

Push and Pull Factors of Women Entrepreneurship Development in Bangladesh: A Principal Component Analysis

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Abstract

Over the last three decades, Bangladesh has made substantial progress in economic growth and social development. In this development achievement, the role of women's involvement in economic activities cannot be overemphasized. Female labour force participation has increased significantly, and women's presence is visible in almost all sectors of the economy. However, the Covid-19 pandemic has adversely affected the economy of Bangladesh on many fronts. The biggest concern is rising unemployment, and wage cuts have become a regular phenomenon in all formal and informal job sectors. Even though both men and women lose their jobs because of the pandemic, the impact on women is much worse since they mainly depend on male members for their livelihoods. The involvement of women in entrepreneurial activities has increased in recent decades. However, the magnitude and momentum of women's entrepreneurship are still shallow. Moreover, women entrepreneurs face many barriers when planning a new business. Against this backdrop, this paper aims to identify the push and pull factors which influence a woman to become an entrepreneur. For this, 41 women entrepreneurs were interviewed using a structured questionnaire for running a Principal component analysis (PCA). Findings of the study show that 'Family Hardship' is the main push factor and 'Self-Employment and Economic Freedom', and 'Strong willpower to do something on own' are the primary pull factors. Moreover, according to our PCA result, 'financial support from the government' could be a dominant pull factor. Based on the result, this study recommends that only financial support from the government is not enough for the development of women's entrepreneurship.

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Instead, building an entrepreneurial ecosystem for women is very important, encouraging more women to unleash their immense potential entrepreneurial capabilities.

Keywords *Women entrepreneurship · Principal Component Analysis · Bangladesh*

1. Introduction

1.1 Background

In 1971, Bangladesh inherited a poor and undiversified economy. Due to British colonial exploitation for nearly 200 years and the misrule of Pakistani governments in terms of applying two economic theories as mentioned by several noted Bangladeshi economists, including Professor Rehman Sobhan, Professor Nurul Islam, and Professor Anisur Rahman in the 1960s, the economy was stuck in the vicious cycle of multidimensional poverty and extreme form of inequality. Despite such unfavourable circumstances and constraints on physical and human resources, Bangladesh's spectacular economic and social progress over the last five decades has earned global recognition. Noted economist Nobel laureate Amartya Sen said openly that Bangladesh's performance in some social indicators is better than India's. Professor Wahiduddin Mahmud calls it 'Bangladesh surprise' to achieve better performance compared to the similar economies when we started our journey as an independent nation.

Its Gross Domestic Production (GDP) growth rate has been impressive. On average, Bangladesh's GDP rose from about 3 per cent in the 1970s to 7 per cent in the 2010s and had crossed 8 per cent just before the Covid-19 pandemic set in. Though the pandemic has slowed Bangladesh's growth, its GDP growth is projected to rise faster than other countries. High growth has pushed per capita income upwards by 23 times in 2020, from where it was in 1973. The characteristics of a modern economy—graduation from being agriculturally dependent to growing through the industry and services sector—are also gradually observed. Women were included in the national development project in ways that recognized how their vulnerability and lack of power bred poverty and deepened gender inequalities; programs and policies were designed to reach them in ways that amended, without radically transforming, gender relations.

Women in Bangladesh constitute half of the population of humans. However, they are practically invisible when owning and operating their business enterprises like many other developing countries. Admittedly, women have made significant inroads in the recent years (ever since the formation of the Beijing Platform of Action for women) globally as well as in Bangladesh in different areas of economic activities and professional and other pursuits under a vastly improved policy atmosphere encouraging women's participation in a wide range of entrepreneurial activities. However, the ground reality continues to be very harsh. Women's

predicaments in Bangladesh are at least three-dimensional. They are subject to abject poverty, widespread discrimination, inequality, and most importantly, their scant participation in the workforce.

Women are thinly represented in the businesses in Bangladesh. They continue to remain marginalized in entrepreneurship as various sources report that women-owned businesses constitute roughly 3 to 4 per cent of the total business enterprises in Bangladesh. Women's participation in the country's workforce is still significantly below men's, 36% compared to 82.5% as of 2010. Except in the Ready-Made Garments (RMG) industry, where nearly 90% of the 5 million workers are women, their presence in the non-RMG industrial sectors is minimal. The implication is that a vast human resource remains untapped as economic growth and social progress sources. To build a sustainable democratic society characterized by broader participation of all individuals, reduce poverty and ensure prosperity through engaging the entire workforce in productive pursuits development of women's entrepreneurship is indispensable (Ahmed, 2014).

However, the Covid-19 pandemic has adversely affected the economy of Bangladesh on many fronts. The biggest concern is rising unemployment, and wage cuts have become a regular phenomenon in all formal and informal job sectors. Even though both men and women lose their jobs because of the pandemic, the impact on women is much worse since they mainly depend on male members for their livelihoods. Indeed, the pandemic could set back female labour force participation in Bangladesh. One reason is that women have a higher labour force participation rate than men in many sectors most negatively impacted by the crisis, such as commerce, education, and domestic work. Another reason is that traditional gender norms unfairly burden women with an even greater share of unpaid domestic work and caregiving activities during this time.

Women Entrepreneurship refers to the ownership and leasing of businesses by a woman. Women entrepreneurship is not only a source of income generation for a woman but also a way of achieving economic independence. Women enterprises could be of three types: i) owned by women, ii) managed by women and iii) employing women. According to the definition given in the Industrial Policy 2016, a female is an entrepreneur if she is the owner or proprietor of a privately-run business or organization or owns at least 51% share in a joint venture or company listed with the Registrar of Joint Stock Companies and Firms (BIDS, 2017).

Bangladesh's women entrepreneurs are involved in different businesses, such as manufacturing, trading, service, and others. The highest proportions (69 %) of the enterprise are trading category, followed by manufacturing (19%) and service (12%) (BIDS, 2017).

1.2 Objectives

Considering the significance of women's entrepreneurship in women empowerment and economic development, this study aims to identify the factors influencing a woman to become an entrepreneur. The study attempts to attain the following objectives specifically:

- To enquire into the factors those motivated (Pull) the entrepreneurs to start and run their enterprises; and
- To examine the reasons that might have compelled (Push) the entrepreneurs to pursue entrepreneurship

1.3 The organization of the study

The rest of the paper is structured as follows. Section 2 provides an extant literature review on features of the current labour market, unemployment scenario and current state of women entrepreneurs in Bangladesh. Section 3 deals with the methodology employed to conduct this study. Section 4 presents results and analysis, while Section 5 concludes with action-oriented policy recommendations.

2. Literature Review

2.1 Features of Current Labor Market

The current labour market in Bangladesh is characterized by an increasing rate of labour force participation and increases in underemployment (Kundu, 2016). Due to this, the creation of employment for the new entrants into the labour force has become one of the principal development challenges for Bangladesh. The labour force is growing at almost twice the rate of growth in population (Titumir and Hossain, 2003). It has been reported that 67% of the total population were aged 15 or older, of whom 50.4% were female (BBS, 2017).

According to the Bangladesh Bureau of Statistics (2010), the labour force increased by 42.6 per cent between 1991 and 2005 for the entire population, with an increase of 31.7 per cent for males and 126.5 per cent for females. Following this increasing trend in 2016, male and female participation in the labour force stood at 81.9 and 35.6 per cent, respectively. The total population participation in the labour force is almost equal in rural and urban areas (BBS, 2017).

Like many developing countries, the informal economy plays a vital role in employment creation and income generation in Bangladesh, where the informal sector tends to absorb most of the growth in the labour force (BBS, 2018) and accounts for 89% of the total number of jobs in the labour market (Danish Trade Union, 2014).

According to the World Economic Forum on Gender Gap report, Bangladesh ranked 68th according to its gender gap index (World Bank, 2007). Women's participation in different productive activities outside the home is rare due to few traditional social barriers (Hossain. et al., 2009). Several studies found that

women's contribution to socio-economic development was not visible, perhaps due to social norms that enabled men to dominate women (Bose et al., 2009). Economic development is expected to be associated with changes in the structure of employment (Kundu, 2016). On the other hand, participation in women's labour force is crucial as it can change the total labour market structure and play a vital role in the economic growth of Bangladesh (Rahman. et al., 2005).

An increased population may not be a burden if it can be used efficiently for development. From 1999-to 2000 to 2015-16 population increased by 34.15 million, whereas the working-age population increased only by 24.25 million. At the same time, the portion of the employed population increased by 20.53 million. That means enlarging the labour market rate is much lower than the increasing rate of the total population, which may be a severe matter of concern in continuous development. Even we failed to use the entire portion of the labour force effectively. Till the 2010 labour force survey, the total working-age population is male dominance. However, the table shows that in recent years (2015-16), the female portion of the working-age population has become higher than the male portion. It indicates that more skilled female labour is needed to ensure countries' development still. However, the amount female employed population is still less than half of the total male employed population. The unemployed portion of the labour force does not show a constant trend, but there is a sharp increase between 2015-16 in both males and females.

Table 1: Change in the size of the labour force and composition

Year	Population		Working age		Employed		Unemployed	
	Male	Female	Male	Female	Male	Female	Male	Female
1999-00	64.09	60.26	38.30	35.90	31.1	7.9	1.1	0.7
2002-03	68.33	65.08	41.20	39.60	34.5	9.8	1.5	0.5
2005-06	70.04	67.26	43.01	41.58	36.1	11.3	1.2	0.9
2010	74.15	73.59	47.85	47.74	37.9	16.2	1.6	1.0
2015-16	79.6	78.9	48.4	50.3	41.76	17.77	1.3	1.3

Source: Basak, 2013 and BBS, 2017

It shows that the percentage changes in the labour force are based on gender. In all cases, percentage increases in the female labour force are higher than the percentage changes in the male labour force. Especially in the last seven years, the rate of change in the female labour force (5.36%) is almost five times that of the male labour force (1.15%).

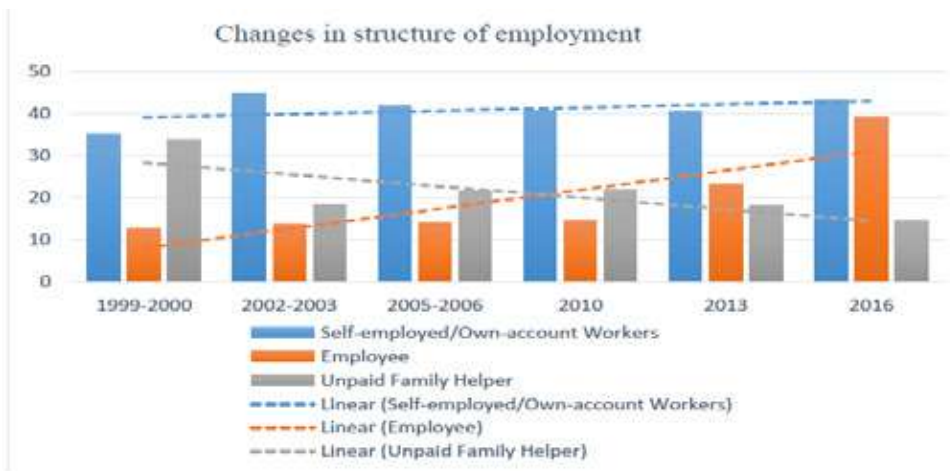
Figure 1: Changes in Labor Force (percentage) in Bangladesh



Source: Basak, 2013 and BBS, 2017

Self-employed as a percentage of total employment follows a slightly increasing trend from 1999-2000 to 2015-16. Employee as a percentage of total employment shows a clear increasing trend but surprisingly the unpaid family helper/labour which is mainly involved with a female member of households, provide a decreasing trend in the same period. Within total employment self-employed population increased from 35.1% in 1999-2000 to 43.2% in 2015-16. The employee also increased from 12.6% to 39.2% of total employment within the same period, but the unpaid family helper/labour decreased from 33.8% to 14.47% of total employment.

Figure 2: Changes in the Structure of Employment by Status (% of total employment)



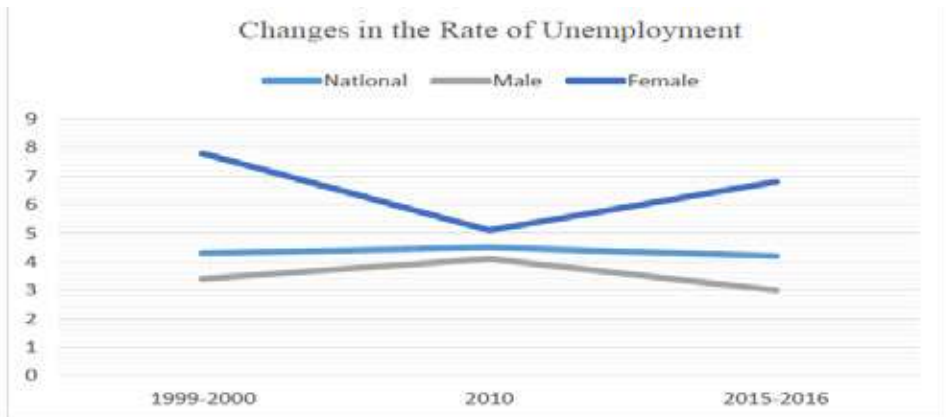
Source: Basak, 2013 and BBS, 2017

According to LFS 2016-17, the employment status can be distinguished into two main categories of the employed such as (1) employee and (2) self-employed. The present distribution scenario of employed person shows that self-employed/own account workers hold the highest rank at 43% and employers hold the lowest at 3%. Besides this, there may be some other categories which contain an ignorable percentage in total employed person.

2.2 Unemployment Scenario

The rate of unemployment at the national level followed a decreasing trend till 2010 from 1999-to 2000. Interestingly, the female unemployment rate decreased from 7.8 in 1999-2000 to 5.1 in 2010, whereas the male unemployment rate increased from 3.4 to 5.1 then. Later on, an opposite scenario was observed in 2015-16. The female unemployment rate shows an increasing trend up to 6%, and the male unemployment rate decreased to 3% till 2015-16 though the national level unemployment rate almost remained the same (4.3% in 1999-2000 and 4.1% in 2015-16).

Figure 3: Percentage change in unemployment



Source: Basak, 2013

Unemployment is an economic problem in a country when many people cannot secure a job because of the lack of employment opportunities. Bangladesh's unemployment rate dropped to 4.15 % in Dec 2020, from the reported number of 4.19 % in Dec 2019. Bangladesh's unemployment rate is updated yearly, available from Dec 1991 to Dec 2020, with an average rate of 3.93 % (World Bank). A recent study by World Bank shows that, In 2020, Bangladesh's unemployment rate was approximately 4.15 per cent. After a decrease from 2010 through 2011, Bangladesh's unemployment has been steady at around 4.2 per cent. Unemployment refers to the share of the labour force without work available for and seeking employment.

Figure 4: Unemployment Rate and Annual Change



Source: <https://www.macrotrends.net/>

Youth unemployment refers to the share of the labour force ages 15-24 without work but available for and seeking employment.

- Bangladesh’s youth unemployment rate for 2019 was 11.87%, a 0.28% decline from 2018.
- Bangladesh’s youth unemployment rate for 2018 was 12.15%, a 0.15% decline from 2017.
- Bangladesh’s youth unemployment rate for 2017 was 12.30%, a 1.18% increase from 2016.
- Bangladesh’s youth unemployment rate for 2016 was 11.12%, a 0.33% increase from 2015.

Figure 5: Youth Unemployment Rate and Annual Change



Source: <https://www.macrotrends.net/>

2.3 State of Women Entrepreneurship in Bangladesh

The current employment growth rate in Bangladesh is 2.4 per cent. At this pace, it will be possible to generate employment for half of the unemployed by 2030. The government has declared youth development as one of the national development agendas. However, meeting the government's stated employment goals will not be possible if a business as usual approach is followed.

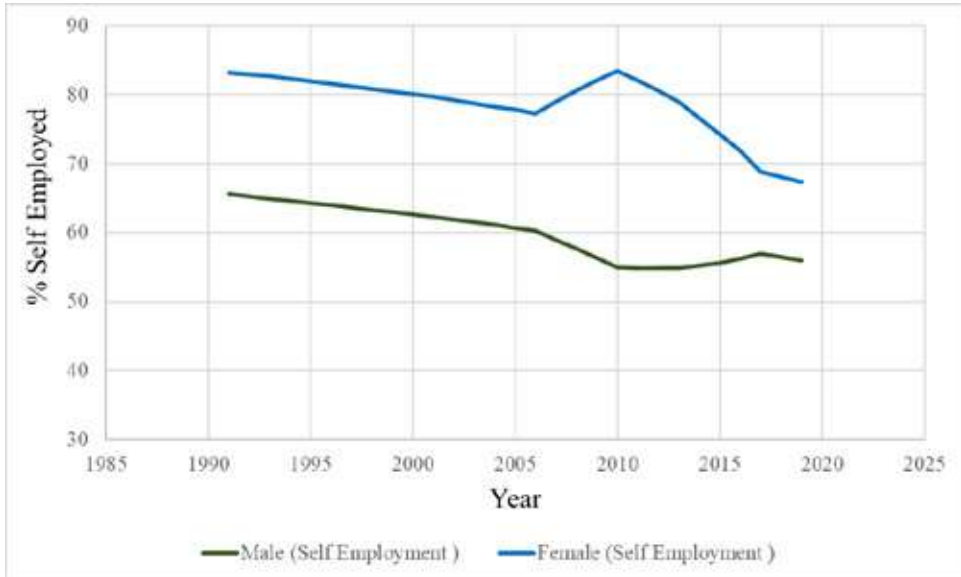
There are more than 34 million own-account and unpaid family workers in Bangladesh, representing 56 per cent of the workforce. Self-employed persons and the micro, small and medium enterprises (MSMEs) that they establish have enormous potential for rapidly generating large numbers of new jobs and raising productivity to increase incomes, provided the proper policy measures are in place to support them.

A large proportion of MSMEs is established by women and employs women in Bangladesh predominately. An appropriate mix of policies focusing on access to technology, training, credit, marketing and distribution channels can substantially accelerate self-employment, particularly in the informal and rural sectors and among women.

In Bangladesh, the self-employed female (% of female employment) (modelled ILO estimate) was 67.39 as of 2019. Its highest value over the past 28 years was 83.44 in 2010, while its lowest value was 67.39 in 2019. Self-employed males (% of male employment) (modelled ILO estimate) in Bangladesh was 55.89 as of 2019. Its highest value over the past 28 years was 65.61 in 1991, while its lowest value was 54.78 in 2012. Another thing is, from the very beginning, women have been found to opt for self-employment more than men. However, in the case of both men and women, the rate is following a significant declining trend.

Women entrepreneurs still suffer disproportionately more significant obstacles than their male counterparts in accessing bank credits and face rigid and non-transparent regulatory barriers, institutional rigidities and various policy-induced constraints resulting from gender bias. Women entrepreneurs' predicaments are further multiplied by the patriarchal social norms and family values which are seriously anti-developmental. Therefore, the need is to remove all socio-economic barriers by taking more proactive policy initiatives and designing an effective implementation mechanism of the policies and programmers at macro and micro levels which are gender-neutral and explicitly pro-women (Ahmed, 2014).

Figure 6: Self-employed Male and Females, total (% of total employment) in Bangladesh



Source: International Labour Organization, ILOSTAT database. Data retrieved in September 2019

The initial problems faced by the female entrepreneurs seem like those confronted by a female in other countries. However, the findings show lower levels of work-family conflicts among Bangladeshi female entrepreneurs, who seem to differ from other countries in terms of their reasons for starting a business and succeeding in the venture (Rahmatullah and Zaman, 2014)

The share of loans disbursed under the dedicated women loan scheme to total loans increased to 15.6 per cent in 2013 from 12.7 per cent in 2009. Moreover, only 27 bank branches out of 144 were headed by women. Without women heads at women's desks, women entrepreneurs hesitate to discuss business and loans and are occasionally harassed by their male counterparts (Bangladesh Bank, 2014).

Women in various small and medium enterprises take on the challenge of working in a male-dominated society, competitive and complex economic and business environment. However, the identified challenges are inadequate capital, sales promotion, getting permission to start up a business, gender discrimination, illiteracy and lack of knowledge among women, non-availability of the training program and technical support, lack of managerial experience, and in some cases young people make ill-talk about the enterprise and so on. Personal qualities such as hard work and perseverance, management and marketing skills, and support provided by their spouses or family are the main reasons behind the success of the women entrepreneurs. The level of participation of women in mainstream

economic activities remains insufficient, and the percentage of women in business is still much below that of their male counterparts (Afroze, 2014).

The Novel Corona Virus (COVID-19) has created tremendous negative impacts on the livelihood of the marginal population in Bangladesh. Many people working in the informal sector have lost their job and income due to the ongoing pandemic. The success in economic

growth in the last few decades could not save poor people from becoming extremely poor because economic prosperity was not inclusive in Bangladesh. This article suggests that only growth-oriented policy measures are insufficient to reconstruct the post-COVID era's economy. Instead, Bangladesh needs to adopt employment-oriented economic policies to create more jobs and reduce poverty and inequality (Hossain 2021).

The women entrepreneurs of Bangladesh lack economic participation, leadership and empowerment compared to men entrepreneurs. Research shows that about seven per cent of the total business establishments of Bangladesh are owned and headed by women, which is negligible in terms of the women population proportion of the country. This limited ownership, leadership and empowerment of women is a clear gap to be filled for the country's sustainable economic development. This study suggests that the policymakers of this sector should emphasize regulatory framework, entrepreneurship education and training, husband engagement in women's business and the role of women's business association in formulating the SME policy to increase women empowerment for the sustainable development of Bangladesh (Hoque et al., 2020).

2.4 Conceptual Framework on Push & Pull Factors

Based on the review of several national and international research papers, the following factors have been selected as push and pull factors that affect the decision of an entrepreneur to start a new business.

Table 2: Review of Push & Pull Factors

Author's Name	Pull Factors	Push Factors
Dana (1993)	Cultural desirability	Other options have failed, coping with marginality.
Dana (1997)	Self, ethnocultural milieu.	Host society, necessity, reduction in perceived social status
Dana and Light (2011)	Culture, prestige.	Need for cash
Islam (2012)	Money making for family, self-employment, gaining higher social status, use of personal knowledge and previous experience, family business tradition, and less complexity but more profitability.	Lack of higher formal education, curse of unemployment, dissatisfaction with previous occupation, and family hardship or pressure.

Segal et al. (2005)	Job dissatisfaction, difficulty finding employment, insufficient salary, or inflexible work schedule.	Seeking independence, self-fulfilment, wealth, and other desirable outcomes.
Verwey (2007)	Independence, achievement, recognition, personal development, and personal wealth.	Unemployment, job insecurity, disagreement with management, lack of alternatives.
Yunus (2010)	Good prospect, ever-increasing demand.	Previous experience, family business.
Riaz et al. (2018)	High salary, Job stress, Career advancement, New challenges and interesting work, Job security, Better culture and life-work balance, Use of personal knowledge and previous expression, Family business tradition, and Financial award.	Job Stress, Job dissatisfaction, Lack of higher formal education, Family hardship, Insufficient salary, Inflexible work schedule, Disagreement with management, and Economic necessity.
Kabir et al. (2017)	Earning extra money for me, Family business tradition, Gaining Higher Social Status, Self-employment with economic freedom, For Inheritance case, user of personal knowledge and experience, Less Complex and More Profitable, Support from Government, Financial Support from Bank	Lack of Higher Formal Educational, Curse of Unemployment, Dissatisfaction with the previous occupation, Family Hardship and Pressure, others

Based on reviewing the factors mentioned in the literature above, the Table below is the finally selected push and pull factors for this study. The push and pull factors have been chosen so that there is no overlap between the factors; hence all the factors are independent and can be differentiated from each other. The number of push and pull factors in Table 3 will meet the study's objective by gathering the necessary information for further analysis.

Table 3: Final List of Push and Pull Factors

Push factor	Pull factor
<ul style="list-style-type: none"> • Previous Job Stress. • Previous Job Dissatisfaction. • Low salary. • Lack of Higher Formal Education. • Family Hardship. • Inflexible Work Schedule. • Curse of Unemployment. 	<ul style="list-style-type: none"> • Earning extra money for the family. • Self-Employment and Economic Freedom. • Less Complex and More Profitable. • Family business tradition. • Gaining Higher Social Status. • Use of Personal Knowledge and Previous Experience. • Career advancement. • Strong willpower to do something on own. • Independency and Flexibility. • Support from the Government. • Financial Support from the Bank.

3. Methodology

The data used in the study covered primary data, which were collected through a structured online survey questionnaire. Due to COVID-19, the primary data was collected online in 2 ways using a snow-ball technique: from a known person and from known of a known (mutual) person.

Total Forty-one (41) entrepreneurs responded to the survey. A structured questionnaire containing 11 and seven pull factors was used to collect primary data. The sample enterprises' ownership style, nature of the enterprise, experience, educational qualifications, and push and pull factors were considered the primary sources of primary data.

A structured questionnaire was prepared for data collection. The questionnaire has been developed to be easily understandable and not so long yet gather the necessary information required to perform the analysis. Respondent finds the questionnaire convenient to fill up.

Primary data were collected from 41 female respondents picked up purposively from among the female individuals engaged in various entrepreneurial activities. The sample enterprises' ownership style, nature of the enterprise, Experience, educational qualifications, and push and pull factors were the primary sources of primary data.

4. Results and Analysis

The purpose of the Data analysis was to find out governing push and pull factors which attract a female individual to become an entrepreneur. The data analysis has been performed in two ways:

- Average Response of the Respondent on a statement
- Principle Component Analysis (PCA) of the Responses

4.1 Push Factors

The responses in terms of the level of agreement by all the forty-one (41) respondents were recorded in the STATA software. To summarise the analysis findings and the "Mean" and "Standard" deviation for all the statements using the same tool are shown in Table 4.

Table 4: Mean and Standard Deviation of the Statements of Push Factors

Variable	Obs	Mean	Std. Dev.	Min	Max
pjs	41	2.707317	.7156781	1	4
pjd	41	2.682927	.8197263	1	4
ispj	41	2.804878	.8130041	1	5
lhfe	41	1.658537	1.086503	1	5
fh	41	1.926829	1.212234	1	5
iwspj	41	2.609756	.7706507	1	4
cump	41	3.219512	1.695762	1	5

4.1.1 Principal Component Analysis (PCA) of the Responses of Push Factors

Principal Component Analysis, or PCA, is a dimensionality-reduction method that has been used to reduce the dimensionality of large data sets by transforming the large set of variables into a smaller one that still contains most of the information in the large set.

4.1.2 Variable Reduction

PCA helps to reduce the dimensionality of their data. Doing so is particularly important in the presence of highly correlated variables. By doing PCA, the correlation between the push factors will be determined. Firstly, all the factors have been considered for the correlation analysis.

Table 5: The pairwise correlation in STATA

	age	pjs	pjd	ispj	lhfe	fh	ispsj	cump	marita-2	eduqua-2	exp_2	os_2
age	1.0000											
pjs	-0.1921	1.0000										
pjd	-0.1580	0.7754	1.0000									
ispj	-0.1438	0.5869	0.6551	1.0000								
lhfe	-0.0637	-0.1960	-0.1527	-0.1905	1.0000							
fh	-0.0187	-0.0541	0.0012	-0.0909	0.6069	1.0000						
ispsj	-0.3109	0.3317	0.3928	0.3143	-0.0437	0.1025	1.0000					
cump	-0.2139	0.1367	0.3211	0.1769	0.0146	0.1661	0.4881	1.0000				
maritalsta-2	-0.4929	0.0608	-0.0332	-0.2157	0.1151	0.0549	0.1235	-0.0192	1.0000			
edualifi-2	-0.3437	-0.1420	-0.1094	-0.0959	0.3326	0.1054	0.1285	0.1774	0.1793	1.0000		
exp_2	-0.3003	0.3151	0.4571	0.3599	-0.1724	-0.1002	0.2671	0.3266	-0.0412	-0.1360	1.0000	
os_2	-0.1399	0.3307	0.1349	-0.0668	-0.0387	-0.0059	0.2031	-0.0187	0.0995	-0.0293	-0.0736	1.0000

From Table 5, we can see that variables in the data are not highly correlated. It is because of variation in a range of levels of agreement put for the variables (from strongly disagree to agree strongly). Because of variation in a range of levels of agreement, the correlation between the variables or factors will not be logically the same. Hence, the reduction of variables should not only be made based on co-relation analysis. We have to perform The Kaiser-Meyer-Olkin Measure of Sampling Adequacy test, also known as the KMO test.

This particular test has been done to indicate the suitability of the data for structure detection. The Kaiser-Meyer-Olkin Measure of Sampling Adequacy is a statistic that shows the proportion of variance in the variables underlying factors might cause. High values (close to 1.0) generally indicate that factor analysis may be helpful with the data. If the value is less than 0.50, the factor analysis results will probably not be beneficial.

Table 6: 1st KMO Test result

Variable	kmo
age	0.5394
mstatus	0.4087
equali	0.6775
experience	0.7522
os	0.3492
pjs	0.6883
pjd	0.7302
ispj	0.6871
lhfe	0.5870
fh	0.5278
iwspj	0.7544
cump	0.6417
Overall	0.6388

The KMO test in Table 6 shows that not all the variables are suitable for structure detection. Two factors have a KMO value below 0.5, which indicates that the PCA analysis results will probably not be beneficial. Hence, these three factors were deducted from the list, and a further KMO test was performed on the remaining variables after the reduction.

Table 7: Second KMO Test result

Variable	kmo
age	0.6134
equali	0.6492
experience	0.7925
pjs	0.7135
pjd	0.7021
ispj	0.8739
lhfe	0.5711
fh	0.5279
iwspj	0.7667
cump	0.6529
Overall	0.7011

Variables in the data are not highly correlated. It is because of variation in the range of level of agreement put for the variables (from strongly disagree to agree strongly).

4.2.2 Variable Reduction

Because of variation in the range of level of agreement, the correlation between the variables or factors will not be logically the same. Hence, the reduction of variables should not only be made based on co-relation analysis. For this, a KMO test is performed.

Table 10: First KMO result for pull factors

Variable	kmo
mstatus	0.4532
equali	0.3073
experience	0.3731
OS	0.3462
age	0.4776
eemf	0.8014
seef	0.7821
lcmf	0.4211
famlybstrd	0.5211
socialstatus	0.9045
prsnknldg	0.7967
cradv	0.8260
willpower	0.7425
supgvt	0.5605
indfelx	0.8006
fnspsbnk	0.5591
Overall	0.7041

From the KMO Test, it is visible that not all the variables are suitable for structure detection. Six factors have a KMO value below 0.5, indicating that the PCA analysis results probably will not be beneficial. Hence, these six factors were deducted from the list, and a further KMO test was performed on the remaining variables after the reduction.

Table 11: Second KMO result on rest variables

Variable	kmo
eemf	0.8200
seef	0.8372
famlybstrd	0.5804
socialstatus	0.9069
prsnknldg	0.8608
cradv	0.8460
willpower	0.7626
supgvt	0.6085
indfelx	0.8841
fnsbnk	0.6042
Overall	0.7971

4.2.3 Final Pull Factors

Table 12: Final pull factors

	Comp1	Comp2
eemf	.3068	.1632
seef	.3949	.07939
famlybstrd	-.1187	.4993
socialstatus	.3278	.1181
prsnknldg	.3712	.1404
cradv	.3581	.2192
willpower	.3913	.01892
supgvt	-.1669	.5645
indfelx	.3705	.03618
fnsbnk	-.2101	.5619

It is observed that component 1 has higher loading on the factors like ‘Earning Extra Money for Family’, ‘Self-Employment and Economic Freedom’, ‘Use of Personal Knowledge and Previous Exp’, ‘Career Advancement’, and ‘Strong willpower to do something by own’. It indicates that component 1 is about respondents’ positive attitude towards entrepreneurship.

On the other hand, “Support from Government” and “Financial Support from Government” have higher loading (0.69 and 0.68, respectively) on Component 2. However, these cannot be counted as pull factors as respondents disagree with these statements.

So, in component 1, the factors which have more loading close to 0.40 are “Self-Employment and Economic Freedom” and “Strong willpower to do something by own”. So finally, these two can be counted as the most governing pull factors which encourage an individual to become an entrepreneur.

5. Conclusion and Recommendation

Findings of the study show that ‘Family Hardship’ is the main push factor and ‘Self-Employment and Economic Freedom’, and ‘Strong willpower to do something on own’ are the primary pull factors. Moreover, according to our PCA result, ‘financial support from the government’ could be a dominant pull factor. Based on the result, this study recommends that only financial support from the government is not enough for the development of women’s entrepreneurship. Instead, building an entrepreneurial ecosystem for women is vital that can encourage more women to unleash their immense potential entrepreneurial capabilities. Based on this analysis, we would like to recommend the following policies.

1. Credit facilities should be more gender-friendly. College and university students should be encouraged to have bank accounts, which will later help them get bank credit.
2. Fund for women entrepreneurs sanctioned in the national budget should be utilized properly. Every year the government allocates some funds (in the national budget) for developing women entrepreneurs, and this fund is often not correctly used, and a significant part remains unutilized.
3. Sensitization of Bank officials and organizing awareness-raising programs at the different levels are necessary to support women entrepreneurs. Challenges and concerns of women entrepreneurs should be shared in those programs. The awareness-raising programs may take the form of workshops, consultations, and counselling sessions which will make bank officials and other service providers aware of taking preventive and curative measures to support women entrepreneurs.

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