

# An Empirical Investigation on inculcating Women Entrepreneurial Success Factors using Partial Least Squares- Structural Equation Modeling

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## Abstract

Pakistan comprise of half of the women population but unfortunately, they are still lagging behind instead of leapfrogging in a wider spectrum of personal, environmental and other factors. Although, women should be given an environmental construct to help and motivate them to identify opportunities so that each of the individual women with unique innate abilities and infinite source of energy can best exploit their potential to deliver desired outcomes in alliance with economic growth and prosperity. Therefore, there is a dire need to identify key success factors that have inculcated women entrepreneurs into mainstream venture creation. This study primarily aims at empirical testing of those dimensions that are considered critical yet significant for successful women entrepreneur venture creation and also to analyze the relationship with relevant variables such as locus of control, need for achievement, push and pull motivational factors, family support, information and communication technology, access to finance and social factor, government policies and support from NGO's. The study contains questionnaire included surveys, e-mails and personal visits for data collection. A simple random sampling method was applied with a sampling size of 259 women's SMEs owners and managers from Pakistan. Data were analyzed through descriptive statistics and (PLS-SEM) factor loading analysis to test hypotheses by SPSS software. The output of the study suggested that personal factors (personality traits; locus of control, need for achievement, push and pull motivational factors) for environment factors (family support, information and communication technology, access to finance and social-cultural) for other factors (government policies and support from NGO's) have positive and negative relationship with entrepreneurial success of women-owned SME in Pakistan. The study will help to business women and policymakers to articulate the policies to enhance more potential for Pakistani women entrepreneurs. Previous studies focused on the barriers regarding women entrepreneurs in Pakistan, only some studies have been carried out on the success factors for women entrepreneurship in Pakistan. Therefore, this study made an effort to fill the gap and contribute immense understanding of women-owned business.

**Keywords:** Locus of control (LC), need for achievement (NA), pull and push motivation factors (MM), family support (FS), information and communication technology (ICT), access to finance (AF), social factor (SF), government policies and support from NGO's support (GPN), entrepreneurial success (ES), SME's business.

## Introduction

Entrepreneurship is a diversified field, lots of women entrepreneurs significantly contribute to worldwide economy development (De Bruin et al., 2007; Michael et al., 2017). Currently, the role of women in entrepreneurship considers as a rising star and new engine for growth and prosperity. Numerous researchers Chowdhury et al., (2013); Ahl (2006), point that women entrepreneurship is the source of creating and inventing something with four different dimensions; organization, environmental factors, and process, government assistance, constitution, and education. In fact, research on women entrepreneurship is rare, but it's effective for the maturation of the economy.

According to Menzies et al., (2004), an entrepreneur is a person who involves in developing economic structure and economic progress by renovating innovation into a new effective and valuable product and services. Therefore, research on women entrepreneurship is only 10% of the total research in the entrepreneurship field (Brush & Cooper, 2012; Sarri & Trihopoulou, 2005). Previous research by Ramadani et al., (2015), explained that researchers cannot deny the frequent growth in the economy of a country by women's entrepreneurial activities. Male entrepreneurs are more in numbers than female entrepreneurs, actually made a presumption that only males are the earning source for a family and females are limited to, manage house activities such as child care and reproduction (Pages, 2005; Pandian & Jesurajan 2011).

However, the entrepreneurship field is not restricted to a certain gender. The success of women entrepreneurs is emerging nationally and globally (Agarwal et al., 2016). According to Paige & Littrell (2002), define "success" includes independence and freedom; handling owns future and extraneous return in fiscal issues, income and wealth in society. A study by Masuo et al., (2011), recognized that entrepreneurial success can be defined into financial and economic measures which contain sales, profit, employee motivation, the return of investment and non-pecuniary measures include employee satisfaction as well as personal attainment and development.

The study targets the women entrepreneurs and their contribution to the progress of Pakistan, because Pakistan is going through a statistic progress, which has brought about a 'young lump' (63% of our youth, beneath 15 with 69 million matured) and an expansion in the working-age population as an offer of the aggregate population. Pakistan bears the most reduced rate of female business enterprise in the world, with 21% of male SME's and only 1% of female entrepreneurs in Pakistan. Consequently, financial matters towards female SME's are the main reason for nearly no

action, only 5% of female SME's has formal knowledge and access to the financial institution. Gender disparities in entrepreneurship are stark in Pakistan; according to the report of Global Entrepreneurship Monitor (GEM, 2017), women are 60% less likely to be perceived business opportunities rather than men and only 34% women consider they are capable of starting a business compared to 61% men. In the business field, there is no boundary for and gender. In this study, we establish an attempt to fill the opening in the SMEs sectors of women-owned business in Pakistan. We study previous literature on the studies of the success factors of women business and we found that there is less work has been done on the success factors of women-owned business in Pakistan. The study follows some outline; the first part deals with the aims and significance of the subject field, the second section discusses the literature review and hypothesis formulation on the success factors of women entrepreneurship, third section deal with the material and methods, the fourth section discusses the results and fifth section deal with the conclusion and implications.

## Literature Review and Hypothesis Development

According to Ahmad (2011), a woman entrepreneur can be defined as self-confident, advanced, artistic, abilities accomplish self-economic independence from her or in teamwork, have the capability to generate career opportunities for others and successively running the business by keeping step with her personal, family and social life.

According to Brindley (2005), explained that women or group of women who pledge, lead and control a business enterprise.

According to Pakistan SMEs policy (2007), SME definition upto 250 employees and upto Rs. 250 million.

Our study explained the literature review with regard to the importance of successful women entrepreneurial factors. Several examinations concentrated on woman success factors, several researchers (Ekanem 2015; Golrod 2005), recognized some achievement factors of women's enterprise with regards to the rising economy. Successful female business people were set up to show enterprising skills, for instance, engaging actions, sees and follows up on the circumstances, constancy, data chasing, care for the high caliber of work, responsibility to work contract, proficiency direction, fearlessness, influence and the utilization of impact practices to enhance their businesses (Ranasinghe 2008; Naser et al., 2009).

The study found by Robledo et al., (2015) successful women have an effective vision, good personality, skills

and higher level of education. Moreover, successful female entrepreneurs have family support, family backing, and long range interpersonal communication as well as government support; the business foundation of their particular families instead of instruction for their job in business. An examination investigated by Baral & Bhargava (2011), which distinguished that support from family, access to finance, need for achievement and motivation influence decidedly and altogether to the accomplishment of women entrepreneurial success in the independent business. Another investigation says those women's success factors which inspire them to proceed with their organizations which include; social acknowledgment, customer satisfaction, expansion, individual flexibility and security (Gupta et al., 2009).

Numerous, researchers Zhouqiaoqin et al., (2013); Al-Aali & Teece (2014), found that there are some factors are important; endorsing help, supporting assistance in finance, IT support is supported from management that is required for the success of women business. In the other study by Bose et al., (2012) discussed with progress mechanisms of women entrepreneurs in Sri Lanka, she found that early adolescence experiences, intellectual attributes, entrepreneurial capabilities, formal and casual learning, and outer help; and an extra factor recognized names as a culture, to add to women's enterprising success (Azim & Al-Kahtani 2015).

## **Hypotheses Development**

### **ES (Entrepreneurial Success)**

The easiest definition to explain entrepreneurial success is related to tangible elements such as income, organization progress, personal capital formation as well as sustainability and turnover (Frank & Korunka 2007). As per Ehigie & Umoren (2003), explained that entrepreneurial success is linking the achievement with continual dealing and the failure is associated with the unsatisfactory commitment. According to Markman and Baron (2003), some entrepreneurs prefer to continue in the business rather than plaster exertion and loss due to their high willpower entrepreneurial qualities.

There are many definitions has been explained on the understanding of entrepreneurial success by numerous researchers (Verheulet et al., 2005; Reid & Smith 2000), explained the concept of successful business is a venture which functioning at least three years, but other researchers (Itani et al., 2011; Hisrich et al., 2006) said that around 10% businesses have successfully survived over three years of process. The idea of entrepreneurial success defined in different ways, simply success emphasized that venture generates revenue and profit generation, yield and survival

based on ventures (Carter & Evans 2006). To measure success factors for entrepreneurial venture still dubious, there is no valid scale to measure the dimensions of success. Research by Jamali (2009), on Nigerian entrepreneurs, invented women is more convenient and committed to the business, which brings positive outcome by her high-level self-concept and becomes a successful entrepreneur.

### **Personal Factors and Entrepreneurial Success**

The term personality is associated with the qualities and features of a person, but some psychologists said that it is related to the rational, sensitivity and feelings. There are many personality traits have been discussed by Umoren & Ehigie (2003), which represents some behavior and conscious motives. In entrepreneurship, there were numerous personal characteristics of entrepreneurship explained by researchers in the past (Hu 2008). Previous researchers investigated that personality traits are important for entrepreneurship and limited research devotion has been given to the other personality traits, such as locus of control, need for achievement in the context of South Asian studies (Chem et al., 2012). As per the study of Batool, & Ullah (2017) on personality traits are much famous among scholars, somehow ambition, a locus of control and need for achievement.

### **LC and ES (Locus of Control and Entrepreneurial Success)**

The theory of locus of control was developed by Rotter (1966), which is the characteristic that is frequently related to entrepreneurial success (Chell 2008). The idea rose up out of Rotter's "social learning theory" of what influence completes an individual's view of control have on their behavior. The theory has been relinquished in the understanding of psychology, however, it is as yet considered in business enterprise. Research indicated by Jain & Ali (2013), people possesses internal control to prefer to be an entrepreneur. Entrepreneurs gain vision by the need for achievement and the ability to achieve the needs which lead to success (Akehurst et al., 2012).

For last few decades, entrepreneurial personality traits are under debate and few researchers discovered for dispositional factors for entrepreneurial behavior relates to personality traits, on the other hand, some researcher denies the relationship of entrepreneurial behavior and personality on their studies. Brandstätter (2011), shows the differences in the level of managers and entrepreneurs, to the conclusion; for an entrepreneur must have some unique one needs some distinctive dispositions. In the theory of locus of control, two unique kinds of individuals develop the external and the internals. The interior locus of control

is consistently connected with enterprising qualities and facades trust that the end result for them is a consequence of powers outside their ability to control (Littunen 2000). So the locus of control is linked with the entrepreneurial success of women business.

### **H1. LC positively and negatively influences women entrepreneurial success.**

#### **NA and ES (Need for Achievement and Entrepreneurial Success)**

McClelland (1961), first time identified the need for achievement as a personality trait. Need for achievement motivation is associated with the key to entrepreneurial behavior discussed in his economic development work (Hughes et al., 2012). Similarly, past examination Simon et al., (2014), give investigational resilient on the relationship between the need for achievement and enterprising activities. Be that as it may, studies have additionally examined in the event that it is believable to estimate business performance or entrepreneurial behavior based on one concern which is required for the accomplishment. Moreover latest investigations have demonstrated that it can develop after some time, particularly by getting propelled education. Study of Zhang et al., (2009), explained the trait theory of McClelland's that can be viewed as depicting the required characteristics in business enterprise. The theory of the need to accomplish entitlements that people who have a solid need to accomplish regularly discover their approach to business and their prosperity rate is higher than that of different business people.

Study of Littunen (2000), also distinguished a McClelland theory about the circumstances that invigorate the achievement of inspiration. High achievers commonly choice circumstances that are connected with duty, moderate risk taking, learning of after effects of varieties, new instrumental action and expectation of conceivable outcomes later on. Several researchers Burns (2005); Westhead et al., (2011), guaranteed that entrepreneurs tend to and ought to have an intense need for achievement. So this personality trait theory need for achievement is linked with the success factor of women's.

### **H2. NA positively and negatively influences women entrepreneurial success.**

#### **PP and ES (Push and pull motivation factor and Entrepreneurial Success)**

Previous studies explained many motivational factors which give motivation to women to start their own business. Robinson (2001), said that use of pull and push strategy hopes to become an entrepreneur. As a pull

strategy associated with positive developments, on the other hand, push strategy attributed to the negative situation (Naser et al., 2009). According to, Dhaliwal (2000), the use of push strategy gives many results in developing countries as it's experienced also related to low-income rate, strict working hours, job dissatisfaction, deficiency of job opportunities. The literature towards motivational factors dropped into two main sectors, pull and push (Nieva, F. O. 2015). The internal forces need a pull factor for independence, use and having authority, and success.

Kostetska & Berezyak (2014), explained that the significance of discovering the motivational factors for women to be settled on self-employment. The motivation to become entrepreneurs for women all grounded on pull or push factors (Robinson, 2001). To become a successful women entrepreneur, an idea generated by factors or push strategy. The most common factors which played a role for motivation to start a business is frustration in the job, uncertainty, redundancy, for planned work schedule and most importantly for a woman to care of her family (Orhan & Scott, 2001; Alstete, 2002). The factor "pull strategy" significantly associated with factors of desires, aspiration and mainly choice for entrepreneurship (Deakins & Whittam, 2000). So we found that pull and push motivational factors are associated with the women's entrepreneurial success and we develop hypotheses;

### **H3. PP positively and negatively influences women entrepreneurial success.**

#### **Environmental Factors and Entrepreneurial Success**

##### **FS and ES (Family Support and Entrepreneurial Success)**

Family support plays a vital role in entrepreneurial success. Therefore, Hisrich (1985), research demonstrating that support by the family members is particularly important in the molding of entrepreneur interest in business, exclusively in the start-up of a new business. Research indicates that related to women, strongly rely on the husband and his support, and other important family members for the success and growth of the business (Jennings & McDougald, 2007; Brush et al., 2009). A woman who has a family it is difficult to manage the business with care of family, but could make it possible with the help of friends and family to run the business and its expansion. Research reveals that family support is much important for a women entrepreneur and it helps her to overcome many technical issues (Lee & Choo, 2001).

Extant pieces of literature Mari et al.,(2016); Welsh et al.,(2016), explained three sorts of family support (money related help, passionate assistance) that can help business



visionaries in their business setting. Financial related capital is a basic asset for the buying of fixed resources and financing, starting tasks, just as the everyday costs for the business person in the previous phases of the striving. It is along these lines, not astounding that the measure of introductory capital put into the business has been demonstrated to be decidedly identified with firms' survival and development (Tu, C., & Hwang, S. 2014). Study of Su et al., (2015), set up those women as a rule when contrasted with their male partners since they experience more challenges in financing their organizations. So family support is associated with the success of women entrepreneurship and we develop hypotheses;

#### **H4. FS positively and negatively influences women entrepreneurial success.**

#### **AF and ES (Access to Finance and Entrepreneurial Success)**

Although women entrepreneurs have great part overall in economic development and family matters, although women entrepreneurs demonstrate less progress in business as compared to male entrepreneurs (Chinomona&Maziriri2015). Related to finance matter women delays in using their ability to the start-up of a business. According to authors Idris (2015); Batool & Ullah (2017), express that big bank has large discrimination towards women. Whereas banks claimed with a solid reason, this discrimination has a valid point on the base of entrepreneurial profile and this concept is also accepted by the literature. The opportunity to get the capital facilities are restricted to women entrepreneurs as found in Pakistan which affects their business performance. Inequality treatment for gender, men, and women exist (Roomi & Parrot, 2008). In addition, low involvement of women as entrepreneurs also contributed by the lack of access to get formal credit and other facilities (Tambunan2009). So we found that access to finance is linked with the success of women entrepreneurship and we develop this hypothesis;

#### **H5. AF positively and negatively influences women entrepreneurial success.**

#### **SF and ES (Social Factor and Entrepreneurial Success)**

Women all around the world are struggling in fighting their equal right to have a career and improve their living standards. Most women in the Asian countries are suffering from inequality in gender as their right are being denied due to the culture and traditions of their societies which hinders them from involve in business or political activities (Metcalf, 2008). Then, the environmental factor is

significant in examining women entrepreneurs. The environmental factors include the expectation of society and cultural norms since the women entrepreneurs' choices can be limited by the culture and traditions of a society (Brush et al., 2009). In another study, women entrepreneurs face treating inequality as there are discriminatory social-cultural values and tradition in Pakistan which restrict their business growth. Javadian & Singh (2012); Roomi & Parrot (2008); Tambunan (2009), found that the negative categories and traditions are the barriers faced by the Iranian women entrepreneurs which hinder their success. So we found that social culture is linked with the success of women entrepreneurship and we develop this hypothesis;

#### **H6. SF positively and negatively influences women entrepreneurial success.**

#### **ICT and ES (Information and Communication Technology and Entrepreneurial Success)**

The modern technology used for communication and Information for business strategies, make provision for women to get help and run their business deprived of any ambiguities and physical restrictions. For the last few years due to the advancement and growth of the internet, gives much information and advance knowledge, how to run and face different faces of business to the entrepreneur (Trkman 2010). Therefore, OlyNdubisi & Kahraman (2005), claimed that the latest technology in the field of the internet gives much knowledge, which brings changes in the way to the business field. It's critical for the entrepreneur to have an association between expertise and abilities, development of the firm and technical skill. Here we cannot demoralize the significance of the latest technology to the women entrepreneurs. The Internet gives an advantage to female in doing business, where they do not need to do any kind of dealing with men face to face.

Thus, information and communication technology plays a vital role in business innovation, which supports in getting a high return to women entrepreneurs in business on gaining a low-cost structure and customer (Marlin & Wright, 2005). As indicated by Skinner (2008), the most recent pattern of information and communication technology women incorporates business and face numerous hindrances keeping them from exploiting developing financial chances, expanding profitability in their endeavors and getting to progressively beneficial and higher esteem included jobs and higher salary creating work prospects. So we found that information and communication technology is linked with the success of women entrepreneurship and we develop this hypothesis;

**H7: ICT positively and negatively influences women entrepreneurial success.**

**Other Factors and Entrepreneurial Success**

**GPN and ES (Government and NGO'S Support and Entrepreneurial Success)**

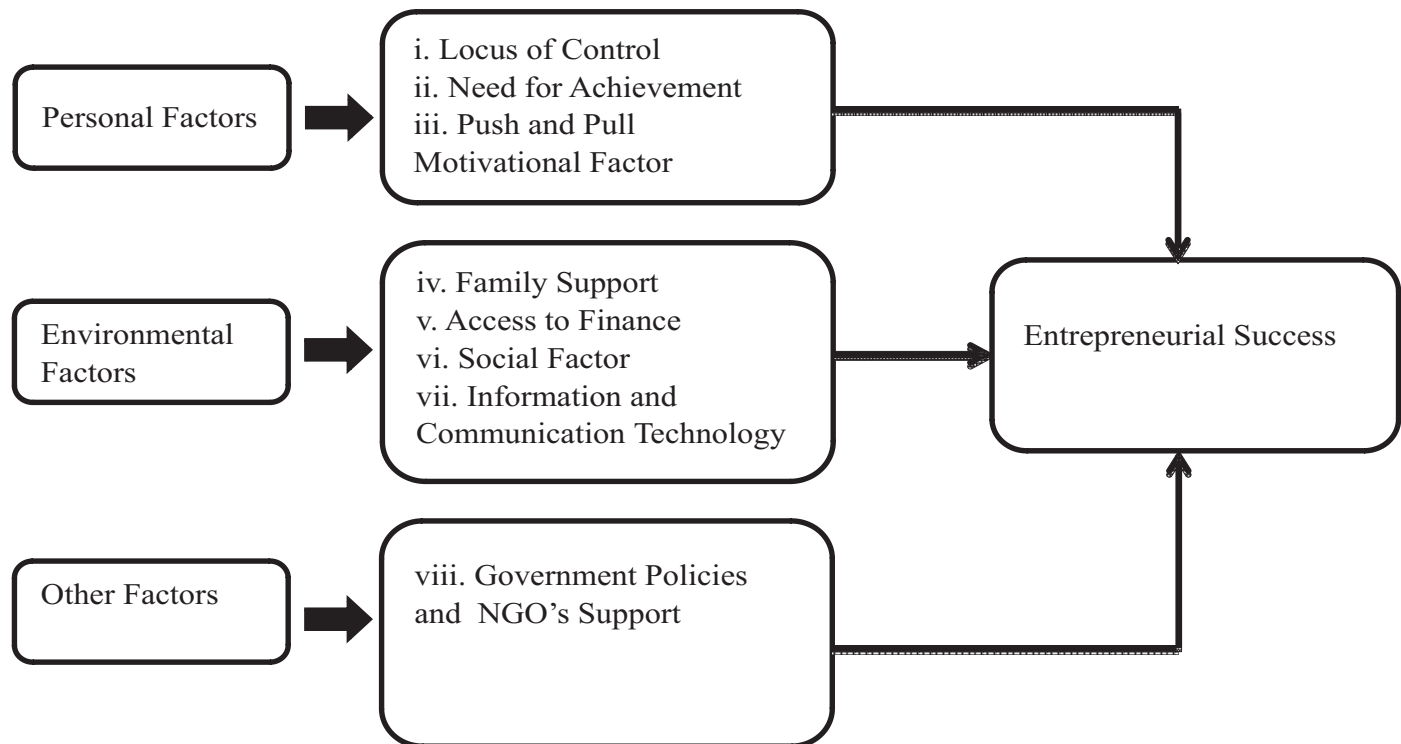
The modern institutional environment in Pakistan has a cosmetic emphasis on gender equality; however, there is a huge gap between the rhetoric and reality of equal opportunity in the workplace. According to the Constitution of Pakistan (1973), under Article 25 there is no discrimination among all citizens irrespective of sex, everyone has equal rights, this promotes women's rights. In real-world discrimination against women's rights are in practice, economic activity as producers and providers of services (Goheer2003). Rules and regulation for SMEs by the government in Pakistan are complicated, that might be dispiriting for women entrepreneurs, faces many social and economic constraints. Considering the discrimination towards gender inequality gain much loss of human potential, to empower the women's rights (Government of

Pakistan), Ministry of Women's Development giving support and provide training to women entrepreneurs.

The Ministry embarked on the economy and women empowerment with the collaboration with UNDP (Kamal, S. 1997). The Development Policy directed by the Ministry of Industry in 2006 for SME's to initiate and focus on women-owned SMEs. The association in Pakistan for women entrepreneur is limited to small, medium-sized businesses, small and micro level enterprises relate to a different association. Famous businesswomen's in Pakistan are the part of Pakistan Association of Women Entrepreneurs, as registered NGO in 1985. With reference to businesswomen's interest, The Women Chambers of Commerce and Industry, working in different cities including Lahore, Karachi, and Rawalpindi-Islamabad. So we found that government policies and support from NGO's support is related to the success of women entrepreneurship and we develop this hypothesis;

**H8. GPN positively and negatively influences women entrepreneurial success.**

**Figure 1 Model Confirmatory Factor Analysis  
Compiled by the authors**



## Methodology

The objective of this study was to inculcating Pakistan's women self-organized entrepreneurial success factors. The nature of the study was cross-sectional and researcher interference was minimal. The study was performed in the women SME's sector of Pakistan because it is the backbone industrial sector of Pakistan as well as raising the gross domestic product. We used a deductive approach under positivism paradigm and employed a quantitative methodology to explore the impact of these success factors.

## Instrument Development and Questionnaire Design

We used nine variables in this study with named: Locus of Control (LC), Need for achievement (NA), Push and Pull Factors (PP), Access to Finance (AF), Family Support (FS), Government policies and NGO's support (GPN), Information and communication technology (ICT), Social Factor (SF), Entrepreneurial Success (ES). These variables have been already investigated by researchers in previous studies. So we did not design the scale on our own, we adopted and adapted the measurement scales for our study. The pilot study was conducted on 40 respondents before collecting the whole sample data to make this study more reliable and valid.

## Sample and Data Collection

There is 85 percent of manufacturing companies categorized as small and medium enterprises in Pakistan, which promoting the impending financial growth and

competitiveness (Jan Khan and Khalique2014). When we study the regional SMEs establishment data of Pakistan, we found that Punjab has 65.26 % biggest share of SME's development, Khyber Pakhtoon Khwa (KPK) has 14.21% share, Sindh has 17.82% share and Balochistan has 2.09% share of SMEs development in Pakistan. As per report (SME Base Line Survey, SMEDA Pakistan, 2019) SMEs contribute more than 98% of the total number of manufacturing units. We choose manufacturing SMEs owned by women as our population and gather data from the biggest region of Punjab as we already mentioned that Punjab has 65.26% larger share in women-owned SME's business. As per the report of (Pakistan Bureau of Statistics 2005; Census of Manufacturing Industries-2013 District-Wise Report), we selected seven biggest industrial cities of Punjab named Faisalabad, Lahore, Multan, Sialkot, Gujranwala, Gujrat and Sheikhpura. A simple random sampling technique is used for data collection and researcher interference was minimal. Total 300 questionnaires were circulated through online, email among CEO, top-level managers and 259 completely answered by the respondents. According to Baer and Frese (2003), top management of the company has detailed information regarding company performance and data was gathered from the CEO and top management of the company.

Table 1: Sample Distribution

Demographical Profile of Respondents		
Age	N	Percentage
18-25 years	88	34.0
26-35 years	117	45.2
36-45 years	41	15.8
46-Above years	13	5.0
Education	N	Percentage
Secondary School	19	7.3
Diploma	06	2.3
Bachelors	141	54.4
Masters	93	35.9
Experience	N	Percentage
1-5 years	180	70.7
6-10 years	40	15.4
11-20 years	29	11.2
21 years- Above	7	2.7
Type Of Business	N	Percentage
Service Oriented	96	37.1
Manufacturing	123	47.5
Trading	35	13.5
Other	05	1.9

<b>Respondents Status</b>	<b>N</b>	<b>Percentage</b>
CEO/Owner	197	76.1
Manager	62	23.9
<b>Respondents City</b>	<b>N</b>	<b>Percentage</b>
Lahore	62	23.9
Faisalabad	71	27.4
Multan	45	17.4
Sialkot	27	10.4
Gujranwala	22	8.5
Sheikhupura	18	6.9
Gujrat	14	5.4
<b>No. of Employees</b>	<b>N</b>	<b>Percentage</b>
1-100	234	90.3
101-250	25	9.7
<b>Marital Status</b>	<b>N</b>	<b>Percentage</b>
Single	41	15.8
Married	204	78.8
Divorced	14	5.4

Source: Compiled by authors from previous results

### Measures

The demographic variables are taken from the study of (McClaveet al., 2005) which is associated with the success factors of women entrepreneurs in SME in Pakistan. To measure entrepreneurial success, we adopted the measurement scale of (Fatoki, 2018). Personality traits scale locus of control and need for achievements we adopted from the study of (Vodă, & Florea, 2019). Push and pull motivational factors we adopted the constructs developed by (El Harbi, Anderson, & Mansour, N. 2009). Family support scale developed by (Zhouqiaoqin, & Xie, 2013) we adopted this measurement scale for our study.

Information and communication technology, construct we adapted items from the study (Fuad, Bohari, & Hin, 2011). Access to finance first we adopted the scale from (Namrata Gupta, Anita Mirchandani, 2018) after that we changed minor changes according to our study. Social factor measurement constructs developed by (Zafar, & Khan, 2013) and we used this measurement scale. To measure the government policy and support from NGO's we used measurement scale developed by (Nziku, 2012). All the constructs items we measured by five-point Likert scales from one strongly disagree to five strongly agree.

*Table 2 Confirmatory Factor Analysis*

<b>Variables</b>		<b>Factor Loading</b>		<b>CR</b>	<b>AVE</b>	<b>Number of items</b>
<b>LC</b>	LC1	0.736	0.952	0.960	0.749	08
	LC2	0.910				
	LC3	0.879				
	LC4	0.862				
	LC5	0.903				
	LC6	0.877				
	LC7	0.876				
	LC8	0.869				
<b>NA</b>	NA1	0.606	0.862	0.889	0.579	06
	NA2	0.680				
	NA3	0.625				
	NA4	0.849				
	NA5	0.885				
	NA6	0.865				

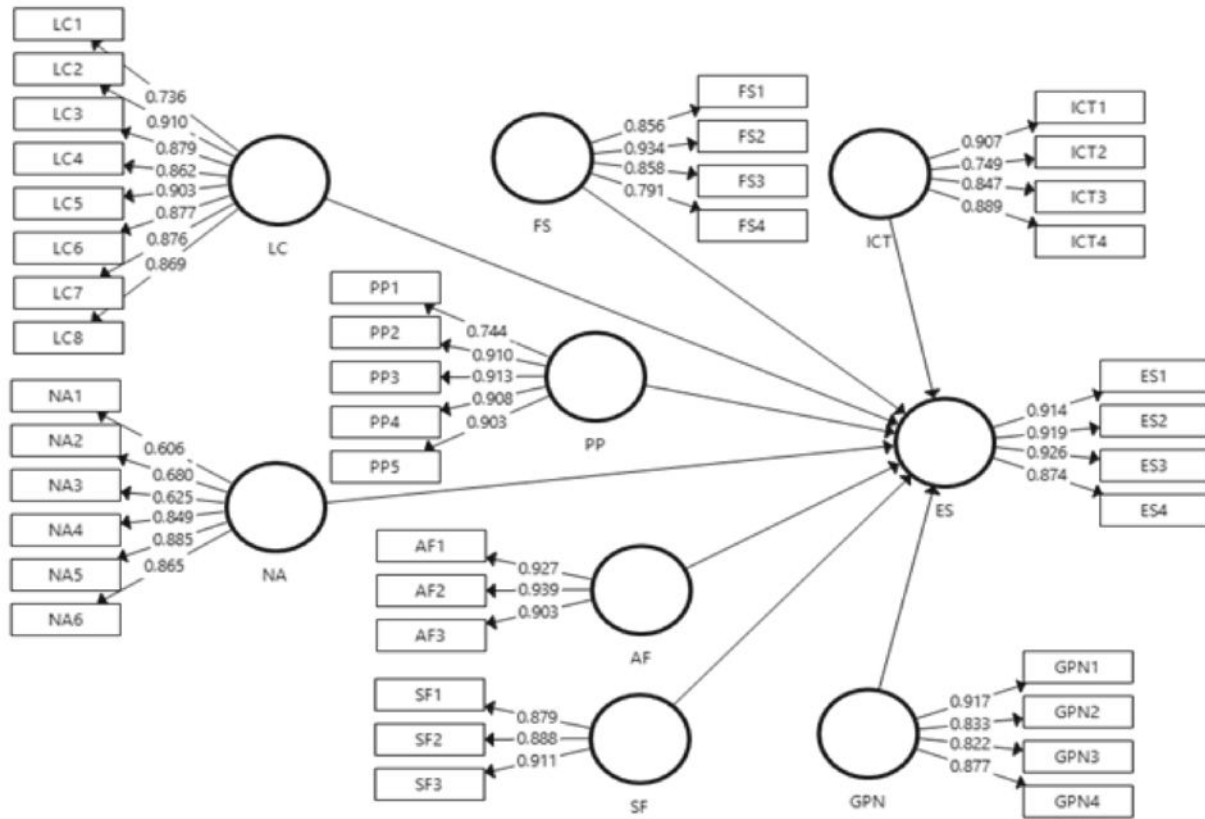


<b>PP</b>	PP1	0.744	0.925	0.944	0.772	05
	PP2	0.910				
	PP3	0.913				
	PP4	0.908				
	PP5	0.903				
<b>FS</b>	FS1	0.856	0.883	0.920	0.742	04
	FS 2	0.934				
	FS3	0.858				
	FS4	0.791				
<b>AF</b>	AF1	0.927	0.913	0.945	0.852	03
	AF2	0.939				
	AF3	0.903				
<b>SF</b>	SF1	0.879	0.873	0.922	0.798	03
	SF2	0.888				
	SF3	0.911				
<b>ICT</b>	ICT1	0.907	0.873	0.912	0.723	04
	ICT2	0.749				
	ICT3	0.847				
	ICT4	0.889				
<b>GPN</b>	GPN1	0.917	0.886	0.921	0.745	04
	GPN2	0.833				
	GPN3	0.822				
	GPN4	0.877				
<b>ES</b>	ES1	0.914	0.929	0.950	0.826	04
	ES2	0.919				
	ES3	0.926				
	ES4	0.874				

Table 2 represented that overall Cronbach's of the study is more than  $\alpha = .07$ . The value of Cronbach's for entrepreneurial success is (0.929), for personal factors; locus of control= (0.952), need for achievement = (0.862), push and pull motivational factors= (.925), family support (0.883), for environmental factors; access of finance

(0.913), social factor (0.873), information & communication technology (0.873), for other factors; government policy and NGO's support (0.886). The overall instrument of the reliability and validity study is reliable and valid because the results range is greater than  $\alpha = .70$  which indicates the good outcome.

Figure 2 Confirmatory Factor Analysis

**Fornell Larcker Criterion Validity Test**

We used the Fornell-Larcker Criterion examination of cross loading methods for measuring the discriminant validity.

However, we found that this approach assesses the discriminant validity of all the measurement constructs.

Table 3 Discriminant Validity

	AF	ES	FS	GPN	ICT	LC	NA	PP	SF
AF	0.923								
ES	0.384	0.909							
FS	0.449	0.314	0.861						
GPN	0.309	0.807	0.361	0.863					
ICT	0.905	0.393	0.447	0.361	0.850				
LC	0.526	0.371	0.849	0.331	0.522	0.865			
NA	0.577	0.834	0.424	0.828	0.642	0.500	0.761		
PP	0.865	0.365	0.458	0.373	0.911	0.533	0.667	0.878	
SF	0.302	0.844	0.331	0.845	0.393	0.360	0.811	0.347	0.893

## Results and Discussion

To test of hypotheses we used partial least squares-structural equation modeling (PLS-SEM) software because nowadays this technique acted as a silver bullet in

management research for estimating the causal models in many theoretical models as well as empirical research.

### Structural Equation Modeling

Table 4 Path Coefficients

Hypothesis	Relationship	$\beta$	t	p	LL (2.5%)	UL (97.5%)	Decision
<b>Personal Factors</b>							
H1	LC $\rightarrow$ ES	0.041	0.517	0.605	-0.110	0.202	Supported
H2	NA $\rightarrow$ ES	0.611	8.759	0.000	0.481	0.742	Supported
H3	PP $\rightarrow$ ES	-0.335	4.468	0.000	-0.489	-0.193	Not Supported
<b>Environmental Factors</b>							
H4	FS $\rightarrow$ ES	-0.054	0.677	0.498	-0.231	0.085	Not Supported
H5	AF $\rightarrow$ ES	0.359	4.581	0.000	0.213	0.511	Supported
H6	SF $\rightarrow$ ES	0.364	6.320	0.000	0.252	0.478	Supported
H7	ICT $\rightarrow$ ES	-0.189	2.510	0.012	-0.346	-0.040	Not Supported
<b>Other Factors</b>							
H8	GPN $\rightarrow$ ES	0.082	1.265	0.207	-0.047	0.205	Supported

Figure 3 Path Coefficients

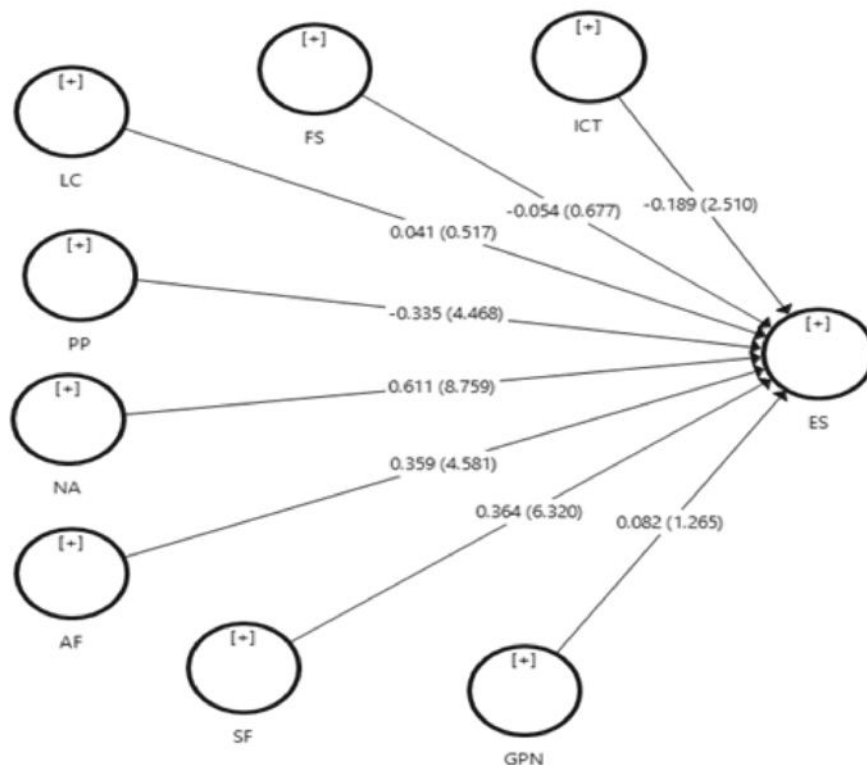


Table 4 depicts the path coefficient which predicted the personal factors: H1 locus of control is positively associated with the women entrepreneurial success. The results in table 4 and figure 3 demonstrate an insignificant but positive impact of locus of control on women entrepreneurial success ( $\beta=0.041$ ;  $t=0.517$ ;  $p=0.605$ ), thus H1 is supported according to our findings. Moreover, H2 need for achievement positively and significantly associated with the women entrepreneurial success ( $\beta=0.611$ ;  $t=0.859$ ;  $p=0.000$ ), thus H2 is supported to our model. H3 proposed the relationship between push & pull motivational factors and women entrepreneurial success. Findings revealed that it has negatively association but significantly impact with the women entrepreneurial success ( $\beta=-0.335$ ;  $t=4.468$ ;  $p=0.000$ ), thus H3 is not supported to our model. Furthermore, we analyzed environmental factors: H4 predicted family support and women entrepreneurial success. We found that family support has negatively impact and insignificant association with the women entrepreneurial success ( $\beta=-0.054$ ;  $t=0.677$ ;  $p=0.498$ ), thus our H4 is not supported to our proposed model.

However, H5 related to access to finance and women entrepreneurial success. Findings predicted that access to finance has a significant and positive impact on women entrepreneurial success ( $\beta=0.359$ ;  $t=4.581$ ;  $p=0.000$ ), therefore, H5 is supported. H6 proposed the relationship between social factor and women entrepreneurial success. Results demonstrate a significant and positive effect of social factor on women entrepreneurial success ( $\beta=0.364$ ;  $t=6.320$ ;  $p=0.000$ ), accordingly, our H6 is supported. H7 associated that information and communication technology has a negative association but significant impact on women entrepreneurial success ( $\beta=-0.189$ ;  $t=2.510$ ;  $p=0.012$ , hence H7 is not supported. Results indicated that other factors: H8 government policies & NGO's support has positive relationship but insignificant impact on women entrepreneurial success ( $\beta=0.082$ ;  $t=1.265$ ;  $p=0.207$ ), thus, H8 is supported to our study.

## Discussion

The present study measures the women entrepreneurial success factors, which includes personal factors, environmental factors, and other factors. Personal factors are associated with the locus of control, need for achievement, pull & push motivational factors. Environmental factors are related to family support, access to finance, social factor and information & communication technology. Another factor is associated with government policies & support from NGO's. The results of personal factors H1 predicted that locus of control has positive impact on the women entrepreneurial success. Women in

Pakistan have believed to control and overcome situations of events in their lives. Our result in line with the finding of the previous researcher (Brandstätter 2011), who found that locus of control, has positive impact on women entrepreneurial success. Furthermore, the result of H2 need for achievement has a positive relationship on women's entrepreneurial success. Pakistani women want to accomplish their desire and maintain their standard of business national and international level. Our study supports the finding of (Moya et al., 2014; Welsh et al., 2013; Zhang et al., 2009), who examined that need for achievement has a positive impact on the success of women. H3 is associated with the pull and push motivation factors. We found that pull and push motivational factors have negative impact on women entrepreneurial success. Our results support the studies examined by Nieva (2015); Kostetska & Berezyak (2014); Naser et al., (2009), pull and push motivational factors have negative but significant impact on the entrepreneurial success of women.

The results of environmental factors H4 associated with family support and women's entrepreneurial success. Our finding revealed that family support has an insignificant impact on women entrepreneurial success. Some Pakistani families has a narrow mind of thinking regarding women entrepreneurship, due to some religious point of view; they could not get family support from their husbands, fathers, and brothers to start their new business. Other researchers found that if there is no support from family for women, women business cannot survive well and women will not achieve the target. So our results do not support the finding of previous researchers (Vadnjil & Vadnjil 2013; Tu & Hwang 2014) that family support has a significant impact on the women entrepreneurial success. Our results support the finding of (Neneh 2016), family support has an insignificant impact on women entrepreneurial success.

H5 associated with access to finance and women entrepreneurial success. We found that there is a positive and significant relationship between access to finance and entrepreneurial success. Access to finance is associated with the capital because women's have a deficiency of capital and risk to invest money in their business. A study of Batool & Ullah (2017), found that if women have access to finance and support from her whole family, she will achieve her business goals. H6 is associated with the social factor and women entrepreneurial success. We found that social factor has a significant impact on women entrepreneurial success because we investigated this study in a developing country and there are a lot of socio-cultural barriers for women to start their own business in the male community. The finding of Javadian & Singh (2012),

associated that social factors play a vital role in the success of women to start a new business in a competitive market.

H7 is associated with the information & communication technology and women entrepreneurial success. Our study found that information & communication technology has negative but significant impact on women entrepreneurial success. Our results finding is different from previous study of Trkman (2010), without information technology women business cannot flourish in the market. Women must be aware from information technology to sell their products and services in the marketplace as well as starting a new business, but we found that role of information & communication technology has negative and significant importance in the women entrepreneurial success (Skinner 2008). H8 is related to government policies & support from NGOs and women entrepreneurial success. The findings revealed governmental policies and NGO's have positive relationship on women entrepreneurial success because proper government policies and support from NGO's in women entrepreneurship growth. Our results in line with the finding of Al-Hossien (2011), that government policy and support from NGO's have positive relationship with women success.

### Conclusion

The role of women entrepreneurs has been nominated for the new engine of boosting the economy and welfares of the countries. A number of people acknowledged that women entrepreneurs played a vital role in economic growth and development. The present study contributes to the current literature regarding the women entrepreneurial success factors in Pakistan. Personal factors; the need for achievement, push & pull motivational factors have a positive and significant impact on the entrepreneurial success. Environmental factors; access to finance, social factor, information and communication technology also has a positive and significant impact on women entrepreneurial success so we recommend that these personal and environmental factors have an extensive role in the development of SME's business for women in Pakistan. Locus of control, family support, government policies & NGO's support has an insignificant impact on women entrepreneurial success in Pakistani environment. The study used a questionnaire of all success factors for women's entrepreneurship in Pakistan. Total of 300 questionnaires was distributed to the biggest city of Pakistan and 259 completely answered by the respondents. Our findings revealed that if there is the locus of control, need for achievement, pull and push motivational factors, family support, information & communication technology, access to finance, social factor and government policies/support from NGO's women can achieve

entrepreneurial success. These factors are most important for women's entrepreneurial success, we recommend that if these all factors should be supported by the government to all women who want to start their own business it will be helpful for them to become an entrepreneur.

### Implications and Contribution

The present study provides three notable additions towards women entrepreneurial success in Pakistan as well as research literature because Pakistan has the youngest youth population all around the world with a larger number of women rather than male. Therefore, the present study unlocks the talent of women through different entrepreneurial success factors. Moreover, the outcomes of the paper may impact the advancement of female entrepreneurial society in Asian and developing countries. Additionally, the paper illustrates many significant ramifications for female entrepreneurs.

Firstly, female entrepreneurs become more conscious of the significance of four important factors namely locus of control, need for achievement, push and pull motivational factors. Secondly, female entrepreneurs ought to receive the necessary level of information and communication technology, family support, access to finance, social support and assistance for the start-up of entrepreneurial practice in Pakistan and other developing countries. In Pakistan, Women entrepreneurs encounter a variety of hurdles, which includes but are not limited to economic and social restrictions, management and networking limitations. Some of the difficulties can be resolved through targeted state strategies and policies. These include the allotment of adequate budgeted resources to assist female business owners. So it is essential that the government endeavor to acquire such statistics to enhance the performance of these desks.

Thirdly, this study intended to provide implications to policymakers to provide facilities for women entrepreneurs who want to start a new business with the support of government and other NGOs's. The government should provide assistance for professional entrepreneurs to assist women entrepreneurs in their projects. The government should focus on the technical workshop, training, and motivational seminars to motivate women's entrepreneurs to start up the new business.

Fourthly, government should create good opportunities for women's and developing the confidence to face and overcome the challenges in business to survive in the market. The government should support the women in terms of finance and provide them the appropriate infrastructure to start their own business. NGO's and other financial institutions support women's and provide them



startup capital, access to finance and loans on minimum rate of interest. The government should contact others successful women's in Pakistan for sharing their experiences at a different platform to pull and push motivation in women's in order to learn best practices from each other. NGO's should play a vital role to make new women's associations to discuss the several social-cultural problems which women encounter during the business process so they can achieve the performance and competitive advantage.

### Future Direction

Women's entrepreneurs' success is linked to the success factors as well as diligent and constant efforts on the role of government. The present study provides recommendations for government and other policymakers to develop best SME's policy and provide basic facilities for women's because there is no policy was announced after the 2007 SME's policy in Pakistan. So the government has to develop more opportunities for women. Our study has been conducted on the sample size of women-owned SMEs business in Pakistan. We selected only seven big cities of Province, Punjab, Pakistan we have 36 districts in Punjab Province. We could not explore the other districts due to time constraints and limited resources. Moreover, in the future, more detailed research can be examined on the different Provinces and big cities of Pakistan to identifying the entrepreneurial success factors. Our study is exploratory in nature; in the future, a longitudinal study could be capturing a clear image regarding the women or men entrepreneurial success factors. We analyzed personal, environmental and other factors in our study; a more study can be investigated in future on the other factors or personality traits; subjective norm, proactive personality, five big personality model and risk propensity to evaluate the entrepreneurial success as well as measuring the entrepreneurial intentions in different countries.

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### References

- Agarwal, Sucheta, & Lenka, Usha. (2016). An exploratory study on the development of women entrepreneurs: Indian cases. *Journal of Research in Marketing and Entrepreneurship*, 18(2), 232-247.
- Ahl, Helene. (2006). Why research on women entrepreneurs needs new directions. *Entrepreneurship theory and practice*, 30(5), 595-621.
- Ahmad, S.Z. (2011). Evidence of the characteristics of women entrepreneurs in the Kingdom of Saudi Arabia: An empirical investigation. *International Journal of Gender and Entrepreneurship*, 3(2), 123-143.
- Akehurst, Gary, Simarro, Enrique, & Mas Tur, Alicia. (2012). Women entrepreneurship in small service firms: Motivations, barriers and performance. *The Service Industries Journal*, 32(15), 2489-2505.
- Al-Aali, A., Teece, D. J. (2014). International entrepreneurship and the theory of the (long-lived) international firm: A capabilities perspective. *Entrepreneurship Theory and Practice*, 38(1), 95-116.
- Alam, Syed Shah, Senik, Z Che, & Jani, Fauzi Mohd. (2012). An exploratory study of women entrepreneurs in Malaysia: Motivation and problems. *Journal of Management Research*, 4(4), 282-297.
- Al-Hossienie, Chowdhury Abdullah. (2011). Socio-economic impact of women entrepreneurship in Sylhet City, Bangladesh. *BDRWPS*, 12, 1-22.
- Alstete, Jeffrey W. (2002). On becoming an entrepreneur: an evolving typology. *International Journal of Entrepreneurial Behavior & Research*, 8(4), 222-234.
- Azim, M. T. & Al-Kahtani, A. H. (2015). Designing entrepreneurship education and training program: In search of a model. *Journal of Economics and Sustainable Development*, 6 (22), 112-127.
- Baer, Markus, & Frese, Michael. (2003). Innovation is not enough: Climates for initiative and psychological safety, process innovations, and firm performance. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and*

- Behavior, 24(1), 45-68.
- Baral, R., & Bhargava, S. (2011). Examining the moderating influence of gender on the relationships between work-family antecedents and work-family enrichment. *Gender in Management: An International Journal*, 26(2), 122-147.
- Batool, Hira, & Ullah, Kalim. (2017). Successful antecedents of women entrepreneurs: A case of underdeveloped nation. *Entrepreneurship Research Journal*, 7(2).
- Boso, N., Cadogan, J. W., Story, V. M. (2012). Complementary effect of entrepreneurial and market orientations on export new product success under differing levels of competitive intensity and financial capital. *International Business Review*, 21(4), 667-681.
- Brandstätter, Hermann. (2011). Personality aspects of entrepreneurship: A look at five meta-analyses. *Personality and individual differences*, 51(3), 222-230.
- Brindley, Clare. (2005). Barriers to women achieving their entrepreneurial potential: Women and risk. *International Journal of Entrepreneurial Behavior & Research*, 11(2), 144-161.
- Brush, Candida G, & Cooper, Sarah Y. (2012). Female entrepreneurship and economic development: An international perspective. *Entrepreneurship & Regional Development*, 24(1-2), 1-6.
- Brush, Candida G, De Bruin, Anne, & Welter, Friederike. (2009). A gender-aware framework for women's entrepreneurship. *International Journal of Gender and entrepreneurship*, 1(1), 8-24.
- Burns, P. (2005). *Corporate Entrepreneurship: Building an Entrepreneurial Organization*, 1st ed.; Palgrave MacMillan: New York, NY, USA, ISBN 9780230542631.
- Carter, Sara, & Jones-Evans, Dylan. (2006). *Enterprise and small business: Principles, practice and policy*: Pearson Education.
- Chell, E (2008). *The Entrepreneurial Personality: A Social Construction*, 2nd ed.; Routledge: East Sussex, UK, ISBN 978-0-415-32809-8.
- Chem, S.C., Jing, L.L., & Sung, M. (2012). University students personality traits and entrepreneurial intention: Using entrepreneurship and entrepreneurial attitude as mediating variable. *International Journal of Economic Research*, 3(3) 76-82.
- Chinomona, Elizabeth, & Maziriri, Eugene Tafadzwa. (2015). Women in action: Challenges facing women entrepreneurs in the Gauteng Province of South Africa. *The International Business & Economics Research Journal (Online)*, 14(6), 835.
- Chowdhury, Mohammed S, Alam, Zahurul, & Arif, Md Ifttekhar. (2013). Success factors of entrepreneurs of small and medium sized enterprises: Evidence from Bangladesh. *Business and Economic Research*, 3(2), 38.
- Churchill Jr, Gilbert A. (1979). A paradigm for developing better measures of marketing constructs. *Journal of marketing research*, 16(1), 64-73.
- De Bruin, A., Brush, C. G., & Welter, F. (2007). Advancing a framework for coherent research on women's entrepreneurship. *Entrepreneurship theory and practice*, 31(3), 323-339.
- Deakins, D., & Whittam, G. (2000). Business start-up: theory, practice and policy. *Enterprise and Small Business Principles, Practice and Policy*, 115-131.
- Dhaliwal, S. (2000). Entrepreneurship—a learning process: the experiences of Asian female entrepreneurs and women in business. *Education+ Training*, 42(8), 445-453.
- Ehigie, B. O., & Umoren, U. E. (2003). Psychological factors influencing perceived entrepreneurial success among Nigerian women in small-scale businesses. *Journal of International Women's Studies*, 5(1), 78-95.
- Ekanem, I. (2015). Entrepreneurial learning: Gender differences. *International Journal of Entrepreneurial Behavior and Research*, 21(4), 557-577.
- El Harbi, S., Anderson, A., & Mansour, N. (2009). The attractiveness of entrepreneurship for females and males in a developing Arab Muslim country; entrepreneurial intentions in Tunisia. *International Business Research*, 2(3), 47-53.
- Fatoki, O. (2018). The Impact of Entrepreneurial Resilience on the Success of Small and Medium Enterprises in South Africa. *Sustainability*, 10(7), 2527.
- Frank, H., Lueger, M., & Korunka, C. (2007). The significance of personality in business start-up

- intentions, start-up realization and business success. *Entrepreneurship and Regional Development*, 227-251.
- Fuad, N., Bohari, A. M., & Hin, C. W. (2011). Women entrepreneurs in the ICT-related business in Malaysia: A demographic survey. *International Journal of Business and Management*, 6(10), 127.
- Goheer, N. A. (2003). Women entrepreneurs in Pakistan. *International Labour Organization*.
- Golrod, P. (2005). Effective factors in development of Iranian female entrepreneurs, *Pajouhesh-e-Zanan*, 3(1), 101-23.
- Gupta, V.K., Turban, D., Wasti, S.A., & Sikdar, A. (2009). The role of gender stereotypes in perceptions of entrepreneurs and intentions to become an entrepreneur. *Entrepreneurship Theory & Practice*, 33(2), 397-417.
- Hisrich, R. D., & Brush, C. G. (1987). Women entrepreneurs: A longitudinal study. *Frontiers of entrepreneurship research*, 187(1), 566-578.
- Hisrich, R.D., and Brush, C.G. (1985). Woman and minority entrepreneurs: A comparative analysis. In K. H. Vesper, ed., *Frontiers in Entrepreneurship Research*, pp. 255-270. Wellesley, MA: Babson College.
- Hisrich, R.D., Bowser, K. Smarsh, L.S. (2006). Women entrepreneurs in the Ukraine. *International Journal of Entrepreneurship and Small Business*, 3(2), 207-221.
- Hu, M. L. (2008). A study of the personality traits, environment and entrepreneurial attitude of technical institute's hospitality management students. *Journal of Hospitality and Home Economics*, 5(4), 349-375.
- Hughes, K., Jennings, J., Brush, C., Carter, S., & Welter, F. (2012). Extending women's entrepreneurship research in new directions. *Entrepreneurship: Theory & Practice*, 36, 429-441.
- Idris, A. J., & Agbim, K. C. (2015). Effect of social capital on poverty alleviation: A study of women entrepreneurs in Nasarawa State, Nigeria. *Journal of Research in National Development*, 13(1), 208-222.
- Itani, H., Sidani, Y.M., Baalbaki, I. (2011). United Arab Emirates female entrepreneurs: Motivations and frustrations. *Equality, Diversity and Inclusion An International Journal*, 30(5), 409-424.
- Jain, R., & Ali, S. W. (2013). A review of facilitators, barriers and gateways to entrepreneurship: directions for future research. *South Asian Journal of Management*, 20(3), 122-163.
- Jamali, D. (2009). Constraints and opportunities facing women entrepreneurs in developing countries: A relational perspective. *Gender in Management An International Journal*, 24(4), 232-251.
- Jan Khan, W.M. and Khalique, M. (2014). "An overview of small and medium enterprises in Malaysia and Pakistan: past, present and future scenario", *Business and Management Horizons*, Vol. 2 No. 2, p. 38.
- Javadian, G., & Singh, R. P. (2012). Examining successful Iranian women entrepreneurs: an exploratory study. *Gender in Management: An International Journal*, 27(3), 148-164.
- Jennings, J. E., & McDougald, M. S. (2007). Work-family interface experiences and coping strategies: Implications for entrepreneurship research and practice. *Academy of management review*, 32(3), 747-760.
- Kamal, S. (1997). Women empowerment and poverty alleviation in South Asia: The dual benefits of microcredit. *South Asia Poverty Alleviation Program*, 114.
- Kirkwood, J. (2009). "Motivational Factors in a Push-Pull Theory of Entrepreneurship", *Gender in Management: An International Journal*, 24(5): 346-364.
- Kostetska, I., & Berezyak, I. (2014). Social entrepreneurship as an innovative solution mechanism of social problems of society. *Management Theory and Studies for Rural Business and Infrastructure Development*, 36(3), 569-577.
- Lee Siew Kim, J., & Seow Ling, C. (2001). Work-family conflict of women entrepreneurs in Singapore. *Women in Management review*, 16(5), 204-221.
- Mari, M., Poggesi, S., & De Vita, L. (2016). Family embeddedness and business performance: Evidences from women-owned firms. *Management Decision*, 54, 476-500.
- Markman, G., and Baron, R. (2003). Person-entrepreneurship fit: why some people are more

- successful as entrepreneurs than others. *Human Resource Management Review*, 13(2), 281-301.
- Marlin, L. M., & Wright, L. T. (2005). No Gender in Cyberspace?. *International Journal of Entrepreneurial Behavior and Research*, 11, 162-178.
- Masuo, D., Fong, G., Yanagida, J., & Cabal, C. (2001). Factors associated with business and family success: A comparison of single manager and dual manager family business households. *Journal of Family and Economic Issues*, 22(1), 55-73.
- McClave, J. T., Benson, P. G., & Sincich, T. (2005). *Statistics for business and economics-Student solutions manual*. Pearson Prentice Hall.
- McClelland, D (1961). *The Achieving Society*, 1st ed.; D. Van Nostrand Company Inc.: Princeton, NJ, USA, ISBN 9781891396397.
- Menzies, T. V., Diochon, M., & Gasse, Y. (2004). Examining venture-related myths concerning women entrepreneurs. *Journal of Developmental Entrepreneurship*, 9(2), 89.
- Metcalf, B. D. (2008). Women, management and globalization in the Middle East. *Journal of Business Ethics*, 83(1), 85-100.
- Namrata Gupta, Anita Mirchandani, (2018). "Investigating entrepreneurial success factors of women owned SMEs in UAE", *Management Decision*, Vol. 56 Issue: 1, pp.219-232.
- Nardo, M., Saisana, M., Saltelli, A., & Tarantola, S. (2005). *Tools for composite indicators building-EUR 21682 EN*. European Communities.
- Naser, K. K., Mohammed, R. W., & Nuseibeh, R. (2009). Factors that affect women entrepreneurs: evidence from an emerging economy. *International Journal of Organizational Analysis*, 17(3), 225-247.
- Neneh, B.N. (2016). Examining the moderating effect of environmental hostility on the entrepreneurial orientation–performance relationship. *Journal of Economics and Behavioral Studies*, 8(6), 6–18.
- Nieva, F. O. (2015). Social women entrepreneurship in the Kingdom of Saudi Arabia. *Journal of global entrepreneurship research*, 5(1), 11.
- Nunnally, J. C., & Bernstein, I. H. (1978). *Psychometric Theory* McGraw-Hill New York Google Scholar.
- Nziku, D. M. (2012). Tanzanian education and entrepreneurial influence among females. *JWEE*, (1-2), 52-73.
- OlyNdubisi, N., & Kahraman, C. (2005). Malaysian women entrepreneurs: Understanding the ICT usage behaviors and drivers. *Journal of Enterprise Information Management*, 18(6), 721-739.
- Orhan, M., & Scott, D. (2001). Why women enter into entrepreneurship: an explanatory model. *Women in management review*, 16(5), 232-247.
- Pages, E. R. (2005). The changing demography of entrepreneurship. *Local Economy*, 20(1), 93-97.
- Paige, R. C., & Littrell, M. A. (2002). Craft retailers' criteria for success and associated business strategies. *Journal of small business management*, 40(4), 314-331.
- Pakistan Bureau of Statistics (2005), "Census of manufacturing industries district-wise report", available at: [www.pbs.gov.pk/content/census-manufacturing-industries-2005-district-wise-report](http://www.pbs.gov.pk/content/census-manufacturing-industries-2005-district-wise-report)
- Pandian, S. P. K., & Jesurajan, S. V. (2011). An empirical investigation on the factors determining the success and problems faced by women entrepreneurs in Tiruchirapalli District-Tamilnadu. *Interdisciplinary Journal of Contemporary Research in Business*, 3(3), 914-922.
- Ramadani, V., Hisrich, R.D., Gerguri, S. (2015). Female entrepreneurs in transition economies: Insights from Albania, Macedonia and Kosovo. *World Review and Entrepreneurship, Management and Sustainable Development*, 11(4), 391-413.
- Ranasinghe, B. S. (2008). Factors Contributing to the Success of Women Entrepreneurs in Sri Lanka. *Sri Lanka Journal of Advanced Social Studies*, 1(2), 85-110.
- RauthBhardwaj, B. (2014). Impact of education and training on performance of women entrepreneurs: A study in emerging market context. *Journal of Entrepreneurship in Emerging Economies*, 6(1), 38-52.
- Reid, G.C. and Smith, J. A. (2000). "What makes a new business start-up Successful?" *Small Business Economics*, 14, 165-182.
- Robinson, S. (2001). An examination of entrepreneurial motives and their influence on the way rural women small business owners manage their



- employees. *Journal of Developmental Entrepreneurship*, 6(2), 151.
- Robledo, J.L.R., Aran, M.A., Martin-Sanchez, V., & Molina, M.A.R. (2015). The moderating role of gender on entrepreneurial intentions: ATPB perspective. *Intangible Capital*, 11(1), 92–117.
- Roomi, M. A., & Parrott, G. (2008). Barriers to development and progression of women entrepreneurs in Pakistan. *The Journal of Entrepreneurship*, 17(1), 59–72.
- Rotter, J. (1966). Generalized Expectancies for Internal versus External Control of Reinforcement. *Psychol. Monogr*, 80, 1–28.
- Sarri, K., & Trihopoulou, A. (2005). Female entrepreneurs' personal characteristics and motivation: a review of the Greek situation. *Women in management review*, 20(1), 24–36.
- Shank, G. D. (2006). *Qualitative research: A personal skills approach*. Pearson Merrill Prentice Hall.
- Simon-Moya, V., Revuelto-Taboada, L., & Guerrero, R. (2014). Institutional and economic drivers of entrepreneurship: An international perspective. *Journal of Business Research*, 67, 715–721.
- Skinner, G.D. (2008). A Study into Fostering Entrepreneurship in Information Communication Technology (ICT). *International Journal of Computers and Communications*, Vol. 2, Issue 4, pp 108–116.
- SME Base Line Survey, SMEDA Pakistan (2019), “Small and medium enterprise development authority”, available at: [https://smeda.org/index.php?option=com\\_phocadownload&view=category&id=46:smeda&publications&Itemid=566#](https://smeda.org/index.php?option=com_phocadownload&view=category&id=46:smeda&publications&Itemid=566#)
- Smith-Hunter, A. E., & Enghardt, W. (2004). Determinants of economic success for women entrepreneurs: an analysis across racial lines. *Journal of Academy of Business and Economics*, 3(1), 210–218.
- Stanton, J. M., & Rogelberg, S. G. (2001). Using internet/intranet web pages to collect organizational research data. *Organizational Research Methods*, 4(3), 200–217.
- Su, J., Atmadja, A., & Sharma, P. (2015). Financial, human, and social capital: What matters more for women's microenterprises? A case study of Indonesia. Retrieved 12 January 2017, from <http://dx.doi.org/10.2139/ssrn.2667312>
- Tambunan, T. (2009). Women entrepreneurship in Asian developing countries: Their development and main constraints. *Journal of Development and Agricultural Economics*, 1(2), 027–040.
- Trkman, P. (2010). The critical success factors of business process management. *International journal of information management*, 30(2), 125–134.
- Tu, C., & Hwang, S. (2014). Innovation and success in micro-enterprises: The role of family and environments. *International Proceedings of Economics Development and Research (IPEDR)*, 70(17), 86–89.
- Umoren, E. U., & Ehigie, O. B. B. (2003). Psychological Factors Influencing Perceived Entrepreneurial Success Among Nigerian Women in Small-Scale Businesses. *Journal of International Women's Studies*, 5(1), 78–95.
- Vadnjal, J., & Vadnjal, M. (2013). The role of husbands: Support or barrier to women's entrepreneurial start-ups? *African Journal of Business Management*, 7(36), 3730–3738.
- Verheul, I., Uhlaner, L., and Thurik, R. (2005). Business accomplishments, gender, and entrepreneurial selfimage'. *Journal of Business Venturing*, (20), 483–518.
- Vodă, A. I., & Florea, N. (2019). Impact of Personality Traits and Entrepreneurship Education on Entrepreneurial Intentions of Business and Engineering Students. *Sustainability*, 11(4), 1192.
- Welsh, D. H. B., Memili, E., Kaciak, E., & Ahmed, S. (2013). Sudanese women entrepreneurs. *Journal of Developmental Entrepreneurship*, 18(2), 1–18.
- Welsh, D. H. B., Memili, E., Kaciak, E., & Ochi, M. (2014). Japanese women entrepreneurs: Implications for family firms. *Journal of Small Business Management*, 52(2), 286–305.
- Welsh, D.H.B., Memili, E., & Kaciak, E. (2016). An empirical analysis of the impact of family moral support on Turkish women entrepreneurs. *Journal of Innovation & Knowledge*, 1(1), 3–12.
- Zafar, S., & Khan, I. M. (2013). Examining factors of entrepreneurial success: Culture, gender, education, family, self-perception.
- Zhang, Z., Zyphur, M. J., Narayanan, J., Arvey, R.D., Chaturvedi, S., Avolio, B.J., Lichtenstein, P., & Larsson, G. (2009). The genetic basis of entrepreneurship: Effects of gender and



personality. *Organizational Behavior and Human Decision Processes*, 110(2), 93–107.

Zhouqiaoqin, ying, Y. X., Lu, Z., & Kumah, S. (2013). Factors that influence the success of women

entrepreneur in China: a survey of women entrepreneurs in Beijing. *IOSR Journal of Humanities and Social Science*, 18(3), 83-91.