Impact of Individual Factors on Women Entrepreneurial Intentions: With Mediating Role of Innovation and Interactive Effect of Entrepreneurial Self-Efficacy

Abstract

Women have become important players in the economic development of a country with their contributions to the business world. We tried to examine the impact of individual factors on women entrepreneurial intentions. Further, this study also analyzes the mediating role of innovation on the relationship of social capital with entrepreneurial intentions and the moderating effect of entrepreneurial self-efficacy on the relationship between proactive personality and entrepreneurial intentions. The data has been collected from female students in public sector universities of Azad Jammu and Kashmir state by incorporating convenient sampling technique and collection filters (like gender and business student). Results show that except entrepreneurial education, proactive personality, social capital, innovation, and entrepreneurial self-efficacy influences the entrepreneurial intentions of female students. Moreover, it also indicates that social capital has a significant relationship with innovation.

Key Words: Theory of Planned Behavior, Individual Factors, Innovation, Social Capital

1. Introduction

Entrepreneurship is a good career choice, which in turn, societal culture, business environment, government policies, and other factors influences the attitude towards entrepreneurship. It is a great contribution of the entrepreneurship initiatives toward the creation of new job opportunities as well as social and economic development (GEM 2016-17). Entrepreneurship development is one of the best solutions for economic development which solves the problem of
unemployment (Ramadani et al., 2015). There is a positive link between economic growth and entrepreneurship intentions (Praag & Versloot 2007, Bahrani, 2014). Empirical research shows that human being actively participates in the development process, but it is not the luck which makes entrepreneur (Brandstätder & Lerner, 1999), it is the choice and intentions (Krueger, 2007). The intention is the self-prediction of behavior (Ajzen & Fishbein, 1977; Ajzen, 1991), and the single element which truly predict the actual behavior (Bagozzi, Baumgartner & Yi, 1989).

The psychology and organizational behavior paradigm of literature consider that behavior can be controlled internally or externally (Schneider & Reichers 1983). However, Bandura (1997) argued that individuals can initiate an alter in their circumstances intentionally. Thus, under the umbrella of interactionist theory and proactive personality linked behaviors, individuals with such traits believed to involve in entrepreneurial careers. The association of proactive personality traits with an entrepreneurial career has been discussed in prior researches. Prior researches have also identified that individual with proactive personality traits act like leaders (Morrison & Phelps, 1999), stand-taking and implement personal ideas (Frese et al., 1996), role orientation flexibility (Parker et al., 1997). From last three decades, entrepreneurship in our academic environment. Because, it is entrepreneurship education which enhances the student’s attitudes and skills that ultimately origin of a new venture (Dickson & Solomon 2008; Katz 2008; Peterman & Kennedy, 2003; Piperopoulos & Dimo Dimov, 2015).

Hitt and Ireland, (2002) states that entrepreneurship supports manufacturing activities rendered of social capital, and its environment looks like as the entrepreneurs have employed the financial, human, and physical capital for the growth purposes resembling social capital form (Bovnlin and Pouchin Lee 2006). Hence, for crafting of strategies and making the culture innovation supportive, in developing strategies and creating an innovative culture, social capital is a strong factor. Also, leadership principles, reliance on values, and inspiring trust can also foster innovation supporting culture (Fabová and Janáková, 2015). In this paper, we studied the impact of individual factors (proactive personality, social capital & entrepreneurial education) to check the entrepreneurial intentions of female students in higher education institutions with Innovation as a mediation and interactive effect of entrepreneurial Social Efficacy.

2. Literature Review

2.1 Proactive Personality and Entrepreneurial Intentions

Over the past two decades, a theory of proactive personality, as a dispositional characteristic, was developed by J. Michael Crant and colleagues in 1996 that
entails a tendency to influence the environment and produce change. Theoretically, with theoretically relevant outcomes (e.g., influencing the environment, creating a business), distinct from FFM traits that should show diverging relationships, proactive personality is a dispositional characteristic. Researchers have verified that the construct validity of proactive personality does, in fact, relate to different criteria, and it is empirically distinct from the FFM (Turner, & Fletcher, 2006).

It may be most appropriate to use a narrow and specific personality trait if we want to predict a narrow and specific behavior. Crant (1996) contends, of measuring the EE model’s propensity to act construct, a measure of proactive personality may serve the purpose along with having a direct relationship with intentions, EE model position a narrow personality characteristic. Moreover, consistently larger effect sizes between proactive personality and EI than FFM traits and EI have been demonstrated by meta-analytic findings (Rauch & Frese, 2007), not only to act (proactive personality) in predicting entrepreneurial intentions but also supporting the EE model’s proximal position of propensity.

**H₁**: Proactive personality will have a positive relationship with women entrepreneurial intentions

### 2.2 Social Capital and Entrepreneurial Intentions

For economic innovation and growth along with for entrepreneurship, human and knowledge resources are considered as success factor (Kai & Jay, 2009), but where knowledge and human resource are available, for establishing a new business, creating innovation for new investments and reinforcing competitive advantage, the main factor is social capital and is often considered in various studies (Fabová & Janáková, 2015). With strong relations implies that different individuals should have positive expectations of their relations, engaged in a business, Social capital is taken as a reinforced resource, which also lessens the efforts to control and supervises the actions by obstructing the behavior regarded as opportunistic (Kai & Jay, 2009).

Existence or absence of social communications can influence business nature, and in entrepreneurial activities because of having the significant role of social capital, highlighted in various studies, suggesting that entrepreneurship is a social act and entrepreneurs are products of their social environment (Chen et al., 2007). Consequently, it can be argued, without social capital, the establishment of a new business might face several problems, as it is a key component of entrepreneurship. Thus, considering the previous researchers, this hypothesis was crafted for this study.

**H₂**: Social capital has positive and significant influence on Women Entrepreneurial Intentions
2.3 Entrepreneurial Education and Entrepreneurial Intentions

As per Becker, (1975), two major areas of study under the human capital entrepreneurship theory are “education” and “experience”. Major factors that predict entrepreneurial intentions in an individual, entrepreneurial education is included in the category and which influence his behavior (Peterman & Kennedy, 2003). The students who have major subjects related to entrepreneurship has the intention to start a venture was indicated by Kolvereid and Moen (1997), in their study in Norwegian business schools reported that their entrepreneurial intentions are stronger than those students who didn’t have any concept of entrepreneurship.

Focusing on entrepreneurship-related courses, a similar type of study was also conducted in the Netherlands, by Oosterbeek, van Praag, and Ijsselstein’s (2010), regarding its relationship with the intentions of becoming an entrepreneur. The insignificant relationship between entrepreneurial intentions and education related to entrepreneurship was reported by this study along with the claim of negative impact on starting a new entrepreneurial venture. In England, Souitaris et al., (2007) along with Osterbeek et al., (2010) studied the same relationship, and claimed, entrepreneurial intentions are impacted by entrepreneurial education, and at times also being moderated by this. However, on the ground of lacking the consensus, Study by Souitaris et al., (2007) was rejected by Pittaway and Cope (2007). As per Katz (2008), a hurdle for understanding and for detecting its impact on individual intentions is because of entrepreneurial courses designed by the universities. Also, Neck and Greene, (2011) stated that entrepreneurial education is considered as imprecise, because of not practical but quite bookish teaching method and freedom of individual decision making and his novelty is neglected where it was found of practical nature. To be fruitful and beneficial, Jamieson, (1984) suggested that, entrepreneurial education should be about enterprise, education for enterprise and education in the enterprise. In Iran, Karimi et al., (2014) conducted a research, regarding entrepreneurial education impact on intentions. Student’s subjective norms and PBC and intentions were significantly directly indicated in these studies. And the application of TPB (Ajzen, 1991) was also accepted in the study. Same practices, related to entrepreneurial education were suggested by Merle Küttim et al., (2014).

H₃: Entrepreneurial Education has a significant and positive effect on entrepreneurial Intentions.

2.4 Social Capital and Innovation

Suggested in the literature, depending on norms and contracts of social capitals, it has a positive and significant relation with innovation. Contrary to that one, the risk for organizational innovation can be increased because of the factor of trust in
social capital, while, stability for conventional relation and for their long-term exploitation, can be achieved because of social capital. Organizations are resisting to change or bring culture to support the innovation, thus petrifaction of norms and defined roles appear as a result. Though, many scholars such as Landry et al., (2002), claimed that innovation in organizations and businesses is positively impacted by social capital. They claimed that, along with a degree of organizational innovation, social capital is not only influenced by organizational innovation.

**H4:** Social capital has positive and significant influence on innovation.

As per Nagler and Naude, (2017), the entrepreneurship process is affected by several factors. According to Khajeheian and Tadayoni, (2016), for the entrepreneurship, innovation is taken as of a vital role. As a distinctive edge to organizations and entrepreneurs is attained by ‘motivation to be a pioneer’ and the ability to create and commercialize processes (Khajeheian, 2013), new products (Emami and Dimov, 2017) and business systems underlying innovations. According to Larraza et al., (2011), a positive relationship between economic growth, innovation and entrepreneurship can be observed in the transition from industrial society to information and knowledge society. Kafouros et al., (2008) claimed that learning level, reduce risks, and simplified response to customer needs and exploitation of markets is enhanced by the proper application of new ideas and knowledge, as innovation can significantly influence entrepreneurial activities, easing the achievement of resources.

Shane and Venkataraman, (2000) stated that entrepreneurship is tightly related to innovation and they are believed to be essential so that the success of the former depends on the latter. According to Drucker, (1999) along with the innovation over existing in jobs, entrepreneurs select new jobs or establish institutes and organizations for economic reasons as well. Aligning to this, rather than only for economic motivations, Shane (2004) claimed that, real entrepreneurs start up new jobs mainly for sake of innovation. Consequently, in accumulation to social capital approach, entrepreneurship has been investigated through an innovative approach in this study.

Innovation within a conceptual framework was first expressed by Schumpeter (1961). Principally, his search was for ways to recognize the factors affecting economic growth of states. Innovation is considered as one of these forms in his theory: 1) new materials or pieces 2) presentation of new processes 3) creation of new markets, and 4) application of new organizational formations. The ability to undertake an innovative measure is defined as innovation supporting culture, leading to the creation of products and services. Intelligence and talent of the people or the training outcomes may be account for this ability. A new dimension
of performance is offered by innovation as a change is seen from the managerial point of view (Drucker 1999). However, Hesselbein, (2002) claimed, innovation is the exploitation of new ideas if seen from the organizational point of view.

As an organizational capacity, innovation, through knowledge attainment, to enrich their performance with an entrepreneurial dimension, innovation along with providing new facilities (Zahra and George, 2002), to companies but also allowed them to explore, develop and improve existing competencies.

**H₅:** Innovation has a positive and significant effect on entrepreneurial intention.

**H₆:** Innovation mediates the relationship between Social Capital and Entrepreneurial Intentions of Women.

### 2.5 Self Efficacy and Entrepreneurial intentions

Albert Bandura (1977) developed and refined the construct of self-efficacy, and in either a broad sense (e.g., general self-efficacy) or a narrow perspective concerning specific tasks, settings, or domains (e.g., entrepreneurial self-efficacy), it encompasses an individual’s expectations of performance. As Bandura claimed, beliefs about performance expectations which account for the consequences for the individual’s subsequent behaviors are self-efficacy perceptions. It follows that intentions to behave in a certain way later (e.g., becoming an entrepreneur) are influenced by beliefs regarding the mastery or performance of entrepreneurial behaviors. Therefore, both the EE model and TPB posit efficacy beliefs as direct antecedents of entrepreneurial intention (Krueger et al., 2000), and empirical findings support the influence of self-efficacy beliefs on EI (Zhao et al., 2005). Thus, the current study proposes the following:

**H₇:** Entrepreneurial self-efficacy will have a positive relationship with entrepreneurial intentions.

Past papers constitute of meta-analyses show, a strong empirical rationale for exploring moderator variables are provided by substantial heterogeneity amongst personality predictors of entrepreneurial outcomes (Brandstätter, 2011; Schlaegel & Koenig, 2014; Zhao & Seibert, 2005). How proactive personality and entrepreneurial self-efficacy may combine to affect entrepreneurial intentions are demonstrated by scant empirical evidence as self-efficacy (general and domain-specific) has been looked at in relation to intentions and other individual difference variables (e.g., counterfactual thinking; Arora, et al., 2013). When entrepreneurial self-efficacy is high, it can be logical to say that this relationship should be stronger, while proactive personality is hypothetically and empirically associated with the entrepreneurial intentions. When they believe that they can successfully start and manage a setup, individuals with a proactive personality
should be more likely to intend to start an organization. Since individuals are more attuned to identifying and evaluating opportunities in the environment who score higher proactive personality scale, compared to individuals scoring low on the proactive personality scale, they should also be less likely to hold entrepreneurial intentions when ESE is low and be more likely to hold entrepreneurial intentions when ESE is high. Although the EE model does not offer consideration of the previously outlined pattern of interaction that may take place in influencing EI, it proposes a direct effect of entrepreneurial self-efficacy (feasibility) and proactive personality (propensity to act) on EI.

**H₈:** The relationship between proactive personality and women entrepreneurial intentions is moderated by entrepreneurial self-efficacy.

### 2.6 Research Model

![Research Model Diagram]

**Fig 1: Research Model**

### 3. Methodology

The study has been conducted with the aim to identify the relationship among Individual Factors and Women Entrepreneurial Intentions with the mediating role of Innovation and interactive effect of Entrepreneurial self-efficacy. As the prime variable of this study is women entrepreneurial intention, for this reason, Female Business students studying in Final year of Bachelor and Master’s degree program in Public sector Universities of Azad Jammu & Kashmir State were targeted as a population. Convenient sampling has been incorporated in devising the sample. The self-administered Likert scaled questionnaire was used in data collection. In this study, four-item scales related to proactive personality has been used, which was developed by Kickul, J. and Gundry L.K. (2002), and one of the sample items includes “Nothing is more exciting than seeing my ideas turn into reality”. To study EI Liñán, F., & Chen, Y. W. (2009) developed scale has been incorporated.
in this study. One of the sample items of this scale includes “I will make every effort to start and run my own firm. Entrepreneurial self-efficacy measured by a scale developed and tested by Wuepper, & Lybbert (2017). Innovation and Social Capital is measured by scale authored by Dastourian et al., (2017).

Questionnaire numbering 200 were distributed in each university. Out of these 200 questionnaires, 187 were returned by students as the participation was voluntary. Questionnaire numbering 171 were in a useable form indicating that the response rate is 85.5%. The response rate is high due to the dynamics of the sample as students are more interested in participating and sharing their views about the future in the final year. 70.61% of respondents were enrolled in bachelor’s degree program. Majority of respondents were in between 23-25 age slots (37.36%). Regression analysis has been used in this study to test the hypothesis and for moderation and mediation Preacher and Hayes (2008) technique has been used.

4. Results

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Proactive Personality</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Social Capital</td>
<td></td>
<td>.498*</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Entrepreneurial Education</td>
<td></td>
<td>.445*</td>
<td>.418**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Innovation</td>
<td></td>
<td>.678*</td>
<td>.498*</td>
<td>.445**</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>5. Entrepreneurial Efficacy</td>
<td></td>
<td></td>
<td>.128</td>
<td>.050</td>
<td>-.003</td>
<td>.128</td>
</tr>
<tr>
<td>6. Women Entrepreneurial Intention</td>
<td></td>
<td></td>
<td>.468**</td>
<td>.599**</td>
<td>.384**</td>
<td>.468**</td>
</tr>
</tbody>
</table>

Where N=171, **p<0.01.

As per table 1, there is a significant positive degree of association among Proactive personality and Entrepreneurial intention of female students (r=.468, p<0.01). Also, social capital is positively correlated with Entrepreneurial intention (r=.599, p<0.01) and Innovation (r=.498,p<0.01). The entrepreneurial education is positively associated with entrepreneurial intention (r=.384, p<0.01). Similarly, innovation has a significant positive degree of association with the entrepreneurial
Impact of Individual Factors on Women Entrepreneurial Intentions: With Mediating Role...

intention (r=.468, p<0.01). The moderating variable entrepreneurial self-efficacy is also positively correlated with entrepreneurial intention.

Further, the correlation analysis indicates that proactive personality and innovation are highly correlated which is not a considered relation in this study and is creating multicollinearity. To resolve this issue innovation will be included auxiliary regression.

Table 2: Regression Analysis

<table>
<thead>
<tr>
<th></th>
<th>Women Entrepreneurship intention</th>
<th>Innovation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>T</td>
</tr>
<tr>
<td>Proactive Personality</td>
<td>.220</td>
<td>3.186</td>
</tr>
<tr>
<td>Social capital</td>
<td>.570</td>
<td>6.468</td>
</tr>
<tr>
<td>Entrepreneurial Education</td>
<td>-.122</td>
<td>1.429</td>
</tr>
<tr>
<td>Entrepreneurial Self Efficacy</td>
<td>.144</td>
<td>2.430</td>
</tr>
</tbody>
</table>

R² = .427**

| Innovation | 3.267 |
| R²         | .397** |

Mediating Effect of Innovation between SC and WE

| PPx ESE | 2.970 |
|         | 3.604 |

Results indicate that proactive personality and entrepreneurship intention of women has a significant positive impact (β=0.22, p<0.01). Also, Social capital has a significant positive impact (β=0.570, p<0.01). Entrepreneurial education has a significant negative relationship with entrepreneurial intentions of women (β=-.122, p<0.01). Entrepreneurial self-efficacy has a significant positive impact on the entrepreneurial intentions of women (β=0.144, p<0.01). Innovation has a significant positive impact on the entrepreneurial intentions of women (β=0.177, p<0.01). Also, Social capital has a significant positive impact on Innovation (β=0.708, p<0.01).

To study mediation, Preacher, and Hayes (2009) mediation analysis technique has been applied and results indicate that all assumption of mediation analysis is fulfilling, and mediation analysis depicts that innovation is mediating in the relationship between social capital and entrepreneurial intention of women. The mediation is partial as the beta is decreased (β=.125, p<0.01). Further, the moderating effect of entrepreneurial self-efficacy has been studied on the
relationship of proactive personality and women entrepreneurial intention. It was found that entrepreneurial self-efficacy has a significant moderating effect in the above-discussed relationship ($\beta=.274$, $p<0.01$).

5. Discussion

The study has been conducted with the aim to explore the relationship between individual factors and women entrepreneurial intentions. Further, this study also analyzes the mediating role of innovation in the relationship between with entrepreneurial intentions and the moderating effect of entrepreneurial self-efficacy in the relationship of proactive personality and entrepreneurial intentions. Female university students of Azad Jammu and Kashmir based public sector universities were selected as the target population. Bandura (1997) claimed beliefs about performance expectations which account for the consequences for the individual’s subsequent behaviors are self-efficacy perceptions. It follows that intentions to behave in a certain way later (e.g., becoming an entrepreneur) are influenced by beliefs regarding the mastery or performance of entrepreneurial behaviors.

The results of this study show that Proactive personality has a significant positive relationship with entrepreneurial intentions of women. As Crant (1996) stated in his study that of proactive personality have a direct relationship with intentions. And the statistical analysis is are showing that proactive personality has a positive relationship with entrepreneurial intentions, supporting hypothesis 1. The outcome is also supported by previous studies conducted by Ones and Viswesvaran (1996) and Hogan and Roberts (1996). Similarly, Major factors that predict entrepreneurial intentions in an individual, entrepreneurial education is included in the category and which influence his behavior (Peterman & Kennedy, 2003). The students who have major subjects related to entrepreneurship has the intention to start a venture was indicated by Kolvereid and Moen (1997), in a study, conducted on Norwegian business schools and also showed that their entrepreneurial intentions are stronger than those students who didn’t have any concept of entrepreneurship. It was found that Entrepreneurial education has negative relationship with intentions indicating hypothesis 3 is not supported. A similar type of study was also conducted in the Netherlands, by Oosterbeek, van Praag, and Ijsselstein’s (2010), regarding its relationship with the intentions of becoming an entrepreneur. The relationship between entrepreneurial intentions and education related to entrepreneurship was reported by this study along with the claim of negative impact on starting a new entrepreneurial venture.

Further, the results indicate that social capital has significant positive relationship with entrepreneurial intentions and innovation which mean hypothesis 2 and 4 is supported. For economic innovation and growth along with for entrepreneurship,
success factors and are considered Human and knowledge resources (Kai & Jay, 2009), but where knowledge and human resource are available, for establishing a new business, creating innovation for new investments and reinforcing competitive advantage, the main factor is social capital and is often considered in various studies (Fabová and Janáková, 2015). With strong relations implies that different individuals should have positive expectations of their relations, engaged in a business, Social capital is taken as a reinforced resource, which also lessens the efforts to control and supervises the actions by obstructing the behavior regarded as opportunistic (Kai and Jay, 2009). The ability to undertake an innovative measure is defined as innovation supporting culture, leading to the creation of products and services. Intelligence and talent of the people or the training outcomes may be account for this ability.

A new dimension of performance is offered by innovation as a change is seen from the managerial point of view (Drucker 1999). However, Hesselbein, (2002) claimed, innovation is the exploitation of new ideas if seen from the organizational point of view. As an organizational capacity, innovation, through knowledge attainment, to enrich their performance with an entrepreneurial dimension, innovation along with providing new facilities (Zahra and George, 2002), to companies but also allowed them to explore, develop and improve existing competencies. The result of this study is supporting previous evidence means hypothesis 5 and 6 is supported concluding that innovation act as mediator (partial) and also has independent association with intentions. Also the results of this study show that Entrepreneurial Self-efficacy has significant positive relationship with entrepreneurial behavior indicating the support of hypothesis 7. Moderating analysis indicates that Entrepreneurial self-efficacy moderates the relationship between proactive personality and intentions supporting the hypothesis 8. As stated in prior studies which show a strong empirical rationale for exploring moderator variables are provided by substantial heterogeneity amongst personality predictors of entrepreneurial outcomes (Brandstätter, 2011; Schlaegel & Koenig, 2014; Zhao & Seibert, 2006). How proactive personality and entrepreneurial self-efficacy may combine to affect entrepreneurial intentions are demonstrated by scant empirical evidence as self-efficacy (general and domain-specific) has been looked at in relation to intentions and other individual difference variables (e.g., counterfactual thinking; Arora et al., 2013).

6. Conclusion

Women are key player for economic development of a country by launching new business. For inspecting the entrepreneurial intentions of female graduates the data was collected by using structured questionnaire with 5-liket scale. The regression analysis tells that proactive personality, social capital, Self-efficacy, innovation is positively and significantly related to Entrepreneurial intentions. These relations
indicate that an individual with proactive behavior have the strong intentions to start the new venture. Likewise, social capital, Self-efficacy has great influence on the intentions to run his/ her own business. As per, there is insignificant effect of entrepreneurial education on entrepreneurial intention. Also, the regression result shows that innovation partially mediate the relationship of social capital and entrepreneurial intentions of female students. This study also, indicates the positive and significant interactive effect of Self-efficacy on entrepreneurial intentions. The major limitation of this study is that it is conducted on Female of higher education institutions of AJK. Due to lack of entrepreneurial education in AJK universities, women are not aware about the startup requirements of new business opportunities. The study can be invested by increasing the sample size as well using the different sampling techniques. This study can also be conducted to all over the higher education institutions of Pakistan as well AJK, by considering male students and by introducing new Entrepreneurial education programs.
Impact of Individual Factors on Women Entrepreneurial Intentions: With Mediating Role...

Reference


Impact of Individual Factors on Women Entrepreneurial Intentions: With Mediating Role...


