

Role of Entrepreneurship Education and Entrepreneurial Competencies in Improving Performance Among Women Entrepreneurs

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Abstract

The purpose of this study is to investigate the impact of entrepreneurial competencies and learning on performance among women entrepreneurs. Further, the study intends to explore the significant role of entrepreneurial education. Data were collected from 200 women entrepreneurs working in Jodhpur city of Rajasthan (western India) on the basis of purposive sampling. Statistical techniques like confirmatory factor analyses, structural equation modelling, and hierarchical regression were used to analyse the data. Further, reliability and validity tests were also performed. The study finds that entrepreneurial competency is indirectly related with performance through entrepreneurial learning. Furthermore, it was found that entrepreneurial education act as a moderator to improve the relationship between entrepreneurial competencies and learning/ performance. The study is limited to Jodhpur city only. It is one of the limited numbers of studies that have empirically addressed the role of entrepreneurial education among women entrepreneurs. This study will be helpful for women entrepreneurs in enhancing their performance through effective learning for running a successful venture. The results extend the understanding of the important role of entrepreneurial education in improving entrepreneurial learning and performance among women entrepreneurs. It further establishes the indirect relationship between entrepreneurial competencies and performance through entrepreneurial learning that creates value and competitive advantages for them.

Keywords: Entrepreneurial Competencies, Entrepreneurship Education, Women Entrepreneur, Performance

Introduction

Entrepreneurs are considered as economic agents who develop a special learning capability to identify entrepreneurial opportunities and outcomes (Fiet, 2002). Higher level of entrepreneurship in a country brings greater level of economic growth and innovation. Literature reveals that there is a strong relation between entrepreneurial activity and economic performance (Van Praag & Versloot, 2007) and entrepreneurship assumes to play a prominent role in the establishment of global business climate (Lado & Vozikis, 1996). It is further believed that high levels of entrepreneurship can be reached through education, especially education in entrepreneurship. In the United States, entrepreneurship and entrepreneurial education are widely recognised to have made tremendous progress (Finkle, Kuratko, & Goldsby 2006; Solomon 2007; Solomon, Duffy, & Tarabishy 2002). Moreover, Munoz, Mosey, and Binks (2011) squabble that to maximise entrepreneurship contribution, it is essential to focus on budding an approach that could provide insights into how to enhance learning capabilities as they are considered fundamental for improving entrepreneurial performance (Ardichvili, Cardozo, & Ray, 2003; Carrier, 2007). Learning is gaining acceptance as an integral element of entrepreneurial practice and development (Cope, 2005). Entrepreneurship education is particularly effective in increasing interest in entrepreneurial careers (Kourilsky, 1995). It helps in fuelling the pipeline of aspiring women entrepreneurs because of the strong role that education plays in raising their levels of self-efficacy. It primarily focuses on the development of skills or attributes that enable them to

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identify and make the best of the available opportunity. Educational programmes for entrepreneurship encourage a wide range of skills including creative thinking, teamwork, risk management, and financing which can be taught formally or informally in large group settings or individually at the national or local levels (Arthur, Hisrich, & Cabrera, 2012). High entrepreneurial performance is an indicator of successful venture of an entrepreneur. To address the issue concerning the performance of an entrepreneur, it is important not to ignore the significance of entrepreneurial education in intensifying the competency of an individual to explore more of his ability and willingness that assist in the success of the venture, specifically in case of women entrepreneurs.

Entrepreneurship literature has highlighted the need to better understand the dynamic nature of competencies in the entrepreneurship field (Unger, Rauch, Frese, & Rosenbusch, 2011). The lack of critical thinking exists in entrepreneurship education and despite the increasing demand, research and knowledge about how to teach entrepreneurship remains relatively underdeveloped (Fayolle, 2013, Colette, 2013; Dickson, Solomon, & Weaver, 2008; Kirby, 2004; Honig, 2004). It is unknown how the entrepreneurial education impacts willingness to engage in entrepreneurial activity and how learning processes are responsible for these effects (Von Graevenitz, Harhoff, & Weber, 2010). Henry, Hill, and Leitch (2005) and Jones and Matlay (2011) also note a wide divergence in educational entrepreneurship contents. The theoretical and conceptual foundations are needed to support entrepreneurship programmes and courses (Honig, 2004; Fayolle, 2013). Literature suggests that there are studies that exist regarding the effects of entrepreneurial education in higher education (Ramos-Rodrigues, Medina-Garrido, Lorenzo-Gómez, & Ruiz-Navarro, 2010; Sanchez, 2010; Solomon *et al.*, 2002; Souitaris, Zerbinati, & Al-Laham 2007), however little attention has been paid on the role of entrepreneurial education in employees working in entrepreneurial units. Munoz *et al.* (2011) argue that for entrepreneurship to maximise its contribution, it is necessary to focus on developing an approach that could provide insights into how to enhance learning capabilities. Following the trend of entrepreneurship development (Kuratko, 2005), the connection between entrepreneurial learning and performance is important for entrepreneurship research and practice. Comprehensive studies of the competencies of female entrepreneurs are rare; there is more research into entrepreneurial competencies in general.

Objective of the Study

- To identify the mediating role entrepreneurial learning in the relationship between entrepreneurial competencies and performance among women entrepreneurs.
- To explore the moderating role of entrepreneurial education in strengthening the relationship between entrepreneurial competencies and its outcome viz., learning and performance.

The paper is structured as follows. First, the paper presents the literature review and hypothesis formulation. In the next section, methodology has been described which include the sample, measures and methods used for data analysis. Based on the sample hypotheses are tested. Finally, results, conclusion and managerial implications are presented. The paper ends up with the limitations and future research avenues.

Review of Literature and Development of Hypothesis

Entrepreneurial Competencies and Performance

The term competencies refers to the characteristics such as knowledge, skills, aspects of self-image, social motives, feeling, and acting which is demonstrated by an individual to achieve the desired performance or goal within organisation (Dubois, Hulthen, & Pedersen, 2004). The utilisation of adequate executive competencies helps in productivity maximisation which stimulates employees to organise their tasks more efficiently. Entrepreneurial competencies are required for executives to achieve excellence in performance and to get sustainable growth in a competitive business environment. Entrepreneurial competencies support new venture creation, survival, and growth (Bird, 2002). In previous researches, entrepreneurial competencies have been understood in terms of vision to spot business opportunities, understanding of market drivers and competitors, ability to work independently and taking proactive measures to achieve their goals (Baum & Locke, 2004). Entrepreneurial competence derives from the supposed link between competencies and the birth, survival and growth of a venture (Baum, Locke, & Smith, 2001). There is evidence

to suggest that understanding of the competencies in small businesses will support the development of competence that have consequences for successful business growth (Churchill & Lewis, 1983; Low & MacMillan, 1988). Lerner and Almor (2002), in one of the few studies to examine a range of entrepreneurial competencies in women, found evidence of the link between an entrepreneur's skills and venture performance and growth. Thus, we hypothesise that:

H1: Entrepreneurial competencies lead to high performance.

Entrepreneurial Competencies, Learning and Performance

Entrepreneurs learn from different types of experience, including their early life, career, previous ventures, formal and informal activities, role models, and social life (Erikson, 2003; Lans, Wesselink, Biemans, & Mulder, 2004; Politis, 2008; Rae & Carswell, 2001). This process is stimulated or affected by attitudinal, emotional, motivational, and personality factors like self-efficacy, confidence, motivation to achievement, desire for challenge, recognition, and determination (Cope & Watts, 2000). Entrepreneurial learning is also an interactive process between the entrepreneurs and their operating contexts through various social relationships inside and outside their organisations (Down, 1999). These relationships help to provide complementary knowledge and skills to the entrepreneurs (Ravasi & Turati, 2005), mentorship support (Sullivan, 2000), communication and task accomplishment (Lans, Hulsink, Baert, & Mulder, 2008), and co-participation in decision-making (Taylor & Thorpe, 2004). To examine the roles of learning behaviours in entrepreneurial learning, it is necessary to have a proper framework that provides a strong conceptual connection between the process and the outcomes of effective learning. The entrepreneurial learning capabilities are considered fundamental for creating entrepreneurial performance (Ardichvili *et al.*, 2003; Carrier, 2005, 2007; Politis, 2008). Learning is gaining acceptance as an integral element of entrepreneurial practice and development (Cope, 2005). In this concern, Minniti and Bygrave (2001) suggested that entrepreneurship is a process of learning and a theory of entrepreneurship requires a theory of learning. In addition, learning describes a continuous process of responding to diverse

personal and environmental demands that arise from the interaction between experience, concept, knowledge, and action (Kayes, 2002). Entrepreneurs are increasingly being expected to assume personal responsibility and being in charge of their own intellectual growth and learning initiative with a strong command on the contextual processes related to their own development. Previous researches have integrated the relationship between learning and two important outcomes that enable the attainment of entrepreneurial status i.e., learning intention to become a successful entrepreneur and to achieve the entrepreneurial performance (Dollinger, 2008; Zhao, Seibert, & Lumpkin, 2010). Thus, we hypothesise that:

H2: Entrepreneurial competencies are indirectly related to entrepreneurial performance through entrepreneurial learning.

Entrepreneurial Competencies, Performance and Entrepreneurship Education

Entrepreneurship education is explained as the formal transfer of business knowledge (Young, 1997) or as a collection of formal lessons that educate, inform and train people who are interested in developing new businesses venture (Bechard & Toulouse, 1998). Its main objective is to raise the level of entrepreneurial behaviour that explores the entrepreneurial potential among people (Laukkanen, 2000). Entrepreneurship education is important because it encourages economic and social development (Rasmussen & Sorheim, 2006). Significantly, entrepreneurship education is vital because the complexity of the entrepreneurial phenomenon requires specific skills among entrepreneurs. Entrepreneurs struggle with various challenges that generate the need among entrepreneurs to have certain capabilities that allow them to be successful in their activities (Neck & Greene, 2011). Entrepreneurial activity pursues different profile from other professional activities and therefore entrepreneurs need specific education for this particular type of activity (Jones & Penaluna, 2013). Entrepreneurship competencies are the competencies required to run a successful entrepreneurial action that includes a set of interrelated personality traits, skills, and knowledge possessed by the potential entrepreneur (Man, Lau, & Chan, 2002). Entrepreneurial competencies are often described as psychological or social skills (Tautila, 2010) and embrace some significant attributes such as leadership, the ability to identify

opportunities, creativity, innovation, analytical skills, negotiation, communication, problem solving, exposure to technological change, flexibility and adaptability, critical thinking, networking ability and teamwork building, among others (Jones & Penaluna, 2013; Solomon *et al.*, 2002). As specified by Jones and Matlay (2011), the effectiveness of entrepreneurship education involves a unique relation that develops an individual rather than delivering the facts. Entrepreneurship is a phenomenon that involves human action where people act to exploit opportunities so that the role of human action cannot be overlooked (Shane, Locke, & Collins, 2003). Also, Shaver and Scott (1991) signified the importance of economic circumstances, as well as that of marketing and finances. Therefore, entrepreneurship competencies are seen as behavioural and observable that is linked to the origin, growth, and survival of companies (Bird, 1995). The effect of general education on entrepreneurial performance is positive (Van der Sluis, Van Praag, & Van Witteloostuijn, 2006). In this effect, entrepreneurial training is helpful for individuals who are starting their own business (Dickson *et al.*, 2008; Karlan & Valdivia 2011). Entrepreneurial education aims at teaching the mechanism that helps to understand how to put theory into practice and to understand what entrepreneurship is (Meyer, 2011). This results in gain of self-confidence, motivation, proactively, creativity and learning how to work as a team. Thus, we posit that:

H3: Entrepreneurship education moderates the relationship between Entrepreneurial competencies and performance.

Entrepreneurial Competencies, Entrepreneurial Learning and Entrepreneurship Education

It is essential to assess the factors that give rise to entrepreneurial behaviour. According to Locke (2000), entrepreneurship is the result of integrating cognitive factors (knowledge and skills) with motivational factors. Thus, if entrepreneurship education aims to contribute to increasing entrepreneurial activity, it should promote the acquisition and consolidation of knowledge and skills (Hynes, 1996) that may motivate them to make entrepreneurial efforts. Entrepreneurship education should stimulate the development of knowledge base i.e., knowledge in business management and entrepreneurship competencies i.e., behaviour traits

and skills to create value and to foster more-competent entrepreneurs (Neck & Greene, 2011) who are capable of coping with the complexity, disruption and uncertainty of entrepreneurship environments (Ronstadt, 1990). Mitchelmore and Rowley (2010) revealed that competent entrepreneurs have greater chance to choose the best business opportunities; they can better manage their businesses from a strategic point of view, and can take quality actions. However, besides empowerment, it is also important to motivate them to entrepreneurial action. The factors that motivate individuals to take entrepreneurial action are critical prerequisite for global comprehension of the entrepreneurial process (Herron & Sapienza, 1992; Storen, 2014). Furthermore, it is vital to uncover the motivational drivers of entrepreneurial behaviour so that policy makers could make more effective programmes to support and promote successful entrepreneurship (Hessels, Van Gelderen, & Thurik, 2008). Entrepreneurship education seeks to increase the number and quality of entrepreneurs entering the economy and represents a mechanism facilitating entrepreneurial activity (Laukkanen, 2000). Thus, entrepreneurship education contributes to increased entrepreneurial activity; it should also promote the acquisition and consolidation of knowledge and competencies that motivate them to take entrepreneurial action. Entrepreneurial education has emerged as a critical tool in the development of the necessary competencies for creating businesses. The assumption underlying entrepreneurial education programmes is that entrepreneurial skills can be taught and are not a matter of innate personality characteristics. Entrepreneurs can be made as it is possible to learn how to be an entrepreneur through different specific educational policies and programmes (Erikson 2003). Therefore, we propose that:

H4: Entrepreneurship education moderates the relationship between entrepreneurial competencies and performance.

Methodology

Sample Design and Data Collection

Primary source was found relevant for gathering requisite information pertaining to the research problem and it is used in the present study as well. Primary data based on the

first hand information have been collected from various entrepreneurial units (textile) located in Jodhpur city of Rajasthan through self-modified and well-structured questionnaire. In total, 20 entrepreneurial units (textile units) were purposively contacted who had adopted the entrepreneurial education programme for their employees and from each entrepreneurial unit 12 to 14 women entrepreneurs were contacted on average bases. In order to evaluate the clarity and appropriateness of the items in the questionnaire and to finalise the initial instrument, a pilot survey was conducted on a sample of 30 respondents. For pilot testing, respondents were 30 women entrepreneurs who were contacted on convenience basis. After analysing the data collected during pilot survey, all the items were found to be relevant and therefore, these items were considered for final survey as well. The final questionnaire was circulated among 240 women entrepreneurs but only 210 respondents returned the complete questionnaires. Purposive sampling was used to collect the final data. The study is confined to Jodhpur city of Rajasthan and the respondents were only women entrepreneurs working with various entrepreneurial units dealing in textile.

Measures

The extant literature has been reviewed to generate items pertaining to different dimensions of entrepreneurial competencies, entrepreneurial learning, performance, and entrepreneurship education. In order to extract the information, a well-structured questionnaire was developed. Some items were kept in negative form to judge the active participation of the respondents and to ensure the internal consistency of the data. Entrepreneurial competencies is comprised of 37 items borrowed from Mitchelmore and Rowley (2010), out of which 11 items pertained to personal and relationship competencies, eight items relating to business and management competencies, nine items for entrepreneurial competencies and remaining nine items explaining human relations competencies. Further, entrepreneurial learning is composed of 10 items developed based on the study conducted by Man (2012). In addition, entrepreneurial performance has been measured through seven items adapted from Gomezelj and Kusce (2013). Twenty three items were extracted from Ruskovaara and Pihkala (2013) explaining entrepreneurship education. The instrument comprised of total 87 items, out of which 10 pertained to organisational demographics and remaining items

belonged to four major constructs of the study. A 7-point Likert scale was employed ranging from “strongly disagree” (5) to “strongly agree” (1).

Normalcy, Reliability and Validity

Normalcy of data is the prerequisite for applying any multi-variate research technique. Graphical methods such as scatter plot and box plot were applied for identifying the outliers and to verify the normalcy of the data (Grubbs, 1969). Item-wise outliers were checked through box plots and out of 210 respondents, six outliers were observed which were finally deleted from the dataset. Thus, the usable sample arrived at 204. Numerical method was also applied to confirm the normalcy of the data and for this the value of skewness and kurtosis were examined (Mardia, 1970). Result suggest that the data are normal as the values of Skewness and kurtosis were found to appear within -1 and +1 which is closer to zero (Gao, Mokhtarian, & Johnston, 2008). The value of skewness was -.26 and kurtosis was -.19 respectively. Thus, we can conclude that the data are normally distributed. After normalcy, common method variance was confirmed to overcome the issue of biasness from the data. The study applied three different techniques to analyse the common method variance (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). First, the study applied Harman’s single-factor test. As per this approach, common method variance is said to be present when a single factor constitutes the majority of covariance i.e., more than 50%. In the present study, four factors were emerged with 62.24% variance explained and variance explained by first factor is 17.63%. Thus, it is concluded that the data is not affected by the responses obtained. Second, confirmatory factor analysis was employed in a single-factor model and all the manifest variables of the latent constructs were loaded in single factor. Results found poor model fit (CMIN/df= 8.63; GFI= .33; AGFI= .34; NFI= .36; TLI= .43; CFI= .37; RMSEA= .20). Lastly, correlation matrix of the latent constructs found that the highest value in the correlation matrix is 0.32, which is less than the threshold criteria of 0.90 (Pavlou, Liang, & Xue, 2007). Hence, results reveal that common method variance is not a problem in the present study (Table 1). In order to assess the fitness, reliability and validity of the latent constructs, confirmatory factor analysis (CFA) was performed. Reliability of the data has been evaluated through Cronbach’s alpha and composite reliability (CR). In the present study, the value of CR of all the

latent constructs is above .90, which indicates internal consistency of the data (Table 2). Furthermore, validity of scale has been established through construct validity, which includes convergent validity (Lim & Ployhart, 2006) and discriminant validity (Fornell & Larcker, 1981). Convergent validity has been established through factor loading and average variance extracted. In the present study convergent validity stands established as majority of factor loadings and average variance extracted are either closer to or above .50. Discriminant validity examines the degree to which a construct is distinct from other (Hair, Black, Babin, Anderson, & Tatham, 2009). Results suggest that explained variance estimate (AVE) on the diagonal is greater than the corresponding inter-factor squared correlation estimates below the diagonal (Malhotra, 2007). Thus, discriminant validity gets established, there by implying that major constructs are unique (Table 3). Moreover, the results of measurement models reveal that goodness-of-fit (GFI), adjusted goodness-of-fit (AGFI), normed fit index (NFI), Tucker-Lewis index (TLI) and comparative fit index (CFI) exceeded the recommended value of .90 and Chi-square statistics is less than recommended 5.0 level (Inman, Sale, & Green, 2009) (Table 4).

Results

Confirmatory factor analysis was performed on the four major constructs of the study viz., entrepreneurial competencies, entrepreneurial learning, performance and entrepreneurship education. Three items of entrepreneurial learning, one of entrepreneurship education and one items

of performance got deleted, as the standardised regression weight (SRW) was below the threshold criterion of .50. Valid and reliability of the models have been established. Reliability got confirmed through Cronbach's alpha and composite reliability. Model represents good fit as CMIN/df, GFI, AGFI, NFI, TLI, CFI and RMSEA were within the threshold criteria. Based on structural equation model (SEM) and regression the hypotheses of the study were tested. It becomes evident from the SEM results that entrepreneurial competencies are significantly related with performance among women entrepreneurs. ($\beta=.31$, $p=0.00$), hence H1 stands accepted.

Further, impact of entrepreneurial competencies on entrepreneurial learning is also found to be positive and significant ($\beta=.36$, $p=0.00$). On the other hand, entrepreneurial leaning also affects performance ($\beta=.22$, $p=0.00$). In the last step, the impact of entrepreneurial competencies on performance has been assessed in the presence of entrepreneurial learning and it was found that the direct relationship between entrepreneurial competencies and performance become weak ($\beta=.12$, $p=0.00$) suggesting the partial mediation of entrepreneurial learning. Thus, H2 is accepted (Table 5). Furthermore, the study has also examined the moderating role of entrepreneurship education in improving the relationship between entrepreneurial competencies and its impact over entrepreneurial learning and performance. In this concern, regression results presents that the interaction effect of entrepreneurial competencies and entrepreneurship education on entrepreneurial learning ($\beta=.42$, $p=0.00$) and performance ($\beta=.39$, $p=0.00$) is positive and significant. Thus, H3 and H4 are accepted (Tables 6 and 7).

Table 1: Correlation Matrix and Descriptive Statistics

S. No.	Variable	Mean	Standard Deviation	1	2	3	4
1.	Entrepreneurial competencies	3.44	1.96	1			
2.	Entrepreneurship education	3.10	1.50	.32	1		
3.	Entrepreneurial learning	3.87	1.44	.24	.31	1	
4.	Performance	3.66	1.38	.27	.18	.16	1

Table 2: Reliability and Validity of Latent Constructs

S. No.	Constructs	Average Variance Extracted	Composite Reliability	Cronbach's Alpha
1.	Entrepreneurial competencies	.75	.98	.75
2.	Entrepreneurship education	.72	.99	.79
3.	Entrepreneurial learning	.80	.97	.80
4.	Performance	.69	.99	.84

Table 3: Discriminant Validity of Latent Constructs Relating Entrepreneurial Competencies with Performance

Constructs	Entrepreneurial Competencies	Entrepreneurial Learning	Entrepreneurship Education	performance
Entrepreneurial competencies	(0.75)	-	-	-
Entrepreneurship education	.10	(0.72)	-	-
Entrepreneurial learning	.05	.09	(0.80)	-
Performance	.06	.03	.02	(0.69)

Note: Values on the diagonal axis represents the average variance extracted (AVE). Values below the diagonal axis are squared multiple correlation.

Table 4: Results of Measurement Models and Structural Model

S. No.	Constructs	CMIN/df	GFI	AGFI	CFI	NFI	TLI	RMSEA
1.	Entrepreneurial competencies	1.34	.94	.94	.93	.96	.97	.04
2.	Entrepreneurship education	1.46	.91	.93	.96	.94	.95	.03
3.	Entrepreneurial learning	1.76	.94	.95	.95	.91	.92	.04
4.	Performance	2.13	.95	.97	.98	.95	.93	.05
5.	Structural model	2.17	.93	.93	.94	.92	.91	.02

Table 5: Mediation of Entrepreneurial Learning in Entrepreneurial Competencies and Employee Performance Relationship

Variables	Model 1 Employee performance	Model 2 Employee performance	Model 3 Entrepreneurial learning	Model 4 Employee performance
Control variables	$\beta=.022$ (.240)	$\beta=.033$ (.210)	$\beta=.034$ (.212)	$\beta=.027$ (.324)
Age	$\beta=.031$ (.233)	$\beta=.031$ (.311)	$\beta=.032$ (.241)	$\beta=.024$ (.350)
Marital status	$\beta=.023$ (.132)	$\beta=.032$ (.231)	$\beta=.043$ (.344)	$\beta=.046$ (.321)
Experience				
Independent variable Entrepreneurial competences		$\beta =.31$ (.000)	$\beta =.36$ (.000)	$\beta =.12$ (.000)
Mediator Entrepreneurial learning				$\beta =.22$ (.000)
R ²	.241	.311	.376	.401
F value	244.101	344.612	336.142	422.146

Note: Model 1=Impact of control variables on dependent variable (employee performance); Model 2=Direct effect of independent variable (entrepreneurial competences) on dependent variable; Model 3=Impact of independent variable on mediator (entrepreneurial learning); Model 4=Impact of independent as well as mediator on dependent variable. Values in the parentheses represent significance level.

Table 6: Moderation of Entrepreneurship Education in Entrepreneurial Competencies and Entrepreneurial Learning Relationship

Dependent Variable (EL)	Model 1	Model 2	Model 3	Model 4	Model 5
Control variables	$\beta=.021$ (.211)	$\beta=.023$ (.314)	$\beta=.025$ (.342)	$\beta=.064$ (.323)	$\beta=.041$ (.372)
Age	$\beta=.022$ (.200)	$\beta=.054$ (.241)	$\beta=.037$ (.350)	$\beta=.043$ (.460)	$\beta=.021$ (.400)
Marital status	$\beta=.031$ (.244)	$\beta=.036$ (.342)	$\beta=.026$ (.246)	$\beta=.032$ (.254)	$\beta=.030$ (.368)
Experience					
Independent Variable Entrepreneurial competencies		$\beta=.36$ (.000)		$\beta=.31$ (.000)	$\beta=.28$ (.001)
Moderator Entrepreneurship education			$\beta=.412$ (.000)	$\beta=.34$ (.000)	$\beta=.34$ (.000)
Interaction Entrepreneurial competencies× Entrepreneurship education					$\beta=.42$ (.000)
R ²	.120	.213	.314	.412	.444
F value	2.145	4.563	10.412	12.313	14.412

Note: Dependent variable-EL (entrepreneurial learning). Model 1=Impact of control variables on dependent variable (EL); Model 2=Direct effect of independent variable (entrepreneurial competencies) on dependent variable; Model 3=Impact of moderator (entrepreneurship education) on dependent variable. Model 4=Impact of independent as well as moderator on dependent variable; Model 5=Impact of independent, moderator and interaction of independent and moderator on dependent variable. Values in the parentheses represent significance level.

Table 7: Moderation of Entrepreneurship Education in Entrepreneurial Competencies and Entrepreneurial Performance Relationship

Dependent variable (EP)	Model 1	Model 2	Model 3	Model 4	Model 5
Control variables	$\beta=.010$ (.113)	$\beta=.022$ (.113)	$\beta=.034$ (.232)	$\beta=.042$ (.232)	$\beta=.021$ (.261)
Age	$\beta=.013$ (.123)	$\beta=.032$ (.224)	$\beta=.043$ (.341)	$\beta=.054$ (.371)	$\beta=.011$ (.331)
Marital status	$\beta=.014$ (.136)	$\beta=.024$ (.153)	$\beta=.035$ (.335)	$\beta=.043$ (.342)	$\beta=.061$ (.340)
Experience					
Independent Variable Entrepreneurial competencies		$\beta=.22$ (.000)		$\beta=.20$ (.000)	$\beta=.21$ (.001)
Moderator Entrepreneurship education			$\beta=.458$ (.000)	$\beta=.400$ (.000)	$\beta=.41$ (.000)
Interaction Entrepreneurial competencies × Entrepreneurial performance					$\beta=.39$ (.000)
R ²	.134	.245	.367	.488	.671
F value	1.137	3.417	8.713	13.412	17.314

Note: Dependent variable-EP (entrepreneurial performance). Model 1=Impact of control variables on dependent variable (EP); Model 2=Direct effect of independent variable (entrepreneurial competencies) on dependent variable; Model 3=Impact of moderator (entrepreneurship education) on dependent variable. Model 4=Impact of independent as well as moderator on dependent variable; Model 5=Impact of independent, moderator and interaction of independent and moderator on dependent variable. Values in the parentheses represent significance level.

Discussion and Conclusion

The study contributes to the development of a model which explains the significance of entrepreneurial education. The

study also considers the mediating role entrepreneurial learning which predicts the improved performance of an individual. Recent work in this field points to a need to investigate the links between entrepreneurial competency and individual performance. Our study fills this gap

by considering these relations in the specific context of entrepreneurial units dealing in textile. Most of the relationships between entrepreneurial competencies and its outcomes are under-researched. The study also contributes to the literature by establishing the indirect relationship between entrepreneurial competencies and performance through entrepreneurial learning and the moderating role of entrepreneurial education that strengthens these relationships. Our findings suggest that competencies and training-focused programmes are helpful in the implementation of remedial measures while facing the challenges at later stage to proceed with opportunities, evaluation and exploitation. Generally, entrepreneurs who possess the characteristics of learning initiative have a higher intention to enhance new venture performance and learning outcomes than people who do not possess such characteristics (Hmieleski & Baron, 2009). Entrepreneurial learning is explained as learning that occurs during the new venture creation process (Pittaway & Cope, 2007). Facilitation of entrepreneurial learning and entrepreneurial performance can take place only in a supportive environment where there is a clear link between entrepreneurial performance and learning intention (Dollinger, 2008; Zhao *et al.*, 2010). Performance of an individual requires great hardship, commitment, and objectivity in order to attain the desired level among the competitors outside the venture. Entrepreneurial learning is a key factor that consistently efforts the performance of an enterprise. In order to achieve desired enterprise goals, performance is a very important factor which should not be overlooked. For this, it is very much important to understand which factor has major influence over entrepreneurial performance. Abreast with globalisation, entrepreneurs encounter a challenging business environment, where they require implementing proper strategies to survive. There are various factors that have significant influence over business performance, while entrepreneurs pay attention only to those of financial and non-financial on performance improvement. Though businesses are not aware of significant role of competencies in business performance, there is a vital relationship between competencies and business performance (Ahmed, Rafiq, & Saad, 2003; Tien, Wang, & Tsai, 2005). Since entrepreneurial competencies are related to business performance, entrepreneurs must have special attention toward the improvement in competencies to boost performance. The present study is an extension to the existing literature by establishing

the indirect relationship between entrepreneurial competencies and business performance. The study has highlighted the importance of entrepreneurial learning and entrepreneurial education. Therefore, there is a need to provide opportunities to the women entrepreneurs to inculcate the efficiency of entrepreneurial learning. Entrepreneurial education programmes should also be conducted time to time for women entrepreneurs to improve their efficiency and performance while learning latest techniques.

Managerial Implications

Training in entrepreneurial competencies completely involves an inspirational component. Inspiration is what that give rise to positive attitude and increases the interest in improving an entrepreneurial career. It is suggested that instructors who can communicate their enthusiasm for entrepreneurship through nonverbal expressiveness will turn out entrepreneurs with higher entrepreneurial intentions. The development of learning for entrepreneurs is a long-term and incremental process that evolves throughout their professional lives. Entrepreneurs should be placed on potential learning situations where training activities are geared towards practical problems, which are specific to businesses. There is also strong evidence that successful entrepreneurs make use of networking activities to obtain key information which facilitates learning (Deakins & Freel, 2012). Therefore, it is suggested networking opportunities should be facilitated where entrepreneurs can interact with external advisers such as accountants, bank managers, business advisors and other professionals and learn from them. Awareness and understanding of the benefits of networks should be created to remove the barriers (perceived or real) to network inclusion since the absence of key social relationships of the right type hinders entrepreneurial learning (Thorpe, Gold, Holt, & Clarke, 2006; Pittaway & Rose, 2006). Apart from training/ networking opportunities, a more helpful approach might be to support women's own meaning of entrepreneurial success and to provide a vigorous critique on using the traditional, male signifiers of business success such as profit and size as the only benchmarks against which success is measured. Management needs to focus on resilience, innovation and creativity, industriousness, curiosity, self-confidence, empathy, optimism, and giving back. It is important to impart entrepreneurial education in such a way that

entrepreneurs can learn to identify entrepreneurial opportunities. This may result in motivating their intentions to identify and capitalise the opportunities for improving the performance. Entrepreneurship education has been recognised as an important determinant of entrepreneurial attitude and behaviour for becoming an entrepreneur. Carrying out entrepreneurship education through the educational content and classroom climate will increase the quality of the educators to help them better adapt to job market requirements. Therefore, in order to improve entrepreneurship, great efforts should be put on entrepreneurship education and researching the content of entrepreneurship education. Creating entrepreneurship atmosphere and raising entrepreneurship awareness will be more useful. Employees should be allowed to take the initiative to improve their entrepreneurship consciously by strengthening the knowledge of entrepreneurship, applying entrepreneurship skills to their day-to-day activities, holding simulated business competition and talks, etc. thus they can be gradually created the entrepreneurship atmosphere and the entrepreneurship awareness could be enhanced.

Limitations and Future Research

The study has some limitations that could provide future research directions. Firstly, the study is confined to Jodhpur city (Rajasthan) only. Future research can be conducted in other states to establish generalisability of our results. Secondly, it did not examine the important factors that support entrepreneurial education among women entrepreneurs like finance, work-life balance, training & development and organisational support. Thirdly, the study contacted only employees (women entrepreneurs). Hence, in future studies other top management officials can be contacted to get a broader vision regarding the support of leaders in improving the performance and generating learning capabilities. Furthermore, it would be useful to carry out advance study on a larger sample. Our findings should lead to longitudinal and cross-cultural studies (Sanchez, 2009) to examine the impact of entrepreneurial education on entrepreneurial competencies and on the intention of starting a business venture in the medium and long term.

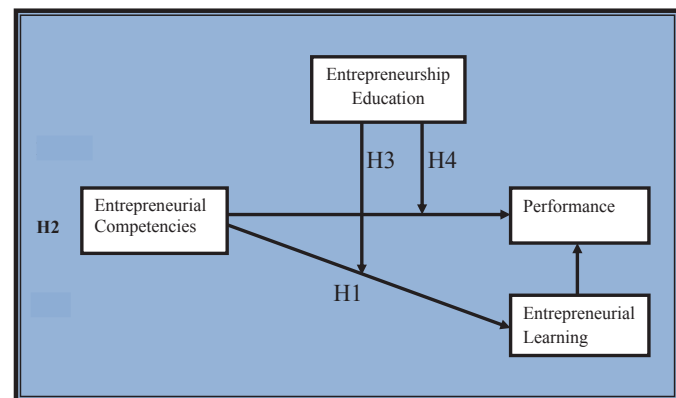


Fig. 1: Relating Entrepreneurial Competencies and Performance among Women Entrepreneurs

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