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Identification and Validation of Factors of Financial Inclusion through EFA: With Special Reference to Disabled Account Holders in Lucknow

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ABSTRACT

Purpose of the study- This study primarily aims to find out factors of financial inclusion with special focus on disabled segment. This study is useful in construction of scale for measurement of financial inclusion.

Research Design- Current study is exploratory in nature. Further this study is descriptive and cross sectional.

Methodology/ Approach- Exploratory factor analysis has been adopted to attain the set objectives. Before application of exploratory analysis sample adequacy is needed to be checked to further proceed. After identification of relevant factors, reliability and validity of the constructed scale has been checked for satisfactory results.

Findings of the study- Findings shows that financial access, financial usage and financial quality are three important variable which define and measure overall financial inclusion. Considered factors have been clustered in these three variable.

Research Limitations- Present study adopts exploration method focusing on selected sample unit. Further the study is cross sectional. There is further scope for longitudinal studies. In present study, only one district of Uttar Pradesh has been considered with small sample size of 75.

Research Implication- This study has helped in scale construction to measure financial inclusion considering disabled. This study is practically and primarily beneficial for researchers and academicians to understand the research gap and potential scope for future studies also. Better understanding about associated variables and factors of this concept can also help policymakers in proper implementation of appropriate policy.

1.0 INTRODUCTION

Growing interest in the concept of 'financial inclusion' can be easily observed all around the world. Considering the positive link between financial inclusion and growth in economic terms, attainment of

globally financial access by the year 2022 has been announced by World Bank as its prime objective (Cámara, 2014). Account ownership in formal financial institution has been referred as financial inclusion (Zins, 2016). But mere accessibility in not enough. Accessibility can be the first step to financial inclusion but further extension of inclusive financing depends upon the utilization of the accessed services.

2.0 LITERATURE REVEW

Branch penetration, financial usage, saving behavior and credit penetration has been undertaken as primary and significant indicators of financial inclusion (Demirgüç-Kunt, 2012). Financial access has been identified as the most significant dimension of financial inclusion. Financial usage has been also considered but identified as lesser important dimension. In present study it has been argued that financial usage is impossible without financial outreach (Cámara, 2014). Zins (2016) has also considered formal account, formal savings and formal credit as significant and primary indicators of financial inclusion in Africa. Being a multidimensional approach, financial access, usage and quality are basic dimensions that create financial inclusion (Roa, 2015).

3.0 OBJECTIVES OF THE STUDY

The prime and only objective of the current study is to construct the scale to measure financial inclusion targeting persons with disabilities. Identification and validation of factors of financial inclusion is the main aim of this study.

4.0 RESEARCH METHODOLOGY

Current study is exploratory in nature. Further this study is descriptive and cross sectional. Quantitative analysis has been done to find the results. Exploratory factor analysis has been adopted to attain the set objectives. Before application of exploratory analysis sample adequacy is needed to be checked to further proceed. After identification of relevant factors, reliability and validity of the constructed scale has been checked for satisfactory results.

5.0 DATA GATHERING

Primary data has been gathered through questionnaire. Convenience samling technique has been undertaken for data collection. Questionnaires were distributed to 110 disabled respondents and 93 questionnaires were received back. Out of 93 questionnaires only 73 were completely and properly filled.

5.1 RESPONDENT'S PROFILE

Data has been collected from 32 OH (42.7 %) respondents, 27 HI (36 %) respondents and 16 (21.3) VI respondents. 58.7% male respondents and 41.3% female respondents have responded. 21.3 percent respondents were illiterate whereas 78.7 were literate. 54.2% respondents come from semi-urban whereas 45.8% respondents from urban localities. 79.9% respondents belong to the income group of below ten thousand rupees per month. On the other hand only 20.1% respondents earn more than ten thousand per month.

5.2 DATA ANALYSIS AND INTERPRETATION

Exploratory factor analysis which is generally known as a technique of data reduction, have been applied to attain the undertaken objective of the current study. For that sampling adequacy is desirable and required to check for further analysis. Therefore KMO test has been applied which shows the satisfactory value of .741 (Table 01). Value of KMO test, more than .7 indicates the adequacy of samples which has been attained. Further significance value is .000 < .05 (Table 01). Bartlett's test indicates that considered variables are related and sufficiently eligible for factor analysis. Correlation matrix is absolutely not mirrored to identity matrix. Hence analysis can be further proceed with factor analysis. After checking sample adequacy and consistency, Principal component analysis has been applied as extraction method. Communality more than .5 is acceptable and more than .7 is ideal. Table-02 shows that the calculated communality value, which is showing the variance in each variable because of considered factors, are enough satisfactory. Table-03 presents that 74.20 percent variance are being explained by first three factors. Whereas first two factors are able to explain 56.62 percent variance which is itself more than 50 percent. Table-04 concluded that 11 considered factors have contributed in construction of three variables. Component 1 shows 'financial access', component 2 shows 'financial usage' and component 3 shows 'financial quality' (Table-04)

Table 01- KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.741
Bartlett's Test of Sphericity	Approx. Chi-Square	448.827
	df	55
	Sig.	.000

Table 02- Communalities

	Initial	Extraction
FA1	1.000	.822
FA2	1.000	.786
FA3	1.000	.747
FA4	1.000	.798
FU1	1.000	.637
FU2	1.000	.794
FU3	1.000	.715
FU4	1.000	.736
FQ1	1.000	.745
FQ2	1.000	.730
FQ3	1.000	.762

Extraction Method: Principal Component Analysis.

Table 03- Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.419	31.081	31.081	3.419	31.081	31.081	3.112	28.294	28.294
2	2.810	25.548	56.629	2.810	25.548	56.629	2.863	26.030	54.323
3	2.043	18.571	75.200	2.043	18.571	75.200	2.296	20.877	75.200
4	.674	6.124	81.324						
5	.443	4.026	85.349						
6	.389	3.536	88.886						
7	.358	3.255	92.141						
8	.281	2.557	94.698						
9	.243	2.206	96.904						
10	.199	1.809	98.713						
11	.142	1.287	100.000						

Extraction Method: Principal Component Analysis.

Table 04- Rotated Component Matrix[a]

	Component		
	1	2	3
FA1	**.903**	-.070	.050
FA2	**.881**	.090	.035
FA3	**.848**	.165	.008
FA4	**.883**	-.080	.107
FU1	.009	**.755**	.258
FU2	.034	**.879**	.139
FU3	.004	**.845**	-.030
FU4	.053	**.854**	-.067
FQ1	-.010	.127	**.854**
FQ2	.114	.113	**.839**
FQ3	.062	-.028	**.870**

- Extraction Method: Principal Component Analysis.
- Rotation Method: Varimax with Kaiser Normalization.
- Rotation converged in 4 iterations.

Table 05- Description of considered factors

	Questions/ Items
FA1	It is easy and convenient to open bank accont.
FA2	Financial counselling service is sccessible.
FA3	Credit availability can be easily availed.
FA4	Burden of KYC norms have been reduced now.

FU1	Bank account has been used by me on regular basis.
FU2	Mobile banking/ Net banking has been conveniently used.
FU3	UPI based transactions have been preferred now.
FU4	Visits to bank branch are frequent
FQ1	Quality of financial services has been properly maintained
FQ2	Banking services through online mode, has increased the quality of bank services.
FQ3	Financial services and products offered by bank, are suitable and useful.

5.3 VALIDATING CONSTRUCTED SACLE

After finding factors and labeling variable of financial inclusion, constructed scale has been also validated through reliability and validity check. To check the reliability, cronbach's alpha has been applied. Calculated value of chronbach's alpha of all three variables are above .7 which is completely ideal (Table-05). Table-04 helped in establishment of convergent validity also. High factor loadings have ensured good convergent validity. Further Table-06 has confirmed the convergent as well as discriminant validity of the constructed scale.

Table 06- Reliability Statistics

Variable	Cronbach's Alpha	N of Items
Financial Access	.903	4
Financial Usage	.860	4
Financial Quality	.827	3

Table 07- Correlations

		FA1	FA2	FA3	FA4	FU1	FU2	FU3	FU4	FQ1	FQ2	FQ3
FA1	Pearson Correlation	1	.771**	.622**	.777**	.025	-.059	-.040	.000	.015	.096	.137
	Sig. (2-tailed)		.000	.000	.000	.828	.613	.734	1.000	.902	.415	.241
	N	75	75	75	75	75	75	75	75	75	75	75
FA2	Pearson Correlation	.771**	1	.691**	.649**	.049	.112	.076	.134	.036	.147	.092
	Sig. (2-tailed)	.000		.000	.000	.677	.338	.516	.251	.760	.208	.431
	N	75	75	75	75	75	75	75	75	75	75	75
FA3	Pearson Correlation	.622**	.691**	1	.698**	.019	.092	.145	.156	.051	.180	.004
	Sig. (2-tailed)	.000	.000		.000	.869	.431	.214	.181	.663	.122	.970
	N	75	75	75	75	75	75	75	75	75	75	75

	Pearson Correlation	**.777****	**.649****	**.698****	1	.075	-.048	-.078	-.040	.071	.135	.152
FA4	Sig. (2-tailed)	**.000**	**.000**	**.000**		.523	.681	.505	.733	.546	.249	.193
	N	75	75	75	75	75	75	75	75	75	75	75
	Pearson Correlation	.025	.049	.019	.075	1	**.599****	**.537****	**.572****	.190	.192	.170
FU1	Sig. (2-tailed)	.828	.677	.869	.523		**.000**	**.000**	**.000**	.097	.098	.069
	N	75	75	75	75	75	75	75	75	75	75	75
	Pearson Correlation	-.059	.112	.230*	-.048	**.599****	1	**.677****	**.664****	.203	.269*	.071
FU2	Sig. (2-tailed)	.613	.338	.047	.681	**.000**		**.000**	**.000**	.080	.019	.545
	N	75	75	75	75	75	75	75	75	75	75	75
	Pearson Correlation	-.040	.076	.145	-.078	**.537****	**.677****	1	**.588****	.080	.088	-.028
FU3	Sig. (2-tailed)	.734	.516	.214	.505	**.000**	**.000**		**.000**	.494	.451	.813
	N	75	75	75	75	75	75	75	75	75	75	75
	Pearson Correlation	.000	.134	.156	-.040	**.572****	**.664****	**.588****	1	.107	.030	-.074
FU4	Sig. (2-tailed)	1.000	.251	.181	.733	**.000**	**.000**	**.000**		.361	.797	.531
	N	75	75	75	75	75	75	75	75	75	75	75
	Pearson Correlation	.015	.036	.051	.071	.044	.203	.080	.107	1	**.633****	**.612****
FQ1	Sig. (2-tailed)	.902	.760	.663	.546	.755	.080	.494	.361		**.000**	**.000**
	N	75	75	75	75	75	75	75	75	75	75	75
	Pearson Correlation	.096	.147	.180	.135	.192	.169	.088	.030	**.633****	1	**.599****
FQ2	Sig. (2-tailed)	.415	.208	.122	.249	.098	.079	.451	.797	**.000**		**.000**
	N	75	75	75	75	75	75	75	75	75	75	75
	Pearson Correlation	.137	.092	.004	.152	.270	.071	-.028	-.074	**.612****	**.599****	1
FQ3	Sig. (2-tailed)	.241	.431	.970	.193	.119	.545	.813	.531	**.000**	**.000**	
	N	75	75	75	75	75	75	75	75	75	75	75

**. Correlation is significant at the 0.01 level (2-tailed). &*. Correlation is significant at the 0.05 level (2-tailed).

6.0 CNCLUSION

Present study has concluded that financial access, financial usage and financial quality are three significant variable clustering by considered 11 associated factors. Searched variables are essential to consider while measuring financial inclusion. These are actually three pillars of this undertaken concept, usually referred as 'financial inclusion'.

7.0 RESEARCH IMPLICATION

This study has helped in scale construction to measure financial inclusion considering disabled. This study is practically and primarily beneficial for researchers and academicians to understand the research gap and potential scope for future studies also. Better understanding about associated variables and factors of this concept can also help policymakers in proper implementation of appropriate policy.

8.0 LIMITATIONS OF THE STUDY

Present study is limited to a small sample of 75 respondents. Further this study belongs to Lucknow city. Disabled persons have been approached only. Present study adopted exploration method focusing on selected sample unit. Further the study is cross sectional. There is further scope for longitudinal studies.

9.0 SCOPE FOR FUTURE STUDIES

To measure financial inclusion, only three variables (financial access, financial usage and financial quality) and associated factors have been considered in present study. Scale can be extended through testing and considering more factors. Further sample can be increased for more appropriate generalization of results. With access, usage and quality, financial impact can also be tested as an important measure of financial inclusion. Determinants of financial inclusion can vary as the result of variation in sampling unit. Therefore diversified sampling units can be undertaken in future studies.

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