

## AN EMPRICAL STUDY OF FINANCIAL SERVICES FOR THE WOMEN'S FINANCIAL INCLUSION IN INDIA

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### ABSTRACT

The significance and remarkable aspect of financial inclusion in relation to women's empowerment is evident when considering a more comprehensive perspective. The Reserve Bank of India (RBI) and the Government of India (GOI) constantly emphasise the utilisation of innovative technologies to facilitate extensive financial inclusion. Nonetheless, the persistent issue in the execution of financial inclusion initiatives and the obstacles hindering women's access to financial goods and services seem to create an unavoidable gap in terms of social inclusion and the empowerment of women. The objective of this study was to provide a comprehensive understanding of the factors associated with the status of financial inclusion for women in Delhi NCR and various initiatives undertaken by the Government of India in this respect. The primary data was collected using a well-designed interview process using convenience sampling techniques. This study focused on in categorising the factors affecting the financial inclusion among three major parameters- Availability, Accessibility and Usage of financial services to women. Exploratory Factor Analysis through SPSS was made in the study. The study concluded that the specific parameters influenced the level of awareness and usage of financial services by the women.

**Keywords:** Financial Inclusion, Financial Services, Women, Delhi-NCR Region

### INTRODUCTION

According to (Vijaya, 2014), "Financial inclusion may be defined as the process of ensuring access to financial services and adequate, timely credit where needed by vulnerable groups such as weaker sections and low-income groups at an affordable cost." The Reserve Bank of India, releasing the National Strategy for Financial Inclusion (2019-2024), defined 'Financial Inclusion' as "The process of ensuring access to financial services and timely and adequate credit where needed by vulnerable groups such as weaker sections and low-income groups at an affordable cost."

The attainment of economic empowerment for women is contingent upon the presence of financial inclusion, which is identified as a pivotal objective in the fifth Sustainable Development Goal pertaining to gender equality. In the context of India, it is observed that around 20% of women have a lack of accessibility to banking services, resulting in the absence of a bank account. Despite the efforts made by the country's initiatives aimed at enhancing financial inclusion, there are still significant disparities in the utilisation of bank accounts, as well as in the accessibility of savings and loans, particularly among women. Women have obstacles when it comes to obtaining financial services due to a range of factors. These include a higher likelihood of lacking proper identification or access to a cell phone, residing in remote areas far from banking facilities, and requiring assistance in both initiating and properly utilising a bank account. The number of people with bank accounts has increased by 1.2 billion on a global scale since 2011. This comprises an additional 600 million women since 2011 and an additional 240 million women since 2014. India has witnessed a substantial increase in the number of newly created bank accounts, with over 290 million accounts opened since 2011. Notably, a significant proportion of these accounts, amounting to 171 million, have been opened by women (Demirguc-Kunt et al., 2018).

In the Indian context, it was observed that in 2014, there was a disparity of 20 percentage points between men and women in terms of account ownership. However, this difference has significantly reduced to 6 percentage points by the year 2023. It is noteworthy to mention that nearly 50% of account holders in India during the year 2023 indicated no activity in terms of deposits or withdrawals, whether in digital or non-digital form, within the preceding 12 months.

Financial inclusion refers to the provision of accessible and cost-effective financial goods and services, encompassing transactions, payments, savings, credit, and insurance. These offerings are offered in a responsible and sustainable manner, with the aim of meeting the financial requirements of both individuals and enterprises. Nevertheless, it is vital

for financial services to exhibit inclusivity and consider the diverse requirements of their customer base, including women as well. Gender-neutral methods have failed to consider the various obstacles that impede women's ability to access and utilise financial services. The inclusion of women in financial systems is of utmost importance in order for women to achieve their economic rights and experience empowerment. This participation also has beneficial impacts on several development outcomes and contributes to poverty reduction. Financial inclusion places significant emphasis on the incorporation of women in the financial management endeavours of a family. Financial inclusion posits that women possess more aptitude for effectively managing household money in comparison to males. Therefore, the objective of financial inclusion initiatives is to specifically focus on women, facilitating their integration into the realm of financial management.

## LITERATURE REVIEW

According to (Vijaya, 2014), financial inclusion and financial literacy are two essential components that contribute to economic development. Financial inclusion focuses on the supply side by ensuring the availability of financial goods and services, while financial literacy addresses the demand side by enhancing individuals' understanding and knowledge of financial matters. (Bhattacharya, 2019) conducted a study that specifically examined the significance of financial inclusion as a key determinant of economic growth and development. The study posits that in order to achieve inclusive growth, there is a requirement for the creation and mobilisation of resources. Access to financial goods and services in India is limited by several issues, including price, excessive paperwork, obstacles, and high transaction costs. (Holloway et al., 2017) puts out the argument that providing affordable financial services to women is the most efficacious approach to promoting gender equality and women's empowerment, while also fulfilling global economic growth goals. The enhancement of women's access to resources has been found to positively impact the overall welfare of families, with a particular emphasis on the well-being of children. Financial inclusion plays a crucial role in facilitating gender equality by providing women with equal opportunities to participate in economic activities. This not only fosters social inclusivity but also contributes to overall economic growth and success. The G-20's impact in 2014 resulted in the widespread dissemination of monetary services to a significant portion of the population. Furthermore, between 2011 and 2014, there was a notable increase in the number of newly incorporated individuals into the financial system. However, it is important to note that despite its potential benefits, there is evidence to suggest that this approach may not effectively address the issue of gender inequality in financial service accessibility (Ghosh & Vinod, 2017). This lack of progress in closing the gender gap can lead to social exclusion and perpetuate gender imbalances, particularly in non-industrialized countries where these disparities are more prevalent compared to wealthier nations (Niyonsenga et al., 2020). In a study by (Laha & Kuri, 2014) investigated the impact of microcredit in promoting financial inclusion and empowering women. The findings of the study indicate that the provision of microcredit serves as a crucial instrument in achieving these objectives. Financial inclusion for women is a critical aspect of economic development and gender equality. The gender gap in financial inclusion is influenced by institutional factors that create barriers to financial services for women (Mndolwa & Alhassan, 2020). This gap refers to the unequal access to and use of formal financial services between men and women (Ndoya & Tsala, 2021). Despite gains in financial inclusion, there is still a gender access gap to financial services in lower-income countries (Eckhoff et al., 2019). Women's financial inclusion is significant for promoting gender equality, aligning with the Sustainable Development Goals (Roy & Patro, 2022). It has been noted that women's financial inclusion can contribute to their economic and broader empowerment (Manta, 2019). However, the COVID-19 pandemic has disrupted financial inclusion dimensions, affecting women-led small and medium enterprises' performance (Chozarira et al., 2023).

Goyal, Gupta & Vashisht (2024) conducted a study to investigate the influence of financial inclusion by means of cooperatives on the economic empowerment of the women of rural families. The study obtained primary data from 379 women residing in rural areas of Delhi-NCR in India; using selective sampling. The methods of EFA (Exploratory Factor Analysis), CFA (Confirmatory Factor Analysis), SEM (Structural Equation Modelling) and independent sample t-test were used to purify and analyse the data. The research findings indicated that the government's implementation of several plans for financial inclusion had a direct and substantial influence on the economic empowerment of women in rural families.

Concluding, addressing the gender gap in financial inclusion requires a multi-faceted approach that considers institutional, socio-cultural, and economic factors. Efforts to enhance women's financial literacy, improve access to financial services, and address affordability barriers were identified to be crucial for promoting women's economic empowerment and overall gender equality.

## RESEARCH METHODOLOGY

The study adopted a descriptive and exploratory research design to investigate the determinants of financial inclusion among women. It included an analysis of the financial inclusion status of women in India, specifically in different districts

of Delhi NCR. This study was characterised by an exploratory approach, since it with reference to investigate the factors influencing financial inclusion among women through well-structured questionnaire.

The study was conducted to investigate the influence of financial inclusion by means of cooperatives on the economic empowerment of the women of rural families. The study obtained primary data from 379 women residing in rural areas of Delhi-NCR in India; using selective sampling. The methods of EFA (Exploratory Factor Analysis), CFA (Confirmatory Factor Analysis), SEM (Structural Equation Modelling) and independent sample t-test were used to purify and analyse the data. The research findings indicated that the government's implementation of several plans for financial inclusion had a direct and substantial influence on the economic empowerment of women in rural families.

The study aimed to assess the level of knowledge and use of financial services among women residing in the Delhi NCR. Also, the objective was to explore several variables that influence the level of Financial Inclusion among women residing in the Delhi NCR.

### DATA ANALYSIS & INTERPRETATION

The study examined the three components of financial inclusion, namely access, availability, and usage, utilising exploratory factor analysis (EFA) as a method of analysis. Exploratory Data Analysis (EDA) alludes to the systematic approach of examining and examining datasets in order to unveil patterns, identify correlations, and acquire valuable insights. There exists a multitude of EDA methodologies that may be employed, contingent upon the characteristics of the data and the expectations of the analysis. Factor analysis results in a state of parsimony; the number of factors often tends to be significantly less than the quantity of items. In essence, the analysis assists in significantly reducing the dimensionality of observable events.

#### (a) ACCESS OF FINANCIAL SERVICES

“Access” in the context of financial inclusion is the capacity to effectively utilise the range of financial goods and services offered by formal institutions. Exploratory factor analysis was used to examine the relationship between the 10 variables of respondents' access to financial services. The primary goal of this investigation was to reduce the high dimensionality of the original dataset. To be more precise, we sought to extract a small but sufficient number of factors with the goals of (1) simplifying the structure of the data set (with reduced dimensionality) and (2) explaining a large fraction of the variance in the data set.

**Table 1 - Descriptive Statistics of factors affecting ‘Access’**

	Mean	Std. Deviation
ASS1 Easy availability of finance	2.9750	1.11915
ASS2 Sufficient staff	2.9975	1.01739
ASS3 Satisfaction with employee's attitude	2.9675	1.15098
ASS4 Employees are accessible	3.2600	1.16653
ASS5 Suitable timings	2.9175	1.03846
ASS6 Easy access to information	2.9575	.90429
ASS7 Proper grievance redressal mechanism	2.9950	1.17058
ASS8 Satisfaction with customer service	2.8400	1.44902
ASS9 Location suitable	3.1784	1.06031
ASS10 No language problem	2.6425	1.01847
Valid N (listwise)		

The given data shows that the overall mean score ranges from 2.64 to 3.26. Bank hours are convenient for women in remote areas of Delhi National Capital Region, and there is a sufficient number of bank workers to meet their specific requirements. However, the vast majority of women feel that the necessary information is difficult to get and that bank personnel are difficult to reach. Cronbach's alpha was used to determine the dependability of the scale, and the computed value was .764, well within acceptable range.

**Table2 - Reliability Statistics**

Cronbach's Alpha	N of Items
.764	10

### EFA FOR “ACCESS” OF FINANCIAL SERVICES

The factors were derived using principal component analysis. There were three factors that emerged from the investigation. The sample size was large enough for factor analysis, as determined by the Kaiser-Meyer-Olkin (KMO) test, which yielded a result of 0.708 (more than 0.5). The sphericity of the data was further tested using Bartlett's method, yielding a p value of 0.00. Thus, the premise that "Correlation matrix of variables is identity matrix" was false, and component analysis may be carried out. All the assertions meet the convergent validity criterion as well as the discriminating validity criterion.

**Table 3 - KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.708
Approx. Chi-Square		1483.810
Bartlett's Test of Sphericity	Df	45
Sig.		.000

**Table 4 – Results showing Factor Loadings of ‘Access’**

	Component		
	1	2	3
ASS8Satisfaction with customer service	.860		
ASS1Easy availability of finance	.844		
ASS7Proper grievance redressal mechanism	.830		
ASS6Easy access to information	.812		
ASS10No language problem		.875	
ASS5Suitable timings		.820	
ASS2Sufficient staff		.780	
ASS3Satisfaction with employee's attitude		.742	
ASS9Location suitable			.855
ASS4Employees are accessible			.840

#### Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 4 iterations.

The breakdown of the three extracted variables is shown in Table 4. For instance, there were four items that make up the first factor (FCT1): items ASS8, ASS1, ASS7, and ASS6. We may thus be concluded that these four variables share characteristics and behave as one entity. The second extracted factor (FCT2) also included four variables (ASS2, ASS3, ASS5, and ASS10) that contributed to its formation. The third (FCT3) component included the variables ASS4 and ASS9. Labels such as "Client Services," "Institutional related," and "Geographic" were applied to the retrieved variables.

#### (i) CLIENT-RELATED SERVICES

The first factor derived from the research is referred to as client-related services. This factor has four aspects: Satisfaction with customer service having factor loading of 0.860, Proper grievance redressal mechanism (0.830), Easy availability of finance (0.844), Easy access to information (0.812). Since all of these comments pertain to customer services, they were titled accordingly. Among the variables listed above, the variable with the highest loading was "Satisfaction with customer service" (0.860). Conversely, the factor with the lowest loading was "Easy access to information," which has a loading of 0.812. This aspect highlights the need of providing relevant and important information to customers through various digital modes in order to achieve financial inclusion.

#### (ii) INSTITUTIONAL FACTORS

The second factor derived from the survey comprises four statements: adequacy of staff, appropriateness of timings, and satisfaction with the attitude of personnel, and absence of language barriers. Among these assertions, the statement with the highest factor loading was "No language problem" with a value of 0.875, while the statement with the lowest factor loading was "Satisfaction with employee's attitude" with a value of 0.742. This implies that the ease of communication in local language with customers' presence was essential in order to ensure that consumers may conveniently avail themselves of financial services.

#### (iii) GEOGRAPHICAL FACTORS

The last factor, referred to as geographical considerations, encompasses two statements: the presence of a suitable location and the convenient accessibility of bank branches. The factor loading for the statement "Suitable location" is higher, with a value of .855, compared to the factor loading of .840 for the statement "Easy availability of bank branches." This

characteristic illustrates the significance of physical accessibility of financial institutions in relation to financial inclusion. Among the three factors that were extracted, it was seen that the first factor had the ability to account for 28.116 percent of the overall variation observed in the dataset provided (refer to Table 4). The second factor has the potential to achieve a magnitude of 26.10 percent. In a similar vein, it was worth noting that the third factor accounted for 14.783 percent of the variation in the data. Therefore, when considering all three factors together, they accounted for 68.99% of the total variation observed in the dataset.

**Table 5 - Total Variance Explained**

Component	Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %
1ClientServices	2.812	28.116	28.116
2Institutional	2.610	26.100	54.216
3Geographical	1.478	14.783	68.999

Extraction Method: Principal Component Analysis.

#### (b) AVAILABILITY OF FINANCIAL SERVICES

The term "Availability of banking services" refers to the range of services offered by banks and financial organisations. The range of services offered included various financial products such as loans, overdraft facilities, insurance options, passbook maintenance, and debit card issuance, among others.

#### MEAN AND STANDARD DEVIATION ANALYSIS

The present analysis focused on the descriptive statistics regarding the factors that contribute to the availability of certain resources or conditions. A total of 24 statements were administered in the questionnaire, all pertaining to the accessibility of financial services. The respondent's responses to the aforementioned statements were assessed using a 5-point rating scale. The table below shows the mean score and standard deviation for all statements.

**Table 6- Descriptive Statistics of statements responsible for "Availability"**

	Mean	Std. Deviation
a21mDeposits and withdrawals	3.6875	2.99035
a21rLoans	3.3675	1.73059
a21sDemand Draft	3.0500	1.79179
a21tRTGS/NEFT	2.7425	1.73601
a21uPassbook	3.4475	1.66859
a21hSMS alert	2.5900	1.29076
a21iCredit card	2.1075	1.30775
a21jDebit card	2.3250	1.25631
a21kMortgage	2.0475	1.33780
a21lCheque book	2.2325	1.44001
a21nOverdraft	2.0600	1.33636
a21oInsurance	2.0100	1.35073
a21pLocker Facility	2.6675	1.22503
a21qATMs	3.0300	1.41744
a21aNo frill accounts/ Zero balance accounts	3.4500	1.51600
a21bMobile banking	3.5400	1.44521
a21cE-Banking	3.4600	1.51298
a21dB.C (Business Correspondent) Model	3.0150	1.58146
a21eFinancial Literacy and counselling centers	3.5025	1.28418
a21fKisan Credit Card	3.6400	1.45454
a21gGeneral Credit Card	3.4775	1.50504
a21vPension Schemes	3.6675	1.39887
a21w Self-Help groups	3.4600	1.46587
a21x Mahila banks	3.4250	1.47302
Valid N (listwise)		

Based on the data provided in the table above, it can be seen that the mean score for each criterion related to the accessibility of bank facilities ranges from 2.01 to 3.67. The convenience of banks' operation hours and the adequacy of their workers are widely acknowledged. However, a significant concern that emerges was the existence of constrained access to crucial information and the limited availability of resources for banking personnel. The reliability of the scale was evaluated by calculating Cronbach's alpha coefficient, resulting in a value of 0.8 (Table 7). The obtained value exceeds the widely acknowledged criterion of 0.7, showing that the scale exhibits a high level of reliability.

**Table 7 - Reliability Statistics**

Cronbach's Alpha	N of Items
.799	24

The twenty-four assertions were subjected to exploratory factor analysis, a data reduction approach used to group strongly connected claims into a single component. The study used principal component analysis with varimax rotation. The factor analysis yielded a solution consisting of four factors. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was computed, resulting in a value of 0.864 (Table 8). This value above the threshold of 0.5, indicating the sample size was sufficient for conducting factor analysis. Additionally, Bartlett's test of sphericity was conducted, yielding a p-value of 0.00. Based on the findings, it may be inferred that the null hypothesis, which posits that the correlation matrix of variables is an identity matrix, was rejected. Consequently, factor analysis can be conducted.

**Table 8 - KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.864
Approx. Chi-Square	12870.525
Bartlett's Test of Sphericity	Df
	276
	Sig.
	.000

All of the given asserts meet the criteria for both convergent validity and discriminant validity. Convergent validity alludes to the extent of correlation seen among variables inside a certain factor, as shown by the factor loadings. Discriminant validity asserts that a certain variable should have a higher correlation with its specified factor compared to any other factor. Table 9 displays a complete breakdown of the three components that were obtained. To provide an example, the primary component (referred to as FCT1) has nine variables, namely 21h, 21i, 21j, 21k, 21l, 21n, 21o, 21p, 21q. One may argue that each of these entities demonstrates similar characteristics and exhibits an ability to amalgamate in a structured manner. Similarly, the second factor extracted (FCT2) consisted of seven variables, namely 21a, 21b, 21c, 21d, 21e, 21f, 21g. The third component, referred to as FCT3, consists of five distinct parts, namely 21m, 21r, 21s, 21t, 21u. The fourth component FCT4 includes three components, namely, 21v, 21w, and 21x. Coefficients with values below 0.4 were removed from the analysis owing to their lack of relevance. Loadings that fall below this level are generally regarded as having no influence. The components that were obtained were designated with appropriate labels as follows: Client services, Institution-related factors, and Geographical factors. The factor loadings corresponding to each statement are shown in the following table.

**Table 9 - Results showing Factor Loadings of 'Availability'**

	Component			
	1	2	3	4
a21o Insurance	.965			
a21i Credit card	.959			
a21n Overdraft	.950			
a21k Mortgage	.947			
a21j Debit card	.928			
a21l Cheque book	.864			
a21h SMS alert	.842			
a21p Locker Facility	.780			
a21q ATMs	.548			
a21b Mobile banking		.914		
a21c E-Banking		.911		
a21e Financial Literacy and counselling centers		.904		
a21g General Credit Card		.876		
a21a No frill accounts		.851		

a21f Kisan Credit Card		.819		
a21d B.C (Business Correspondent) Model		.731		
a21r Loans			.937	
a21s Demand Draft			.935	
a21t RTGS/NEFT			.908	
a21u Passbook			.882	
a21m Deposits and withdrawals			.637	
a21w Self-Help groups				.955
a21x Mahila banks				.927
a21v Pension Schemes				.899

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 4 iterations.

**A comprehensive account of these aspects is provided in the following section.**

**(i) SERVICE DELIVERY FOR EASE**

The factor derived from the research was referred to as "services for convenience." This element comprises nine statements, namely: cheque book, automated teller machines (ATMs), insurance, credit card, debit card, locker facility, SMS alert, overdraft, and mortgage. Among the aforementioned factors, the factor loading with the highest value was seen in relation to "Insurance" (0.965) and "Credit card" (0.959), while the factor loading for "ATMs" and "Locker Facility" is comparatively lower, namely 0.548 and 0.780 respectively. This element indicates that the availability of locker facility and ATMs was readily accessible to women in Delhi NCR.

**(ii) CONTEMPORARY FINANCIAL SERVICES**

The subsequent component derived from the research pertains to contemporary financial services, namely Kisan credit cards (KCC) and no-frills accounts/zero balance accounts. Items that were covered include financial literacy and counselling centres, the B.C model, e-banking, mobile banking, and the GCC (General credit card). Among the given statements, it was seen that the factor loading for "Mobile Banking" is the highest, with a value of 0.914. On the other hand, the factor loadings for "B.C (Business Correspondent) Model" and "Kisan credit card" are comparatively lower, with values of 0.731 and 0.819 respectively. This indicates that women residing in rural regions of Punjab possess knowledge about the accessibility of Kisan Credit Cards (KCC), whereas their awareness of mobile banking and General Credit Cards (GCC) is very limited.

**(iii) FUNDAMENTAL FINANCIAL SERVICES**

The primary component, commonly referred to be Basic Financial Services, encompasses five distinct statements, namely Deposits and Withdrawals, Passbook, Loans, RTGS/NEFT, and Demand drafts. The factor loading for the statement "Loans" is the highest, with a value of 0.937. On the other hand, the factor loadings for "Deposits and Withdrawals" was identified the lowest with value of 0.637. This factor illustrates the significance of Basic Financial services in promoting financial inclusion.

**(iv) SOCIAL WELFARE INITIATIVES**

There are three statements in the final component. Self-help organizations, Mahila banks, and pension plans. The greatest factor loading is 0.955 for "Self-help groups," while the lowest is 0.927 for Pension schemes. This demonstrates that Self-help organizations are widely accessible in rural regions whereas, women in rural areas are less aware about the Pension schemes. Out of the four components that were extracted, the first factor was found to be responsible for 29.79% of the total variance found in the dataset that was made accessible (Table 10). Up to 21.95%, the second element has the potential to do so. Likewise, 15.77% and 13.46% of the variation could be explained by the third and fourth components, respectively. Consequently, when combined, the four elements were able to account for 80.98% of the overall variation within the dataset.

**Table 10 -Total Variance Explained**

Component	Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %
1	7.151	29.798	29.798
2	5.268	21.952	51.750
3	3.786	15.774	67.524
4	3.232	13.465	80.989

**(C) USAGE OF FINANCIAL SERVICES**

It has to do with how frequently, regularly, and for how long financial services are used. It focuses on how widely and deeply financial services or products are used.

**DESCRIPTIVE STATISTICS OF 'USAGE' OF FINANCIAL SERVICES**

In order to investigate how women use financial services and products, a total of 24 statements were collected. A five-point scale was used to collect answers to those assertions. The following table shows the mean score and standard deviation for each statement.

**Table 11 - Descriptive Statistics of statements responsible for "Usage"**

	Mean	Std. Deviation
a21m	3.6125	2.63338
a21r	3.3675	1.73059
a21s	3.0500	1.79179
a21t	2.7425	1.73601
a21u	3.4475	1.66859
a21h	2.5900	1.29076
a21i	2.1075	1.30775
a21j	2.3250	1.25631
a21k	2.0475	1.33780
a21l	2.2325	1.44001
a21n	2.0600	1.33636
a21o	2.0100	1.35073
a21p	2.6675	1.22503
a21q	3.0300	1.41744
a21a	3.4500	1.51600
a21b	3.5400	1.44521
a21c	3.4600	1.51298
a21d	3.0150	1.58146
a21e	3.5025	1.28418
a21f	3.6400	1.45454
a21g	3.4775	1.50504
a21v	3.6675	1.39887
a21w	3.4600	1.46587
a21x	3.4250	1.47302
Valid N (listwise)		

The Table 11 that follows makes it clearly apparent that the mean score for each question falls between 2.01 and 3.66. Delhi-NCR women living in rural regions mostly use banks to deposit and withdraw money. They are more familiar with passbooks, financial services including loans and pension plans, and business correspondent models and financial literacy centers than they are with business correspondent models and financial literacy centers. The reliability test was conducted on the scale as well, and Cronbach's alpha was computed. The result was a reasonable value of .806 (Table 12).

**Table 12 - Reliability Statistics**

Cronbach's Alpha	N of Items
.806	24

**EFA FOR "USAGE" OF FINANCIAL SERVICES**

The examination of the respondents under the study's use of financial services has been completed with the use of exploratory factor analysis (EFA). For this specific component, an exploratory factor analysis was conducted using all 24 item indicators. To extract the components, the principal component analysis approach was utilized. Factor loadings from the Rotated Component Matrix were examined. Five factors were found as a consequence of factor analysis. The measure of sampling adequacy known as Kaiser-Meyer-Olkin (KMO) was also computed. The result was 0.864 (Table 6.46), which is larger than 0.5 and indicates that the sample size was sufficient to perform factor analysis. Bartlett's test of sphericity was also run, and the results showed a p value of 0.00, allowing for the performance of factor analysis.



**Table 13 - KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.864
Approx. Chi-Square		9495.991
Bartlett's Test of Sphericity	Df	276
	Sig.	.000

The composition of each of the five extracted components is shown in Table 14. As an illustration, the first component (FCT1) consists of the 12 items (or variables), US1, US2, US3, US8, US9, US10, US12, US17, US19, and US20. Thus, we might conclude that these twelve objects prefer to move harmoniously together and share certain characteristics. Similarly, the 4 variables that made up the second factor retrieved (FCT2) were US4, US5, US6, and US7. Three components made up the third factor (FCT3): US11, US14 and US18. Additionally, the two variables US21 and US13 comprised the fourth component (FCT4), while the three variables US22, US23 and US24 made up the final factor. The factor loadings for the statements are displayed in the following table.

**Table 14 - Results showing Factor Loadings of 'Usage'**

	Component				
	1	2	3	4	5
US8SMS alert	.947				
US12Cheque book	.881				
US3E-Banking	.880				
US20RTGS/NEFT	.876				
US19Demand Draft	.870				
US10Debit card	.847				
US15Insurance	.819				
US2Mobile banking	.803				
US16Locker Facility	.785				
US9Credit card	.784				
US1No frill accounts/Zero balance accounts	.772				
US17ATMs	.746				
US5Financial Literacy and counselling centers		.926			
US4B.C (Business Correspondent) Model		.917			
US7General Credit Card		.907			
US6Kisan Credit Card		.903			
US18Loans			.927		
US14Overdraft			.901		
US11Mortgage			.841		
US21Passbook				.875	
US13Deposits and withdrawals				.869	
US24Mahila banks					.833
US23Self-Help groups					.711
US22Pension Schemes					.664

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 5 iterations.

#### (i) ADVANCED AND DIGITAL BANKING SERVICES

This component comprises twelve statements, namely: No frills accounts/Zero balance accounts, Locker facility, Debit Card, ATMs, SMS alert, Insurance, Demand draft, Cheque book, E-banking, Mobile banking, Credit Card, and RTGS/NEFT. Among the aforementioned factors, the factor loading with the highest value was seen in the category of "SMS Alert," with a loading coefficient of 0.947. Similarly, the factor loading for "Cheque Book" was also quite high, with a coefficient of 0.881. On the other hand, the factor loading for "ATMs" was comparatively lower, with a coefficient of 0.746. This suggests that women residing in Delhi-NCR predominantly utilize SMS alert services and Cheque book, while demonstrating a lesser preference for ATMs transactions.

#### (ii) RURAL BANKING

The subsequent component derived from the study has four statements: Kisan Credit Card (KCC), GCC, BC model, and Financial Literacy and Counselling Centres. Among the given statements, it can be observed that the highest factor

loading is associated with the variable "Financial Literacy and Counselling Centres," with a value of 0.926. Conversely, the variable "Kisan Credit Cards" exhibits the lowest factor loading, with a value of 0.903. This indicates that women residing in Delhi-NCR had knowledge regarding the accessibility of Financial Literacy and Counselling Centres.

### (iii) CREDIT SERVICES

The next factor consists of three statements- Loans, Overdraft and Mortgage. The maximum factor loading is of "Loans" i.e. 0.927 and least of "Mortgage" i.e. 0.841. This highlights that women in Delhi NCR avail loans frequently.

### (iv) BASIC BANKING SERVICES

The initial aspect, referred to as Basic Financial Services, encompasses two components: Deposits and Withdrawals, as well as Passbook maintenance. The factor loading for the statement "Passbook" is higher, specifically 0.875, compared to the previous factor loading of 0.869 for the statement "Deposits and Withdrawals." This feature suggested that women residing in Delhi NCR exhibit a higher propensity to engage in basic banking services, frequently visiting banks for the purposes of depositing funds or making withdrawals and to update their passbooks.

### (v) SOCIAL BANKING SERVICES

The subsequent component comprises a set of three assertions. Pension systems, self-help organizations, and Mahila banks were three notable entities that play a significant role in many socio-economic contexts. The factor loading with the highest magnitude was observed for "Mahila Banks" at 0.833, while the factor loading with the lowest magnitude was observed for "Pension Schemes" at 0.664. This suggests that knowledge about Mahila Banks was extensive among Delhi-NCR women. The total five factors extracted were capable of explaining 75.17 % of the total variance present in the available data set (Table 15). The first factor could do so to the extent of 35.38 percent, the second factor to the extent of 14.36 per cent. Similarly, the third, fourth and the fifth factors could explain 11.10 per cent, 7.27 per cent and 7.03 per cent of the variance, respectively.

**Table 15 - Total Variance explained**

Component	Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %
1	8.493	35.388	35.388
2	3.448	14.366	49.754
3	2.665	11.105	60.859
4	1.745	7.272	68.131
5	1.689	7.039	75.170

## CONCLUSION

Financial inclusion is the comprehensive term used to describe the systematic effort of granting individuals and communities the means to obtain inexpensive and suitable financial products and services. The promotion of financial inclusion for women necessitates the consideration of three fundamental elements: Availability, Accessibility, and Usage. It is imperative to provide the availability of a comprehensive array of financial products and services that can effectively address the different financial requirements of women. The aforementioned encompasses many financial instruments such as savings accounts, loans, insurance policies, and investment opportunities. Create financial products that are specifically tailored to cater to the distinct financial requirements and preferences of women. For instance, financial institutions offer savings accounts that provide flexible terms, enabling individuals to manage their funds more effectively.

Implementing strategies to establish physical branches and financial service sites in locations that are geographically accessible to women, taking into consideration their residential and occupational patterns holds particular significant in rural or neglected regions. Digital access can be utilised as a means to address the obstacles faced by women in accessing physical banking institutions. This can be achieved through the utilisation of technology, such as mobile banking and digital financial services. It is imperative to ensure that these digital services exhibit a high degree of user-friendliness and are accessible on devices that are often utilised by women. Offer financial literacy initiatives aimed at augmenting women's comprehension of the various financial services accessible to them, so enabling them to make well-informed choices and assert their agency. Provide comprehensive training and skill development initiatives aimed at empowering women to enhance their income-generating abilities and successfully manage their financial resources. Nevertheless, it is important to note that there are significant limitations to consider, such as a substantial prevalence of inactive accounts in India, particularly among the female population. The rationales behind this phenomenon remain ambiguous, and a definitive set of laws and regulations that may ensure the achievement of financial inclusion is yet to be determined, underscoring the necessity for more study in this area. It is imperative for National Financial Inclusion initiatives to

incorporate rules that effectively safeguard women's safety in relation to all types of financial transactions. The Task Force on Digital Financing of the Sustainable Development Goals (SDGs), led by the United Nations Secretary General, acknowledges that in order to enhance the attainment of Sustainable Development Goal 5 pertaining to gender equality, it is imperative to foster equality among the stakeholders within the financial sector. The various stakeholders can collaborate to enhance the financial inclusion of women, thereby making a significant contribution to their economic empowerment and general well-being by considering the dimensions of availability, accessibility, and usage of financial services.

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