

BEYOND WFC: UPLIFTING THE DEBATE TO XX-INEFFICIENCY WITH REFERENCE TO BANKING SECTOR OF PAKISTAN

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ABSTRACT: This study examines the female under performance hypothesis (FUPH) and hence XX-inefficiency reasons in banking sector of Pakistan. A sample, of 25 commercial banks, is taken which are operating in Pakistan. Data span extends to five years from 2009 to 2013. Non-parametric technique, Data Envelopment Analysis (DEA) is used to measure technical efficiencies and total factor productivity. The performances of these banks are compared according to female labor contribution. A negative correlation is found between average total factor productivity and average female density. Tobit regression is also applied to provide parametric support to non-parametric evidence. Regression results supported the trade off between female labor density and average factor productivity in a statistically significant way. Recommendations include re-thinking hiring policies regarding female labor in the banking industry for better productivity and higher profits.

Key Words: Female Underperformance Hypothesis, XX-inefficiency, Data Envelopment Analysis, Tobit Regression.

1. INTRODUCTION

Leibenstein popularized the idea of X-inefficiency in economic theory. However, in genetics, XX stands for female gene and in economics, female underperformance hypothesis (FUPH) purports lower performance of female labor as compared to male labor. Accordingly, XX-inefficiency is a term used to explain the reasons for FUPH. The compilation of these reasons is done in [17].

Banking industry in Pakistan is growing day by day. Females are not considered to be a good performer in banks as bank job is considered to be very hectic and stressful [9]. Most of the banks avoid having females as their employees, which results in huge difference in number of male labor in banks than the female labor as compared to other industries. This research seeks the impact of female bankers, on the performance of the banks in Pakistan. Gender studies are the theme of study in the different domain of the education and professions. Banking sector industry is a vital actor in the economics of Pakistan.

On the basis of this assumption of the female underperformance hypothesis, banks feel reluctant to hire females. Many banks like Bank Al Habib are found to have a very biased culture for female labor. This may be the reason that only a few females can be seen on the top management of any bank in Pakistan. It is clear that if you hire fewer females and demotivate them then how it is possible for them to reach at top levels. First Women Bank Ltd. is the only bank in Pakistan which is concentrated with female labor. It has a large number of females working there. It is the only bank in Pakistan which has females in its top management as well. This thing introduced the term of "Glass ceiling" which will be discussed in later on.

In past different studies on female performance have been conducted. Many researches like [26,22,29] argued in the favor of female labor and on the other hand researcher like [13,8,27] argued against the female labor. This is a never ending debate, but on the same side it is very important to identify their performance as it can impact the policies & rules of any organization [29].

There are two schools of thought as per female productivity is concerned. One advocates equal productivity and hence equal

incentives for female labor, while other purports their under-productivity. It is a growing sector and has less number of females as compared to other industries. The reason can be the working environment of banks. No doubt that bank job is considered a white collar job but bankers have to face many issues like late sittings, target pressure, over work burden, low salaries [9] and shortage of staff etc. all these factors make this job quite stressful and hectic. In developing countries like Pakistan, females have many constraints and limitations. Now the question arises can females really cope with these difficulties to perform at their best? In the presence of these obstacles can females really manage to contribute in productivity of banks in Pakistan? Are they really efficient in banking sector of Pakistan? These entire questions prompted the researcher to conduct this research.

It has been observed that some organizations, particularly banks do not prefer to have females as their employees. For example, Bank Al Habib and Meezan Bank till recent past. They discourage female workforce as it is considered that banking is a stressful and time consuming and hectic job [9]. So females cannot endure this burden to compete with males in terms of performance. On the basis of this perception employers feel reluctance in hiring female labor. [22] and [29] worked to prove this myth of female underperformance wrong. They called this female underperformance hypothesis a myth and proved that males and females have no difference in terms of performance. As per their perception a female labor can perform as good as a male labor then gender discrimination in top management is not judicious. The study of female performance is of importance as this underperformance can even influence the policy of the organizations.

The objective of this paper is to investigate the presence of FUPH in banking industry of Pakistan.

2. LITERATURE REVIEW

FUPH is new in economic literature therefore not much of studies exist on this issue. [8] worked on the performances of Swedish female and male entrepreneurs. For this purpose, they selected the sample size of 4200 entrepreneurs from all the sectors of economy with 405 females. In an extensive multivariate regression with a large number of controls it

showed that female entrepreneurs tend to underperform relative to men at several points. Furthermore, they analyzed that female underperformance is much lesser in large firms and it does not exist in firms which have only one employee.

Others [25] performed a gender based analysis of micro and small enterprises in Indonesia. They took a sample of 200 entrepreneurs which included 112 women entrepreneurs. The performance of these enterprises was examined with the help of employment and profit. The end results found by this research proved that the variables which affected the women controlled business in Java were, total number of family labor, demographic factors like age of the entrepreneur and age of enterprise and industry sector. These factors, which affected the performance of women were different from the factors that were previously found in different studies.

Others in [27] worked on female leadership. He analyzed whether female CEO works better than the male CEO. He took a sample of the total 58 companies in America who are having female CEOs. The data was taken from 1985 to 2004 i.e. twenty years. He performed two-sided student's t-test for mean of return differentials and Wilcoxon test for the median of return differentials between the stock prices of companies in female and male companies' samples. The results of both student's t-test and Wilcoxon test showed that the performance of stock of companies which have female CEOs are under performed as compared to the stock of those companies which have male CEOs. The performance of male headed companies was 20% greater than those who have female CEOs.

Collins *et. al.* [3], analyzed the role of gender in financial performance. In order to prove their hypothesis, they took a sample size of 160 sole proprietors. The controlled variables were practice characteristics, motivations and individual owner characteristics. Regression results showed that financial performance was different for male and female sole proprietorships. The reasons for these differences were explained by other variables other than genders. The most interesting outcome was that women sole proprietors who have strong motivation factor showed more positive financial performance, whereas male sole proprietor who had the same factor were having a weak financial outcome comparatively.

Some others [5] performed a comparison of the business performance between male- and female-controlled business from six industrial sectors, from 1997 to 2001. They used a sample of 1077 Spanish micro, small and medium sized enterprises. For this purpose, they employed Data Envelopment Analysis. Results indicated that the best performing female-controlled business outperform the best performing male-controlled ones.

Elsewhere some [26] examined the effect of women in top management, on firm's performance. The ratio of females in top management is very less as compared to males in most of the countries, but with the passage of time the number of female as top executives is increasing. To analyze women's performance in top management a sample of 2500 Danish was taken. This sample was from 1993 to 2001. A multiple regression model was run. Results showed that females in top management effect positively the firm's performance. Furthermore, it showed that females in top management who have university degrees are more effective and have more

positive effect on firm's performance as compared to those females who are in top management but have lesser degree.

Some [6] examined the gender diversity in the boardroom and financial performance of commercial banks. They took evidence from Bangladesh's banking sector. The sample was of 15 listed commercial banks. Data was taken from the annual reports from 2002 to 2005. After calculating ROA and ROE of the sample banks for the said period, they used Kruskal Wallis H-test to measure the association between gender diversity in board of directors and the financial performance of the banks. The result showed a contradictory relationship between gender diversity and financial performance. Furthermore, they mentioned that due to certain limitation like lack of data availability and small sample size, the findings were interpreted very carefully. In future, with different variables and larger sample size, the research with the similar topic can be done more efficiently.

In [4], the authors examined the female participation in top management and in firms' performance. They took data of 1500 US firms from 1992 to 2006. They used Tobin's Q test to measure firm's performance. For better understanding, they divided the sample into two sections. In first section, they measured the performance of firms in which there are females in senior management but below the CEO Level. In the second section, performance was measured of those firms which have female CEOs. The result proved that the firms which have females in senior management have a positive effect on firm's performance, whereas in second section where firms have female CEOs, have a neutral or negative effect on firm's performance.

Some worked on whether gender matters for the firm's performance or does not in Eastern Europe and Central Asia [23]. They used 2005 firm level data for 26 countries in Eastern and Central Europe to measure the performance gaps between male and female-owned businesses, the findings showed that female entrepreneurs had a significantly smaller scale of operations and is less efficient in terms of total factor productivity, although the difference is small. However, in terms of profit per unit of revenue, women entrepreneurs generated the same amount of profit as compared to men.

Authors in [13] compared the performance of male and female headed small and medium enterprises in Lao. They used ordered probit models. The sample of 840 observations which consist of 493 male headed firms and 347 female headed firms. The results showed that female entrepreneurs, relatively underperform as compared to male entrepreneurs.

Others [22] argued that it is unlikely to say that females owned business firms under perform. To prove their argument, they took a sample of 4000 new ventures that began operation in United States in 2004. They examined 4-year closure rates; return on assets (ROA); and a risk-adjusted measure (Sharpe ratio). The results supported their argument. Results showed that performance of male and females owned new ventures is same. If performance is properly measured and some demographic variables like industry, experience and work hours are properly controlled then there is no difference in performance of male and females owned ventures

In [2], others investigated that whether the woman leadership has made a significant impact on the financial performance of

AXIS bank over man leadership by studying the financial statements of the bank. For this purpose, he made a comparison in two different time periods of the same bank to draw meaningful conclusion with respect to woman leadership. He used CAMEL model to analyses whether the performance has improved or not after the leadership of the bank was overtaken by a woman. He took the data from 2007 to 2012. He concluded that the woman leadership has made a huge impact on the overall performance of the bank.

Elsewhere[16], they measured the efficiency of four women financing banks. Those banks of the South were First Women Bank Ltd. of Pakistan, Grameen Bank of Bangladesh, Friends of Women's World Banking of India and Mann Deshi Mahila Sahakari Limited Bank of India. The time period was taken from 2004 to 2011. They used Malmquist productivity Index-DEA to measure the efficiency of these banks. Non-interest expenses, deposits and fixed assets were taken as input variables, whereas output variables were investments and advances. Results showed that on average overall efficiency of the selected banks was very low.

Some [29], challenged the female underperformance hypothesis. Their studies reflect others work [22]. They took a sample size of 70 female-owned and 113 male-owned Australian firms. They examined three outcomes, i.e. closure rates, ROA or the ratio from CAUSEE project [24], which is the panel study of new firms having their life more than four years. The results were almost same as found in [22]. The result proved that female owned new firms in Australia do not underperform as compared to males owned firms. They tried to prove the female underperformance myth wrong, which may lead to unfair policy decisions and further can discourage females to establish new firms if left unchallenged.

Workers in [17] performed a research on the inquiring female underperformance hypothesis in research output at Pakistani economics departments. According to them research on gender equality has been conducted frequently, but their comparative productivity is still under-researched. They took information from the publications of one thousand economists and used descriptive bibliometrics. Results showed a staggering difference in male and female research output. Male researches were found to publish four times more research than that of the female research. It shows underperformance of females in economics departments of Pakistan.

Faiz [7], highlighted experiences of women working in banking industry of Pakistan. Author conducts analysis using mixed method approach on fieldwork collected empirical evidence by in-depth, semi-structured, face-to-face interviews in four different banks in Punjab province of Pakistan. Author attempts to contribute to the conceptual model of Four C's of working family conflict (WFC) that offers a systematic and coherent categorization of the causes, consequences and coping strategies of WFC in a context-sensitive, multi-level, intersectional, feminist approach framework. However, despite the sophisticated analysis, this study fails to unearth the underlying reason for the 'unease' of working women in banking industry.

Missing point in the existing literature has been the suspected under-performance by females and more importantly the

underlying reasons. Mehmood *et. al.* [17], pioneered it for case of Pakistani academia. This research extends this novel direction in female labor productivity comparison to banking industry of Pakistan.

3. DATA AND METHODOLOGICAL ISSUES

3.1 Data

The data is gathered from 25 enlisted commercial banks, which are working in Pakistan. As specified prior, deposit and number of branches are taken as input variables while other income, investments and financing are taken as output variables. Five years' data is considered from 2009 to 2013. Our specimen consists of all modes of managing an account, for example, Islamic and customary banks working in Pakistan. Also for study, we have included the First Women Bank Ltd.

The data of these banks is taken from the financial statements of these banks. The time period taken is from 2009 to 2013. The given information of female allocations in jobs was taken from the HR Department & Regional Offices through a survey.

3.2 METHODOLOGY

Data envelopment analysis (DEA) is the technique constructed to measure the comparative efficiency of peers known as the decision making units (DMU). There are two approaches of DEA, which are Operational approach (OA) and Intermediary approach (IA). Operation approach is more concerned with cost and revenue of any firm or institution where the Intermediary approach input and outputs are taken to calculate efficiencies of DMUs. Input variables and output variables are also written as category 1 and category 2. DEA analytical studies in the relativity of multiple inputs and multiple outputs using the linear function of statistics. Inputs and outputs are selected as per availability of required data. The purpose of this study is the testing of the underperformance hypothesis of women in banking sector of Pakistan using data envelopment analysis, measurement taking in consideration the input factors such as number of branches and deposits and output factor such as investment, other incomes and advances. In addition, Tobit regression is also used to find the non-input factors that affect the efficiency of banks.

4. RESULTS AND INTERPRETATION

4.1 Malmquist Index Summary of Banks Mean

Malmquist Index Summary of Banks average is described in the Table 2. On the average, Burj Bank Ltd., The Bank of Punjab, KASB Bank Ltd., National Bank of Pakistan, Bank Al Habib Ltd., Silk Bank Ltd. and Allied Bank Ltd. performed efficiently and MCB Bank Ltd., The Bank of Khyber, United Bank Ltd., First Women Bank Ltd., Habib Metropolitan Bank Ltd., Summit Bank Ltd., NIB Bank Ltd., Habib Bank Ltd., Faysal Bank Ltd., Al Baraka Bank Ltd., Bank Islami Pakistan Ltd. and Dubai Islamic Bank Pakistan Ltd. remained inefficient as for as technical efficiency is concerned. Askari Bank Ltd., Bank Alfalah Ltd., JS Bank Ltd., Meezan Bank Ltd., Samba Bank Ltd. and Soneri Bank Ltd. remained constant.

The average results of pure efficiency showed that National Bank of Pakistan, Silk Bank Ltd., KASB Bank Ltd., Bank Al Habib Ltd. and Allied Bank Ltd. have been efficient. Whereas First Women Bank Ltd., MCB Bank Ltd., Faysal Bank Ltd., NIB Bank Ltd., Habib Metropolitan Bank Ltd., The Bank of Khyber, Summit Bank Ltd. and Dubai Islamic Bank Pakistan Ltd. have been in efficient during the selected period.

KASB Bank Ltd. achieved the highest value of productivity factor. On the other hand, NIB Bank Ltd. got the least value of productivity factor. Bank Islami Pakistan Ltd., Silk Bank Ltd., Askari Bank Ltd., Allied Bank Ltd., Burj Bank Ltd., Habib Metropolitan Bank Ltd., Bank Al Habib Ltd., The Bank of Punjab, Habib Bank Ltd., United Bank Ltd., Summit Bank Ltd., JS Bank Ltd. and KASB Bank Ltd. succeeded to achieve average factor productivity value greater than one.

4.2 Average female Density and Average Productivity Factor

Table 3 outlines the comparison between average factor productivity value change and average female density of the selected banks. As First Women Bank Ltd. is the bank with a highest female labor average during last five years but its average total factor productivity change (TFPC) value did not reach the optimal level of '1'. On the other hand, Bank Al Habib Ltd. is the bank with least female proportion and it showed positive average TFPC value.

Bank Islami Pakistan Ltd., Silk Bank Ltd., Askari Bank Ltd., Allied Bank Ltd., Burj Bank Ltd., Habib Metropolitan Bank Ltd., Bank Al Habib Ltd., The Bank of Punjab, Habib Bank Ltd., United Bank Ltd., Summit Bank Ltd., JS Bank Ltd. and KASB Bank Ltd. showed positive average TFPC values with average females density of 7%, 16.19%, 25%, 13%, 8%, 15.07%, 0.50%, 10.63%, 12.50%, 21%, 33.33%, 6.43% and 20% respectively. Whereas NIB Bank Ltd., Al Baraka Bank Ltd., First Women Bank Ltd., Bank Alfalah Ltd., Faysal Bank Ltd., Meezan Bank Ltd., Samba Bank Ltd., MCB Bank Ltd., National Bank of Pakistan, The Bank of Khyber, Dubai Islamic Bank Pakistan Ltd. and Soneri Bank Ltd. showed inefficient results of average TFPC with average female density of 27%, 20%, 89.55%, 20%, 18.50%, 6.47%, 14%, 17.50%, 7.50%, 9.40%, 8.66% and 15% respectively.

It is observed that the average TFPC is showing a slight positive trend as the female average decreases. Furthermore, it can be observed that the average TFPC value of First Women Bank Ltd., which is the most female oriented bank, is less than the most of the others. Whereas the average TFPC value of Bank Al Habib, the least female concentrated bank, is more than most of the other banks which have more female population. Results also reveal that if the female average decreases in banks then there are more chances of having greater TFPC value.

4.3 Correlation between Average Female Density and Average TFPC:

Correlation values show the relationship or association between two variables. The correlation value between average female density and average productivity factor value is -0.27. This value shows a weak negative relationship between the variables.

4.4 Technical efficiency Summary

Technical efficiency of all the banks has been measured through 2-stage DEA analysis. The optimal efficiency is represented by 1. If the value of efficiency is 1 then it is perceived as efficient but if the value is less than 1 the perception will be as inefficient [28]. Average efficiency demonstrates the normal execution of complete efficiency of the general populace under studies. Greatest average efficiency which might be acquired is 1 indicating the ideal execution of every last one of specimens in populace.

Technical efficiency values of the banks with their average female density is given in Table 4. First Women Bank Ltd., which has the highest female population, has been inefficient. NIB Bank Ltd., Askari Bank Ltd., Al Baraka Bank Ltd., Bank Alfalah Ltd., MCB Bank Ltd., Habib Metropolitan Bank Ltd., Soneri Bank Ltd., Samba Bank Ltd., Habib Bank Ltd., The Bank of Khyber, Bank Islami Pakistan Ltd., Meezan Bank Ltd. and JS Bank Ltd. performed efficiently with having average female density of 27%, 25%, 20%, 20%, 17.50%, 15.07%, 15%, 14%, 12.50%, 9.40%, 7%, 6.47% and 6.43% respectively. On the other hand, Allied Bank Ltd., First Women Bank Ltd., Silk Bank Ltd., Faysal Bank Ltd., United Bank Ltd., Bank Al Habib Ltd., National Bank of Pakistan, KASB Bank Ltd., The Bank of Punjab, Summit Bank Ltd., Burj Bank Ltd. and Dubai Islamic Bank Pakistan Ltd. are the banks which performed inefficiently and these banks have the average female density of 13%, 89.55%, 16.19%, 18.50%, 21%, 0.50%, 7.50%, 20%, 10.63%, 33.33%, 8% and 8.66% respectively.

4.5 Correlation Analysis between Average female density and Technical efficiency

Correlation between Average female density and technical efficiency is -0.28. The Correlation value displays a negative sign. This shows a negative relationship between average female density and technical efficiency of the banks.

4.6 Regression Analysis

In order to find out factors other than inputs, that add to efficiency of banks, Tobit regression is used. In this case, the efficiency scores, obtained using DEA, lie between 0 and 1, and the dependent variable is 'a limited dependent variable'. Therefore, it is suitable to use the Tobit model, which is applicable in cases where the dependent variable is limited in some way.

Efficiency score is used as dependent variable. Whereas a dummy variable ($d_{F/M}$) is generated using female-male ratio showing female concentration as compared to male. This dummy is used as independent variable.

The value of coefficient is -0.025, which shows negative relationship between efficiency and female concentration. The result is statistically significant with a p-value of 0.049 which is less than 5% level of significance.

Table 1: Results from Tobit model			
Efficiency Score	Coefficient	S.E.	p-value
$d_{F/M}$	-0.0239	0.012	0.049
Constant	0.9972	0.003	0.000

Source: Authors' estimates

This result reconfirms the FUPH as in [17] in which authors provided the evidence of FUPH from academic sector using segregated data of male and female researchers.

5. DISCUSSION

The banking sector in Pakistan is a growing industry. Bankers face tough times in the form of stress, late sittings & target pressures. Due to these obstacles females are not considered good performers in banks. It is a general perception in banks that females cannot handle pressure that is why they should not be hired or their concentration should be minimal. Usually male employees complain about the dissatisfaction they have from their female counterparts regarding inability to stay longer office hours and not being able to fully face pressure on their own. The purpose of this study is to test female underperformance hypothesis in banking sector of Pakistan.

The results demonstrated that both average total factor productivity and technical efficiency showed negative relationship with average female density. This indicates that in normal circumstances, female presence can lead a bank to inefficiency. It is also found that female oriented banks (e.g. First Women Bank Ltd.) are less productive as compared to male-concentrated banks. This not only supports the female underperformance in mixed working environments, but also in working environment when the bank is female-concentrated. In commercial banks, the reasons for female underperformance could be factors like late sittings and pressure that is not suitable for females. Therefore, an environment which has a female concentration is likely to lead to a higher level of female performance.

In addition to demanding nature of bank job, XX-inefficiency (compiled in [17]) seems to be present in case of the banking sector as well. Authors compile a set of biological, sociological and psychological reasons that explain the underlying reasons of female underperformance. These are:

1. These are a leaky pipeline.
2. Suitability argument.
3. Sustained attention argument.
4. Maternity effect argument.
5. Underperformance at life-cycle stage.
6. Ageing not in beauty but also in research.

7. Biology matters and biological clock ticks.

8. Fear of spinsterhood.

9. Generous maternity policies: Double-edged sword.

Empirical evidence on Pakistani academia and banking sector has proved the FUPH and conforms with XX-inefficiency reasons. Still many sectors are yet to be investigated. Future research can test FUPH for other sectors in Pakistan. Another area of research can be by explicitly including data on XX-inefficiency reasons in an empirical framework.

In [7], others studied work-family conflict (WFC) as one of the contemporary issues with reference to female labor in banking sector. XX-inefficiency argument, perhaps, is the missing link in WFC debate and male-female wage differentials. Perhaps, the underlying reason for WFC is XX-inefficiency which is built-in features on female labor. Removal of such inefficiency, perhaps requires gender reassignment surgery (GRS) which is beyond the scope of this research. However, general suggestions are as follows:

Female specific banks may be established where female employees may be more convenient and hence more productive than mixed working environments. It will absorb the female labor without compromising the fast-functioning banks and their profitability. At the same time, banks being for-profit financial firms would find it as additional cost to provide extra facilities to facilitate female employees e.g. day care centers and maternity leaves, among others. Since male labors do not require additional facilities to work conveniently, they do not require any additional cost. Therefore, it is hard to recommend banks to provide such female-specific facilities. This research verifies the common observation that the female are under-performers in banking environment. These findings of this research also signal female labor to opt for a more female friendly working environment as compared to banking sector.

Table 2: Malmquist Index Summary of Banks Mean

Banks	effch	tech	pech	sech	tfpch
Al Baraka Bank Ltd.	0.997	0.846	1.000	0.997	0.844
Allied Bank Ltd.	1.036	0.978	1.031	1.005	1.012
Askari Bank Ltd.	1.000	1.011	1.000	1.000	1.011
Bank Al Habib Ltd.	1.019	0.999	1.019	1.000	1.018
Bank Alfalah Ltd.	1.000	0.933	1.000	1.000	0.933
Bank Islami Pakistan Ltd.	0.997	1.004	1.000	0.997	1.001
Burj Bank Ltd.	1.004	1.009	1.000	1.004	1.013
Dubai Islamic Bank Pakistan Ltd.	0.997	1.000	0.998	1.000	0.997
Faysal Bank Ltd.	0.995	0.957	0.979	1.016	0.952
First Women Bank Ltd.	0.973	0.953	0.949	1.025	0.928
Habib Bank Ltd.	0.990	1.060	1.000	0.990	1.049
Habib Metropolitan Bank Ltd.	0.974	1.044	0.989	0.985	1.017
JS Bank Ltd.	1.000	1.068	1.000	1.000	1.068
KASB Bank Ltd.	1.008	1.068	1.016	0.992	1.076
MCB Bank Ltd.	0.953	1.024	0.953	1.000	0.976

Meezan Bank Ltd.	1.000 0.953 1.000 1.000 0.953
National Bank of Pakistan	1.008 0.972 1.005 1.003 0.980
NIB Bank Ltd.	0.982 0.851 0.982 1.000 0.836
Samba Bank Ltd.	1.000 0.961 1.000 1.000 0.961
Silk Bank Ltd.	1.024 0.987 1.013 1.011 1.010
Soneri Bank Ltd.	1.000 0.999 1.000 1.000 0.999
Summit Bank Ltd.	0.977 1.087 0.998 0.978 1.062
The Bank of Khyber	0.960 1.024 0.997 0.962 0.983
The Bank of Punjab	1.007 1.026 1.000 1.007 1.033
United Bank Ltd.	0.971 1.084 1.000 0.971 1.052
Mean	0.995 0.994 0.997 0.998 0.989

Table 3: Average Female Density and Average Productivity Factor of Banks.

Banks	Average Female Density (%)	Average TFPC
First Women Bank Ltd.	89.55	0.928
Summit Bank Ltd.	33.33	1.062
NIB Bank Ltd.	27.00	0.836
Askari Bank Ltd.	25.00	1.011
United Bank Ltd.	21.00	1.052
Al Baraka Bank Ltd.	20.00	0.844
Bank Alfalah Ltd.	20.00	0.933
KASB Bank Ltd.	20.00	1.076
Faysal Bank Ltd.	18.50	0.952
MCB Bank Ltd.	17.50	0.976
Silk Bank Ltd.	16.19	1.01
Habib Metropolitan Bank Ltd.	15.07	1.017
Soneri Bank Ltd.	15.00	0.999
Samba Bank Ltd.	14.00	0.961
Allied Bank Ltd.	13.00	1.012
Habib Bank Ltd.	12.50	1.049
The Bank of Punjab	10.63	1.033
The Bank of Khyber	9.40	0.983
Dubai Islamic Bank Pakistan Ltd.	8.66	0.997
Burj Bank Ltd.	8.00	1.013
National Bank of Pakistan	7.50	0.98
Bank Islami Pakistan Ltd.	7.00	1.001
Meezan Bank Ltd.	6.47	0.953
JS Bank Ltd.	6.43	1.068
Bank Al Habib Ltd.	0.50	1.018

Table 4: Technical Efficiency Summary and Average Female Density:

Firm	Average Female Density (%)	Technical Efficiency
First Women Bank Ltd.	89.55	0.904
Summit Bank Ltd.	33.33	0.980
NIB Bank Ltd.	27.00	1.000
Askari Bank Ltd.	25.00	1.000
United Bank Ltd.	21.00	0.927
Al Baraka Bank Ltd.	20.00	1.000
Bank Alfalah Ltd.	20.00	1.000
KASB Bank Ltd.	20.00	0.936
Faysal Bank Ltd.	18.50	0.921
MCB Bank Ltd.	17.50	1.000
Silk Bank Ltd.	16.19	0.911
Habib Metropolitan Bank Ltd.	15.07	1.000
Soneri Bank Ltd.	15.00	1.000
Samba Bank Ltd.	14.00	1.000
Allied Bank Ltd.	13.00	0.870
Habib Bank Ltd.	12.50	1.000
The Bank of Punjab	10.63	0.971
The Bank of Khyber	9.40	1.000
Dubai Islamic Bank Pakistan Ltd.	8.66	0.999
Burj Bank Ltd.	8.00	0.983
National Bank of Pakistan	7.50	0.930
Bank Islami Pakistan Ltd.	7.00	1.000
Meezan Bank Ltd.	6.47	1.000
JS Bank Ltd.	6.43	1.000
Bank Al Habib Ltd.	0.50	0.928
Mean		0.970

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