




# “Entrepreneurial finance and its impact on e-business”

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# ENTREPRENEURIAL FINANCE AND ITS IMPACT ON E-BUSINESS

## Abstract

Entrepreneurial activity is important not just from an economic point of view but it also recognizes the power and value of an individual. In a developing country like Pakistan that ranks high when it comes to ease of doing business but very low in entrepreneurship, alternatives must be devised to empower individuals socially and economically. The Pakistani women being empowered than ever before have to be paid special attention to in case of entrepreneurship. The current study is thus aimed at assessing the e-business related entrepreneurial finance and potential of women doing e-business. E-business helps women overcome many traditional barriers to employment and entrepreneurship. Using Theory of Planned behaviour and entrepreneurship models, a framework for assessing e-business and seeking entrepreneurial finance alternatives is developed. Unlike the previous theories which suggested eight variables the current study found that for e-business entrepreneurs only perceived propensity, desirability, feasibility, motherhood, management and meso and macro environment are significant. Besides money, market and management which are important for starting any business, IT knowledge is important. The results based on regression analysis suggest that the model fits well as it predicts value of the entrepreneurial intention at 95% with a 5% significance value. Based on the findings of the study a new model for assessment of e-business entrepreneurial intention is developed which includes all significant variables and IT knowledge as a moderating variable. Based on this assumption, there is a clear implication for the policy makers to stress IT literacy to encourage entrepreneurial activity

## Keywords

Entrepreneurial Finance, e-business, regression

## JEL Classification

M13, M21, L26

## INTRODUCTION

According to the Census Bureau of Pakistan, the population for year 2011 was 192, 826, 502<sup>1</sup>. In Pakistani economy, women make the larger portion of the population. In any country women are thought to be equal participants in the economic development and have a direct impact on their business economy (Faridi et al., 2011). The participation of women in the economy has been assessed by several government and private research institutes and all agree on the same point that the participation of women in very low not just being the largest part of the population but also when compared to other developing countries. The Labour Force survey 2006 showed that 13.5% of women were involved in crude while 19.5% in refined economic activities (Siddiqui, 2009).

When considering entrepreneurship, the gap in women participation is even larger. Even though The World Bank business survey, with respect to ease of doing business, showed that Pakistan ranked 75 and 83<sup>2</sup> in year

1 <http://www.internetworldstats.com/asia.htm>

2 <http://data.worldbank.org/indicator/IC.BUS.EASE.XQ>

2009 and 2010 among 180 surveyed countries of the world but still the entrepreneurial activity in Pakistan is found to be very limited. The entrepreneurship rate in Pakistan was found to be 7% while only 3% of it is women (Siddiqui, 2009). For the economic growth, entrepreneurship is very important as found by many scholars and the its low rate in Pakistan definitely needs attention (Chemin, 2010).

A research by SMEDA (Amjad, A., 2011) showed that out of 3.2 million enterprises currently operating in Pakistan only 3% are owned by women. The report also showed that most of these businesses owned by women are operated from home. There are several reasons responsible for this difference and the trend is observed not just in entrepreneurship but also prevalent in the form of restrictions in mechanisms for fledgling businesswomen. This is the case in many of the developing countries but one of the main barriers in Pakistan is the social traditions and cultural values. Because of this the potential of Pakistani women is not being realized as entrepreneurs. This further hinders their access to training, technology, business, ownership, capital and finance etc (Roomi and Parrott, 2008). Participation of women in the economic activities is effected by reasons like income, veil and patriarchal system (Amin et al., 1995). According to one study by Roomi and Parrott (2008), the difference is also in the opportunities being provided to women besides these factors. According to him the gap is also in the entrepreneurship opportunities provided to men and women. The reason for this difference is mainly said to be lesser literacy rate, access to resources, social and cultural barriers and related perception amongst women.

Keeping in focus all these factors that have limited the entrepreneurial activity of women as well their participation in the economic activities, the current study suggests e-business as a possible solution. With internet access growing in the world there are greater business opportunities. In recent years the fastest growing companies' world over are the technology ones. The same factors that exist in the real world and limit the women participation may or may not be the same in the online world. The subject has also of been researched till date and the potential solution to problem of women entrepreneurship in Pakistan is being ignored. It is not in the case of Pakistan but also several developed countries where male and female entrepreneurs are now moving towards online start-ups. In her book, Carlassare (2001) says that women that are web savvy are turning into entrepreneurs as they recognise the extensive opportunities offered by the internet of owning and running businesses online. In fact, a new trend is that the women hired at executive levels too are now leaving the traditional businesses and joining the web businesses (e.g eBay). The studies in the U.S showed that after the internet boom, the number of women entrepreneurs (approximately 52%) was greater than men entrepreneurs and most of them were online start-ups. Scholars agree that potential women entrepreneurs face more barriers than the ones in United States but the barriers must be overcome to fill in the gap between number of men and women led business. Carlassare (2001) in her book further said that e-business is ideal for women for several reasons:

As a very new industry, the Internet space isn't tied to traditional ways of working and entrenched power structures. This explains why women and young entrepreneurs – groups that have traditionally run into barriers while striving to build businesses - are experiencing increased success in Internet ventures (p. 7)

Women are traditionally thought to be homemakers and encouragement for running a business or even working is not encouraged. This has resulted in a large gap between the economic contribution of women and men (Faridi, Chaudhry, & Malik, 2011). To help the integration of not just women but also the illiterate and unemployed is possible through technical and vocational training. Especially in this century when the e-business world is at boom, there are increased opportunities for people to work and earn. With 17.8% of the population already having access and using the internet in Pakistan, the e-business if not completely but to a great extent can help truly develop women entrepreneurship. For this reason, the current study seeks to assess the entrepreneurial intention of women that already have access to the internet or are I.T literate. The study would help the readers know the difference in entrepreneurial intention of women in Pakistan provided them the knowledge of e-business and I.T in Pakistan.

## 1. RESEARCH AIMS AND OBJECTIVES

The current study is aimed at assessing the entrepreneurial intention and potential of women as e-business entrepreneurs in Pakistan. The aim of the study is achieved through the following objectives:

- Review the extensive literature and theories on entrepreneurial finance to study the factors that have an impact on entrepreneurial intentions among women.
- To develop a theoretical framework highlighting the main variables that determines entrepreneurial intentions among the IT literate women.
- To collect and analyse data for empirical findings for the research and to develop a new model for entrepreneurial intention and e-business potential of women.
- To make recommendations to the policy makers and draw out guidelines to encourage entrepreneurship among women in Pakistan.

## 2. LITERATURE REVIEW

A comprehensive review of literature is done after the theories of entrepreneurial intentions and finance have been studied. These include the Theory of Planned behaviour by Ajzen (1991), theory by Shapero and Sokol (1982), entrepreneurial event model by Krueger and Brazeal (1994) and the 3Ms and 5Ms model etc. An extensive review of litera-

ture is done to develop a theoretical framework for the study.

Entrepreneurship has been defined by Acs (2010) as:

Activities involved in coordinating and carrying on a well-established, going concern in which the parts of the production function in use are well known and which operates in well-established and clearly defined markets (p. 166)

Scholars through their studied have directed their efforts to explain some people start their own businesses or become entrepreneurs. Most of these studies have highlighted the variable of entrepreneurial intentions as one of the best predictors to start his or her own business or create a venture.

The entrepreneurial intention is further backed by the feasibility as well as the desirability to start a specific venture or business. Two very important theories related to entrepreneurial intention are the Theory of Planned behaviour by Ajzen (1991) and Shapero and Sokol (1982).

According to the theory presented by Ajzen, any behaviour which is the act of starting a business in entrepreneurship needs some degree of planning and is predicted through intention to adopt that behaviour. The theory further says that there are three important variables that lead to intention. First the attitude of the subject towards a particular behaviour, secondly the perception of the subject of what the other people think of his or her intended behaviour and lastly how much the subject perceives his or her control on the intended behaviour (Audet, 2004).

Source: Krueger and Brazeal, (1994).

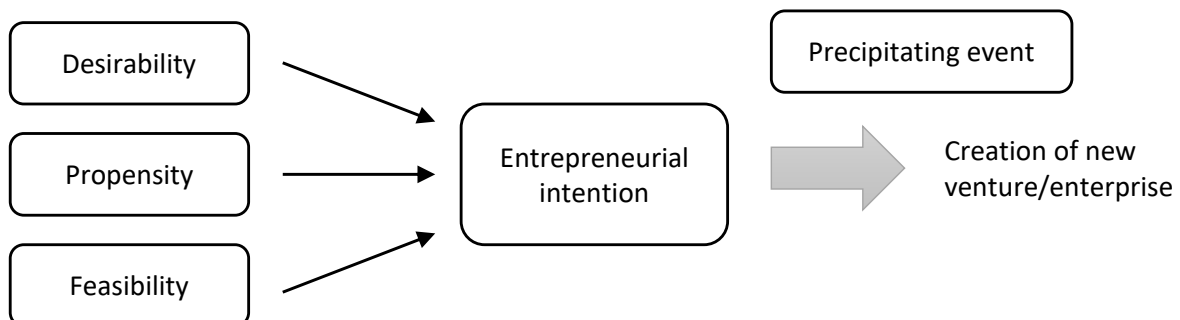
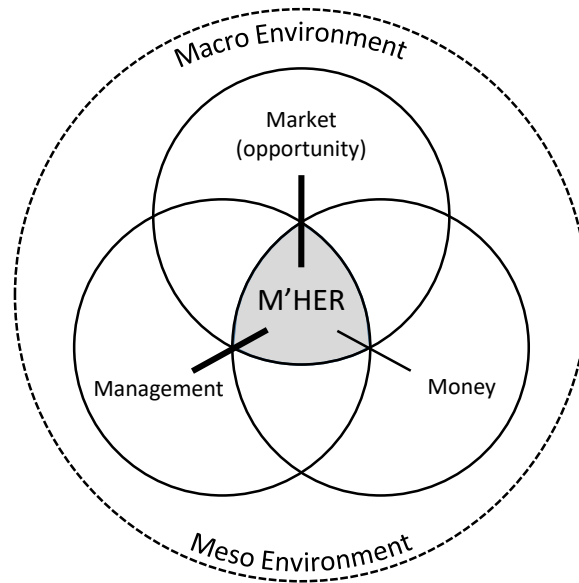


Figure 1. Entrepreneurial Event Model



**Figure 2.** 5Ms Model for Women Entrepreneurship

The second important theory given by Shapero and Sokol (1982; Audet, 2004) suggests that a decision that can change the direction of one's life significantly is predicted by a break or event in one's routine. This again depends on some factors like desirability, propensity and the feasibility of that behaviour. The model is illustrated below using a figure:

The perception and assessment of one's skill and various external factors are also important. The perception about feasibility and the actual feasibility are often different and in this case the entrepreneurial model might not stand as the entrepreneurial intention in this case would not lead to venture creation (Audet, 2004). Few studies on entrepreneurial intentions (e.g. Kreuger et al., 2000) that follow the same models suggest that the model can predict more accurately an entrepreneurial activity when it determines control with the decision maker (self-efficacy).

Many studies revealed entrepreneurship education and practical exposure to entrepreneurial activity e.g. if someone in the family is an entrepreneur, self-employment in family, can help develop this entrepreneurial self-efficacy. The entrepreneurial intention of such individuals is also less affected by subjective norms (Krueger, 1993; Basu & Virick, 2008; Raijman, 2001). Few studies that highlight various psychological elements of entrepreneurial intentions include meeting new challenges, desire to achieve and

inclination to take risks etc. Together these traits help in assessing the entrepreneurial readiness (Raijman, 2001). An interesting finding by the scholars is also that propensity to act that is to create a venture is also effected by marital status (Sanders & Nee, 1996; Raijman, 2001). According to economic theories asset accumulation and access to sufficient capital for start-up is the main determining factor that can lead to development of entrepreneurial intention (Evans & Jovanovic, 1989; Raijman, 2001).

## 2.1. Women as Entrepreneurs

There have not been many studied regarding women entrepreneurship and only a few important ones are reviewed for this literature review. One theory of entrepreneurship which is quite prevalent is the "3Ms" model. The three 'Ms' here stand for money, market and management. It is important that the potential entrepreneur should have access to capital which is represented by money here. He or she should have access to market and management (organisational and human capital). Brush and his colleagues (2009) however feel that the "3Ms" model which defines the building blocks of entrepreneurship needs to be extended to include important building blocks for women entrepreneurship. Brush, Bruin and Welter (2009) thus developed the 5Ms model of women entrepreneurship. Besides the 3Ms of the previous mode, this new model includes two Ms; motherhood and meso/macro environment.

The element of motherhood represents the context of household and family of women which is a string factor in case of women. The meso/macro environment factor on the other hand considers external environmental factors which are not related to the market. The meso is for the cultural and social environment for the women and the macro environment includes economic environment and political environment including national policies and initiatives etc. These factors are important for women to have an organised social and work life.

The same entrepreneurial model that were used for men cannot be used for women, as noted by Lewis (2006):

*While the notion that entrepreneurship is gendered is often a construct accepted by researchers of female business ownership, it is not often a principle that women entrepreneurs themselves draw upon to understand their situation* (Lewis, 2006 cited in Brush et al., 2009).

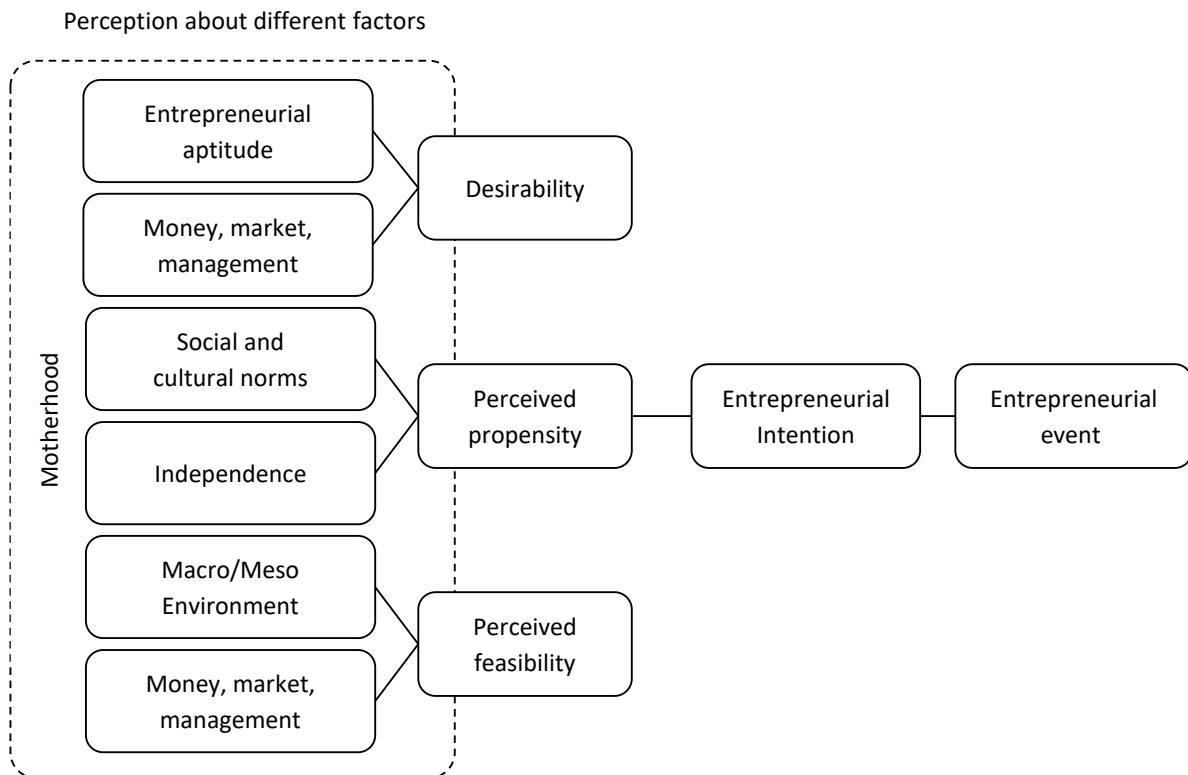
One study showed that veil, income and the patriarchal system in the country are the main reasons for the lesser participation of women in the country's labour force (Amin et al., 1995). These and many other research findings show that women participation in Pakistan is not as much as it should be, (being the majority portion of the population).

In the recent years, there has been a growing trend of women entrepreneurship in the developing countries and many researchers have thus started studying various aspects on entrepreneurship in Pakistan. One of the studies conducted on women entrepreneurship in Khyber Pukhtan Khawa, Pakistan revealed that many women in Pakistan; both urban and rural are engaged in revenue generation activities in recent year (Afza et al., 2010). The study revealed that life of business entrepreneurs in Pakistan is usually around ten years. Most of these entrepreneurs have emerged in recent years and majority of women entrepreneurs in Pakistan are very young. This shows that there is gradual movement toward women entrepreneurship in Pakistan. However, entrepreneurial behaviour of these women was not because of the market opportunities but in most of the cases it was a need. Education was found to be the major

problem for these women and some mentioned a lack of family support. The businesses owned by the women were mostly informal ones. Afza and his colleagues called them "Enterprise-less entrepreneurs". According to one study by Roomi and Parrott (2008), women in Pakistan are not exposed to same entrepreneurship opportunities as men are.

A study by Faridi et al. (2011) which was conducted to assess the impact of social-economic factors on women entrepreneurship is also important in this regard. Their study revealed that Women's work participation has been positively influenced with the passage of time and gain of experience, whilst being self-employed. Studies indicate that the participation of women in self-employment activities has been greatly enhanced due to the years of education. When taking into consideration the various educational levels, the outcomes are very interesting. Although the low educational level encourages women to establish their own business yet the highly educated women do not prefer to opt for the option of self-employment. The self-employment of women is significantly and positively influenced by the presence of husband support, number of children and household assets. The study also concludes that the work participation of women as self-employed workers is reduced due to location, number of dependents and Per Capita income. Faridi and his colleagues further found out that generally in Pakistan a shortage of formal jobs for women has been observed. The main cause of women's self-employment is the unavailability of opportunities to attain higher education and inconvenience in getting higher education for women. In case of developing countries like Pakistan, larger size of children, overburdening domestic responsibilities, more number of children and joint family system are also the chief reason for women to tend towards self-employment. The study further explores that the participation of women in self-employment activities is also reduced due to the high ratio of per capita income of a family. But in countries like Pakistan, the per capita income is usually low (Faridi et al., 2011). The study by Roomi and Parrot confirmed these findings in their study that higher education, awareness and education of relatives, self-employed father or husband or other close male

Source: Developed by Author, adapted from literature reviewed.



**Figure 3.** Theoretical Framework Developed from Literature

relatives, marital status, age of children etc have a positive impact on the entrepreneurial intentions of women in Pakistan. They also found that women besides economic benefits seek to three main benefits by starting their own businesses; personal freedom, personal security and personal satisfaction. The main factors behind the entrepreneurial activity of these women included finance, family encouragement, use of skills, need for achievement, independence, economic necessity and ambition etc. For women, it was found that it is very important for them to maintain their social and cultural norms and that business was not as important for them as their family and society (Roomi & Parrott, 2008).

## 2.2. E-business Entrepreneurship:

E-business can mean different things to different businesses, and with the constant revolutionizing of the internet, every business has achieved varied outputs. Lack of literature on entrepreneurial finance activities with well documented evidence is a gap that explains the ever-changing definition and understanding of e-business entrepreneurship.

The field of IT holds many promises for the women as being an enabler of leadership emergence in middle management decision making councils (Klein, 2000).

## 2.3. Desirability

Desirability as suggested by the reviewed literature of the study can be measured in terms of entrepreneurial aptitude of a person and his or her motivation like money, market related factors (like access, opportunities) and even management (personal capacities to run a business).

Desirability is strongly related to motivation to start a new business. In many researches, it has been found that having a positive intrinsic and extrinsic motivation to start a business leads to development of the desirability to start one's own business (Guerrero, Rialp, & Urbano, 2008). Another factor as found by another factor as found by Shapero and Lisa (1982) that has an impact on desirability in their research was an exposure to some kind of entrepreneurship related education. This can be an entrepreneurship related subject

at school or someone in the family being self-employed. Perceived desirability for starting a business is usually measured in terms of attitude towards ownership. It is suggested that this attitude was enough proxy for perceived desirability thus in questionnaire for assessing desirability, various psychological aspects were considered along with motherhood (Fitzsimmons & Douglas, 2011).

#### 2.4. Perceived Propensity

The perceived propensity to act is the perception of a person about his or her cultural, society, norms etc. Also, the psychological aspects are covered in propensity which include self-control, willingness to take risk, accept challenges, independence etc. McMullen and Shepherd (2006) suggest that attitude to risk is enough proxy for an entrepreneurial action's perceived self-efficacy. Therefore, along with motherhood, independence and social and cultural norms have an impact on perceived propensity to act of a person (Fitzsimmons & Douglas, 2011).

#### 2.5. Perceived Feasibility:

For starting any business access to money, market and management three main factors that is why they have been assessed through the questionnaire under the feasibility head. Perceived feasibility can be measured as entrepreneurial self-efficacy (Fitzsimmons & Douglas, 2011).

#### 2.6. Motherhood

Several things have an impact on perception of feasibility to start a business. First there are the personal capacities. Also, the regulatory environment (Guerrero, Rialp, & Urbano, 2008). Desirability, Feasibility and propensity are all impacted by some common factors like age, stage of life and even the external environment of a person. Motherhood is a strong common factor for women entrepreneurship that has an impact on different determinants of entrepreneurial intention. Motherhood refers to household here, the perceived relevant social and cultural norms as well as responsibilities. It is well established that a household reflects the social and economic differences of a country. But the inequalities and gender discrimination within a household often go un-

noticed. In order to understand women entrepreneurship, it is thus important to understand her household's nature, the family composition and the family members.

#### 2.7. Research Design

The research design chosen for the study is the quantitative one. The literature suggests different variables that can have an impact on e-business entrepreneurial intentions. A survey methodology with the purpose of research was constructed. The primary data was collected to assess the e-business entrepreneurial intentions among the women. The paper opted for an exploratory study using the closed-ended approach through a Questionnaire. The survey conducted was aimed at women who were fresh business graduates, both at the bachelor's and master's level. The data were complemented by documentary analysis and empirical evidence by the new model created. Some questions were dropped and few were adopted from The Entrepreneurial Potential Self-Examination Survey form used at Memorial University of Newfoundland, Canada. After the questionnaire was re-designed with 24 Questions, it was tested further for reliability and validity. As a pilot test, the questionnaire was distributed among fifteen women.

#### 2.8. Reliability of Scale

For the development of the questionnaire Likert scale was adopted. The scale tells about the degree of agreement and disagreement for different determinants. This also facilitated the coding process later during the analysis of the result. A small pilot test was conducted and tested for reliability using Cronbach's alpha. The reliability tests were done item wise. The three items that covered the complete questionnaire were desirability, propensity and feasibility. These three items were computed variables and the data for them, for fifteen respondents was fed into SPSS and tested for reliability. The reliability statistics are as follows

The value of Cronbach's Alpha in all cases was above 0.5 and thus the scale was found to be reliable. Thus, the research using the questionnaire was carried forward.

**Table 1.** Reliability Statistics

Scale	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No. of Items
Desirability	.762	.768	6
Propensity	.720	.735	6
Feasibility	.749	.748	7

**2.9. Sampling**

The main sample defined for the study is the fresh business graduates at bachelor's and master's level. A total of 80 responses were sampled. Also, the population to be targeted was IT literate. IT literate means here that the respondents should know the basics of web surfing, use of search engines and the use of internet. To ensure this the medium used for the questionnaire distribution and collection was electronic. The questionnaire was developed online using Google spread sheets and emailed to female business graduates. The email addresses were acquired through the reference, LinkedIn and different university websites.

**2.10. Analytical Framework or Procedure of Analysis**

Using the conceptual model developed earlier from the literature review, the following model for data analysis is developed.

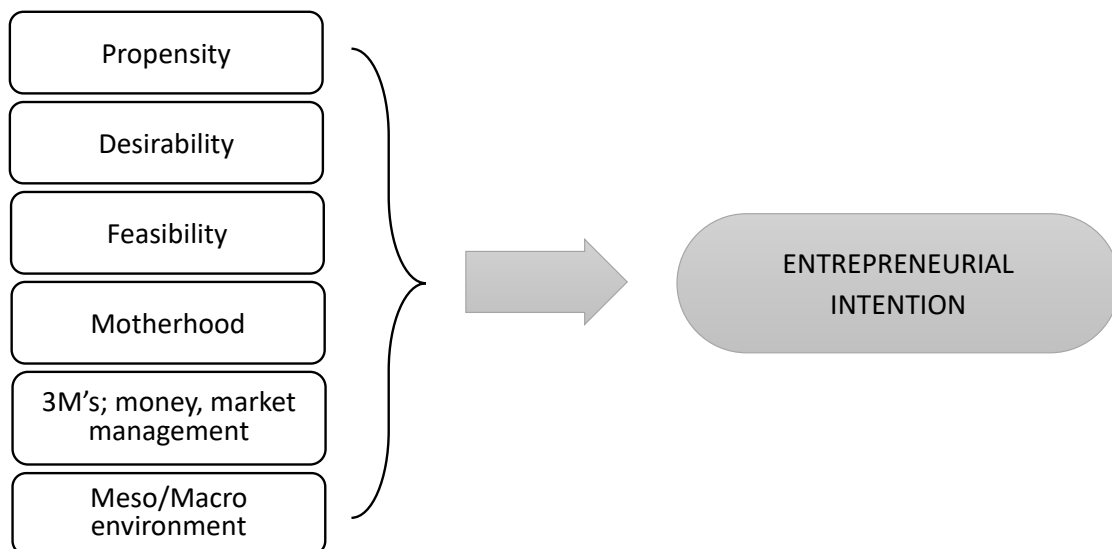
In this model, the variable of entrepreneurial intention depends on independent variables like desirability, propensity, feasibility, desirability, motherhood, money, market, management and

meso and macro environment. Using this framework, the following equation could be drawn from Brush et al. (2009) with extended parameters and would be later used for regression analysis.

$$Y = \beta_0 + \beta_1 \cdot x_1 + \beta_2 \cdot x_2 + \beta_3 \cdot x_3 + \beta_4 \cdot x_4 + \beta_5 \cdot x_5 + \beta_6 \cdot x_6 + \beta_7 \cdot x_7 + \beta_8 \cdot x_8, \tag{1}$$

where

- $Y$  – Entrepreneurial Intention;
- $x_1$  – Desirability;
- $x_2$  – Propensity;
- $x_3$  – Feasibility;
- $x_4$  – Access to Money;
- $x_5$  – Access to market;
- $x_6$  – Management;
- $x_7$  – Meso/Macro Environment;
- $x_8$  – Motherhood;
- $\beta$  – ???



**Figure 4.** Framework for Data Analysis

### 3. DATA PROCESSING, ANALYSIS AND DISCUSSION

Using the above suggested equation based model, the data is processed and analyzed. A regression analysis is run since the value of a dependent variable is predicted using several independent variables. The various assumptions of regression were also tested before applying the regression tests. The following scatter plot shows almost all variables were linearly related or no curvilinear relation to it and thus the first assumption of the regression analysis was satisfied.

The value of residuals which is obtained in the regression analysis is checked for normality by plotting a graph. The plot shows that it is approximately normally distributed; hence the

other assumption was also satisfied.

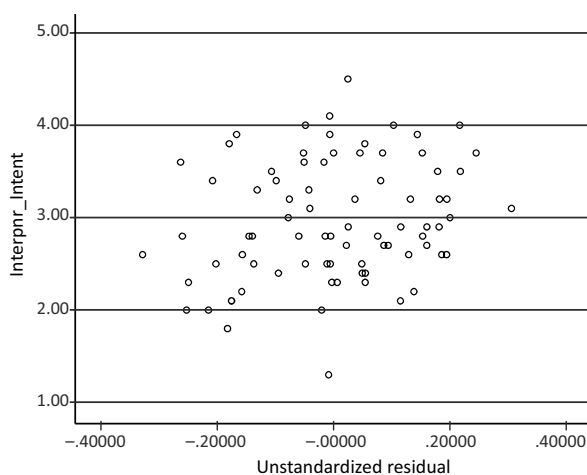
Last but not the least, the variables were checked for multicollinearity, this is done through measuring the variance inflation factor (VIF) value in the coefficients tables.

Since the value for all variables was less than 10, this showed that there exists is no multicollinearity. If the multicollinearity would have existed the model would have been highly unstable and the assumption for regression analysis would have not been satisfied. In our case all assumptions of regression analysis were satisfied and there were not outliers, and hence the research proceeded with the regression tests and analysis using SPSS. The correlations were also obtained however because they are less relevant to the main research topic, the correlation values have been given in the Appendix (B).

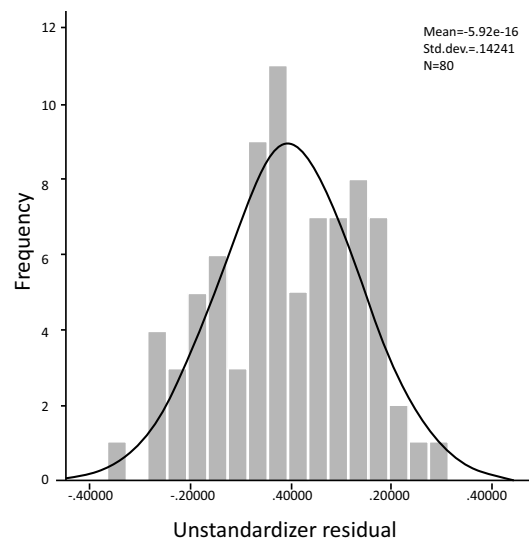
**Table 2.** Collinearity Statistics

	Tolerance	VIF
(Constant)		
Desirability	.394	2.535
Propensity	.365	2.738
Feasibility	.417	2.396
1 Money	.516	1.938
Market	.363	2.755
Management	.522	1.916
Meso_Macro	.137	7.274
Motherhood	.405	2.466

Note: a. Dependent Variable: Enterpnr\_Intent.



**Figure 5.** Scatter Plot



**Figure 6.** Normality Distribution Curve

## 4. SAMPLE DESCRIPTORS

### Employment Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Unemployed	23	27.4	28.8	28.8
	Employed	28	33.3	35.0	63.8
	Self-employed	5	6.0	6.3	70.0
	Temporal Unemployment	2	2.4	2.5	72.5
	Student	22	26.2	27.5	100.0
	Total	80	95.2	100.0	

### Marital status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Married	32	38.1	40.0	40.0
	Unmarried	48	57.1	60.0	100.0
	Total	80	95.2	100.0	
Missing	System	4	4.8		
Total		84	100.0		

## 5. REGRESSION ANALYSIS

The regression analysis gives three main tables. First is a model summary, second is the ANOVA which also gives the F-test value. The last set of statistics is that of coefficients. The following table gives a summary of the estimated model. The first value in the table is that of R. The significance level set by the researcher was 95%. R here is the value of regression coefficient which was obtained to be 0.975. As different researches highlight, the closer this value is to 1, the better the model is at assessing the variable it is developed for. The R square is also known as the coefficient of determination.

Since the value of R-square is also very close to 1, it shows that the independent variables in the model

very effectively explain the value of the dependent variable. The adjusted value of R-square which is 0.946 shows how well the model would explain the dependent variable if obtained would be different but from the same population. Its value is usually less than that of R-square and same is in our case. The standard error of estimate shows the degree of variability in the value of dependent variable Y. Since the value is very less i-e 0.15022, the variability in the value of Y would be very less. The regression analysis also gave an ANOVA table which gave the value of F as well as the significance level.

The next table in the regression analysis is that of ANOVA:

The ANOVA helps test the existence of a linear re-

**Table 4.** Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.975a	.951	.946	.15022	2.116

Note: a. Predictors: (Constant), Meso\_Macro, Management, Motherhood, Money, Feasibility, Propensity, Desirability, Market.

b. Dependent Variable: Enterpnr\_Intent.

**Table 5. ANNOVAb**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	31.233	8	3.904	173.003	.000a
	Residual	1.602	71	.023		
	Total	32.836	79			

Note: a. Predictors: (Constant), Meso\_Macro, Management, Motherhood, Money, Feasibility, Propensity, Desirability, Market.

b. Dependent Variable: Enterpnr\_Intent.

relationship between the dependent and independent variables. The value of F is large and the significance of 0.0001 also shows that results are highly significant. F statistic here shows the ratio of the model mean square to the error mean square and shows the value of skewness. The last table gives the values for the beta coefficients for all the independent variables.

For the calculation of the value of the dependent variable of Y, it is important to multiply the value of each independent variable with its corresponding beta coefficient (McNabb, 2008). The values from t-test are also given for each of the coefficients in the table. The significance values show that most of the variables are significant. The significance value set in this study is at 5%. The independent variables whose values are greater than 0.05 are insignificant. From the given coefficients tables, we can conclude that six out of the eight variables that are desirability, propensity, feasibility, management, motherhood and meso and macro environments are good predictors of the entrepreneurial intentions for e-business among Pakistani women.

Putting the values in the initially proposed regression model equation, we get:

$$\begin{aligned}
 Y = & \beta_0 + \beta_1 \cdot x_1 + \beta_2 \cdot x_2 + \beta_3 \cdot x_3 + \beta_4 \cdot x_4 + \\
 & + \beta_5 \cdot x_5 + \beta_6 \cdot x_6 + \beta_7 \cdot x_7 + \beta_8 \cdot x_8 = \\
 = & .112 + .570(\text{Desirability}) + \\
 & +.536(\text{Propensity}) + \\
 & -.142(\text{Feasibility}) + \\
 & +0.022(\text{Access to Money}) - \\
 & -.013(\text{Access to market}) + \\
 & +0.118(\text{Management}) + \\
 & -.259(\text{Motherhood}) + \\
 & +.210(\text{Meso\_Macro}).
 \end{aligned}
 \tag{2}$$

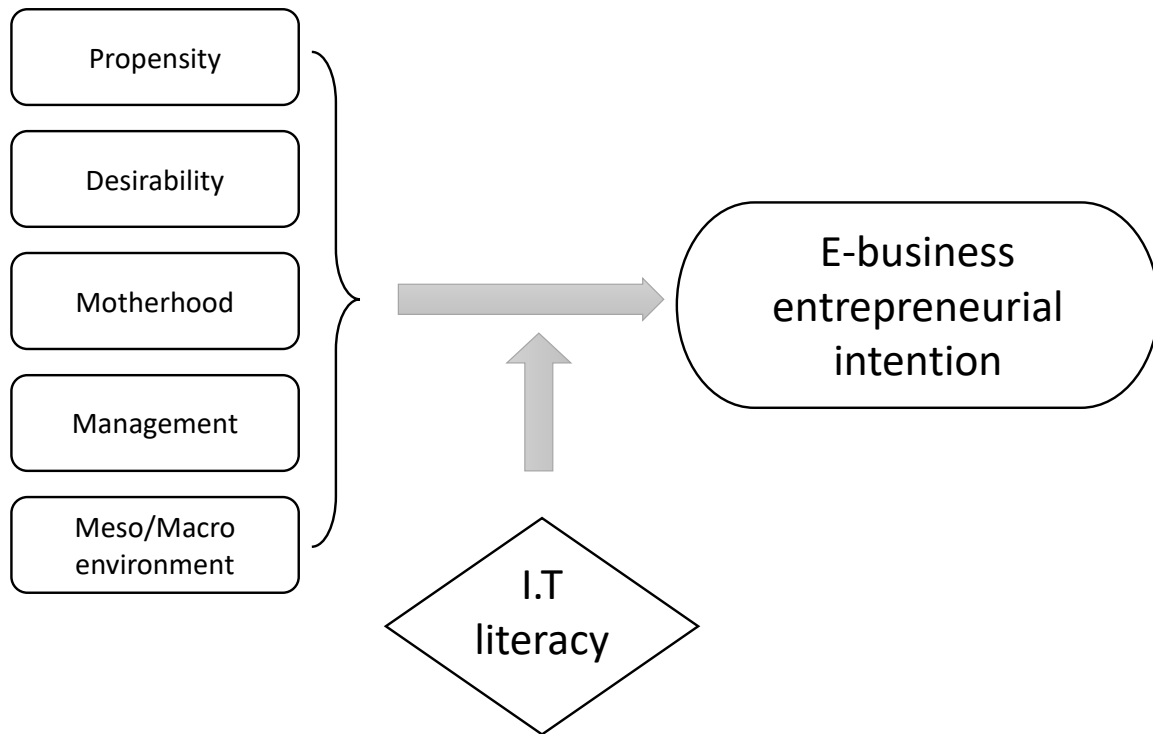
## 6. RESULTS

The results based on beta values show that desirability and propensity are the most important factors in e-business entrepreneurial intention. Eminent positive correlations have been observed amidst entrepreneurial intentions and perceived desirability e.g. in the study by Fitzsimmons and Douglas (2011) and was the case in this study. Feasibility, even though it was suggested by theo-

**Table 6. Coefficientsa**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	
	B	Std. Error	Beta			
1	(Constant)	.112	.128		.877	.383
	Desirability	.516	.038	.570	13.645	.000
	Propensity	.603	.049	.536	12.358	.000
	Feasibility	-.169	.048	-.142	-3.494	.001
	Money	.015	.024	.022	.605	.547
	Market	-.007	.025	-.013	-.296	.768
	Management	.071	.022	.118	3.252	.002
	Motherhood	-.274	.044	-.259	-6.288	.000
	Meso_Macro	.214	.072	.210	2.967	.004

Note: a. Dependent Variable: Enterpnr\_Intent.



**Figure 7.** E-Business Entrepreneurial Intention Model for Women

ries to be one of the main determinants of entrepreneurial intention has a very weak and a negative relation with e-business entrepreneurial intention. This is different for the usual studies conducted for entrepreneurial intention suggest a positive strong relationship (Fitzsimmons & Douglas, 2011). This can be understood as mostly feasibility is measured or perceived in terms of market and money related factors of a business (Good, 2003), whereas both of these variables have been proved to be insignificant when it comes to e-business entrepreneurship. Furthermore, McMullen and Shepherd (2006) have observed that the people with low level of perceived desirability can act entrepreneurially if they think they have sufficient perceived feasibility for it. This condition of one's strong perceived feasibility is however not obligatory (Fitzsimmons & Douglas, 2011).

Motherhood is the next most important contributing factor to e-business entrepreneurship but its impact is negative on e-business. Motherhood in our model was used for household management besides children and it is usually perceived to be a barrier for working women. Thus, the negative sign can be justified. Carter and Ram (2003) also agree and have stressed on the significance of op-

erationalizing households and in our case motherhood can have a negative impact on entrepreneurial intention since it's a negative weak but a significant variable.

The other important contributors to e-business entrepreneurial intention is that of the macro and meso environment and management for e-business entrepreneurship. In terms of image, an industry may be gendered and occupational segregation might also make it difficult for women to enter certain business fields. The macro environment and meso environment limit the scope for women and as a result the women have very less or no control on these environments (Brush et al., 2009).

Desirability and propensity of an individual depends on his or her motivation for starting an enterprise and can vary e.g. the entrepreneur may discontinue the process due to the conduction of new combinations or may continue because of independence and determination to avoid working for others. Bull and Willard, (1993) suggest that the creation of new ventures provides the entrepreneurs with the satisfaction and contentment of being independent and accepting responsibility.

An entrepreneurial manager can leave their employer and start their own ventures when the institution tends to avert incentive contracts which link the future returns to the reputation and wealth of the innovator. Entrepreneurship is vastly effected by the environment, as it can support the business as well as provide hurdles for its operations (Bull & Willard, 1993).

Thus, the literature does have support for the findings of this study and all variables could be easily understood. Since the issue of e-business entrepreneurship is found to be ignored, there is presently no model that defines e-business entrepreneurial intention for women.

## 7. SUGGESTED MODEL

The following model based on the empirical findings of this study is suggested.

Till date the literature has not addressed the main e-business issues and neither any theory has been developed capturing its unique features. However, based on the assumption that even in the very less percentage of entrepreneurial activities in Pakistan, the gap between women and mean participation is very large. This gap has been explained by several studies citing several reasons like literacy, access to resources, society, culture, status etc. (Roomi & Parrott, 2008).

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## CONCLUSION

The participants of the study were 27.4% unemployed women, 33.3% employed, 6% self-employed (mostly freelancers), 2.4% temporarily employed while 26.2% were graduating students. This description shows that the participants of research does not over or under represent any part of the population. Also, the participating women consisted of 38.9% married and 57.1% unmarried women. The regression analysis showed that the suggested model predicts the value of the entrepreneurial intention 95% which is fairly good. The significance value as set by the researcher was set to be 5%. Thus with 95% probability, the research suggests that desirability, propensity, feasibility, management, motherhood and meso and macro environments are good predictors of the entrepreneurial intentions for e-business among Pakistani women. Desirability and propensity are the most important factors in e-business entrepreneurial intention having positive beta values of 0.570 and 0.536. Feasibility on the other hand was found to have a very weak and a negative relation with e-business entrepreneurial intention with a beta value of 0.142. This negative weak relation was explained as it is perceived in terms of market and money related factors and both were insignificant for e-business entrepreneurship. Motherhood is the next most important contributing factor with a negative beta value of -0.259 to e-business entrepreneurship but its impact is negative on e-business. This is because it is usually perceived to be a barrier for working women. The other important contributors to e-business entrepreneurial intention is that of the macro and meso environment and management for e-business entrepreneurship having beta values of 0.210 and 0.118 respectively. Based on the finding of this study a new model for e-business entrepreneurial intention is developed where IT literacy has been introduced as a moderating variable since this was a sample characteristic in the present research. The other variables that determine the e-business entrepreneurial intention according to the new model is desirability, feasibility, propensity, management, motherhood and meso and macro environment.

## RECOMMENDATION FOR POLICY MAKERS

For e-business besides the environmental factors that ultimately have an impact on the feasibility of a business, the knowledge of information technology is very important. A person does not have to be formally educated for IT training, this can be easily achieved by providing minimal resources. With e-business opportunities growing more than ever, it is recommended to the policy makers to encourage e-business entrepreneurship for both men and women by providing e-business and IT training.

## REFERENCES

1. Acs, Z. J., & Audretsch, D. B. (2010). *Handbook of Entrepreneurship Research: An Interdisciplinary Survey and Introduction*, Springer: London. Retrieved from <http://www.springer.com/gp/book/9781441911902>
2. Afza, T., Osman, M., & Rashid, M. A. (2010). Enterprising Behavior of Enterprise-less Rural Women Entrepreneurs of Khyber Pukhtan Khawa of Pakistan. *Journal of Social Sciences*, 18(1), 109-119. Retrieved from [https://www.researchgate.net/publication/308916010\\_Innovation\\_Creativity\\_The\\_Case\\_of\\_Women\\_Entrepreneurs\\_in\\_Khyber\\_Pukhtoonkhwa](https://www.researchgate.net/publication/308916010_Innovation_Creativity_The_Case_of_Women_Entrepreneurs_in_Khyber_Pukhtoonkhwa)
3. Amin, R., Robert, B. H., & Yiping L. (1995). Poor women's participation in credit based self-employment: The impact on their empowerment, fertility, contraceptive use and fertility desire in rural Bangladesh. *The Pakistan Development Review*, 34(2).
4. Amjad, A. (2011). Role of WBIC in Women Entrepreneurship Development. Women Business Incubation Center. Retrieved from <http://www.smeda.org/downloads/RoleWBICinWEDDevelopment.pdf>
5. Ajzen, I. (1991). The theory of planned behavior. *Organizational behaviour and human decision processes*, 50, 179-211. Retrieved from <http://www.sciencedirect.com/science/article/pii/074959789190020T>
6. Audet, J. (2004). A longitudinal study of the entrepreneurial intentions of university students. *Academy of Entrepreneurship Journal*, 10(1), 3-15. Retrieved from [https://www.researchgate.net/publication/288267926\\_A\\_longitudinal\\_study\\_of\\_the\\_entrepreneurial\\_intentions\\_of\\_university\\_students](https://www.researchgate.net/publication/288267926_A_longitudinal_study_of_the_entrepreneurial_intentions_of_university_students)
7. Basu, A., & Virick, M. (2008). Assessing entrepreneurial intentions amongst students: a comparative study. *Peer Reviewed paper, San Jose State University*. Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.483.7035&rep=rep1&type=pdf>
8. Brush, C. G., Bruin, A. D., & Welter, F. (2009). A gender-aware framework for women's entrepreneurship. *International journal of gender and entrepreneurship*, 1(1), 8-24. Retrieved from <http://www.emeraldinsight.com/doi/abs/10.1108/17566260910942318>
9. Bull, I., & Willard, G. E. (2003). Towards a theory of entrepreneurship. *Journal of business venturing*, 8, 183-195.
10. Carlassare, E. (2001). Dot Com divas : E-business insights from the visionary women founders of 20 net ventures, New York : McGraw-Hill. Retrieved from <http://www.nlb.gov.sg/biblio/9974378>
11. Chemin, M. (2010). Entrepreneurship in Pakistan: government policy on smes, environment for entrepreneurship, internationalisation of entrepreneurs and SMEs. *International journal of business and globalisation*, 5(3), 238-247. Retrieved from <http://www.inderscienceonline.com/doi/abs/10.1504/IJBG.2010.035019>
12. Faridi, M. Z., Chaudhry, I. S., & Malik, M. S. (2011). Why Women are Self-Employed? Empirical Evidence from Pakistan. *International journal of economics and finance*, 3(1), 198-207. Retrieved from <file:///C:/Users/Asma/Downloads/9073-27775-1-PB.pdf>
13. Fitzsimmons, J.R., and Douglas, E.J., (2011). Interaction between feasibility and desirability in the formation of entrepreneurial intentions. *Journal of business venturing*, 26, 431-440. <http://research.usc.edu.au/vital/access/manager/Repository/usc:5991>
14. Fraser, S., Kumar Bhaumik S., & Wright, M. (2015). What do we know about entrepreneurial finance and its relationship with growth? *International small business journal*, 33(1), 70-88. Retrieved from [http://eprints.whiterose.ac.uk/99031/1/ISBJ\\_preprint.pdf](http://eprints.whiterose.ac.uk/99031/1/ISBJ_preprint.pdf)
15. Good, W. S. (2003). *Building A Dream: A Canadian Guide To Starting Your Own Business*, Toronto: McGraw-Hill Ryerson. Retrieved from <https://www.mheducation.ca/highereducation/products/9781259065811/connect+online+access+for+building+your+dream:+a+canadian+guide+to+starting+your+own+business/>
16. Guerrero, M., Rialp, J., & Urbano, D. (2008). The impact of desirability and feasibility on entrepreneurial intentions: A structural equation model. *Journal of international entrepreneurship management*, 4, 35-50. Retrieved from <https://link.springer.com/article/10.1007/s11365-006-0032-x>
17. Klein, E. E. (2000). The impact of information technology on leadership opportunities for women: the leveling of the playing field. *Journal of leadership & organizational studies*, 7(3), 88-98. Retrieved from <http://journals.sagepub.com/doi/abs/10.1177/107179190000700306>
18. Krueger, N. (1993). The impact of prior entrepreneurial exposure on perceptions of new venture feasibility and desirability. *Entrepreneurship: theory and practice*, 18(1), 5-21. [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1504462](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1504462)
19. Krueger, N., Reilly, M. D., & Carsrud, A. L. (2000). Competing models of entrepreneurial intentions. *Journal of business venturing*, 15, 411-432. Retrieved from <http://www.sciencedirect.com/science/article/pii/S0883902698000330>
20. Krueger, Norris, F., & Brazeal, Deborah, V. (1994). Entrepreneurial potential and potential entrepreneurs. *Entrepreneurship theory and practice*, 18(3), 91-104. Retrieved from <http://cemi.com.au/sites/all/publications/Krueger%20and%20Brazeal%201994.pdf>

21. McMullen, J. S., Shepherd, D. A. (2006). Entrepreneurial action and the role of uncertainty in the theory of the entrepreneur. *Academy of management review*, 31(1), 132-152. Retrieved from <http://amr.aom.org/content/31/1/132.abstract>
22. McNabb, D. E. (2008). Research methods in public administration and nonprofit management: quantitative and qualitative approaches, Armonk, N. Y. : M. E. Sharpe, Inc. Retrieved from <http://www.worldcat.org/title/research-methods-in-public-administration-and-nonprofit-management-quantitative-and-qualitative-approaches/oclc/138341360>
23. Raijman, R. (2001). Determinants of entrepreneurial intentions: Mexican immigrants in Chicago. *Journal of socio-economics*, 30, 393-411. Retrieved from <http://www.sciencedirect.com/science/article/pii/S1053535701001019>
24. Roomi, M. A., & Parrot, G. (2008). Barriers to development and progression of women entrepreneurs in Pakistan. *Journal of entrepreneurship*, 17(59), 59-72. Retrieved from <http://journals.sagepub.com/doi/abs/10.1177/097135570701700105>
25. Shapero, A., & Sokol, L. (1982). The social dimensions of entrepreneurship. In the *encyclopedia of entrepreneurship*, C. Kent, D. Sexton & K. Vesper (Eds.), Englewood Cliffs: Prentice-Hall.
26. Shapero, A., & Lisa, S. (1982). The social dimensions of entrepreneurship. *Encyclopedia of entrepreneurship*, 72-90.
27. Siddiqui, H. (2009). Commercial Loans for Pakistani Women Entrepreneurs. Center for international private enterprise, published 23<sup>rd</sup> February, 2009. Accessed 23<sup>rd</sup> June, 2011. Retrieved from [www.cipe.org](http://www.cipe.org)

## APPENDICES

### Appendix A- Questionnaire

The questionnaire is for the assessment of entrepreneurial intentions and potential of women to be e-business entrepreneurs. The information is solely used for the research at hand and no information of respondent is distributed or used for any other purpose.

#### Questionnaire

Name: \_\_\_\_\_

Location: \_\_\_\_\_

#### Question 1: Employment Status:

1. Unemployed
2. Employed
3. Self Employed
4. Temporal unemployment
5. Student

#### Question 2: Marital status:

1. Married
2. Unmarried
3. Widow

#### Question 4: Do you plan or wish to start your own enterprise

1. Yes
2. No

				Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Desirability	Mother Hood	Q4	It is possible to manage work and family efficiently at the same time.					
		Q5	I can easily manage work and household/family affairs at the same time.					
	Psychological	Q6	I can take risks					
		Q7	I like challenges					
		Q8	I usually do things my own way.					
		Q9	When there's something that I want, I keep the end results clearly in mind.					
Propensity to Act	Culture	Q10	Women do not have a problem if they work from home.					
		Q11	Women can take their own decisions (education/ business) in our culture					
	Control	Q12	I tend to stand on my own feet rather than ask for help.					
		Q13	I have a strong personal drive and a need to achieve.					
	Social	Q14	Working women are likely to face social problems					
		Q15	Women working from home face the same social problems					
	Mother Hood	Q16	Motherhood can be a barrier for a woman to work					
		Q17	Motherhood is not a problem if the women is self-employed (office at home)					
Feasibility	Access to Market	Q18	Women have access to all skills and markets as do men					
	Access to Money	Q19	Women have access to capital as do men					
	Management	Q20	Women have access to human capital (they can hire people)					
		Q21	Women can easily manage a business					
	Meso Environment	Q22	The social environment encourages women to work					
		Q23	The social environment encourages women to start their own business					
	Macro Environment	Q24	The economic policies help women start their own business (loan policies, education plans)					

## APPENDIX –B CORRELATIONS

		Enterprnr_Intent	Desirability	Propensity	Feasibility	Money	Market	Management	Meso_Macro	Motherhood
Pearson Correlation	Enterprnr_Intent	1.000	.849	.774	.331	.510	.328	.458	.773	.478
	Desirability	.849	1.000	.481	.379	.506	.389	.377	.728	.497
	Propensity	.774	.481	1.000	.287	.308	.086	.337	.625	.663
	Feasibility	.331	.379	.287	1.000	.523	.320	.582	.552	.345
	Money	.510	.506	.308	.523	1.000	.206	.420	.540	.201
	Market	.328	.389	.086	.320	.206	1.000	.034	.632	.087
	Management	.458	.377	.337	.582	.420	.034	1.000	.318	.187
	Meso_Macro	.773	.728	.625	.552	.540	.632	.318	1.000	.579
	Motherhood	.478	.497	.663	.345	.201	.087	.187	.579	1.000
Sig. (1-tailed)	Enterprnr_Intent	.	.000	.000	.001	.000	.001	.000	.000	.000
	Desirability	.000	.	.000	.000	.000	.000	.000	.000	.000
	Propensity	.000	.000	.	.005	.003	.225	.001	.000	.000
	Feasibility	.001	.000	.005	.	.000	.002	.000	.000	.001
	Money	.000	.000	.003	.000	.	.033	.000	.000	.037
	Market	.001	.000	.225	.002	.033	.	.381	.000	.221
	Management	.000	.000	.001	.000	.000	.381	.	.002	.048
	Meso_Macro	.000	.000	.000	.000	.000	.000	.002	.	.000
	Motherhood	.000	.000	.000	.001	.037	.221	.048	.000	.