

Interrelationship between Self-efficacy, Gender and the Entrepreneurial Career Choice

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Abstract

This research paper examines the interpersonal relationship between gender, self-efficacy, and entrepreneurial career choice. The present study has been conducted in Uttarakhand, a province of India. An item pool was developed on the basis of focus group interviews and literature survey. A scale was developed on the basis of item pool after an item analysis for checking its consistency and reliability and was included in the questionnaire. The questionnaire was administered on 880 graduation final year students studying in different colleges. An interpersonal relationship between gender, self-efficacy, and entrepreneurial career choice was examined using Pearson's chi-square test and Student's t-test. Results show significant relationship between gender and self-efficacy, self-efficacy and entrepreneurial career choice, and gender and entrepreneurial career choice. Male respondents were found to have higher level of self-efficacy than female respondents. This paper also explores that male respondents are more likely to opt for an entrepreneurial career than females.

Keyword: Self-efficacy, Entrepreneurial Career Choice, Gender, Chi-square test, t-test

Introduction

The level of self-efficacy differs gender-wise. Women are found to have less self-efficacy, therefore are less

intended to opt for an entrepreneurial career. But, they have been initiating to opt for an entrepreneurial career for last decade. Women are playing a vital role in modern economy of all the countries. The percentage of women involvement in entrepreneurial activities has recorded an up trend though. In advance market economies women own 25 percent of all business and participation of women in developing countries is also found to be increasing rapidly (Estes, 1999; Jalbert, 2000).

In order to identify and utilise the potentials of women and their talents of new venture creation in the future, we need to know them as well as the factors affecting their intention to opt for an entrepreneurial career. However, previous studies have found such intentions in women are in a weak form. Adult men in the United States are twice as likely as women to be in the process of starting a new business (Reynolds, Carter, Gartner, Greene, and Cox, 2002).

Many factors undoubtedly contribute to the disparity between men and women entrepreneurial career intention and behaviour and self-efficacy is one of them. It refers to one's self-confidence that he/she can get success in new venture creation with available resources, skills, and knowledge. It has set-up itself as a robust determinant of entrepreneurial intention and behaviour. Bandura (1992) found that women are more likely than men to limit their ultimate career choices because of their abilities and they do not opt for an entrepreneurial career because they think they lack the required skills (Chen, Greene, and Crick, 1998).

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Some other studies have also analysed the impact of gender (Delmar & Davidson, 2000; Matthews & Moser, 1995; Rodríguez & Santos, 2008; Scherer, Adams, Carley, & Wiebe, 1989; Ventura & Quero, 2013) and found that males have a larger preference for entrepreneurship than females. Kothari (2013) in his study found that males are more (approximately 2 times) intended than females to opt for an entrepreneurial career.

Motivated from the available literature on self-efficacy, this study is an attempt to explore the interrelationship between genders, self-efficacy, and entrepreneurial intention in Uttarakhand which is still an entrepreneurially deficit state, though it has completed 13 years of its subsistence.

Litreture Review

Self-efficacy refers to an individual's self-confidence in specific tasks and situations (Boyd & Vozikis, 1994). It represents one's personal abilities, skills, exposure, sound knowledge etc. about a particular task. Self-efficacy, or self-confidence in a given domain, is based on individual's self-perceptions for their skills and abilities. The concept of self-efficacy is defined as a person's judgement ability to execute an action, and is found to be a reliable predictor of a wide variety of goal directed behaviours (Bandura, 1987). This concept reflects an individual's innermost thoughts on whether they have the abilities perceived as important to task performance, as well as the belief that they will be able to effectively convert those skills into a chosen outcome (Bandura, 1989, 1997).

A group of researchers has noted, we are motivated throughout our lives by perceived self-efficacy, rather than by objective ability, and our perceptions deeply affect both our affective states and our behaviours (Markham, Balkin, & Baron, 2002). Not surprisingly, the concept of self-efficacy has been widely used in the theory of career choice to explain perceived career choice, career preferences, and ultimately, career-oriented behaviours (Betz and Hackett, 1981, 1983; Eccles, 1994; Hackett and Betz, 1981).

Gender and Self-Efficacy

The literature of 'the career psychology' provides a substantial amount of evidence that gender is a significant variable explaining differences in career self-efficacy

(Lent & Hackett, 1987; Nevill & Schleckler, 1988). Overall, empirical evidence suggests that women are likely to have lower expectations than men for success in a wide range of occupations (Eccles, 1994). Not surprisingly, significantly lower levels of self-efficacy among women have been found in careers historically perceived as "non-traditional" for them (Bandura, Barbaranelli, Caprara, & Pastorelli, 2001; Betz & Hackett, 1981; Scherer, Brodzinski, & Wiebe, 1990). These differences appear in adolescence as well. A recent study on U.S. teens shows that, though females and males have comparable levels of self-confidence in aggregate, there are important gender differences in key areas (Marlino & Wilson, 2003). As in the studies with adults, these gender differences are primarily observed in domains that are stereotypically associated with "male" skills, including business/entrepreneurial careers.

In addition to these findings on gender differences in self-efficacy, there is significant evidence to suggest that women are more likely than men to limit their career aspirations and interests because they believe that they lack the necessary capabilities (Bandura, 1992). Several other researchers have examined the interactions between entrepreneurial self-efficacy, entrepreneurial intentions, and gender. They found that women have both lower entrepreneurial self-efficacy and lower entrepreneurial intentions (Chen *et al.*, 1998; Chowdhury & Endres, 2005; Gatewood, Shaver, Powers, & Gartner, 2002; Kourilsky & Walstad, 1998). A research by Kickul, Wilson, and Marlino (2004) supported these findings by demonstrating a direct relationship between self-efficacy and entrepreneurial intentions in adolescent girls.

Self-efficacy and Entrepreneurial Career Choice

A robust research in the field of entrepreneurship has explicitly investigated the relationship between entrepreneurial self-efficacy and entrepreneurial career choice. Individuals with higher entrepreneurial self-efficacy have higher entrepreneurial intentions (Chen *et al.*, 1998; Krueger, Reilly, & Carsrud, 2000; Scott & Twomey, 1988; Segal, Borgia, & Schoenfeld, 2002; Wang, Wong, & Lu, 2002). Respondents with high entrepreneurial self-efficacy also have higher degrees of belief that they possess a viable idea for a new business.

Similar incorporation of self-efficacy into proposed models of entrepreneurial career intentions (Krueger *et*

al., 2000; Shapero & Sokol, 1982) has been rigorously tested (Krueger, 1993) and shown to have strong predictive ability. Other researchers have also focused on creating and testing scales for entrepreneurial self-efficacy, and have been successful in demonstrating that these have good predictive value in differentiating those with entrepreneurial intentions from those who do not (Chen *et al.*, 1998).

Objectives

The present study aims to explore interpersonal relationship between gender, self-efficacy, and entrepreneurial career choice in entrepreneurially deficit state Uttarakhand (India).

Hypotheses

The available literature on gender, self-efficacy and entrepreneurial career choice leads this study to form and test the following major null hypotheses:

H₀₁: “There is no difference between male and female regarding to their perception for self-efficacy”.

H₀₂: “The mean scores of the respondents with entrepreneurial career choice with respect to their self-efficacy do not differ from the respondents with non-entrepreneurial career choice”.

H₀₃: “Gender has no impact on entrepreneurial career choice”.

Research Methodology

An item pool to develop a scale to measure self-efficacy was constructed on the basis of the literature review and focus group interviews of the students studying in different colleges of the state were conducted. To insure reliability of the scale, a pilot survey was conducted and the sample of 50 students representing different streams of studies was taken from different colleges. The collected information was coded (numerically) and analysed using statistical software SPSS 19.

The internal consistency of the scale was evaluated using split-half method, and reliability coefficient was computed. Item analysis and reliability test were followed

by preparation of final questionnaire. The questionnaire contains major three variables i.e. gender, entrepreneurial career choice, and self-efficacy. Entrepreneurial career choice is a dependent variable whereas gender and self-efficacy are the independent variable of this study. To explore the entrepreneurial career choice, respondents were asked “what will be their most preferable area of work after completing graduation”? A pool of several items representing self-efficacy was included in the questionnaire as independent variable where the responses of the respondents were recorded on a 5-point Likert scale ranging from 1 for completely disagree to 5 for completely agree. A multi-stage random sampling method was used to collect the data. Information provided by 880 respondents is used in this study. After editing and coding, the data were analysed using statistical software ‘SPSS 19’. To test different hypotheses t-test and χ^2 test are used. Findings are explained in the following section.

Results and Discussion

The following sections reveal the results of this study:

Gender and Self-efficacy

There may be a difference between males and females regarding their level of self-efficacy. Pearson’s chi-square test is worked out to examine this relationship between gender and self-efficacy. The difference between males and females regarding their self-efficacy is found to be statistically significant in case of four items out of total nine. These items are numbered as 3, 4, 5, and 6 in the item pool included in the questionnaire. Pearson’s chi-square value and p value for these items are- 9.539 (0.04), 23.929 (0.000), 11.979 (0.010), and 12.910 (0.010) respectively at 5 percent level of significance (values in the brackets are p values).

To check the following null hypothesis, the mean scores of the items of male and female respondents have been taken:

“There is no difference between male and female regarding to their perception for self-efficacy”.

These mean scores are compared using t-test. The level of significance (α level) to reject the null hypothesis is set as 0.05. Results are figured in Table 1.

Table 1: Significance of the Difference between Male and Female with Respect to their Self-Efficacy

S N	Item Description	Mean Score		Standard Deviation		t	p
		Male (\bar{X})	Female (\bar{X})	Male (σ)	Female (σ)		
1	Highly Confident to get success in business	3.739	3.598	1.277	1.297	1.612	0.107
2	Ability to minimise risk involved in business	3.898	3.751	1.214	1.243	1.763	0.078
3	Opportunity recognition and exploration	3.911	3.685	1.155	1.192	2.846	0.005
4	Patience to run a business	3.916	3.350	1.118	1.321	4.685	0.000
5	Problem solving ability	3.693	3.465	1.192	1.221	2.791	0.005
6	To have experience	2.938	2.672	1.361	1.294	2.934	0.003
7	To have sufficient capital	2.710	2.751	1.339	1.258	0.465	0.642
8	Availability of suitable location	2.798	2.669	1.382	1.324	1.390	0.165
9	Availability of skilled human resource	2.912	2.832	1.380	1.355	0.857	0.392
Overall		30.515	28.953	7.409	7.833	3.023	0.003

The results show that respondents differ in respect to their perception to self-efficacy in case of only four items. These items are numbered as 3, 4, 5, and 6 respectively in the item pool. For remaining five items, the differences in mean scores of the respondents with entrepreneurial and non-entrepreneurial career choice are statistically non-significant (no p value is less than 0.05). However, mean score of the male respondents of all the items is greater than the mean score of the female respondent. Overall mean score of the male respondent with respect to their perception to self-efficacy is also high (30.8515) than the female respondents (28.953) with $p = 0.003$. This finding rejects the null-hypothesis of this study.

Self-efficacy and Entrepreneurial Career Choice

The Pearson's chi-square test is used to examine the relationship between self-efficacy and entrepreneurial career choice. The difference between respondent's perception to self-efficacy and entrepreneurial career choice was found to be statistically significant in case of five items out of total nine. These items are included in the questionnaire as item no. 1, 3, 5, 7, and 8. Remaining four items do not show any significant results.

To observe the appropriate justification and also to check the following null-hypothesis the mean score of the items has been taken:

“The mean scores of the respondents with entrepreneurial career choice with respect to their self-efficacy do not differ from the respondents with non-entrepreneurial career choice”.

These mean scores are compared using t-test. The level of significance (α level) to reject the null hypothesis is set as 0.05. Results are figured in Table 2.

Results show that the mean score of respondents with entrepreneurial career choice is different from other respondents in respect to all the items except item no. 2 and 4 of the item pool. These two items are stated in the questionnaire as; ‘an individual can minimise the business risk with the help of knowledge and skill’ ($p = 0.059$), and ‘have sufficient patience to run a business’ ($p = 0.441$). Though, Mean scores of all items are high for the respondents with entrepreneurial career choice. Overall mean score of the respondent with entrepreneurial career choice with respect to their perception to self-efficacy is also high (32.8714) than the respondents with non-entrepreneurial career choice (29.5765) with $p = 0.001$. This finding rejects the null-hypothesis of this study.

Table 2: Significance of Difference between the Respondents with Entrepreneurial and Non-Entrepreneurial Career Choice for Self-efficacy

S. No.	Item Description	Mean Score		Standard Deviation		t	p
		Ent. (\bar{X})	Non Ent. (\bar{X})	Ent. (σ)	Non-Ent. (σ)		
1	Highly Confident to get success in business	4.114	3.641	1.245	1.284	2.967	0.003
2	Ability to minimise risk involved in business	4.100	3.811	1.194	1.229	1.891	0.059
3	Opportunity recognition and exploration	4.186	3.782	1.133	1.175	2.770	0.006
4	Patience to run a business	3.857	3.740	1.333	1.215	0.771	0.441
5	Problem solving ability	3.971	3.562	1.063	1.217	3.057	0.003
6	To have experience	3.157	2.794	1.326	1.336	2.184	0.029
7	To have sufficient capital	3.086	2.696	1.442	1.288	2.404	0.016
8	Availability of suitable location	3.186	2.704	1.266	1.359	2.861	0.004
9	Availability of skilled human resource	3.214	2.848	1.361	1.366	2.152	0.032
Overall		32.871	29.577	8.083	7.538	3.488	0.001

Gender and Entrepreneurial Career Choice

Gender is likely to be one of the variables influence entrepreneurial career choice. It has been found that some of the societies do not allow females to opt for an entrepreneurial career, some other societies even not allow them to be employed. Most of the societies are still male dominating. In these societies women are allowed to enter in selected occupations only and they are rarely allowed to run their business. To examine the influence of gender in career intention the following null-hypothesis was formed and examined:

“Gender has no impact on entrepreneurial career intention”.

Finding shows out of 880 respondents 499 are male and 381 are female. Out of these 499 male respondents 50 (10.00%) are likely to opt for an entrepreneurial career and rest 449 (90.00%) respondents are likely to opt for a non-entrepreneurial career. On the other hand out of total 381 female respondents only 20 (5.25%) are likely to opt for an entrepreneurial career (Table 3). It shows that male respondents are more (approximately 2 times) intended to opt for entrepreneurial career rather than female respondents. This difference between gender and career choice is statistically significant with Chi-square value 6.716 ($p = 0.010$). This finding rejects to the null-hypothesis, and confirms that gender has a significant impact on entrepreneurial career choice.

Table 3: Gender-wise Distribution of the Respondents

S. No.	Career Choice	Gender		Total
		Male	Female	
1.	Ent.	50 (10.00%)	20 (5.25%)	70 (7.95%)
2.	Non-Ent.	449 (90.00%)	361 (94.75%)	810(92.05%)
Total		499 (100.0%)	381 (100.00%)	880 (100.0%)

Pearson's Chi-Square value = 6.716, $p = 0.010$

The above findings show the interpersonal relationship between gender, self-efficacy, and entrepreneurial career choice can be more precisely explained by Fig, 1.

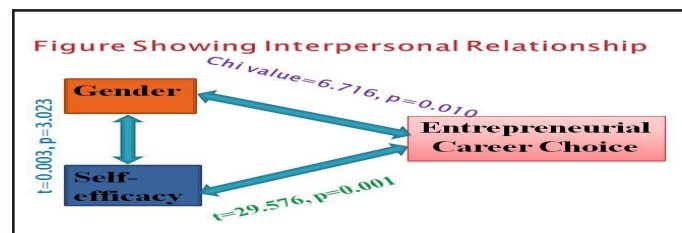


Fig. 1: Interpersonal Relationship between Gender, Self-efficacy, and Entrepreneurial Career Choice

Conclusion

Self-efficacy, which refers to believe on oneself to perform a task successfully, is found significantly explaining the difference in career choice. Study shows that a person with

abilities to start and control a business, technical skills, business exposure, and sound business knowledge is more likely to opt for an entrepreneurial career. Supporting the previous studies (Bandura *et al.*, 2001; Betz & Hackett, 1981; Scherer *et al.*, 1990) this study shows that gender has a strong effect on both entrepreneurial self-efficacy and entrepreneurial career choice.

Further finding of this study is that females are less likely to opt for an entrepreneurial career and also have less self-efficacy than males that supports the findings of Chen *et al.* (1998), Chowdhury and Endres (2005), Gatewood *et al.* (2002), Kourilsky and Walstad (1998) that women have both lower entrepreneurial self-efficacy and lower entrepreneurial intentions.

The overall findings of this study conclude that male respondents possess high level of self-efficacy than females, hence are more likely to opt for an entrepreneurial career.

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