

**JOURNAL OF
GENERAL MANAGEMENT RESEARCH**

**Impact of Career Choice and Access to Education on Women Empowerment:
Role of Entrepreneurial Orientation**

Dr. Jeevan Jyoti (Corresponding Author)

(Professor, Department of Commerce, University of Jammu)

E-mail: jyotigupta64@rediffmail.com

Dr. Sumeet Kour

(Lecturer, Department of Commerce, University of Jammu)

E-mail: sumeetask@gmail.com

Dr. Asha Rani

(Lecturer, Government Degree College Marh, Jammu)

E-mail: commerceashu@gmail.com

Abstract

Entrepreneurship is considered an essential component for the socio-economic development of the country (Zhakupov et al., 2023). Women are showing a growing interest in self-employment and entrepreneurship. The study aims to examine the impact of access to education and career choice on entrepreneurial orientation and to analyse the effect of entrepreneurial orientation on women's empowerment. It further investigates the mediating role of entrepreneurial orientation in the relationship between access to education and women's empowerment and between career choice and women's empowerment. 300 female entrepreneurs approached, 249 responded. Exploratory factor analysis (EFA), Confirmatory factor analysis (CFA) and Structural Equation Modelling (SEM) techniques were employed to test the proposed relationships. The findings highlight that access to education and career choice positively affect entrepreneurial orientation, which in turn has significant and positive effects on women empowerment. Entrepreneurial orientation mediates between access to education and women's empowerment, career choice, and women's empowerment.

Keynote

Entrepreneurial orientation, Women empowerment, Access to education, Career Choice, Structural Equation Modelling



Introduction

There is increased visibility of entrepreneurship in the scientific community as well as in business and politics due to market instability and uncertainty (Galvao et al., 2018). Entrepreneurship is a vital constituent in the new economic theories and is considered an essential component for the socio-economic development of the country (Mathibe & Oppong, 2024; Al-Suraihi et al., 2020; Ndofirepi, 2020; Belitski & Desai, 2015; Pahuja & Sanjeev, 2015; Zhakupov et al., 2023). It is the ability to generate or recognise business opportunities with the intention of developing profit and value (Teixeira et al., 2018). It is believed that the development process is likely related to entrepreneurial activities (Audretsch et al., 2006).

In recent years, women have become increasingly interested in income-generating activities, self-employment and entrepreneurship (Jyoti et al., 2011). They are involved in traditional activities, such as toy, pickle, jam & jelly making, etc. and non-traditional activities, like gym, beauty parlour, catering services, etc., and entrepreneurial activities. There are different ways of empowering women, and entrepreneurship is one of the effective instruments in this direction (Nachimuthu & Gunatharan, 2012; Afrah & Fahiha, 2017). Entrepreneurship empowers women to take charge of their future and be self-fulfilling by creating jobs instead of seeking a job (Dajani & Marlow, 2013), which leads to economic development of the country (Rahim et al., 2017; De Vita et al., 2014; Yadav & Unni, 2016; Verheul et al., 2006). Research indicates that a significant share of women entrepreneurs may be active in the unorganized sector, especially in under developed countries (Verheul et al., 2006). Further, women play a significant role in the micro and small-scale industries (Ullah et al. 2010). According to the OECD (1988), one of the growing entrepreneurial trends is the rise of women-owned enterprises, which helps raise awareness about the social and economic roles of women entrepreneurs by encouraging them to pursue entrepreneurship.

Along with these developments, the majority of discussions accept a linear relationship between entrepreneurship and empowerment without considering the role of structural constraints, socio-cultural barriers, and context-specific factors that impact women's autonomy in choosing an entrepreneurial path as a way to empowerment. Though there has been an increase in the number of women entrepreneurs (Korreck, 2019; Kapur, 2018; Ullah et al., 2010; Wakkee et al., 2010; Yusof & Jain, 2010), the enabling conditions and contextual barriers remain

underexplored, especially how empowerment is shaped, limited or redefined in the patriarchal society. Women face more challenges in cultural prospects and societal structures than male entrepreneurs (Gichuki et al., 2014), due to negative social attitudes, cultural values, prejudicial practices, and traditions of male-controlled cultures in developing economies (Kapur, 2018; Kapinga & Montero, 2017; Woldie & Adersua, 2004). Safi & Doneys (2019) stated that family, society, and religion influence women's decisions to start businesses in patriarchal cultures where decisions depend on others. Women often need permission from male family members for work, studies, or business activities (Sullivan & Meek, 2012; Gohar et al., 2012). Despite the rise in female entrepreneurs globally (Allen et al., 2007), there remains a crucial need to empower them through education, capacity building, autonomy in career choices, and resource access. Earlier studies show that education significantly influences entrepreneurial orientation and inclination towards starting a business among learners (Khan et al., 2019). Entrepreneurship education equips students with entrepreneurial skills and values relevant to intrapreneurship, which involves acting entrepreneurially within organisations (Zimmerer & Scarborough, 2008; Barringer & Ireland, 2010; Nyadu-Addo & Mensah, 2018).

Women entrepreneurs play an important role in empowerment and liberalisation to achieve their ambitions and goals (Harrison & Leitch, 2010; Faisal et al., 2017). Previous research on entrepreneurship primarily focused on developed countries (Westhead & Solesvik, 2015; Maresch et al., 2016; Yildirim et al., 2016; Ozaralli & Rivenburgh, 2016; Lee et al., 2005; Wilson et al., 2007), with few studies on developing countries (Javadian & Singh, 2012; Faisal et al., 2017; Ndofirepi, 2020; Liu et al., 2019; Li & Wu, 2019; Moses et al., 2016; Gerba, 2012). Further, the literature indicates that the majority of the research studies have examined the impact of entrepreneurial education on the entrepreneurial intentions of college or university students (Ndofirepi, 2020; Liu et al., 2019; Li & Wu, 2019; Moses et al., 2016; Gerba, 2012; Maresch et al., 2016; Lavella, 2019; Westhead & Solesvik, 2015; Lee et al., 2005; Yildirim et al., 2016; Wilson et al., 2007; Kim & Park, 2018) and few studies have been conducted on relationship between entrepreneurial education and entrepreneurial orientation (Olutuase et al., 2018; Mutluturk & Mardikyan, 2018; Cho & Lee, 2018). Further, an in-depth review of the literature revealed that the studies examined the relationship between entrepreneurial education and entrepreneurial orientation were either on business students or on male

entrepreneurs (Khan et al., 2019; Mohammadinezhad & Sharifzadeh, 2017; Cho & Lee, 2018).

It raises important questions like- can findings from mainstream entrepreneurship research be directly applied to marginalised or weaker section women? Do women from these sections have choices, or do they negotiate empowerment within the frame of family, tradition and limited opportunity? There is a lack of research studies on how entrepreneurial education and entrepreneurial orientation interact in the context of women entrepreneurs, particularly in conflict-prone regions. Further, strong career intentions help young individuals from unemployment and career indecision (Braunstein-Bercovitz et al., 2012; Gorgievski et al., 2017). Studies show that entrepreneurship as a career is significantly less preferred by women than by men (Urban, 2010). The opportunities for women to make choices are limited; in some areas, they cannot make any choices at all. Therefore, women must be empowered to make meaningful choices (Kabeer, 1999).

The majority of the researchers have investigated the relationship between entrepreneurial orientation and business performance (Zaato et al., 2021; Almeida et al., 2019; Gull et al., 2021; Swierczek & Ha, 2003; Wiklund & Shepherd, 2003; Pahuja & Sanjeev, 2015; Dimitratos et al., 2004; Gimenez & Ventura, 2005; Stam & Elfring, 2008; Wales et al., 2013). Razei & Ortt (2018) detailed the influence of entrepreneurial orientation on the business's overall performance. Researchers have also studied the impact of entrepreneurial education on individuals in terms of choosing entrepreneurship (Kirkley, 2017; Millman et al., 2010; Arthur et al., 2012; Fayolle & Gailly, 2015). However, some recent studies have identified that though many people have entrepreneurial intentions, only a small proportion convert these intentions into any entrepreneurial activities (Kautonen et al., 2015; Hamdani et al., 2023; Rauch & Hulsink, 2015). Similarly, many researchers have suggested the need to study the impact of access to training and education on the performance of women entrepreneurs (Lin & Abetti, 2010; Ng et al., 2022; Lassithiotaki, 2011). Though research has been done on the reasons for choosing entrepreneurship as a career option for women (Aybas & Özçelik, 2020; Ng et al., 2022), and studies have been conducted on the relationship between career choice and entrepreneurial orientation (Moroz & Hindle, 2011) with some mediating variable (Cromie, 2000; Jain, 2011; Shepherd et al., 2015), there are yet under-theorized and contextually unproven assumptions that career choice and education directly

change into empowerment through entrepreneurial orientation.

Prior research has examined entrepreneurial education, career intentions, and entrepreneurial orientation, mostly in stable, developed settings. Limited empirical attention has focused on regions with socio-political instability, gender inequality, and institutional fragility. Jammu & Kashmir represents one such region, where prolonged political instability, conflict, and conservatism affect women's participation in education, employment, and entrepreneurship. There is still limited understanding regarding how career choice and education interact with entrepreneurial orientation to empower women, particularly in Jammu and Kashmir.

In line with these conceptual and contextual gaps, the present study adopts an essential form to examine the mediating role of entrepreneurial orientation in the relationships between access to education, career choice and women's empowerment, mainly focusing on the sensitive and under-researched region of Jammu and Kashmir, India.

Employment Scenario of Women Entrepreneurs in Jammu & Kashmir

Jammu & Kashmir is a state administered by India that was partitioned after a dispute between India and Pakistan. People of Jammu and Kashmir have suffered many problems, and women were the most susceptible segment of the society, particularly under situations of violent behaviour, which was caused by militancy and armed conflict (Gul & Khan, 2013). Participation of women in various political as well as socio-economic processes is meagre, and this discrimination has diminished their rights of freedom of speech, right to get an education and right to employment opportunities, which affects the overall development of women (Zhakupov et al., 2023). According to Mir & Bala (2016), women entrepreneurs face many challenges preventing them from realising their potential. However, nowadays, women are more encouraged to start their own enterprises, and the government must also bring new policies and programmes where women can get more and more opportunities to set up their businesses. Women's empowerment is vital for the 21st century at every level, i.e., national or international. The country's economic development is possible with women's empowerment through entrepreneurship development (Banik & Bai, 2018). During the last two decades, the women of Jammu and Kashmir state have suffered badly. Economic empowerment is the magic wind that

brings women who are in distress to the mainstream (Pandit, 2016).

Pandit (2016) has stated that women's education in India has improved, but the literacy rate in Jammu and Kashmir still needs improvement. The women-centric policy programmes launched in the state focus on improving in this direction. Also, women's participation in the workforce is much less than that of men. Things are changing nowadays as more and more women are taking the initiative to become entrepreneurs. The women of Jammu and Kashmir state are being encouraged to start or take up entrepreneurial activities, which they have not been able to do due to violence and conflicting situations in the state. The present research has studied the inclusion of entrepreneurial orientation in access to education, career choice, and women's empowerment.

Research Questions

1. Do access to education and career choice enhance the entrepreneurial orientation of women entrepreneurs?
2. What is the role of access to education and career choice in empowering women entrepreneurs?
3. How does entrepreneurial orientation shape the relationship between educational access and women's empowerment?
4. How does entrepreneurial orientation shape the relationship between career choice and women's empowerment?

Objectives of the Study

1. To study the impact of access to education and career choice on entrepreneurial orientation.
2. To examine the effect of entrepreneurial orientation on women empowerment.
3. To analyse the mediating role of entrepreneurial orientation between access to education and women's empowerment.
4. To analyse the mediating role of entrepreneurial orientation in the relationship between career choice and women empowerment.

Insert Figure 1 here

The model depicts that access to education and career choice influence entrepreneurial orientation. Further, the model assesses the influence of entrepreneurial orientation on women's empowerment. Furthermore, entrepreneurial orientation is hypothesised to mediate the relationship between career choice and women's empowerment relationships, as well as between access to education and women's empowerment.

Literature Review and Hypothesis Development

Access to Education and Entrepreneurial Orientation

Wilson et al. (2007) stated that educating about entrepreneurship focuses on the attitude, behaviours, and skills development of an individual so that they can apply them during their entrepreneurial career. It is the potential means of refreshing and stimulating existing companies through innovation, risk-taking, and proactiveness in the competitive environment (Bayarçelik & Özşahin, 2014). It also includes all the actions to promote entrepreneurial skills and attitude, and covers various facets such as idea generation, growth and innovation, start-up (Arasti et al., 2012). Khan et al. (2019) indicate that entrepreneurial education positively affects entrepreneurial orientation. Education at every level plays an essential role in developing an entrepreneurial society. (Mutluturk & Mardikyan, 2018). Lussier (1995) revealed that entrepreneurs who received expert advice are more successful than those who have no entrepreneurship education. Entrepreneurial education enhances creativity and innovation, and provides the necessary skills and attitude to recognise and explore business opportunities (Dickson et al., 2008; Gurel et al., 2010; Mehtap et al., 2017). Wright & Mustar (2019) proved that students who have graduated in entrepreneurship are more likely to choose entrepreneurship as their career option. Formal entrepreneurial education is the basis of choosing entrepreneurship as a career (Mehtap et al., 2017). Entrepreneurial education legitimises entrepreneurship as a feasible career option and develops an entrepreneurial culture (Kirkley, 2017). It generates attitudes and behaviours capable of provoking commercial intentions among people interested in the economic development of their nation (Nyello et al., 2015). Entrepreneurial education communicates and instils the required skills, capabilities and values to identify the opportunities and organise and start a new venture (Galloway and Brown, 2002). Formal education in entrepreneurship encourages innovation, risk-taking, creativity and critical thinking skills (Rialti et al., 2017; Mehtap et al., 2017). It orients individuals to be more proactive and helps them learn and work in teams (Oosterbeek et al., 2010; Rosique-Blasco et al., 2016). The entrepreneurial program increases the risk-taking ability of the individuals, and they become more risk-tolerant, which benefits them (Fairlie & Holleran, 2012; Bandera et al., 2018). Access to education helps women entrepreneurs

to become proactive, risk-tolerant and innovative. Entrepreneurial education helps women entrepreneurs to develop proactive strategies for competing with others. It helps women entrepreneurs to take risks as and when required. Further, it motivates them to establish their venture and modernise their business. Therefore, it can be concluded from the above discussion that individuals with entrepreneurial education are oriented to start their own venture.

Hypothesis 1: Access to education positively affects the entrepreneurial orientation of women entrepreneurs.

Career choice and entrepreneurial orientation

Career refers to the quintessence of knowledge on an individual basis and skills in terms of employment, a sort of specialisation in a particular subject, the accumulation of skills over time and a network of professional interrelationships (Lao et al., 2022; Aggarwal & Shrivastava, 2021; Siebert et al., 2022). Gender plays a vital role in the process of occupational orientation (Gewinner, 2017). Gender also determines which occupations are regarded as socially acceptable for males or females (Gewinner, 2017). When women have free career choices when making career decisions, they are more likely to establish their ventures. Literature review revealed that career choice positively affects entrepreneurial intentions (Timmons, 1985; Timmons & Spinelli, 2008; Yildiz, 2018; Hamdani et al., 2023). The career intentions of an entrepreneur help contribute to the success and growth of society's economy, as well as in the creation of jobs, and also fulfil career choices for an individual to be an entrepreneur (Praag & Versloot, 2007). The relationship between career choices and entrepreneurial orientation explains how an individual builds their career interests and forms career choices by setting up a new enterprise from their career lens. (Lent & Brown, 2013; Lent et al., 2000).

Based on a socio-cognitive model approach, an entrepreneur analyses new venture creation or a startup (Zhao et al., 2005; Ozaralli & Rivenburgh, 2016; Hamdani et al., 2023). Becoming an entrepreneur and starting a new venture is a deliberate and thoughtful decision that requires a high degree of cognitive processing, planning, and a significant time commitment (Nguyen et al., 2023; Wilson et al., 2007). Thus, an entrepreneurial career choice is a planned behaviour explained by intention modes (Ozaralli & Rivenburgh, 2016). The social cognitive theory addresses social context accompaniments about the intentions of an entrepreneur to influence the career transformation in entrepreneurship. The freedom to

choose one's own education and training programme as per the career decision (Ozaralli & Rivenburgh, 2016) help one to take risks, develop strategies and think innovatively to create new products and establish new ventures (entrepreneurial orientation). The impact of the environmental and situational factors and the opportunities also lead individuals to choose entrepreneurship as their career (Shepherd et al., 2015). Therefore, it can be concluded that the career choice positively impacts the entrepreneurial orientation.

Hypothesis 2: Career choice positively affects the entrepreneurial orientation.

Entrepreneurial orientation and women empowerment

Entrepreneurial orientation is the extent to which an organisation is entrepreneurial in its plans and activities and covers processes, structures, and behaviours of organisations (Stam & Elfring, 2008; Rahman et al., 2016; Jabbouri et al., 2024). It is an organisational attribute that entrepreneurs exhibit in business units (Yang et al., 2021). It enhances business awareness by revealing novel technologies, knowledge about market trends, and assessing new potentials (Lumpkin et al., 2009; Rahman et al., 2016). This phenomenon has a positive impact on women's empowerment. According to Digan et al. (2019), empowerment is the capacity of individuals, communities, and groups to take control of their circumstances, achieve their goals, and practice power, thereby maximising the quality of their lives. Entrepreneurship provides platforms for women entrepreneurs to present their talents in different fields, such as fashion designers, artists, interior designers, architects, and clothes manufacturers. Also, it gives them an opportunity to explore the latest avenues for participation in the economy, thereby empowering them. Entrepreneurial orientation provides flexibility to women by helping them deal with their family responsibilities at home and supporting them financially (Bertaux & Crable, 2007). Entrepreneurship provides women entrepreneurs with practical solutions to earn income, increase employment, and reduce poverty, especially in less developed countries (Sarfaraz et al., 2014; Jabbouri et al., 2024). It extends a broad reach to female entrepreneurs for the optimum utilisation of their skills to ensure their personal ambitions, and in turn, this freedom makes them feel psychologically empowered (Mantok, 2016). Women actively participate in entrepreneurship to gain financial empowerment (Datta & Gailey, 2012). Innovation and risk-taking capacity as an entrepreneurial orientation determine the success of women entrepreneurs in business. Innovation empowers women entrepreneurs to start new ventures

in various areas, such as products, technology, and markets, and risk-taking is required as women entrepreneurs venture into large-scale businesses. Proactiveness is the core ingredient of entrepreneurial orientation; it seeks new opportunities that benefit entrepreneurs in effectively dealing with competition, ultimately empowering women entrepreneurs through self-sufficiency and financial autonomy. Therefore, the above discussion shows that entrepreneurial orientation positively affects women's empowerment.

Hypothesis 3: Entrepreneurial orientation positively affects the women empowerment.

Access to Education, Career Choice, Entrepreneurial Orientation and Women Empowerment

As explained in Hypothesis 1, access to education positively affects entrepreneurial orientation (Khan et al., 2019; Mutluturk & Mardikyan, 2018). Entrepreneurial training and education aid individuals to obtain entrepreneurial information that provides proactiveness, raises awareness, improves risk-taking ability and discloses a strong mental picture of entrepreneurship (Ikpesu, 2016). Access to education enables individuals to obtain the skills needed for the successful entrepreneurial process (Matlay, 2008; Jabbouri et al., 2024). Entrepreneurial education develops knowledge about the basics of start-up and business planning, which in turn helps the individual become innovative, proactive, and a risk-taker. Further, Hypothesis 2 indicated that women's occupational choice affects the entrepreneurial intentions (Jabbouri et al., 2024). Women who have free choice in making career decisions are innovative, risk takers, and proactive. Women, who are given autonomy to choose their career, allow themselves to start their own business and learn from the experience. Hence, career choice leads to entrepreneurial orientation.

Further, as discussed in Hypothesis 3, entrepreneurial orientation provides a platform to women entrepreneurs to display and present their talents and also gives them the opportunity to explore new avenues, thereby making them empowered. Entrepreneurial orientation helps female entrepreneurs to optimally utilise their skills and personal ambitions, which lead to psychological and economic empowerment (Mantok, 2016). Therefore, entrepreneurial orientation leads to women empowerment.

As per the above discussion, access to education and career choice positively affect entrepreneurial orientation, which in turn leads to women's empowerment. Women who have access to entrepreneurial education and have the autonomy to choose their career are capable of taking business risks

and accepting the challenges for success, which ultimately empower women entrepreneurs in terms of financial autonomy, social status and decision-making capacity. Entrepreneurial education provided to women by the professional institutes and counselling given to choose a career helps them to modernise their business and make strategies to compete with others, thereby empowering them. Women who have the flexibility to choose their careers and access to education are ready to take the risk of starting their own ventures and act proactively, which helps empower them. Hence, entrepreneurial orientation mediates between access to education and women's empowerment, career choice, and empowerment.

Hypothesis 4: Entrepreneurial orientation mediates between access to education and women empowerment relationship.

Hypothesis 5: Entrepreneurial orientation mediates between career choice and women empowerment relationship.

Research Methodology

Data Collection

Data has been collected from the female entrepreneurs running their businesses (unorganised sector) in the Jammu region. The population size was unknown; therefore, a pilot survey was conducted to determine the sample size. Then, based on pre-testing, the final size of the sample has been calculated with the help of the following formula: $N = \frac{S^2 * Z^2}{e^2}$, where N denotes sample size, S denotes Standard Deviation, Z is the z-score at 95% confidence level, and e is the level of precision (Malhotra, 2004).

After applying this formula, the determined sample size was 245. Three hundred women entrepreneurs were randomly selected, out of which only 270 completed questionnaires were received back. After performing the outlier test, 249 respondents were retained. The pilot survey data have also been used for exploratory factor analysis.

The demographic profile of the respondents includes the information related to age, marital status, qualification, total experience, types of business, type of family and location of business. Women entrepreneurs from Jammu and Kashmir, India, are involved in a wide range of businesses. 23.7% were engaged in beauty parlours, 19.1% were from Boutiques, 14.9% from Stitching, 8.80% from Dairy, 8.80% from Retail, 8% from Garments and Cloth selling, 5.7% from Food services, 4.2% from

Handicrafts, and 6.9% from other businesses. 40% of respondents belonged to the 30-40 years age group, followed by 27% in the 40-50 years group and 33% in the 20-30 years group. Most of the marital status of the respondents was as follows: 80.5% were married, 9.2% were unmarried, 6.1% were widows, and 4.2% were divorced. The majority of respondents were senior secondary (70%), followed by 16.4% graduates and 6.5% post-graduates, with others at a level below 10th standard. 73% respondents had 1 to 10 years of experience, whereas others had more than 10 years of experience. Mostly, women entrepreneurs are from joint families (64.5%), and the rest are from nuclear families.

Measures

Five-point Likert scale has been used to gather the data for the study:

Access to Education: Access to education has been measured with the help of 7-items (self-generated). Sample items include, “Institutes offer specialised courses on entrepreneurship” and “There are professional institutes in my neighbouring areas/state.”

Career Choice: The career choice has been measured with 12-items (Ozbilgin et al., 2005). The sample items include, “I have a free choice in making own career decision” and “I have the freedom to choose my own education and training programme as per my career decision”.

Entrepreneurial Orientation: Entrepreneurial orientation has been measured with the help of 16-items (Li et al., 2009; Awang et al., 2009; Ma’atooifi et al., 2010). The sample item includes, “You will like to introduce new products” and “You will take risk as and when required in business”.

Women Empowerment: The women empowerment has been measured with the help of 9-items (Digan et al., 2019). The sample item includes, “I have mastered the skills necessary for my job” and “I have significant autonomy in determining how I do my job”.

Control Variables: Marital status, qualification, age and experience are the control variables used in the study.

Results

Exploratory factor analysis (EFA) has been conducted

to identify the dimensions of the different scales used in the study. A principal component matrix with varimax rotation was used. KMO has been checked in order to know the sampling adequacy ($<.80$) (Hair et al., 2010). The access to education scale consisted of 7 items, which were reduced to 4 items due to low factor loading (Standardised regression weight (SRW) <0.50), which converged to one factor. Similarly, the career choice scale consisted of 12 items, which were reduced to 10 items due to low factor loading (SRW <0.50), which converged to two factors, viz., Career decisions (4 items) and Career opportunities and Development facilities (6 items). The entrepreneurial orientation scale initially consisted of 16 items, which were reduced to 11 items and converged under three factors, viz., Innovativeness (5 items), Risk-taking (4 items) and Proactiveness (2 items). Lastly, the women empowerment scale initially consisted of 9 items, which were reduced to 6 items because of low factor loading (SRW <0.50) and converged under two factors, i.e., Influence on firm matters (3 items) and Competence and Autonomy (3 items). The KMO value for all the constructs is above 0.70, and the total variance explained for all the scales is above 60 per cent (Hair et al., 2010).

To assess the validity and reliability of construct confirmatory factor analysis has been applied.

Zero order and second order models have been designed for one factor and multiple factors respectively. Fit indices of all the constructs are within the threshold limit (Hair et al., 2010) (Table 1). In order to check the convergent validity standardised regression weights (SRW) and average variance extracted (AVE) has been calculated and results revealed that all the construct have SRW greater than 0.50 and AVE above 0.70 (Hair et al., 2010) (Table 2). To check the discriminant validity AVE values were compared with the squared correlation. The AVE for all the constructs is greater than the squared correlation, thereby proving the discriminant validity (Table 3). The reliability of the constructs has been assessed with the help of Cronbach’s alpha and composite reliability. The alpha values and composite reliability for all the construct are above 0.70 hence proving the reliability of the construct (Table 2).

Insert Table 1

Insert Table 2

Insert Table 3

Hypothesis Testing

In order to check the hypothesis SEM has been applied. In the present study the relationship between access to education, career choice, entrepreneurial orientation and women empowerment have been assessed.

Firstly, the study assessed the effect of access to education on entrepreneurial orientation, and the analysis revealed a positive and significant effect (SRW = 0.74, $p < 0.001$, Figure 2). Hence, hypothesis 1 is accepted. The model yielded good fit (CMIN/DF = 3.955, RMR = 0.046, GFI = 0.947, AGFI = 0.885, CFI = 0.918, RMSEA = 0.079.).

Insert Figure 2

Furthermore, the study examined the impact of career choice on entrepreneurial orientation, and the findings indicate a significant effect (SRW = 0.80, $p < 0.01$, Figure 3), confirming Hypothesis 2. The model yielded good fit (CMIN/DF = 4.01, RMR = 0.024, GFI = 0.971, AGFI = 0.900, CFI = 0.953, RMSEA = 0.060).

Insert Figure 3

Lastly, the study examined the impact of entrepreneurial orientation on women's empowerment, and the findings suggest that entrepreneurial orientation has a positive effect on women's empowerment (SRW = 0.56, $p < 0.05$, Figure 4), confirming Hypothesis 3. The model yielded good fit (CMIN/DF = 1.126, RMR = 0.038, GFI = 0.993, AGFI = 0.975, CFI = 0.997, RMSEA = 0.022).

Insert Figure 4

Mediation effect

To check the mediation effect Preacher and Hayes (2004) approach has been used. The mediation analysis is based on the significance of the indirect effect, and for this, the bootstrap approach and Sobel test (1982) have been used in the present study. The findings revealed that career choice has a significant effect on entrepreneurial orientation (SRW 0.780, $p < 0.001$) and entrepreneurial orientation also significantly affects women's empowerment (SRW 0.480, $p < 0.001$). Further, bootstrapping results indicated a significant indirect effect of career choice on women's empowerment through entrepreneurial orientation (Indirect effect 0.370, $p < 0.05$, Table 4) with a 95% confidence interval from 0.223 to 0.525. Hence, hypothesis 4 stands accepted.

Insert Figure 5

Insert Table 4

The results showed that access to education has significant effect on entrepreneurial orientation (SRW = 0.708, $p < 0.001$) and entrepreneurial orientation significantly affects women empowerment (SRW = 0.428, $p < 0.001$). Further, bootstrapping results indicated significant indirect effect of access to education on women empowerment through entrepreneurial orientation (Indirect effect = 0.30, $p < 0.05$, Table 5) with a 95% confidence interval from 0.158 to 0.456. Hence, hypothesis 5 stands accepted.

Insert Figure 6

Insert Figure 5

Discussion

The present study proposed and tested a conceptual model that explained the impact of career choice and access to education on entrepreneurial orientation. Further, the study investigated the effect of entrepreneurial orientation on women's empowerment. It also examined the mediating role of entrepreneurial orientation in the relationship between access to education and women empowerment and between career choice and women empowerment. The study revealed the positive and significant effect of access to education on entrepreneurial orientation. The results are consistent with the earlier studies (Kirkley, 2017). Education enables individuals to create, manage, and develop business ventures, enhancing their capacity to effectively address challenges. (Laukannen, 2000). Entrepreneurial education contributes to developing essential entrepreneurial traits, including innovativeness and risk-taking behaviour. It also improves professional ability and enhances the skills needed to manage and sustain a business. Further, the study revealed that career choice positively influences entrepreneurial orientation. These findings aligned with the earlier studies (Timmons, 1985; Timmons, and Spinelli, 2008). Career choice of an individual is defined as his/ her choice to engage in the self-improvement, adapting the changing environment, and the advancement in their skills. If the modern equipment as well as labour market conditions are given to them, then the career concept

can be converted into the concept of the entrepreneurship. On the other side all the characteristics of being an entrepreneur can be guided by the entrepreneurial education by offering various career opportunities and guiding them in management of the entrepreneurial career pathway. So, it inculcates the awareness among the individuals to choose the entrepreneur as their career choice. The study also revealed that the entrepreneurial orientation positively leads to women empowerment. Entrepreneurial orientation enables women entrepreneurs to gain the exposure towards the optimal use of their skills and improve their abilities to pursue the personal goals for their development. Overall, the entrepreneurial activities provide the personal, psychological and financial support, which are very crucial for the women to feel empowered.

Moreover, the study also revealed that entrepreneurial orientation mediates between access to education and women empowerment. The education helps to improve the creativity and provides the essential skills and knowledge to exploit the various business opportunities (Dickson et al., 2008; Gurel et al., 2010), which in turn makes the women to consider their strengths, weaknesses, threats and move forward to clarify their potentials to achieve the personal goals, thereby providing them all the freedoms as that of men. Lastly, study also revealed that entrepreneurial orientation mediates the relationship between career choice and women empowerment. Entrepreneurial orientation generates enthusiasm in the individuals regarding the acceptance of new challenges, taking more risks in the business and tolerating the changing. Women who are more capable as well as possess the required knowledge to choose their career as an entrepreneur can make themselves to take decisions on their own and can be self -empowered. This study empirically examines the mediating role of entrepreneurial orientation among women entrepreneurs in Jammu & Kashmir, filling a significant conceptual and contextual gap. While prior studies have largely examined entrepreneurial intentions in developed economies, insufficient attention has been paid to the structural conditions shaping entrepreneurial orientation among women entrepreneurs in marginalised regions. By situating these relationships within the socio-politically sensitive context of Jammu & Kashmir, the study contributes to a more nuanced and contextually grounded understanding of women's entrepreneurship and empowerment.

Implications

Theoretical Implications

The present has academic implications. The study strengthens the women empowerment literature. Further, relationship between of career choice and entrepreneurial orientation; access to education and entrepreneurial orientation has been empirically assessed. The study confirms the construct validity and reliability of the career choice, access to education, entrepreneurial orientation and women empowerment scales, which enhance the generalisability of these scales. The present study strengthens the theoretical development of the women empowerment and entrepreneurial orientation concepts in Indian context. Lastly, the study also examined the mediating role of entrepreneurial orientation between career choice and women empowerment; and access to education and women empowerment, which further strengthens the role of entrepreneurial intentions in entrepreneurship literature in general and women entrepreneurship in particular.

Practical Implications

The study also has specific practical implications. It indicated that educational access leads to entrepreneurial orientation. Many women are eager to learn but lack access to schools within a suitable distance from their homes. In many places, because of the climate, animals or other humans, women are unsafe walking the trek from home to school. Therefore, to improve the access to education new technology should be implemented, designing lessons for learning at home and providing bicycles or other safe form of transportation to women. Entrepreneurial attitude/orientation can be nurtured by creating awareness among females about the importance of entrepreneurship as a career option. Entrepreneurial awareness camps need to be conducted to orient the females to become entrepreneurs. The benefits and facilities need to highlighted by giving them proper counselling and guidance.

Women entrepreneurs can achieve their full potential if they have access to education and given career choice on an equal footing. Thus, through formal training and the introduction of reforms in the national legal education system, the country can improve gender equality by addressing gender inequality. Educational reforms such as financial support for education, promoting gender sensitivity in education, increasing women's school attendance among socially excluded groups and providing additional training for women who have discontinued their studies should be introduced to improve their entrepreneurial orientation. All the organisations responsible for the development of entrepreneurship need to design programmes to empower women entrepreneurs with the basic

knowledge through education and training programme. The organizations should organise entrepreneurial training programmes in areas, which are easily approachable to women. Further, the timing of the entrepreneurial training programmes should be convenient for the women to attend.

Policy Based Implications

In order to overcome the barrier of access to education government should also take some measures. The government should frame public policies that discourses to address this issue and boost women entrepreneurial activity as a means of fostering social and economic development. Government agencies need to mobilize and produce a new generation of entrepreneurially mindsets youth, with access to career choice and education. Specifically, the government needs to harness the potential of women. To do this, access to entrepreneurial education needs to be introduced at the school, college, and professional levels.

To promote empowerment through entrepreneurship among women such education policy should be designed, that expands the economic opportunities for women. Easy access to financial resources and social acknowledgement makes women confident and empowered, and supports them in embarking on a career path.

Limitations

Though all possible efforts have been taken to maintain the reliability and validity of the study, certain limitations need to be addressed in future. The present study is cross-sectional as data is collected at a single point, so a future longitudinal study should be conducted to get more reliable results. The self-reported data have been used in the present study; in future studies, data should be collected from multiple sources to get more objective results. Further, in the present study only two antecedents of entrepreneurial orientation have been studied viz., access to education and career choice. In future more, variables such as access to training, financial autonomy, social capital etc. can be taken into consideration. Further, more mediating variables should be explored in relationship between access to education & career choice and women empowerment. Lastly, the study is confined to unorganised sector. In future same relationship can be studied in organised sector for generalizability.

Acknowledgement

The present research paper is an outcome of major research project titled "Revisiting women

entrepreneurship for inclusive growth: A study of Jammu & Kashmir state" (F. No. IMPRESS/P3222/132/2018-19/ICSSR, Dated: 20-03-2019) granted by The Indian Council of Social Science Research (ICSSR) under Impactful Policy Research in Social Science (IMPRESS) under domain Growth, Macro Trade and Economic Policy. We extend heartfelt thanks to ICSSR for their generous support and encouragement.

Declaration of Competing Interest:

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Funding Statement

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Data Availability Statement

The data used in this study are available from the corresponding author upon reasonable request.

References

- Afrah, S.H. & Fabiha, S.T. (2017), "Empowering women entrepreneurs through information and communication technology (ICT): A case study of Bangladesh." *Management Science*, Vol. 7, No. 1, pp.1-6.
- Aggarwal, A. & Shrivastava, U., 2021. "Entrepreneurship as a career choice: impact of environments on high school students' intentions." *Education+ Training*, Vol. 63, No. 7/8, pp.1073-1091. <https://doi.org/10.1108/ET-07-2020-0206>.
- Almeida, J., Daniel, A.D. & Figueiredo, C. (2019). "Understanding the role of entrepreneurial orientation in junior enterprises." *Journal of Entrepreneurship Education*, Vol. 22, No. 2, pp.1-14.
- Al-Suraihi, A.H.A., Ab Wahab, N. & Al-Suraihi, W.A., 2020. "The effect of entrepreneurship orientation on entrepreneurial intention among undergraduate students in Malaysia." *Asian Journal of Entrepreneurship*, Vol 1, No. 3, pp.14-25.
- Arasti, K., Falavarjani, M. & Imanipour, N. (2012). "A study of teaching methods in entrepreneurship education for graduate students." [*Higher Education Studies*](#), Vol. 2, No.1, pp. 2-10.

- Arthur, S.J., Hisrich, R.D. & Cabrera, Á. (2012). "The importance of education in the entrepreneurial process: A world view." *Journal of Small Business and Enterprise Development*, Vol. 19, No. 3, pp. 500-514.
- Audretsch, D.B., Keilbach, M.C. & Lehmann, E.E. (2006). *Entrepreneurship and economic growth*, Oxford University Press, USA, Oxford.
- Awang, A., Khalid, S. A., Yusof, A. A., Kassim, K. M., Ismail, M., Zain, R. S., & Madar, A. R. S. (2009). "Entrepreneurial Orientation and Performance Relations of Malaysian Bumiputera SMEs: The Impact of Some Perceived Environmental Factors." *International Journal of Business and Management*, Vol. 4, No.9, pp. 84-96.
- Aybas, M., & [Ozcelik, G.](#) (2020). "Entrepreneurship as a career choice for women: A Successful case study from Turkey." In *Micro & Micro-level Issue Surrounding Women in the Workforce: Emerging Research & Opportunities* (pp. 89-108). Hershey, PA: IGI Global.
- Bandera, C., Collins, R., & Passerini, K. (2018). "Risky business: Experiential learning, information and communications technology, and risk-taking attitudes in entrepreneurship education." *The International Journal of Management Education*, Vol. 16, No. 2, pp. 224–238.
- Banik, R., & Bai, C.A. (2018). "Women empowerment through entrepreneurship with special reference to vendors in Agartala." *International Journal of Research in Social Sciences*, Vol. 8, No. 1, pp. 712-719.
- Barringer, B.R. & Ireland, R.D. (2010). *Entrepreneurship: Successfully launching new ventures (3rd Ed.)*. Pearson Publication.
- Belitski, M. & Desai, S. (2015). "Creativity, entrepreneurship and economic development: city-level evidence on creativity spillover of entrepreneurship." *The Journal of Technology Transfer*, Vol. 41, No. 6, pp. 1354-1376.
- Bertaux, N., Crable, E. (2007). "Learning about women. economic development, entrepreneurship & the environment in India: A case study." *Journal of Developmental Entrepreneurship*, Vol.12, No. 4, pp. 467–478.
- Braunstein-Bercovitz, H., Benjamin, B. A., Asor, S. & Lev, M. (2012). "Insecure attachment and career indecision: Mediating effects of anxiety and pessimism." *Journal of Vocational Behavior*, Vol. 81, pp. 236–244.
- Cho, Y.H., & Lee, J.-H. (2018). "Entrepreneurial orientation, entrepreneurial education and performance." *Asia Pacific Journal of Innovation and Entrepreneurship*, Vol. 12, No. 2, pp. 124-134.
- Cromie, S. (2000). "Assessing entrepreneurial inclinations: Some approaches and empirical evidence." *European Journal of Work and Organizational Psychology*, Vol. 9, No.1, pp. 7–30.
- Dajani, H.A. & Marlow, S. (2013). "Empowerment and entrepreneurship: A theoretical framework." [International Journal of Entrepreneurial Behaviour & Research](#), Vol. 19, No. 5, pp. 503-524.
- Datta, P. B. & Gailey, R. (2012). "Empowering Women Through Social Entrepreneurship: Case Study of a Women's Cooperative in India." *Entrepreneurship Theory and Practice*, Vol. 36, No.3, pp. 569–587.
- De Vita, L., Mari, M. & Poggesi, S. (2014). "Women entrepreneurs in and from developing countries: Evidence from the literature." [European Management Journal](#), Vol.32, No.3, pp.451-460.
- [Dickson, P.H.](#), [Solomon, G.T.](#) & [Weaver, K.M.](#) (2008). "Entrepreneurial selection and success: does education matter?" [Journal of Small Business and Enterprise Development](#), Vol.15, No.2, pp. 239-258.
- Digan, S. P., Sahii, G.K., Mantok, S. & Patel, P.C. (2019). "Women's perceived empowerment in entrepreneurial efforts: the role of bricolage and psychological capital." *Journal of Small Business Management*, Vol.57, No.1, pp.206-229.
- Dimitratos, P., Lioukas, S. & Carter, S. (2004). "The relationship between entrepreneurship and international performance: The importance of domestic environment." [International Business Review](#), Vol.13, No.1, pp.19-41.
- Fairlie, R. W. & Holleran, W. (2012). "Entrepreneurship training, risk aversion and other personality traits: Evidence from a random experiment." *Journal of Economic Psychology*, Vol.33, No.2, pp. 366–378.
- Faisal, M. N., Jabeen, F., I. & Katsioloudes, M. (2017). "Strategic interventions to improve women entrepreneurship in GCC countries". *Journal of Entrepreneurship in Emerging Economies*, Vol. 9, No.2, pp.161–180.
- Fayolle, A. & Gailly, B. (2015). "The impact of entrepreneurship education on entrepreneurial attitudes and intention: Hysteresis and persistence." [Journal of Small Business Management](#), Vol. 53, No.1, pp. 75-93.
- Galloway, L., & Brown, W. (2002). "Entrepreneurship education at university: a driver in the creation of high growth firms?" *Education + Training*, Vol. 44, No. 8/9, pp. 398–405.

- Galvao, A., Marques, C.S. & Marques, C.P. (2018). "Antecedents of entrepreneurial intentions among students in vocational training programmes." *Education & Training*, Vol. 60, No. 7/8, pp. 719-734.
- Gerba, D. (2012). "Impact of entrepreneurship education on entrepreneurial intentions of business and engineering students in Ethiopia." *African Journal of Economic and Management Studies*, Vol. 3, pp. 258-277.
- Gewinner, I. (2017). "Gendered Career Choices and Stereotypes: A Theoretical Approach." In *Discourses on Gender and Sexual Inequality*, Vol. 23, pp. 71-89.
- Gichuki, C. N., Mulu-Mutuku, M. & Kinuthia, L. N. (2014). "Performance of women owned enterprises accessing credit from village credit and savings associations in Kenya". *Journal of Global Entrepreneurship Research*, Vol. 4, No.1, pp. 1-13.
- Gimenez, C., Ventura, E. (2005). "Logistics-production, logistics-marketing & external integration: their impact on performance." *International Journal of Operations & Production Management*, Vol. 25, No.1, pp. 20-38.
- Gohar, A., Khan, G., & Dubey, R. (2012). "A demographic study of personal and psychological facilitators and barriers to entrepreneurial start-ups of India." *International Journal of Multidisciplinary*, Vol. 4, No. 2, pp. 260-266.
- Gorgievski, M.J., Stephan, U., Laguna, M. & Moriano, J.A. (2017). "Predicting entrepreneurial career intentions: Values and the theory of planned behavior." *Journal of Career Assessment*, Vol. 26, No. 3, pp.1-19.
- Gul, S.B.A. & Khan. Z. (2013) "Interventions for promoting gender equity at elementary education level in South Kashmir: An evaluative study." *International Refereed Research Journal*, Vol.4, No.3, pp. 34-42.
- Gull, N., Asghar, M., Aleem Ahmed, Q., Muhammad, A.R., Syed Jameel, A. & Ali, S.E., (2021). "Entrepreneurial orientation and international performance of born global firms: the mediating role of entrepreneurial competencies." *Vilakshan-XIMB Journal of Management*, Vol. 18, No.2, pp.122-137.
- Gurel, E., Altinay, L. & Daniele, R. (2010). "Tourism students' entrepreneurial intentions." *Annals of Tourism Research*, Vol. 37, No. 3, pp. 646-669.
- Hamdani, N.A., Ramadani, V., Anggadwita, G., Maulida, G.S., Zuberi, R. & Maalaoui, A. (2023), "Gender stereotype perception, perceived social support and self-efficacy in increasing women's entrepreneurial intentions", *International Journal of Entrepreneurial Behavior & Research*, Vol. 29, No. 6, pp. 1290-1313. <https://doi.org/10.1108/IJEER-02-2023-0157>
- Hair, J. F., Black, W. C., Babin, B. J. & Anderson, R. E. (2010). *Multivariate data analysis (7thEd.)*, Prentice Hall.
- Harrison, R.T. & Leitch, C. (2010). "Voodoo institution or entrepreneurial university? spin-off companies, the entrepreneurial system and regional development in the UK." *Regional Studies*, Vol. 44, No.9, pp. 1241-1262.
- Ikpesu, O.C. (2016). "University-industry linkages as determinant of students' entrepreneurial orientation in rivers state public universities." *Advances in Social Sciences Research Journal*, Vol. 3, No. 13, pp.109-118.
- Jabbouri, R., Truong, Y., & Issa, H. (2024). "The impact of local entrepreneurial initiatives on women entrepreneur empowerment: the case of cooperative social ventures in Morocco." *International Journal of Entrepreneurial Behavior & Research*. Vol. 30, No. 7, pp. 1838-1866. <https://doi.org/10.1108/IJEER-04-2023-0427>
- Jain, R. (2011). "Entrepreneurial competencies: A meta-analysis & comprehensive conceptualization for future research." *Vision-The Journal of Business Perspective*, Vol. 15, No. 2, pp.127-152.
- Javadian, G. & Singh, R.P. (2012). "Examining successful Iranian women entrepreneurs: an exploratory study." *Gender in Management: An International Journal*, Vol. 27, No. 3, pp. 148-164.
- Jyoti, J., Sharma, J. & Kumari, A. (2011). "Factors affecting orientation and satisfaction of women entrepreneurs in rural India." *Annals of Innovation & Entrepreneurship*, Vol. 2, No.1, pp. 5813.
- Kabeer, N. (1999). "Resources, agency, achievements: Reflections on the measurement of women's empowerment." *Development and change*, Vol. 30, No. 3, pp. 435-464.
- Kapinga, A. F. & Suero Montero, C. (2017). "Exploring the socio-cultural challenges of food processing women entrepreneurs in Iringa, Tanzania and strategies used to tackle them." *Journal of Global Entrepreneurship Research*, Vol. 7, No. 1, pp. 17.
- Kapur, R. (2018). Women entrepreneurs in India', Available at: https://www.researchgate.net/publication/323825716_The_Importance_of_Entrepreneurship_in_India.
- Kautonen, T., van Gelderen, M. & Fink, M. (2015). "Robustness of the theory of planned behaviour in predicting entrepreneurial intentions and action."

Entrepreneurship Theory and Practice, Vol. 39, pp. 655–674.

- Khan, A.M., Arafat, M.Y., Raushan, M.A., Saleem, I. & Khan, M.M. (2019). “Does intellectual capital affect the venture creation decision in India?” *Journal of Innovation and Entrepreneurship*, Vol. 8, No. 10, pp. 1-15.

- Khan, S.A., Sharma, P.P. & Thoudam, P. (2019). “Role of attitude and entrepreneurship education towards entrepreneurial orientation among business students of Bhutan.” *International Journal of Recent Technology and Engineering*, Vol. 8, No.3, pp. 335-342.

- Kirkley, W. W. (2017). “Cultivating entrepreneurial behaviour: entrepreneurship education in secondary schools”. *Asia Pacific Journal of Innovation and Entrepreneurship*, Vol. 11, No.1, pp. 17-37.

- Kuttim, M., Kallaste, M., Venesaar, U. & Kiis, A. (2014). “Entrepreneurship education at university level and students entrepreneurial intentions.” *Journal Procedia - Social and Behavioral Sciences*, Vol. 110, pp. 658-668.

- Lao, G., Villamayor, D.J.F., Campos, F.W.H. & Dasmariñas, H.A.Q. (2022). “Career Choice: A Case Study of College Students Shifting Career Paths”. *Indonesian Journal of Educational Research and Technology*, Vol. 3, No. 2, pp. 135-140.

- Lassithiotaki, A. (2011). “Rural women and entrepreneurship: a case study in Heraklion Crete prefecture, Greece.” *Journal of Developmental Entrepreneurship*, Vol. 16, No. 2, pp. 269-284.

- Lee, S., Chang, D. & Lim, S. (2005). “Impact of entrepreneurship education: A comparative study of the U.S. and Korea.” *International Entrepreneurship and Management Journal*, Vol. 1, No. 1, pp. 27–43.

- Lent, R. W. & Brown, S. D. (2013). “Social cognitive model of career self-management: Toward a unifying view of adaptive career behavior across the life span.” *Journal of Counseling Psychology*, Vol. 60, No.4, pp. 557–568.

- Lent, R. W., Brown, S. D. & Hackett, G. (2000). “Contextual supports and barriers to career choice: A social cognitive analysis.” *Journal of Counseling Psychology*, Vol. 47, No. 1, pp. 36–49.

- Li, L. & Wu, D. (2019). “Entrepreneurial education and students' entrepreneurial intention: Does team cooperation matter?” [Journal of Global Entrepreneurship Research](#), Vol. 9, No. 1, pp. 1-13.

- Li, Y.-H., Huang, J.-W. & Tsai, M.-T. (2009). “Entrepreneurial orientation and firm performance:

The role of knowledge creation process.” *Industrial Marketing Management*, Vol. 38, No. 4, pp. 440–449.

- Lin, L., Abetti & P.A. (2010). “Entrepreneurship in China during the transition from state ownership to free market: case study of a woman entrepreneur (1994 to 2010).” *International Journal of Entrepreneurship & Innovation Management*, Vol. 16, No. 3/4, pp. 137-158.

- Liu, X., Lin, C., Zhao, G. & Zhao, D. (2019). “Research on the effects of entrepreneurial education and entrepreneurial self-efficacy on college students' entrepreneurial intention.” *Frontiers in Psychology*, Vol.10, pp.1-18.

- Lumpkin, G. T., Cogliser, C. C. & Schneider, D. R. (2009). “Understanding and measuring autonomy: An entrepreneurial orientation perspective.” *Entrepreneurship Theory and Practice*, Vol. 33, No. 1, pp. 47–69.

- Ma’atooft A., Reza dan & Tajeddini K. (2010). “The effect of entrepreneurship orientation on learning orientation and innovation: A study of small-sized business firm in Iran.” *International Journal of Trade, Economics and Finance*, Vol. 1, No. 3, pp. 254-260.

- Malhotra, N.K. (2004). *Marketing Research*, Prentice Hall, New Jersey.

- [Mantok, S.](#) (2016). “Role of women entrepreneurship in promoting women empowerment.” *International Journal of Management and Applied Science (IJMAS)*, Vol. 2, No. 9, pp. 204-207, Special Issue-1.

- Maresch, R.D.H, Kailer, B. N. & Wimmer-Wurm (2016). “The impact of entrepreneurship education on the entrepreneurial intention of students in science and engineering versus business studies university programs.” *Technology Forecasting Social Change*, Vol.104, pp. 172-179.

- Mathibe, M. & Oppong, C. (2024). “Sustainable entrepreneurship: A catalyst for unemployment reduction and economic growth in Anglophone and Francophone countries.” *Business Strategy and Development*, Vol. 7, No. 2, pp.1-10.

- [Matlay, H.](#) (2008). “The impact of entrepreneurship education on entrepreneurial outcomes.” [Journal of Small Business and Enterprise Development](#), Vol.15, No.2, pp. 382-396.

- Mehtap, S., Caputo, A., & Pellegrini, M. M. (2017). “Encouraging female entrepreneurship in Jordan: environmental factors, obstacles and challenges.” *Entrepreneurship and management in an Islamic context*, pp. 207-225. https://doi.org/10.1007/978-3-319-39679-8_13.

- Millman, C., Li, Z., Matlay, H. & Wong, W. (2010). "Entrepreneurship education and students' internet entrepreneurship intentions evidence from Chinese HEIs." *Journal of Small Business and Enterprise Development*, Vol. 17, No. 4, pp. 569-590.
- Mir, U.A., Bala, S. (2016). "An empirical assessment of women entrepreneurship initiatives of JKEDI (Jammu & Kashmir Entrepreneurship Development Institution)." *Journal of Management Sciences and Technology*, Vol. 3, No. 2, pp. 42-62
- Mohammadinezhad, S. & Sharifzadeh, M. (2017). "Agricultural entrepreneurship orientation: is academic training a missing link?" *Education + Training*, Vol. 59, No. 7/8, pp. 856-870.
- Moroz, P.W. & Hindle, K. (2011). "Entrepreneurship as a process: Toward harmonizing multiple perspectives." *Entrepreneurship Theory and Practice*, Vol. 36, No.4, pp.781-818.
- Moses, C.L., Olokundun, M., Akinbode, M. & Agboola, M.G. (2016). "Entrepreneurship education and entrepreneurial intentions: The moderating role of passion." *The Social Sciences*, Vol. 11, No. 5, pp. 645-653.
- Mutluturk, M. & Mardikyan, S. (2018). "Analysing factors affecting the individual entrepreneurial orientation of university students." *Journal of Entrepreneurship Education*, Vol. 21(1S), pp.1-15.
- Nachimuthu, G.S. & Gunatharan, B. (2012). "Empowering women through entrepreneurship: A study in Tamil Nadu, India." *International Journal of Trade Economics and Finance*, Vol. 3, No. 2, pp.143-147.
- Ndofirepi, T.M. (2020). "Relationship between entrepreneurship education and entrepreneurial goal intentions: Psychological traits as mediators." *Journal of Innovation and Entrepreneurship*, Vol. 9, No.2, pp.1-20.
- Ng, P.Y., Wood, B.P. & Bastian, B.L. (2022), "Reformulating the empowerment process through women entrepreneurship in a collective context", *International Journal of Entrepreneurial Behavior & Research*, Vol. 28, No.9, pp. 154-176. <https://doi.org/10.1108/IJEBr-06-2021-0479>
- Nguyena, T.L., Nguyenb, H.T., Nguyenb, N.H., Nguyenb, D.L., Nguyenb, T.T.D., Le, D.L. (2023). "Factors affecting students' career choice in economics majors in the COVID-19 post-pandemic period: A case study of a private university in Vietnam." *Journal of Innovation & Knowledge*, Vol. 8, pp. 1-10.
- [Nyadu-Addo, R.](#) & [Mensah, M.S.B.](#) (2018). "Entrepreneurship education in Ghana – the case of the KNUST entrepreneurship clinic." *Journal of Small Business and Enterprise Development*, Vol. 25, No. 4, pp. 573-590.
- Nyello, R., Kalufya, N., Rengua, C., Nsolezi, M. J. & Ngirwa, C. (2015). "Effect of entrepreneurship education on the entrepreneurial behaviour: The case of graduates in the higher learning institutions in Tanzania." *Asian Journal of Business Management*, Vol. 7, No. 2, pp.37-42.
- OECD (1988). *OECD Economic Outlook*, Volume 1988 issue 1. Available at: https://www.oecd-ilibrary.org/economics/oecd-economic-outlook-volume-1988-issue-1_eco_outlook-v1988-1-en.
- Olutuase, S.O., Brijlal, P., Yan, B. & Ologundudu, E. (2018). "Entrepreneurial orientation and intention: Impact of entrepreneurial ecosystem factors." *Journal of Entrepreneurship Education*, Vol. 21, No. 3, pp.1-14.
- Oosterbeek, H., van Praag, M. & Ijsselstein, A. (2010). "The impact of entrepreneurship education on entrepreneurship skills and motivation." *European Economic Review*, Vol. 54, No. 3, pp. 442-454.
- Ozaralli, N. & Rivenburgh, N.K. (2016). *Entrepreneurial intention: Antecedents to entrepreneurial behavior in the U.S.A. and Turkey*. *Journal of Global Entrepreneurship Research*, Vol. 6, pp. 1-32.
- Pahuja, A., & Sanjeev, R. (2015). *Introduction to Entrepreneurship*. Available at SSRN 2761878. doi: <https://doi.org/10.2139/ssrn.2761878>
- Pandit, N. (2016). *Enhancing women's empowerment: Reflections from Jammu and Kashmir*. *BEST: International Journal of Humanities, Arts, Medicines and Sciences*, Vol. 4, No. 1, pp. 67-72.
- Preacher, K.J. & Hayes, A.F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, & Computers*, Vol. 36 No. 4, pp. 717-731.
- Rahim, I.H.A., Fabeil, N.F. & Sung, T.P. (2017). "Motivator and challenges of women entrepreneurs." *Journal of Global Business and Social Entrepreneurship*, Vol.1, No. 3, pp. 111-121.
- Rahman, S.A., Ahmad, N.H. & Taghizadeh, S.K. (2016). "Entrepreneurial competencies of BOP entrepreneurs in Bangladesh to achieve business success." *Journal of General Management*, Vol. 42, No.1, pp. 45-63.
- Rauch, A. & Hulsink, W. (2015). "Putting entrepreneurship education where the intention to act lies: An investigation into the impact of

entrepreneurship education on entrepreneurial behavior." Academy of Management Learning and Education, Vol.14, No. 2, pp.187-204.

- Rezaei, J. & Ortt, R. (2018). "Entrepreneurial orientation and firm performance: the mediating role of functional performances." Management Research Review, Vol. 41, No. 7, pp. 878-900.
- Rialti, R., Pellegrini, M. M., Caputo, A. & Dabic, M. (2017). "Entrepreneurial education and internationalisation of firms in transition economies: A conceptual framework from the case of Croatia." [World Review of Entrepreneurship Management and Sustainable Development](#), Vol. 13, No. 2/3, pp.1-16.
- Rosique-Blasco, M., Madrid-Guijarro, A. & García-Pérez-de-Lema, D. (2016). "Entrepreneurial skills and socio-cultural factors: An empirical analysis in secondary education students." Education & Training, Vol. 58, No. 7-8, pp. 815–831.
- Safi, F.A. & Doneys, P. (2019). "Exploring the influence of family level and socio-demographic factors on women's decision-making ability over access to reproductive health care services in Balkh province, Afghanistan." Health Care for Women International, Vol. 41, No.7, pp. 833-852.
- Sarfaraz, L., Faghih, N. & Majd, A.A. (2014). "The relationship between women entrepreneurship and gender equality." Journal of Global Entrepreneurship Research, Vol. 4, No. 6, pp. 1-11.
- Shepherd, D. A., Williams, T. A. & Patzelt, H. (2015). "Thinking about entrepreneurial decision making: Review and research agenda." Journal of Management, Vol. 41, No.1, pp. 11–46.
- Siebert, J.U., Becker, M. & Oeser, N. (2022). "Making a good career choice: A decision-analytical intervention to enhance proactive decision-making and career choice self-efficacy in high school students". Decision Sciences: Journal of Innovative Education, Vol. 21, No.1, pp. 10–25.
- Stam, W., Elfring, T. (2008). "Entrepreneurial orientation and new venture performance: the moderating role of intra-and extra industry social Capital". Academy of Management Journal, Vol. 51, No. 1, pp. 97-111.
- Sullivan, D.M. & Meek, W.R. (2012). "Gender and entrepreneurship: A review and process model." Journal of Managerial Psychology, Vol. 27, No. 5, pp. 428-458.
- Swierczek, F.W. & Ha, T.T. (2003). "Entrepreneurial Orientation, Uncertainty Avoidance and Firm Performance: An Analysis of Thai and Vietnamese SMEs." [International Journal of Entrepreneurship and Innovation](#), Vol. 4, No. 1, pp. 46-58.
- Teixeira, S., Casteleiro, C., Rodrigues, R.G. & Guerra, M.D. (2018). "Entrepreneurial intentions and entrepreneurship in European countries." [International Journal of Innovation Science](#), Vol. 10, No. 2, pp. 22-42.
- Timmons, J. A. (1985). "New Venture Creation". 2nd ed. Richard D. Irwin, Homewood.
- Timmons, J. & Spinelli, S. (2008). "New venture creation: Entrepreneurship for the 21st century." Chicago, IL: McGraw Hill.
- Ullah, F., Abbas, Q. & Akbar, S. (2010). "The relevance of pecking order hypothesis for the financing of computer software and biotechnology small firms: Some UK evidence." International Entrepreneurship and Management Journal, Vol 6, pp. 301–315.
- Urban, B. (2010). "A gender perspective on career preferences and entrepreneurial self-efficacy." SA Journal of Human Resource Management, Vol.8, No.1, pp. 293-300.
- Van Praag, C. M. & Versloot, P. H. (2007). "What is the value of entrepreneurship? A review of recent research". Small Business Economics, Vol. 29, No. 4, pp. 351–382.
- Verheul, I., Stel, A.V. & Thurik, R. (2006). "Explaining female and male entrepreneurship at the country level." [Entrepreneurship and Regional Development](#), Vol.18, No. 2, pp.1-54.
- Wakkee, I., Elfring, T. & Monaghan, S. (2010). "Creating entrepreneurial employees in traditional service sectors. The role of coaching and self-efficacy." International Entrepreneurship and Management Journal, Vol. 6, pp. 1–21.
- Wales, W.J., Patel, P.C., Parida, V. & Kreiser, P.M. (2013). "Non-linear effects of EO on small firm performance: The moderating role of resource orchestration capabilities." Strategic Entrepreneurship Journal, Vol. 7, No. 2, pp. 93–121.
- Westhead, P., M. Z. & Solesvik. (2015). "Entrepreneurship Education and Entrepreneurial Intention: Do Female Students Benefit?" International Small Business Journal, Vol. 34, No. 8, pp. 979–1003.
- Wiklund, J. & Shepherd, D.A. (2003). "Knowledge-Based Resources, Entrepreneurial orientation, and the performance of small and medium-sized business." [Strategic Management Journal](#), Vol. 24, No.13, pp. 1307 – 1314.
- Wiklund, J. & Shepherd, D.A. (2005). "Entrepreneurial orientation and small business performance: A configurational approach." [Journal of Business Venturing](#), Vol. 20, No. 1, pp. 71-91.

- Wilson, F., Kickul, J. & Marlino, D. (2007). "Gender, entrepreneurial self-efficacy, and entrepreneurial career intentions: Implications for entrepreneurship education." *Entrepreneurship Theory & Practice*, Vol. 31, No. 3, pp. 387-401.
- Woldie, A. & Adersua, A. (2004). "Female entrepreneurs in a transitional economy business woman in Nigeria." *International Journal of Social Economics*, Vol. 31, No.1/2, pp. 78-93.
- Wright, M. & Mustar, P., (2019). *Student start-ups: The new landscape of academic entrepreneurship*, Vol. 1. World Scientific. doi: <https://doi.org/10.1142/11494>
- Yadav, V. & Unni, J. (2016). "Women entrepreneurship: Research review and future directions". *Journal of Global Entrepreneurship Research*, Vol. 6, pp. 1-18, <https://doi.org/10.1186/s40497-016-0055-x>.
- Yang, H., Zhang, L., Wu, Y.J., Shi, H. & Xie, S. (2021). "Influence of entrepreneurial orientation on venture capitalists' initial trust." *Frontiers in Psychology*, Vol. 12, pp. 1-17. <https://doi.org/10.3389/fpsyg.2021.633771>
- Yildirim, N., Cakir, O. & Askun, O.B. (2016). "Ready to dare? A case study on the entrepreneurial intentions of business and engineering students in Turkey." *Procedia - Social and Behavioral Sciences*, Vol. 229, pp. 277-288.
- Yildiz, K. (2018). "The effect of career decisions on entrepreneurial intention levels of university students studying sport services." *Journal of Education and Training Studies*, Vol. 6, No. 4, pp. 13-18.
- Yusof, M. & Jain, K. K. (2010). "Categories of university-level entrepreneurship: A literature survey". *International Entrepreneurship and Management Journal*, Vol. 6, pp. 81-96.
- Zaato, S.G., Ismail, M., Uttamaputhran, S., Owusu-Ansah, W. & Owusu, J. (2021). "The Influence of Entrepreneurial Orientation on SMEs Performance in Ghana: The Role of Social Capital and Government Support Policies." *Nature Public Health Emergency Collection*, Vol. 194, pp. 1276-1301.
- Zhakupov, Y.K, Berzhanova, A.M., Mukhanova, G.K., Baimbetova, A.B. & Mamutova, K.K. (2023). "The impact of entrepreneurship on the socio-economic development of regions". *Business Strategy and Development*, Vol. 6, No. 1, pp. 13-19.
- Zhao, H., Seibert, S. E. & Hills, G. E. (2005). "The Mediating Role of Self-Efficacy in the Development of Entrepreneurial Intentions." *Journal of Applied Psychology*, Vol. 90, No. 6, pp. 1265-1272.
- Zimmerer, T.W. & Scarborough, N.M. (2008). *Essentials of entrepreneurship and small business management*. Prentice Hall.

Appendix:

Figures

Theoretical Framework

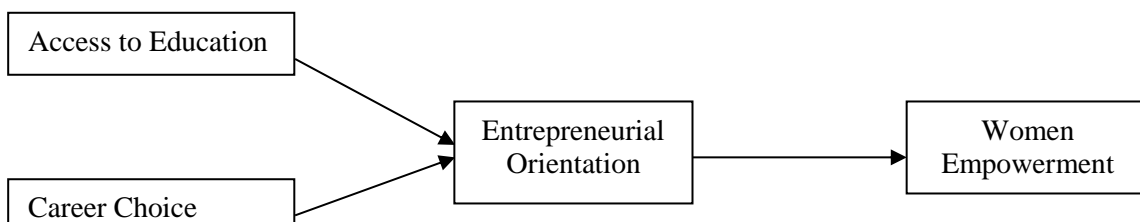


Figure 1: Conceptual model

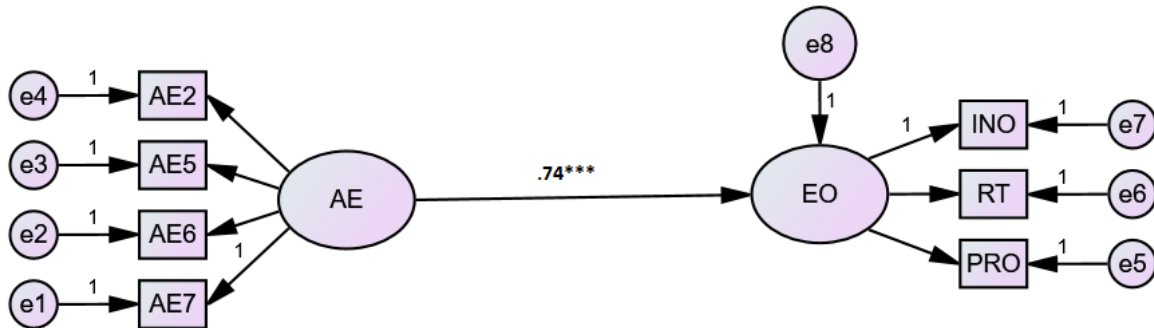


Figure 2: Impact of access to education on entrepreneurial orientation

Key: AE= Access to Education, EO= Entrepreneurial orientation, INO = Innovativeness, RT = Risk-taking, PRO = Proactiveness, e1-e8= error terms.

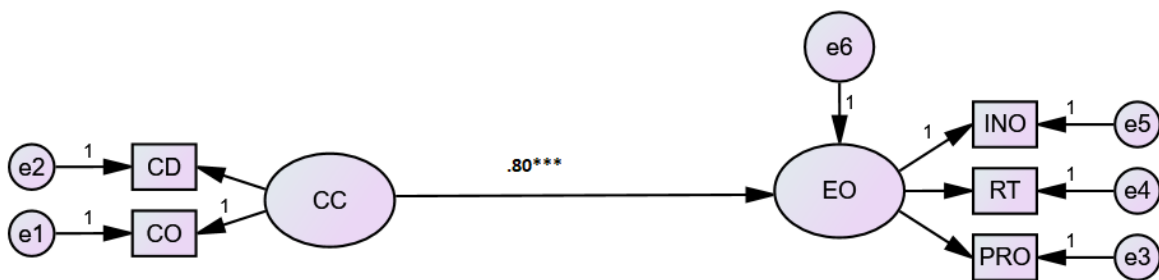


Figure 3: Impact of career choice on entrepreneurial orientation

Key: CC= Career Choice, EO= Entrepreneurial orientation, CD = Career Decision, CO = Career Opportunities and Development, INO = Innovativeness, RT = Risk-taking, PRO = Proactiveness, e1-e6= error terms.

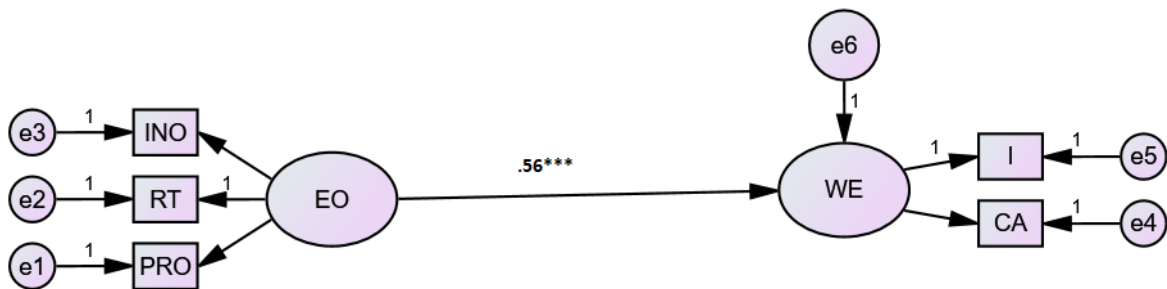


Figure 4: Impact of entrepreneurial orientation on women empowerment

Key: EO= Entrepreneurial orientation, WE= Women Empowerment, INO = Innovativeness, RT = Risk-taking, PRO = Proactiveness, I = Influence on firm matters, CA = Competency & Autonomy, e1-e6 = error terms.

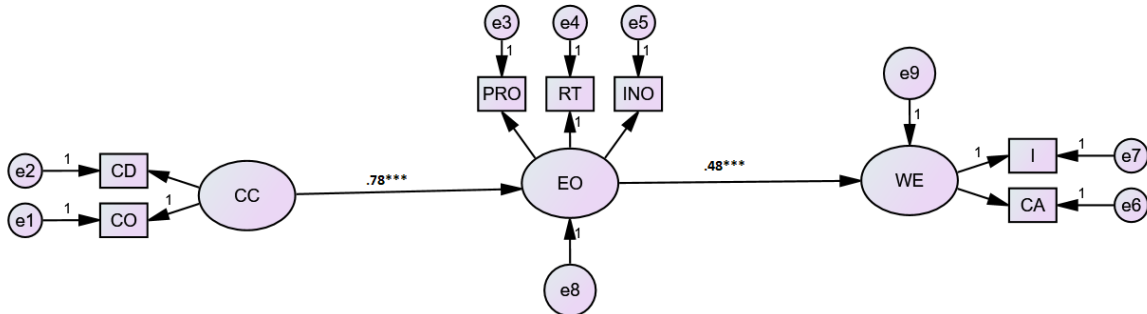


Figure 5: Impact of career choice on women empowerment via entrepreneurial orientation.
 Key: CC = Career Choice, EO= Entrepreneurial orientation, WE = Women Empowerment, INO = Innovativeness, RT = Risk-taking, PRO = Proactiveness, I = Influence on firm matters, CA = Competency & Autonomy, CD = Career Decision, CO = Career Opportunities and Development, e1-e9 = Error terms.

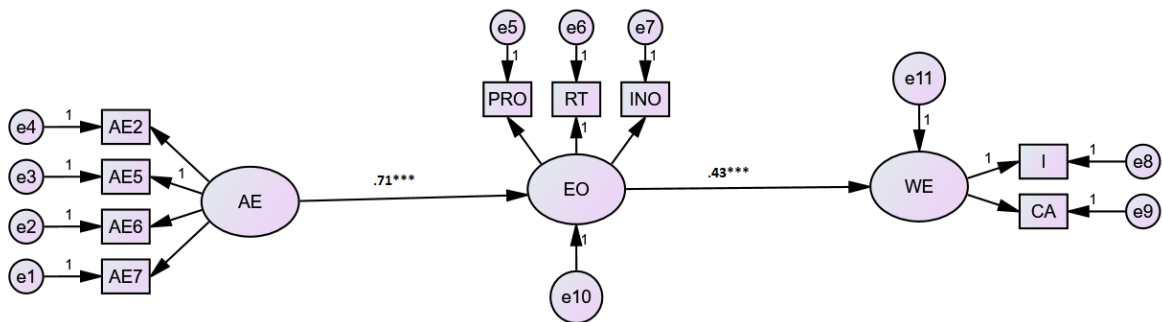


Figure 6: Impact of Access to education on women empowerment via entrepreneurial orientation
 Key: AE=Access to Education, EO= Entrepreneurial orientation, WE= Women Empowerment, INO = Innovativeness, RT = Risk-taking, PRO = Proactiveness, I = Influence on firm matters, CA = Competency & Autonomy, e1-e11 = Error terms.

Tables

Table 1: Summary of Confirmatory Factor Analysis							
Scales	χ^2/df	GFI	AGFI	NFI	RFI	CFI	RMSEA
Women Empowerment	1.792	0.985	0.954	0.964	0.923	0.983	0.055
Career Choice	2.204	0.949	0.912	0.954	0.935	0.974	0.068
Access to Education	1.252	0.995	0.975	0.990	0.971	0.998	0.031
Entrepreneurial Orientation	2.947	0.929	0.886	0.880	0.839	0.916	0.081

Table 2: Reliability and Validity Analysis										
Constructs	Items	FL	C	KMO	V.E.	SRW	Mean	AVE	Composite Reliability	Cronbach's Alpha
Access to Education				0.744	50.00		3.97	0.841	0.952	0.731
	AE2	0.607	0.369			0.57				
	AE5	0.617	0.380			0.47				
	AE6	0.830	0.689			0.91				
	AE7	0.986	0.679			0.73				
Career Choice				0.888	66.843		4.09	0.913	0.990	0.896
Career Decisions							4.14			
	CC1	0.794	0.647			0.70				
	CC4	0.786	0.686			0.76				
	CC5	0.845	0.770			0.86				
	CC6	0.849	0.813			0.92				
Career opportunities & Development facilities							4.04			
	CC7	0.616	0.571			0.67				
	CC8	0.581	0.588			0.72				
	CC9	0.760	0.677			0.77				
	CC10	0.717	0.703			0.85				
	CC11	0.804	0.667			0.68				
	CC12	0.748	0.562			0.52				
Women Empowerment							4.38	0.924	0.986	0.730
Influence on firm matters							4.39			
	WE7	0.685	0.538			0.59				
	WE8	0.864	0.754			0.76				
	WE9	0.825	0.691			0.74				
Competence and Autonomy							4.36			
	WE3	0.752	0.574			0.57				
	WE4	0.708	0.568			0.67				
	WE5	0.807	0.660			0.68				
Entrepreneurial Orientation				0.804	63.963		4.34	0.940	0.994	0.834
Innovativeness							4.30			
	EO1	0.666	0.565			0.680				
	EO2	0.732	0.636			0.772				
	EO3	0.762	0.648			0.733				
	EO4	0.731	0.562			0.630				
	EO5	0.786	0.649			0.633				
Risk-taking							4.37			

	EO8	0.631	0.515			0.564			
	EO9	0.784	0.658			0.737			
	EO10	0.774	0.654			0.693			
	EO11	0.752	0.609			0.692			
Proactiveness							4.38		
	EO15	0.851	0.780			0.763			
	EO16	0.829	0.757			0.803			

Table 3: Discriminant Validity and Correlation Analysis

Constructs	Access to Education	Career Commitment	Women Empowerment	Entrepreneurial Orientation
Access to Education	0.841			
Career Commitment	(0.305) .553**	0.913		
Women Empowerment	(0.022) .150**	(0.050) .225**	0.924	
Entrepreneurial Orientation	(0.266) 0.516**	(0.344) 0.587**	(0.091) 0.303**	0.940

Note. Values on the diagonal axis represent Average Variance Extracted and values in parenthesis represent squared correlation between the constructs. The values with asterisk represent correlation values.
**= $p < .01$

Table 4: Bootstrapping results for Mediation

Hypothesis	CC→EO	EO→WE	Indirect effect	LL95% / UL 95%
CC→EO→WE	0.78***	0.48***	0.37*	0.223/0.525

Note:*** $p < 0.001$, ** $p < 0.01$; N = 5000 Bootstrapping re samples; LL BCA and UL BCA= Lower level and Upper level of the bias corrected and accelerated confidence interval.
Key: CC = Career Choice, EO= Entrepreneurial orientation, WE = Women Empowerment.

Table 5: Bootstrapping results for Mediation

Hypothesis	AE→EO	EO→WE	Indirect effect	LL95% / UL 95%
AE→EO→WE	0.70***	0.43***	0.30*	0.158/0.456

Note:*** $p < 0.001$, ** $p < 0.01$; N = 5000 Bootstrapping re samples; LL BCA and UL BCA= Lower level and Upper level of the bias corrected and accelerated confidence interval.
Key: AE= Access to Education, EO= Entrepreneurial orientation, WE = Women Empowerment.