclusive. Moreover such no substantial research in this domain was observed in the Indian context. The present study hence attempts to understand the complex interplay of domain of education and the demographic variables of gender, family background, work experience and entrepreneurial exposure on the ESE of the individuals who are on the threshold of making career choices.

RESEARCH METHODOLOGY

Data Collection and Measures

The study was conducted through a self-administered questionnaire distributed personally as well as online. The questionnaire was designed based on the existing prominent ESE measure (Chen *et al.*,1998; De Noble *et al.*,1999; Lucas & Cooper, 2005; Ho, Uy, Kang & Chan 2008; Mc Stay, 2008; Mc Gee, Peterson, Mueller & Sequeira.,2009; Vanevenhoven & Liguori, 2013; Barakat, Boddington & Vyakarnam,2014; Malebana & Swanepoel, 2014; Newbold,2014).

However, few new items were added to the questionnaire based on expert discussion with practicing entrepreneurs and entrepreneurship educators. The instrument consisted of 54 items encompassing ESE tasks involved in four-phase venture creation model (i.e., searching, planning, marshaling and implementing) as proposed by Stevenson, Roberts, and Grousbeck (1985), as well as general ESE related to perseverance, risk, and uncertainty management, group inter-personal skills, problem solving skills and IT related knowledge and skills. The new items added to the instrument in addition to the existing scales were related to liaisoning skills, IT skills, legal knowledge, perseverance and exit strategy. The scale was divided into six factors, i.e., Searching, Planning, Marshalling, Implementing-people, Implementing-finance and General ESE. The respondents were asked to rate their level of confidence

on all the tasks on a 5-point Likert scale (1=Very low confidence to 5= Very high confidence).

The demographic variables included in the first part of the questionnaire were: gender, work experience and its duration, family background (parents/siblings/ close relatives/friends currently running a business), involvement in family business, prior entrepreneurial exposure (started his/her own business, may or may not be running currently) and duration of experience of running own entrepreneurial venture. The relation of these variables of ESE has been discussed in the literature review above.

The overall Cronbach's alpha coefficient for the ESE scale was 0.966 and the reliability coefficient for all the factors of the scale was also considerably high as given in Table 1. This suggests favourably good reliability of the scale as per the established standards (Nunnally & Bernstein,1994).

Sample

The sample consisted of 456 final semester post graduate students from different universities across Gujarat and Maharashtra who were on the verge of making choice of career. The questionnaire was administered personally as well as sent to approximately 1000 post-graduate students. Of the responses collected, 251 students were final year Entrepreneurship MBA (EMBA) students with two years' exposure to entrepreneurship education, and 220 were final semester regular MBA (RMBA) students from various comparable institutes with no or limited exposure to entrepreneurship in the form of one or two courses. Few responses were discarded due to incomplete or contradictory answers resulting in a final sample of 244 EMBA and 212 RMBA respondents. Table 2 provides demographic profile of the sample data.

Data Analysis

The data was analyzed using The Statistical Package for the Social Sciences (SPSS). The normality and homoscedasticity of the data were verified for selecting

Table 1: Reliability of ESE Scale

	<i>Number of items</i>	<i>Cronbach's Alpha</i>
Overall Scale	54	.966
General ESE	19	.930
Searching	6	.786
Planning	8	.828
Marshalling	7	.831
Implementing-People	5	.841
Implementing-Finance	9	.901



appropriate parametric or non-parametric methods of data analysis for comparison of group means. The composite score of ESE was found to be normally distributed after removing an outlier. The parametric test including t-test and ANOVA, were used for testing the ESE difference in the groups based on the domain of education, family background, and involvement in the family business, duration of work experience, entrepreneurial experience, whereas non-parametric test, including Mann-Whitney *U* test and Kruskal-Wallis test were used for the groups where assumptions were not satisfied. Normality was established based on Shapiro-Wilks test's significance level and modified Kolmogorov-Smirnov test and homoscedasticity was assessed using Levene's test. ANOVA and t-test are robust parametric tests and are not sensitive to minor deviations in the assumptions of normality and homoscedasticity (Hair, Black, Babin, & Anderson, 2014). Still, non-parametric tests applied for group mean comparison of ESE based on gender, work experience, and entrepreneurial experience duration as slight deviation from homogeneity of variance were

observed in these groups. Table 3 provides details of the results of normality and homogeneity statistics as well as the statistical test used for each grouping variable. Tukey's Honestly Significant Difference (HSD), the most commonly used method for post-hoc analysis of ANOVA involving multiple comparisons, are applied for further analysis in the required group comparisons (Hilton & Armstrong, 2006; Hair *et al.* 2014).

Demographic Profile of the Sample

The respondents consisted of 244 EMBA and 211 RMBA final year post graduate students on the threshold of making a career choice thereby equitably representing the two groups with different level of exposure to entrepreneurship education required for the current study. Nearly 67% of the respondents were male and only 33% were females. The variation in the gender may be attributed to more males opting for post-graduate management course than females. The respondents' family background analysis suggests that nearly 66% of them had fathers running their own business whereas the involvement of mothers in business was

Table 2: Demographic profile of the respondents

	<i>Respondents</i>	<i>Percentage</i>					
<i>Domain of Education</i>							
EMBA	244	53.62%					
RMBA	211	46.37%					
<i>Gender</i>							
Male	303	66.59%					
Female	152	33.41%					
<i>Family background</i>							
Father running business	297	65.27%					
Mother running business	68	14.95%					
Sibling running business	121	26.59%					
Close friend running business	303	66.59%					
Relative running business	355	78.02%					
<i>Level of involvement(time spent)</i>							
Involvement in business	225	49.45%	Very less	Less	Moderate	High	Very high
			9.78%	14.22%	42.67%	21.78%	11.56%
<i>Duration of work experience</i>							
Work experience	202	44.4%	6 months	6 months -1 year	1 -2 years	2-3 years	> 3 years
			20.30%	28.22%	27.72%	16.83%	6.93%
<i>Duration of entrepreneurial experience</i>							
Entrepreneurial experience	67	14.73%	6 months	6 months -1 year	1 -2 years	2-3 years	> 3 years
			41.79%	55.22%	0.00%	1.49%	1.49%

not high. Nevertheless, most of them had exposure to business either through parents, siblings, close friends or relatives. The entrepreneurial family background was stronger among those pursuing EMBA as compared to RMBA. The fathers of 80% of EMBA respondents ran their own business compared to 50% for RMBA respondents. Also 86% of EMBA respondents had two

or more categories of people among father, mother, sibling, close friends and relatives involved in business, whereas for RMBA the similar percentage stood at 57%. Approximately 50% of the total respondents were involved family business, consisting of 60% involvement of EMBA respondents and 37% involvement of RMBA respondents. The extent of involvement in a family

Table 3: Results for assumption testing of t-test and ANOVA, mean differences between the groups, p-value for group differences, and statistical tests used

		<i>Kolmogorov-Smirnov^a Significance</i>	<i>Shapiro Wilk's Significance</i>	<i>Levene's test Significance</i>	<i>Group Mean</i>	<i>P- value for group difference</i>	<i>Statistical test</i>
Domain of education	EMBA	.200*	.167	.661	200.50	.428	t-test
	RMBA	.071	.329		198.33		
Gender	Male	.200*	.207	.038	202.09	.010	Mann-Whitney U test
	Female	.200*	.306		194.32		
Family background	None	.200*	.713	.012	199.83	.017	Kruskal-Wallis test
	One	.200*	.373		188.79		
	Two	.125	.798		199.80		
	Three	.200*	.873		199.74		
	Four	.032	.257		205.47		
Parents in Business	None	.005	.135	.490	197.17	.015	ANOVA
	One	.060	.178		198.47		
	Two	.200*	.191		209.63		
Involvement in Business	No	.037	.102	.111	195.66	.004	t-test
	Yes	.200*	.628		203.42		
Level of Involvement in family business	Very less	.064	.041	.304	191.86	.002	ANOVA
	Less	.200*	.577		190.69		
	Moderate	.200*	.414		205.53		
	High	.200*	.562		206.55		
Work Experience	Very high	.200*	.907	.640	215.15	.018	t-test
	No	.200*	.400		196.61		
Duration of work-experience	Yes	.088	.018	.296	203.11	.120	ANOVA
	<6months	.200*	.370		192.46		
	6months-1year	.200*	.392		205.28		
	1-2 year	.170	.194		205.04		
	2-3 year	.151	.209		208.38		
Entrepreneurial Experience	>3 years	.200*	.205	.339	204.93	.103	t-test
	No	.144	.074		198.57		
Duration of entrepreneurial experience	Yes	.200*	.452	.048	204.84	.900	Mann-Whitney U test
	<6 month	.200*	.372		204.96		
	6months-1year	.200*	.494		204.38		

a. Lilliefors Significance Correction



business in terms of time spent by them was moderate or above for 76% of the respondents. Nearly 45% of the respondents had prior work-experience with start-up, small business, domestic company or a multinational company, and the percentage of respondents with work-experience was similar for the both the groups of education. 85% of EMBA and 66% of RMBA respondents had work-experience of less than 2 years. Only 15% of the respondents had prior experience of starting their own venture and 75% of such respondents belonged to EMBA. The entrepreneurial experience duration was also minimal for most of the respondents with 97% of them less than 1 year of experience.

t-test results comparing ESE of EMBA and RMBA students indicated no significant difference in Total ESE of two groups(p=0.428). Hence no significant evidence was found to support **H1** (*The domain of education (management vs entrepreneurship) significantly influences ESE*) though the group mean of ESE scores for EMBA students was higher than RMBA students. Further comparison of each dimension of ESE for both the groups revealed that the results were similar for all the dimensions except for ESE for Implementing(Finance) related tasks where the difference between two groups was found near to significant. The results for the dimension wise comparison of ESE were obtained using Mann-Whitney U test as depicted in Table 4.

In order to examine the role of gender in influencing ESE, non-parametric Mann-Whitney U test was conducted as the homogeneity of group variance was violated (p value<0.05). The results revealed significant differences in the ESE of the respondents based on gender (p=0.01) thereby supporting **H2** (*There will be significant difference in the ESE of male and female respondents*). Male students had higher ESE as compared to female students.

The role of family background in influencing ESE of the individuals was examined through multiple dimensions like the involvement of family members, relatives and close friends in business, parents running their own business, involvement in the family business, and level of involvement in family business. Based on number of close connections involved in business, respondents were divided into six categories i.e.

those with none/one/two/three/four/five of the above mentioned category of people (mother, father, siblings, close friends or relatives) involved in business. Non parametric Kruskal-Wallis test suggested that groups having different number of close contacts involved in business had significantly different ESE (p=0.017). The group mean results indicate that groups with higher number of close contacts involved in business had higher ESE compared to those with fewer acquaintances involved in business. The number of parents involved in business also significantly influenced the respondents' ESE as indicated through ANOVA(p=0.015). Post-hoc test Tukey HSD test revealed no significant difference in ESE between groups with no entrepreneurial parent and one entrepreneurial parent(p=0.901) but ESE of respondents with both entrepreneurial parents was significantly different from respondents with one entrepreneurial parent(p=0.022) as well as no entrepreneurial parent(p=.015). From the group means we can infer that ESE of respondents with both parents involved in business was higher than respondents with one or no entrepreneurial parent. Table 5 depicts the results of post-hoc analysis of ANOVA. The results thereby provide sufficient evidence to support **H3a** (*Presence of entrepreneurial parents, siblings, close friends and relatives significantly increases ESE*)

Involvement in family business and the level of involvement positively influenced the ESE of respondents as indicated through t-test and ANOVA, respectively. Those involved in the business for higher duration of time had significantly higher ESE than those involved for shorter duration. As presented in post hoc analysis in Table 5, Tukey HSD indicated significant differences in ESE of participants with very high involvement in business when compared to very less and less involvement in business (p=0.021,p= 0.005) but no significant difference in ESE compared to moderate and high involvement in business(p=0.466,p=0.663). Similarly ESE those with moderate involvement in business differed significantly only from those with low involvement (p=0.049).No significant differences in ESE were observed in other pair of groups. Hence, **H3b** (*Involvement in business significantly increases ESE*) was substantially supported but we found only

Table 4: Comparison of each dimension of ESE for EMBA and RMBA respondents

	Searching	Planning	Marshalling	Implementing (People)	Implementing (Finance)	General
Mann-Whitney U	24274.500	25044.500	25458.000	25726.500	23124.000	24835.000
Asymp. Sig. (2-tailed)	.292	.617	.839	.991	.061	.516

a. Grouping Variable: Domain of MBA

Table 5: Post-hoc ANOVA using Tukey HSD

<i>Parents In Business</i>		<i>Parents In Business</i>	<i>Sig.</i>
Tukey HSD	0	1	.901
		2	.015
	1	2	.022
<i>Level Of Involvement</i>		<i>Level of Involvement</i>	<i>Sig.</i>
Tukey HSD	Very Less	Less	1.000
		Moderate	.186
		High	.194
		Very High	.021
Less	Moderate	High	.049
		High	.065
		Very High	.005
Moderate	High	High	.999
		Very High	.466
High	Very High	.663	

partial support for *H3c (Level of involvement in business significantly influences ESE)*.

The ESE of the respondents with work-experience (those who had worked before MBA in small medium enterprise, start-up, domestic company or multinational company) differed significantly from those who did not have prior work experience. Respondents with work experience had significantly higher ESE ($p=0.018$) at a 5% level of significance than those without work experience. On the contrary duration of work-experience did not significantly influenced the ESE of the participants($p=0.12$). Though, *H4a (Prior work experience is positively related to the level of ESE)* was supported but *H4b (Duration of prior work experience influences the level of ESE)* was rejected.

Entrepreneurial experience of starting their own venture in past and duration of entrepreneurial venture did not significantly influence the respondents' ESE ($p = 0.103$, $p = 0.9$). Hence no considerable support was obtained from the data for *H5a (Prior entrepreneurial exposure is positively related to the level of ESE)* as well as *H5b (Duration of Prior entrepreneurial experience is positively related to the level of ESE)*.

RESULTS AND DISCUSSION

The aim of the study was to understand the differences in the ESE based on domain of education, gender, family background, work experience and prior entrepreneurial exposure. The results mainly support the earlier research findings that ESE is related to gender, family background and work experience (Shapero and Sokol,1982;

Sandberg and Hofer,1987; Scott and Twomey,1988; Scherer *et al.*,1990; Matthews & Moser, 1996; Crant,1996; Menzies & Paradi, 2003; Carr and Sequeria,2007; Pruett *et al.*,2009; Maina, 2011; Alvarez-Herranz *et al.*,2011; Vanevenhoven and Liguori, 2013). The main point of departure from the primary assumption was significant difference in ESE of groups based on the domain of education and prior entrepreneurial experience. Most of the earlier studies, on the contrary reported significant influence of entrepreneurship education on the ESE (Chen *et al.*1998; De Noble *et al.*,1999; Menzies & Paradi, 2003; Kilenthong, Hills, and Monllor, 2008; Bernstein and Carayannis, 2012; Karlsson & Moberg, 2013; Rauch & Hulsink, 2015) though some researchers observed similar results where no significant difference was observed in ESE based on the domain of education(Tan *et al.*,1996, Noel,2002; Mc stay,2008). Our results indicated that EMBA students had higher average ESE scores than RMBA, but the difference was not statistically significant. The results may be related to the assumption that EMBA students had lower ESE at the entry point of course compared to RMBA students. This why opted for specialized course in Entrepreneurship. Further investigation into the initial ESE of EMBA and RMBA respondents may provide sufficient explanation to support the results.

The majority of previous works also support the role of prior entrepreneurial experience in positively influencing ESE (Kolvereid, 1996; Tkachev & Kolvereid,1999; Zhao *et al.*,2005; McStay,2008). Our results were contrary to these findings though ESE of respondents with prior entrepreneurial experience was higher than the respondents with no entrepreneurial experience but the difference was not found to be statistically significant. Though the results stand in sharp contrast to the existing belief, one of the possible explanations for this might be wide variations in the number of respondents with and without entrepreneurial experience. Only 15% of the total respondents had started their own business sometime in the past or are currently running their own business. It also highlights that in the Indian context, among those who pursue post-graduation, very few start their own business before or during the course. Due to low number of respondents with entrepreneurial experience, the influence of entrepreneurial experience duration could not be analyzed systematically as the sample size in few of the categories was not sufficient. Another possible explanation for the insignificant influence of prior entrepreneurial experience can be their more



realistic exposure to their own entrepreneurial skills and knowledge during the first entrepreneurial stint. The larger number of respondents with prior entrepreneurial experience may help in understanding the context in a more comprehensive manner.

This study's significance is that this is one of India's first studies attempting to measure the ESE using such a comprehensive scale. Also, other studies in varied geographies have mainly considered short-term entrepreneurship programs or elective courses in entrepreneurship, whereas the present study compares the two-year entrepreneurship education program with a regular post-graduate management program.

LIMITATIONS AND FUTURE DIRECTION

Our research is cross-sectional, a further longitudinal research with a similar theoretical framework may further add to this domain of knowledge especially regarding the influence of the domain of education on ESE. Future studies may also aim to analyze the difference in the ESE of entrepreneurship education students as compared to the students of disciplines other than management. Furthermore, in our study, we did not explore how these group difference in ESE based on demographic variables further correlate to entrepreneurial intention. Thus, it would be desirable to extend the study of the difference in ESE to entrepreneurial intentions for further contribution to the body of knowledge related to ESE.

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