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The Mediating Role of Competitiveness Between Entrepreneurial Challenges and Willingness of Female Business Graduates

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Abstract

This research examines the challenges of female business graduate entrepreneurs; we have developed a modified conceptual framework in which willingness to become an entrepreneur has been taken as a dependent variable. However, financial, cultural, marketing, and technological challenges are independent variables. Additionally, we incorporated competitiveness as a mediation variable between independent and dependent variables. The competitiveness could be beneficial to the female business graduates' entrepreneurs and might be reduced by their financial, marketing, cultural, and technological challenges. The data was collected through a modified structured questionnaire from the entrepreneurs of female business graduates. The information was collected from Pakistan, India, Bangladesh, and Sri Lanka; we have collected 386 responses for the period from February 2021 to July 2021. We employed a structural equation modeling-based (SEM-based) multivariate approach and conditional process modeling for the data analysis. The findings of this research exhibit that the financial challenges, cultural challenges, marketing challenges, and technological challenges have a significant negative impact on female business entrepreneurs. These are the constraints that restrict female business graduates' entrepreneurial opportunities. On the other hand, the mediation analysis showed that competitiveness has a positive and significant impact between financial challenges, cultural challenges, marketing challenges, & technological challenges, and willingness to become an entrepreneur. The perfect mediation of competitiveness established that the business success of SMEs does not rely on the individuals' competencies and success factors only, but organizational competitiveness is equally essential for organizational performance.

Keywords: female business graduates, willingness of entrepreneurs, financial challenges, cultural challenges, marketing challenges, technological challenges, competitiveness
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1. INTRODUCTION

It is a general observation that several people follow their colleagues, friends, relatives, and surrounding people in their academic or business careers. People also respond quickly to buzz words like entrepreneurs, biologists, administrators, etc. (Yustian et al., 2021). They prefer to opt for these professions just like fashion, knowing their self-capabilities. Further, the impact of society, religion, and culture is noticeable too, and gender differences exist in every society (Piva & Rovelli, 2021). It is more difficult for women to make free decisions regarding their careers, particularly in male-dominated societies (Turnbull et al., 2020; Hamid, 2020). Business education is one of the popular fields in the Public and Private sectors of education. A large number of female graduates acquire the degrees of BBA & MBA every year (Shaheen et al., 2019). According to Hussain et al. (2021), only 22% of females are part of the workforce, and only 1% of women are entrepreneurs (Hussain et al., 2021). Female entrepreneurs can boost economies like Taiwan, Japan, Pakistan, India, South Korea, Hong Kong, and China. The worldwide over 51.5% of the population can play a pivotal role in the economic revolution in the region. There will be significant changes in the post-Corona era, and women can contribute a lot if they set their minds to becoming entrepreneurs (Ahmed et al., 2020). Covid-19 has put the world in high recession and extreme poverty (people who earn less than $1.90 in a day will increase from 0.7 % to 9%). This rapid acceleration from covid-19 cannot be dealt with successfully without the participation of women in revenue-generating activities (Ochnik, 2020). Economically South Asian region is the first thickly populated region worldwide (Hussain et al., 2021; Tisdell et al., 2020; Caseiro & Coelho, 2018). Competitiveness can increase the success of the SME business if the organizational competitiveness and entrepreneurial competence of individuals are synchronized, and entrepreneurial challenges may be reduced (Ochnik, 2020). Thus, it is established from the previous studies that the business success of SMEs not only relies upon the individuals' competencies and success factors, but the organizational competitiveness is equally crucial for the organizational performance. Previous literature, for instance, Ferreira et al. (2017) and Caseiro & Coelho (2018), established that competitiveness has a significant and positive influence as a mediating construct for the success of entrepreneurial efforts and SME business success offsets the entrepreneurial challenges.

The term entrepreneurship is not new and rapidly penetrating the academic world. Many scholars have contributed substantially to the research world. They mainly focus on developed countries with different economic, political, legal, and cultural environments (Burbar & Shkukani, 2021). Women Entrepreneurs have been exclusively focused on urban centers of developing countries (Erogul & Na, 2021; Hamid, 2020). Previous studies primarily targeted the urban centers while ignoring rural women's entrepreneurship, which creates a gap. Therefore, such studies cannot be generalized (Shaheen et al., 2019). Thus, in this study, an attempt is made to understand women's entrepreneurship-focused in both urban & rural areas. Therefore, the results of this study are expected to be applicable and generalized for the entire regional developing economies. The good sign is that the female contribution is over 50% enrolled in higher education, mainly in market-oriented disciplines like MBBS, Engineering, and Business administration (Shaheen et al., 2019). They are restricted only to household activities and children's upbringing (Hafiz et al., 2020). As a result, developing countries' economic conditions are unstable, and mainly,

developing counties' dream of becoming economic champions is not coming true after several years of their independence (Hussain et al., 2021). Covid-19 has been damaging the entire world, and even the strong economies are in grey zones (Ahmed et al., 2020). Women's aggressive participation as entrepreneurs will help thousands of families better survive after covid-19. This research study focuses on the challenges that changed the minds of business graduates to have a start-up small-medium enterprise (SMEs). Despite having a degree in Business Administration and brilliant skills, most business graduates females either go into the service sector or do nothing after getting married, but they are scared to be pragmatic entrepreneurs (Hamid, 2020; Stephens, 2020). The issues are motivational factors to become entrepreneurs, and the four influencing factors like financial, cultural, marketing, and technological factors become the success of women entrepreneurship (Kumar & Shukla, 2019). Researchers have considered financing challenges, which has significantly affect the women entrepreneurs of developing countries because financial institutions consider women entrepreneurs chancier as compared to the men entrepreneurs. Developing countries have different cultures and environments, and the problems of South Asian women vary from other developing countries (Malinao, 2021), therefore, this research specifically focused on women entrepreneurs belonging to South Asian countries. The marketing challenges are also a significant task for women business graduates where male dominancy to control the market is severe (Turnbull et al., 2020; Stephens, 2020). The women entrepreneurs of developing countries are far behind; therefore, as a result, they remain to fail to get maximum benefits from advanced technologies (Yusuf & Ibrahim, 2021). The research questions of the study are as follows:

- Do financial, cultural, marketing, and technological challenges significantly impact the willingness of prospective business graduate women to become entrepreneurs?
- What is the role of competitiveness between entrepreneurial changes and the willingness of business graduates to become entrepreneurs?

Several studies have been conducted on women's entrepreneurship in developing countries, such as Pakistan, India, Bangladesh, and others. Scholars have focused on different dimensions of entrepreneurship and women entrepreneurship, like traits & skills of entrepreneurs, problems faced by women entrepreneurs, the impact of microfinance on women entrepreneurs and women entrepreneurs, and SMEs' growth in their studies (Tisdell et al., 2020; Shaheen et al., 2019). This study examines the four constraints (financial, cultural, marketing, and technological) and their impact on the willingness of prospective business graduate women and the motivational factors to become entrepreneurs. The four significant challenges (financial, cultural, marketing, and technology) have been studied together and their impact on the performance of existing and prospective women entrepreneurs in rural and urban centers of South Asian countries. Further, the study simultaneously focuses on four regional countries of South Asia, such as India, Pakistan, Bangladesh, and Sri Lanka (both rural and urban centers). Additionally, we examined the impact of competitiveness as a mediating variable between independent and dependent variables.

The remaining parts of the paper comprise 1) theoretical background, 2) research objectives and methodology, 3) results and discussions, and 4) conclusion, followed by the references.

2. THEORETICAL BACKGROUND

2.1 Female business graduates' challenges in entrepreneurship

Some studies, particularly in African and Asian countries, are focused on the challenges and barriers faced by women entrepreneurs, like the free participation of women in the labor force (Burbar & Shkukani, 2021; Turnbull et al., 2020; Hamid, 2020), difficulties to having business resources (Hamid, 2020). It is necessary to know whether a woman is interested in starting her business or comfortable rendering her services. Few research studies are focused on this dimension of entrepreneurship (Basit et al., 2020). Further, most studies only focus on some selected urban and rural areas of South Asian countries (Shaheen et al., 2019; Erogul & Na, 2021; Hamid, 2020).

2.2 Financial challenges

Financial challenges significantly affect both developed and developing countries. This issue has been addressed in several earlier studies (Tisdell et al., 2020; Shaheen et al., 2019). Financial institutions or traditional sources of financing consider women entrepreneurs more precarious as compared to the men entrepreneurs. Several researchers have addressed this issue (Burbar & Shkukani, 2021; Basit et al., 2020). Less financial opportunities due to low interaction with men is also an essential component of financing constraints addressed by Echchabi et al. (2020) and Hamid (2020). Many countries start Micro-credit programs, but gender biases in microcredit programs are noticeable. Various researchers have addressed this (Abadli et al., 2020; Shaheen et al., 2019). The state plays a vital role in boosting the female entrepreneurs through taxation policies and legislation for women entrepreneurs, adequate training (Obisesan & Olayide, 2021), lack of information (Abadli et al., 2020), entrepreneurial reform for women with the collaboration of international institutions (Erogul & Na, 2021). Many scholars have focused their research on the impact of the reforms in developing countries with the cooperation of financial institutions (Erogul & Na, 2021; Hamid, 2020). Thus, we framed the following hypothesis:

H1: Financial challenges significantly influence the willingness of potential business graduate women.

2.3 Cultural challenges

Household activities and home responsibilities (cooking, washing, cleaning, and raising children) restricted women from maintaining an ideal balance between home & work assignments (Basit et al., 2020; Burbar & Shkukani, 2021). They earn less due to not capitalizing on required time in business (Erogul & Na, 2021; Turnbull et al., 2020). The most significant constraints identified by the authors are (i) women are not allowed to go out for work due to cultural restrictions and (ii) lack of marketing facilities (Uddin, 2021; Echchabi et al., 2020). The significant barriers to the growth of SMEs are family decisions like the care of children and birth rates (Malinao, 2021; Hamid, 2020). Developing countries have different cultures and environments, and the problems of South Asian women vary from other developing countries; therefore, this research specifically focused on women entrepreneurs belonging to South Asian countries (Malinao, 2021). This study identified that free business meetings with males are a significant barrier for Muslim women who restrict the women from becoming entrepreneurs. Thus, based on cultural barriers, we framed the following hypothesis:

H2: Cultural challenges significantly influence the willingness of potential business graduate women.

2.4 Marketing challenges

According to Stephens (2020) and Malinao (2021), the male dominancy is more evident to control the marketplace, marketing channels, and cultural norms in developing countries. The authors keep focused on urban and rural women entrepreneurs. They studied the factors which are barriers to female business graduates in entrepreneurship, and concluded that marketing challenges are a significant factor for women entrepreneurs. Other studies concluded that since the developing and Muslim societies are male-dominated, women are restricted from stepping into every business. They are also facing marketing challenges (Hussain et al., 2021). The males are not providing the space for them, and women do not have access to the traditional and latest marketing channels, especially in rural areas (Peterson, 2020). They work from home and cannot expedite and expand their businesses due to the lack of resources and the non-supportive behavior of their male family members (Obisesan & Olayide, 2021). Female entrepreneurs cannot advertise their products; therefore, they are limited to a specific market around them (Islam et al., 2021; Kumar & Shukla, 2019). Hence, after several years, their business does not expand, and they are still financially dependent on their male family members (Piva & Rovelli, 2021; Pobbi & Antiaye, 2020). Thus, we framed the following hypothesis:

H3: Marketing challenges significantly influence the willingness of potential business graduate women.

2.5 Technological challenges

There is a vast difference between developed and developing countries in terms of training for women (Pobbi & Antiaye, 2020). Advanced economies have adequate automatic systemic training for women entrepreneurs (Xie & Wu, 2021; Lim et al., 2021), but the women entrepreneurs of developing countries are far behind (Yusuf & Ibrahim, 2021; Kimathi et al., 2020). Therefore, as a result, they remain to fail to get maximum benefits from advanced technologies, use of modern equipment, and awareness of modern business tools (Marks, 2021; Lim et al., 2021; Okechukwu & Nwekwo, 2020). However, urban women have access to certain technologies, such as information technology, communication technology, the internet, social media platforms, and other newly developed technologies (Connolly-Barker et al., 2020; Sarwoko & Nurfarida, 2021). On the other hand, if we compare the rural entrepreneur, she does not have access to most of the latest technologies, which is a considerable barrier to their business success (Lime et al., 2021; Duft & Durana, 2020). The rural population of South Asian countries is more than 50%. Thus, it was evident that 50% of women face technological challenges or do not have proper access to technologies to boost their businesses (Hussain et al., 2021; Shaheen et al., 2019). Thus, we framed the following hypothesis:

H4: Technological challenges significantly influence the willingness of potential business graduate women.

2.6 Competitiveness as a mediating construct

The previous literature demonstrated that competitiveness as a mediating construct

strengthens SMEs' external factors and business success (Yustian et al., 2021; Srivastava et al., 2017). Competitiveness can increase the success of the SME business if the organizational competitiveness and entrepreneurial competence of individuals are synchronized (Ochnik, 2020). Thus, it is established from the previous studies that the business success of SMEs not only relies upon the individuals' competencies and success factors, but the organizational competitiveness is equally essential for the organizational performance. Previous literature, for instance, Riviere and Suder (2016), Ferreira et al. (2017), and Caseiro and Coelho (2018), established that competitiveness has a significant and positive influence as a mediating construct on the success of entrepreneurial efforts and SMEs' business success. However, the organization should also pay attention to innovation, human capital, and internal and external factors (Ochnik, 2020; Kumar & Shukla, 2019). Hence, based on the previous literature, we incorporated competitiveness as a mediating variable between financial, technological, cultural, and marketing constraints and the willingness of potential women entrepreneurs (Caseiro & Coelho, 2018; Yustian et al., 2021). Thus, we framed the following hypotheses:

H5A: Competitiveness has a significant impact as a mediating variable between financial challenges and the willingness of potential business graduate women.

H5B: Competitiveness has a significant impact as a mediating variable between cultural challenges and the willingness of potential business graduate women.

H5C: Competitiveness has a significant impact as a mediating variable between marketing challenges and the willingness of potential business graduate women.

H5D: Competitiveness has a significant impact as a mediating variable between technological challenges and the willingness of potential business graduate women.

2.7 Conceptual framework

The research process seems to be incomplete with the appropriate theoretical framework. It provides a road map to scholars and develops connected relationships between dependent and independent variables. Ahmed et al. (2019) admit that the theoretical framework is the most challenging but not impossible part. Therefore, we have developed the following conceptual framework based on the life course theory perspective and previous literature (see Figure 1).

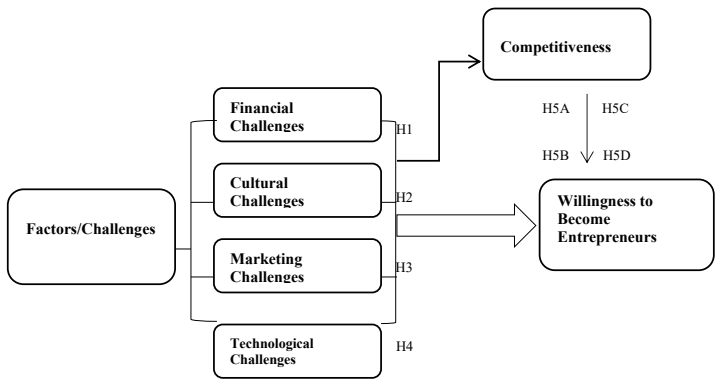

Fig. 1 – Conceptual framework of the research study. Source: own research

3. RESEARCH OBJECTIVES, METHODOLOGY, AND DATA

3.1 Research objectives of the study

The primary objective of this study is to evaluate the impact of financial, cultural, marketing and technological challenges on the willingness of the South Asian countries, including Indian, Pakistani, Bangladeshi, and Sri Lankan business graduate women, to become entrepreneurs. The further aim is to determine, among the selected constraints, which have the highest impact and evaluate the impact of competitiveness as a mediating variable between exogenous and endogenous variables. Some studies on an individual country or industry-wise are available, but the problems of rural women are primarily unaddressed. The past research studies aimed at understanding women's entrepreneurship in the urban areas while ignoring rural women's entrepreneurship, which creates a gap in the results of such studies and such results cannot be generalized. Therefore, in this study, researchers attempt to understand women's entrepreneurship, focusing on urban as well as rural areas. Thus, the results of this study are expected to apply and be generalized not only to the entire South Asian region but also to the developing economies.

3.2 Research design and sampling strategy

The pragmatic philosophy and deductive research approach are adopted for the undertaken study. There are four research philosophies: realism philosophy, positivism philosophy, interpretive philosophy, and pragmatism philosophy. Therefore, since we have adopted the deductive approach, we employed a quantitative research method to carry out this study. The respondents for willingness are those passing out business graduates (females) who have taken the subject entrepreneurship and belong to the same districts with the same ratio as the respondents who have been selected for performance. The data has been taken from the different business schools at public & private sector universities of Pakistan, India, Bangladesh, and Sri Lanka. This study exclusively focused on the entrepreneurs; therefore, service-oriented women are not eligible for this study. The population size of the dependent variable (willingness) for this study is unknown. Thus, we used the non-probability sampling technique, i.e., the purposive sampling technique.

3.3 Data collection procedure

Researchers have selected prominent business schools in the South Asian countries; 700 alumni students were approached, out of which 500 showed their willingness to become entrepreneurs. However, 386 current entrepreneur females filled up the survey questionnaires through personal e-mails, LinkedIn profiles, official websites, and personal interviews. The 125 female business graduate entrepreneurs were taken from Pakistan, 139 female business graduate entrepreneurs were selected from India, 66 from Bangladesh, and 56 female entrepreneurs were selected from Sri Lanka. The in-person data was collected by taking appointments in Pakistan; however, a questionnaire was sent through personal e-mails and WhatsApp social media. Researchers also took cell phone appointments to get the responses, especially from India, Sri Lanka, and Bangladesh. Hence, 38% of respondents recorded their responses over their cell phones and through personal interviews, and 62% of respondents filled the questionnaire through personal e-mails, LinkedIn contacts, and WhatsApp social media. Thus, the response rate was 77.2%, and it is considered a good sample size during COVID-19. As discussed above, the data was collected online and in-person, and we collected data from February 2021 to July 2021.

3.4 Measurement scales and estimation techniques

We have taken four independent variables: financial challenges, cultural challenges, marketing challenges and technological challenges. Additionally, we have incorporated competitiveness as a mediating variable between exogenous and endogenous variables. We have derived our modified & structured five-point Likert scale questionnaire from the previous literature; for instance, measurement scales of willingness were taken from previous literature (Kimathi et al., 2020; Pobbi & Antiaye, 2020; Hussain et al., 2021). The measurement scales of financial challenges were extracted from (Burbar & Shkukani, 2021; Echchabi et al., 2020; Erogul & Na, 2021), and scales of cultural challenges were taken from (Basit et al., 2020; Burbar & Shkukani, 2021). Similarly, measurement scales of marketing challenges (Stephens, 2020; Shaheen et al., 2019; Obisesan & Olayide, 2021) and technological challenges (Sarwoko & Nurfarida, 2021; Xie & Wu, 2021; Lim et al., 2021; Marks, 2021; Lim et al., 2021; Okechukwu, & Nwekwo, 2020) were extracted from the previous literature. However, the measurement scales of competitiveness are taken from (Ochnik, 2020; Kumar & Shukla, 2019; Srivastava et al., 2017; Riviere & Suder, 2016; Caseiro & Coelho, 2018). According to Anderson and Gerbing (1984), the normally distributed data sample size for the structural equation modeling ranges between ≥200–400. Therefore, the considered sample size of 386 lies within this range. Thus, we can proceed with the structural equation modeling (SEM) multivariate approach. Descriptive statistics are used to find out fundamental characteristics of the constructs, and exploratory factor analysis (rotated component matrix, KMO & Bartlett's tests, and total variance explained) is employed to ascertain the validity of items, constructs, and suitability of the data. However, the confirmatory factor analysis and fit indices examine the measurement and structural hypothesized models. Finally, conditional process modeling examined the mediation of competitiveness between exogenous and endogenous variables.

3.5 Demographic profile

We have selected female business graduate entrepreneurs from Pakistan, India, Bangladesh, and Sri Lanka. We took responses from both rural and urban centers. Thus, we received 386 complete responses; the response rate was 77.2%. The age group of 143 women belongs to 20–25 years of age, 71 women belong to the age bracket of 26–30 years old, and 73 women belong to the age group of 30–35 years old, and so on. Similarly, in terms of education, 191 women acquired MBA degrees, 110 got BBA degrees, and the rest have business diplomas or other business-related degrees. As far as experience is concerned, 108 women had 6–10 years of experience, 103 women had 1–5 years of working experience, 69 women had 11–15 years of experience, 61 women acquired 16–20 years of working experience, and 45 women had more than 20 years of working experience.

4. RESULTS AND DISCUSSION

4.1 Descriptive statistics

The findings of descriptive statistics of constructs demonstrated the fundamental characteristics of the variables. The values of standard deviation and skewness are within the limits of ±1.5,

and kurtosis is within ±3. This shows that the taken data is normally distributed and follows the central limit theorem (Imran et al., 2019). The normality of the data is a prerequisite to employing SEM-based multivariate modeling (Ahmed et al., 2021).

4.2 Exploratory factor analysis – EFA

There are two steps in the SEM-based multivariate approach; the first step is to analyze the measurement model through exploratory factor analysis. The EFA provides the facility to check the modified items and constructs and their suitability for the modified conceptual framework. The EFA reduces the unnecessary items and constructs and condenses the items and constructs according to the measurement model fitness. The undertaken study has incorporated willingness to do business as a dependent variable with five items. However, we considered four independent variables: financial challenges with four items, cultural challenges with three items, marketing challenges with five items, and technological challenges with four items. Additionally, we have incorporated competitiveness as a mediating variable with four items. Table 1 demonstrates that the factor loading of each item is between 0.70 to 0.95; hence, we can retain all the items and constructs (Hair et al., 2019).

4.3 Reliabilities and validities

The findings of Table 1 also exhibited the factor loading (FL), Cronbach's alpha (CA), composite reliability (CR), and average variance extracted (AVE) of each item and construct. The cut-off values of FA, CA, and CR be higher than 0.70; thus, the requirement of discriminant validity has been achieved (Imran et al., 2019). Similarly, the values of AVE should be greater than 0.50. Hence, convergent validity is also met (Fornell & Larcker, 1981). Thus, the criteria of the measurement model have been met, and we can do further analysis.

Tab. 1 – Reliabilities & validities. Source: own research

Factors	Items	FL	CA	CR	AVE
Willingness of Entrepreneurship	WE1	0.930	0.873	0.868	0.766
	WE2	0.883			
	WE3	0.768			
	WE4	0.853			
	WE5	0.932			
Financial Challenges	FC1	0.931	0.874	0.906	0.774
	FC2	0.902			
	FC3	0.714			
	FC4	0.952			
Cultural Challenges	CC1	0.930	0.928	0.949	0.862
	CC2	0.906			
	CC3	0.949			
Marketing Challenges	MC1	0.931	0.863	0.898	0.752

Marketing Challenges	MC2	0.772			
	MC3	0.769			
	MC4	0.899			
	MC5	0.948			
Technological Challenges	TC1	0.931	0.882	0.885	0.783
	TC2	0.895			
	TC3	0.763			
	TC4	0.941			
Competitiveness	COM1	0.932	0.885	0.908	0.790
	COM2	0.750			
	COM3	0.907			
	COM4	0.953			

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization

4.4 Kaiser-Meier Orkin (KMO) and Bartlett's method

The EFA also comprises other tests, such as the KMO test and Bartlett's analysis. The findings of the KMO analysis demonstrate a value of 0.691, which is well ahead of the threshold value of 0.50. Similarly, the readings of Bartlett's analysis are less than 0.50 (p=0.000) at a 5% level of the confidence interval, which further strengthens the suitability and appropriateness of the collected data (Kaiser, 1974).

4.5 Total variance explained

The total variance explained is a part of the factor analysis which depicts the relationship amongst the variables, suitability of models, and appropriateness of the collected data. The cumulative dispersion of six constructs is 80.372, which is more significant than the cut-off value of 0.50 (Kaiser, 1974). Similarly, each eigenvalue is higher than one, confirming the reliability and suitability of data and considered variables.

4.6 Confirmatory factor analysis – CFA

The CFA is a direct approach to examining observed and unobserved variables; thus, CFA also analyzes the measurement model (Hair et al., 2019). The considered modified hypothesized measurement model has consisted of six constructs in which willingness of entrepreneurship has been taken as a dependent variable with five items. However, we considered four independent variables: financial challenges with four items, cultural challenges with three items, marketing challenges with five items, and technological challenges with four items. Additionally, we have incorporated competitiveness as a mediating variable with four items. The findings of fit indices of the measurement model exhibit GFI=0.98, NFI=0.94, IFI=0.99, TLI=0.98, CFI=0.99, RMSEA=0.033, RNI=0.99, PCFI=0.85 & PNFI=0.83, which are within the prescribed limits. Thence, it is substantiated that the considered measurement model is appropriate for the willingness of entrepreneurship (Ahmed et al., 2020).

4.7 Structural equation modeling – SEM

The second step in the SEM-based multivariate approach is to analyze the hypothesized modified structural model through structural equation modeling (Ahmed et al., 2020). The undertaken study has incorporated the willingness to do business as a dependent variable with five items. However, we considered four independent variables: financial challenges with four items, cultural challenges with five items, marketing challenges with three items, and technological challenges with four items. Additionally, we have incorporated competitiveness as a mediating variable with four items. The findings of fit indices of structural model exhibit GFI=0.96, NFI=0.93, IFI=0.97, TLI=0.96, CFI=0.97, RMSEA=0.032, RNI=0.98, PCFI=0.84 & PNFI=0.82, which are within the prescribed limits. Hence, it is substantiated that the considered structural model is appropriate for our dependent variable, i.e., the willingness to be an entrepreneur (Hair et al., 2019).

4.8 Hypothesized direct relationship

The co-efficient path analysis is another measure to check the hypothesized structural model. Thus, we examined the relationship between independent and dependent variables (Ahmed et al., 2019). The findings of Table 2 demonstrated that all the independent variables, financial, cultural, marketing, and technological challenges, have a significant impact on the willingness of female business graduates to become an entrepreneur, but these factors are the constraints. The independent variables are pulling down the female business graduate entrepreneurs, or these are the potential barriers for them to become successful entrepreneurs. Finally, it is concluded that hypotheses H1 to H4 are substantiated because of $T>\pm1,96$ and corresponding probabilities ($p<0.05$) (Ahmed et al., 2021). However, the individual negative impact of cultural challenges is massive, i.e., -0.6775, followed by technological challenges of -0.5510 and marketing challenges of -0.5341. The outcomes of this study demonstrated that financial challenges are significant constraints. Women business graduates entrepreneurs are a vital factor from the economic point of view, not only for females but the overall economic condition of the countries of the South Asian region. The previous literature has proved that finance has been a global constraint for women entrepreneurs regardless of the country's economic position (Uddin, 2021; Tisdell et al., 2020; Echchabi et al., 2020; Erogul & Na, 2021). Previous literature confirmed that female entrepreneurs could not advertise their products; therefore, they are limited to a particular market around them (Islam et al., 2021; Kumar & Shukla, 2019). According to previous literature (Yusuf & Ibrahim, 2021; Kimathi et al., 2020), women entrepreneurs in developing countries are far behind, and as a result, they remain to fail to get maximum benefits from advanced technologies, use of modern equipment, awareness of modern business tools (Marks, 2021; Lim et al., 2021; Okechukwu, & Nwekwo, 2020). If the women adopt these newly developed technologies, they will get enormous benefits in terms of their personal economic and financial benefits. Moreover, these economic benefits will be transferred to the overall economic scenario of the countries (Sarwoko & Nurfarida, 2021; Connolly-Barker et al., 2020).

Tab. 2 – Hypothesized direct relationship. Source: own research

	Independent Variables	Dependent Variables	Regression Paths	β	SE	T	Decision
H1	Financial Challenges	Willingness of Entrepreneurship	EC † → WE	-0.4442	0.059	-7.46	✓
H2	Cultural Challenges	Willingness of Entrepreneurship	CC † → WE	-0.6775	0.032	-20.57	✓
H3	Marketing Challenges	Willingness of Entrepreneurship	MC † →WE	-0.5341	0.045	-11.62	✓
H4	Technological Challenges	Willingness of Entrepreneurship	TC †→ WE	-0.5510	0.037	-14.55	✓

Note: † = Predictor: FC= Financial challenges; CC=Cultural challenges; MC=Marketing challenges; TC=Technological challenges; Dependent variables: WE= Willingness of entrepreneurship; β=Standardized Regression weights; P=0.000 (by all hypotheses).

4.9 Mediation analysis

We have incorporated competitiveness as a mediating construct between exogenous and endogenous variables; we employed conditional process modeling for analysis purposes. Table 3 exhibited the two outcomes of mediation, such as 1) Bootstrapping method and 2) the Normal theory method. According to Hayes & Rockwood (2020), if zero does not come between Boot LLCI and Boot ULCI, the mediation is confirmed. The outcomes of Table 3 demonstrate that zero does not occur between Boot LLCI and Boot ULCI; hence perfect mediation is confirmed. Similarly, the mediation results are substantiated by the second method, such as the Normal theory method, which also demonstrated similar outcomes ($Z > \pm 1.96$ & $p < 0.05$). Hence, it is concluded that hypotheses H5A to H5D are substantiated, and competitiveness has a significant and positive impact on exogenous and endogenous variables. Thus, this competitiveness will benefit the female business graduate entrepreneurs in terms of their financial and economic advantages. Similarly, these economic benefits might be translated into overall economic paybacks for countries. The previous literature also demonstrated that competitiveness as a mediating construct strengthens SMEs' external factors and business success (Ochnik, 2020; Kumar & Shukla, 2019; Srivastava et al., 2017). Previous literature, for instance, Riviere & Suder (2016), Ferreira et al. (2017), and Caseiro & Coelho (2018) established that the business success of SMEs does not only rely upon the individuals' competencies and success factors, but the organizational competitiveness is equally crucial for the organizational performance.

Tab. 3 – Mediation analysis. Source: own research

	Mediation	Bootstrapping Method				Normal Theory Method				Decisions
		Indirect Effect	Boot SE	Boot LLCI	Boot ULCI	Indirect Effect	SE.	Z*	Prob.**	
H6A:	FC→COM→WE	0.3294	0.0531	0.5115	0.2259	0.3294	0.0512	6.43	0.0000	✓
H5B:	CC→COM→WE	0.1831	0.0253	0.1357	0.2355	0.1831	0.0248	7.37	0.0000	✓
H5C:	MC→COM→WE	0.3395	0.0424	0.2584	0.4257	0.3395	0.0406	8.36	0.0000	✓
H5E:	TC→COM→WE	0.2365	0.0316	0.1769	0.2990	0.2365	0.0316	7.49	0.0000	✓

Note: Predictor: FC= Financial challenges; CC=Cultural challenges; MC=Marketing challenges; TC=Technological challenges; Dependent variables: WE= Willingness of entrepreneurship; Mediating variable: COM=Competitiveness; * Referred the $Z > \pm 1.96$; **Indicates $p < 0.05$);

5. CONCLUSION

The central focus of the study was the constraints or challenges faced by business graduate women entrepreneurs of South Asian countries. The constraints have been classified into four major categories: financial challenges, cultural challenges, marketing challenges, and technological challenges. The direct relationship between the independent and dependent variables demonstrated that all the independent variables, for instance, financial challenges, cultural challenges, marketing challenges, and technological challenges, have a significant but inverse impact on entrepreneurs' willingness. Thus, it is concluded that financial, cultural, marketing, and technological challenges significantly influence the willingness of female business graduates to become an entrepreneur, but these factors are the constraints. The inverse sign showed that independent variables are pulling down the female business graduate entrepreneurs, or these are the potential barriers to becoming successful entrepreneurs. The findings concluded that cultural challenges are the most impacting variables, and technological challenges are the second most vulnerable factors for female business graduate entrepreneurs in the South Asian countries. The findings of this research also concluded that the technological challenges have a significant constraint on the willingness of entrepreneurs. This study identifies that in developing countries, women entrepreneurs are much behind in using modern technology in their businesses, particularly rural women with little or no knowledge of modern technology. However, marketing challenges were the third most affecting factor for the female business graduate entrepreneurs of the South Asian countries. Marketing is an essential pillar of every business. The undertaken study also concluded that marketing challenges have a significant adverse impact on the willingness of entrepreneurs. This study identifies that marketing-related problems affect women entrepreneurs in many ways, like taking the order of the products, purchasing raw materials, delivering the products, and promoting the product. The outcomes of this study demonstrated that financial challenges are also significant constraints for female business graduates. This study observes that mostly the women who live in urban areas prefer to take loans. Further, a significant majority of female entrepreneurs are unaware of the loan facilities provided by banks and other financial institutions. The mediation findings concluded that competitiveness has a significant and positive impact on exogenous (financial, cultural, marketing, and technological challenges) and endogenous variables (willingness of entrepreneurship). Hence, it is established that the business success of SMEs doe not only rely upon the individuals' competencies and success factors, but the organizational competitiveness is equally essential for the organizational performance. Competitiveness can increase the success of the SME business if the organizational competitiveness and entrepreneurial competence of individuals are synchronized.

There are several limitations of this research study. For instance, researchers have taken a small sample size of four South Asian countries. Thus, the findings cannot be generalizable to the entire population of four countries. Therefore, it is highly recommended that future researchers take a reasonable sample size for more robust results. Another limitation of this study is that researchers have considered only four regional developing countries, which cannot describe the overall scenario of global developing countries. Thus, it is also recommended that future researchers take other developing countries from different continents, for instance, Latin

America, Africa, and East Europe. In this research study, participants from different age groups and education levels were selected. Therefore, it is also a limitation of the undertaken study. Hence, it is recommended that future researchers segregate different age brackets and education levels in their studies for more comprehensive and robust results. Finally, researchers did not use cause and effect models in their study. Thus, it is recommended that future researchers take cause and effect models for a better understating of variables.

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Appendix – I: Questionnaire

Factors	Items	Statement	Citations
Willingness of Entrepreneurship	WE1	1) Do you think the entrepreneur's willingness is the best option after business graduation?	(Kimathi et al, 2020; Pobbi & Antiaye, 2020; Hussain et al., 2021)
	WE2	2) Willingness of entrepreneurship will provide you with financial independence.	
	WE3	3) Your family is supportive of becoming an entrepreneur.	
	WE4	4) Willingness of entrepreneurship is better than the job career.	
	WE5	5) Willingness of entrepreneurship provides long-term financial sustainability.	
Financial Challenges	FC1	1) Financial challenge is the most crucial barrier when starting a new business.	(Burbar & Shkukani, 2021; Echchabi et al., 2020; Erogul & Na, 2021)
	FC2	2) Family and friends could support financial challenges.	
	FC3	3) Financial institutions could support financial challenges.	
	FC4	4) Financial challenges can be overcome when determined to be an entrepreneur.	
Cultural Challenges	CC1	1) Cultural challenges are the significant barriers by society while becoming an entrepreneur.	(Basit et al., 2020; Burbar & Shkukani, 2021)
	CC2	2) Cultural challenges are the significant barriers to the family while becoming an entrepreneur.	
	CC3	3) Cultural barriers affect the mental state of mind and are a demotivating factor..	
Marketing Challenges	MC1	1) Marketing challenges are a great challenge while operating SMEs.	(Stephens, 2020; Shaheen et al., 2019; Obisesan & Olayide, 2021)
	MC2	2) Marketing challenge restricts me from becoming a successful entrepreneur.	
	MC3	3) Marketing challenge is not a hurdle for me while doing my business.	
	MC4	4) I cannot use multi-marketing channels to grow my business due to constraints.	
	MC5	5) Marketing is the most prominent factor for a successful business.	
Technological Challenges	TC1	1) Technological challenges are the significant constraints to expanding my business.	(Sarwoko & Nurfarida, 2021; Xie, & Wu, 2021; Lim et al., 2021; Marks, 2021; Lim et al., 2021; Okechukwu, & Nwekwo, 2020)
	TC2	2) I do not find several technological platforms essential for modern businesses.	
	TC3	3) Technological challenges can be overcome by acquiring related IT skills.	
	TC4	4) I do not have enough resources to utilize several technological platforms.	
Competitiveness	COM1	1) Competitiveness is a crucial factor for the success of an SME.	(Ochnik, 2020; Kumar & Shukla, 2019 Srivastava et al., 2017; Riviere & Suder, 2016; Caseiro & Coelho,
	COM2	2) Competitiveness provides opportunities to overcome entrepreneurial challenges.	
	COM3	3) Competitiveness provides the edge over competitors for long-term growth.	
	COM4	4) Competitiveness reduces the challenges of Finance, Marketing, Technology, and Culture.	