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RESEARCH NOTE

An Empirical Study on Measuring Level of Financial Inclusion among Districts of Haryana

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ABSTRACT

Financial inclusion is one of the most pervasive concepts nowadays, especially in the banking sector. It simply means the involvement of every section of the society, no matter what, with the financial system of the country for basic banking services such as bank accounts, savings facilities, and credit facilities for basic needs such as health care, good education, farming needs, etc. at bare minimum cost. The financial inclusion index is a parameter to find the level of financial inclusion in a particular area such as any district, state, or country. The level of financial inclusion elaborates the scenario of banking parameters in the area where it is to be evaluated. Hence, further amendments can be made by the various banking committees to increase the state of financial inclusion in that area. Financial inclusion of each district of Haryana state has been evaluated in the study to foresee the levels i.e. high, medium, and low financial inclusion. The results showed that there is only one district viz. Gurugram has the highest level of financial inclusion. Rest all the districts lay in the medium or low level of financial inclusion which is elaborated in the results. Further, regression analysis has been analysed to see the effect of banking parameters on financial inclusion.

Keywords: Financial inclusion, banks, regression, availability, penetration, usage

JEL codes: G21, G39

I

INTRODUCTION

The concept of inclusion is very old in various countries like India which began decades ago. Financial inclusion purely means involving every section of the society with financial services at very low and inexpensive prices. Financial inclusion was expounded by the committee of Rangarajan in its report (2008) 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." In the present scenario, it can be seen as a tool to elevate the position of poor and underprivileged people. It helps susceptible sections of the society get good financial education, health care facilities, access to financial services, etc. The Reserve Bank of India (RBI) is the chief governing body for financial inclusion in India. Many steps were taken by the RBI in the past few years to promote financial inclusion in India such as opening branches in the unbanked areas, expansion of Automated Teller Machines (ATMs), financial literacy programs, employing facilitators for doorstep delivery of financial services, launching no-frill accounts, etc. A composite Financial Inclusion Index (FI-Index) is constructed by the Reserve Bank of India annually to see the extent of financial inclusion across India. The index is

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based on various parameters such as availability, ease of access, usage, and quality of services. The annual FI-Index reported in March 2021 was 53.9 out of 100 whereas for March 2024 it stands out at 64.2. As per reports, the contribution of the usage dimension is the major factor in the improvement of financial inclusion. The data for the index covered number of bank branches, deposit accounts, credit accounts, and amount of credits as well as deposits. Population data was obtained from the census 2011. (Sarma, 2008) developed a cross-country multidimensional Financial Inclusion Index (FII) by using the United Nations Development Programme (UNDP) methodology of index creation. The researcher evaluated an inclusive financial inclusion index of various countries using various variables such as number of bank accounts per one-thousand adults, number of bank branches per one-thousand adults, amount of deposits and credit as a proportion of Gross Domestic Product (GDP), and out of fifty-five countries India secured thirty first rank with a cumulative score of 0.155 on the list of financial inclusion index. (Mehrotra *et al*., 2009) computed the level of financial inclusion in various Indian states by organizing an inclusive FII by UNDP methodology of Human Development Index (HDI) for the years 2002 and 2006. The results for both the years stated that Punjab ranked first and Maharashtra ranked last in which they used four dimensions namely coverage and availability of banking services, input and output of banking industries. Pal and Vaidya (2009), anticipated FII for 21 Indian states from the year 1981 to 2017 by using various dimensions viz. bank offices per ten lakh people, bank offices per thousand square kilometres, number of deposits accounts per one-thousand people, number of credit accounts per one-thousand people, deposit and credit amount as a percentage to income in which Delhi obtained first rank. (Chattopadhyay, 2011) examined the level of financial inclusion for twenty-three states in India with a special focus on West Bengal. Only three states viz. Karnataka, Kerala, and Maharashtra fit in the category of high financial inclusion with a cumulative score of greater than 0.5. According to the CRISIL (2013) report, Haryana stood at 16th rank out of all districts with the inclusix score of 53.2/100 in financial inclusion parameters that were taken for the study. While, in CRISIL's (2018) report, it stood at 13th rank with the inclusix score of 67.7 which showed the improvement in branch, credit, deposit, and insurance penetration in Haryana.

II

LITERATURE REVIEW

Sarma (2008) developed a multidimensional financial inclusion index for cross-country analysis by using UNDP methodology of index creation. The researcher used the variables namely number of bank accounts per 1,000 adults, number of bank branches per 1,000 adults, amount of deposits and credit as a proportion of GDP. Pal and Vaidya (2009) proposed a financial inclusion index for 21 Indian states from the year 1981 to 2017 by using various parameters namely bank offices per 10 lakh people, bank offices per 1,000 sq. kilometres, number of deposits accounts per 1,000 people, number of credit accounts per 1,000 people, deposits'

amount as a percentage to income and credits' amount as a percentage to income. Chattopadhyay (2011) observed the level of financial inclusion for 23 states in India with special focus on West Bengal. Three states namely Karnataka, Kerala and Maharashtra occupied the category of high financial inclusion with cumulative score of more than 0.5. Andhra Pradesh, Haryana, Himachal Pradesh, Punjab and Tamil Nadu occupied the category of moderate financial inclusion with a cumulative score from 0.3 to 0.5. Rest of the states were kept in the category of low financial inclusion with a cumulative score of less than 0.3. (Kodan and Chikkara, 2011) examined the status of financial inclusion in Haryana. Average compound growth rate calculated from 2001 to 2009 in the study revealed that economy of Haryana has made significant progress in financial inclusion. Kuri and Laha (2011) used the data on banking availability, penetration and usage dimension to find out the financial inclusion index for India. Study revealed that Chandigarh secured highest rank while Manipur obtained the lowest rank. Haryana obtained 14th rank with index score of 0.197. (Kunt and Klapper, 2012) studied the level of financial inclusion across world by using various indicators linked to insurance, savings, credit and payment and found that approximately fifty per cent of the adults across had access to formal financial system. (Gupta *et al*., 2014) examined financial inclusion coverage in 28 Indian states. The results disclosed that states which had high level of financial inclusion had also high level of income. (Bajrang, 2015) measured the degree of financial inclusion in Haryana among rural households and disclosed that ninety per cent of households had access to bank accounts but the usage rate was only sixty seven per cent. He also calculated FII for the state of Haryana by using three dimensions namely banking availability, penetration and usage of banking services. Palwal occupied last rank while Bhiwani secured the first rank. (Chaudhary, 2017) calculated an inclusive FII for the years 2006 to 2016 which disclosed a significant progress regarding financial inclusion in the state of Haryana. (Sushila, 2018) reviewed financial inclusion among below poverty line households in Haryana and discovered that approximately ninety-eight per cent of the individuals had a savings bank account but only thirty-nine per cent respondents were regularly using the accounts. (Poonam, 2019) examined the level of financial inclusion in Hisar district of Haryana and observed a remarkable progress in the three dimensions i.e. number of bank offices, deposit amount and credit amount.

III

RESEARCH METHODOLOGY

Haryana is a state which is located in Northern India and is divided into twenty-one districts namely Ambala, Bhiwani, Faridabad, Fatehabad, Gurugram, Hisar, Jhajjar, Jind, Kaithal, Karnal, Kurukshetra, Mahendragarh, Mewat, Palwal, Panchkula, Panipat, Rewari, Rohtak, Sirsa, Sonipat and Yamunanagar. The status of financial inclusion was calculated for each district of Haryana. Secondary data related to FII (2021) was collected from the EPWRF (Economic and Political Weekly

Research Foundation) and Quarterly Statistics on Deposits and Credits of Scheduled Commercial Banks, RBI. Further, a hypothesis was framed regarding the impact of three dimensions (availability, penetration, and usage) on FII where β_1 = Coefficient of availability dimension, β_2 = Coefficient of penetration dimension, and β_3 = coefficient of usage dimension.

$$H_0\text{- } \beta_1, \beta_2, \beta_3 = 0$$

$$H_1\text{- } \beta_1, \beta_2, \beta_3 \neq 0$$

The extent of financial inclusion in the state of Haryana has been determined through FII in the present study. Three dimensions were considered for framing FII viz. availability of the banking services, banking penetration, and usage of the banking facilities. These dimensions comprised of various parameters such as number of bank branches, number of ATMs, number of accounts, etc. Equal weights were assigned to each parameter. The FII was calculated through the following steps:

1) **Identification of parameters for each dimension**- The following dimensions are used for the construction of the FII:

a) **Availability**: The parameter considered in the calculation of the availability dimension is the number of bank branches per 10,000 population.

b) **Penetration**: The number of bank accounts (a total of savings and credit accounts) as a proportion of the total population is considered as the parameter of banking penetration.

c) **Usage**: The Outstanding credit amount and deposit amount to find out the credit-deposit ratio in every district of Haryana.

2) **Assigning the weights and determining the indices of each indicator**- an equal-weighted method was used to assign the weights for each dimension. Equal weight (i.e. 1) was assigned for all three dimensions for fair calculation of each dimension, as each of them has equal importance in FII. Zero can't be assigned for the calculation of index values as weight is the multiple for the dimension measurement i.e. Ai-mi/ Mi-mi. Further calculations were performed on MS- Excel to find out the values of A1 and A2 to calculate the final value of FII.

TABLE 1. PARAMETERS RELATED TO FII DIMENSIONS

Dimensions	**Availability**	**Penetration**	**Usage**
Parameter	Number of bank branches as per 10,000 population (D1)	Number of bank account as per proportion of total population (D2)	Credit-deposit ratio (D3)
Weight assigned (Wi)	1	1	1

3) Construction of financial inclusion index (FII)- FII is being constructed on the basis of compilation of indices of above three dimensions. The index is the simple weighted average of the indices of all dimensions. For the making index for each component of financial inclusion, the method is similar to that used by United Nation Development Programme (UNDP) for computation of some well-known development indexes such as the Gender related Development Index (GDI), the Human Development Index (HDI) and the Human Poverty Index (HPI). The index of i^{th} component of financial inclusion is computed as

$$Di = Wi\frac{Ai - mi}{Mi - mi}$$

(i= 1,2,3….n)

Where,

W_i = weight assigned to the dimension

A_i = actual value of the i^{th} component

m_i = minimum value among of the component among all the districts

M_i = maximum possible value of i^{th} component

The index values vary from zero to one. Zero represents the absence of financial inclusion in that area while one belongs to a complete state of financial inclusion. Likewise, all values of D_1, D_2 and D_3 were measured and compiled to form one index, as they all represent each dimension for FII. The index was then measured by the normalized inverse Euclidean distance of the point d ((from the ideal point I = (w_1, w_2, w_3)). Empirically, the formula is

$$A_1 = \frac{\sqrt{(d_1)^2+(d_2)^2+(d_3)^2}}{\sqrt{(w_1{}^2+w_2{}^2+w_3{}^2)}}$$

A1 postulates the average of the Euclidian distance between 0 and X. If the value of A1 is high then it means that there is more financial inclusion. For simplification, all dimensions were given equal weights w_i= 1 for all. In this case, the ideal situation is represented by the point I = (1, 1, 1) in the n-dimensional space and the formula for FII will be

$$A_2 = 1 - \frac{\sqrt{(w_1-d_1)^2+(w_2-d_2)^2+(w_3-d_3)^2}}{\sqrt{(w_1{}^2+w_2{}^2+w_3{}^2)}}$$

In the above formula, the numerator of the second expression was the Euclidean distance of d= (d1, d2, d3) from the ideal point w = (w1, w2, w3), normalizing it by the denominator and subtracting from 1 gives the inverse normalized distance. The normalization was done in order to make the value lie between 0 and 1 and the inverse distance was considered so that the higher value of the FII corresponds to higher financial inclusion. For simplification, all dimensions

were given equal weights wi= 1 for all. In this case, the ideal situation is represented by the point I = (1, 1, 1) in the n-dimensional space and the formula for FII will be

$$A2 = 1 - \frac{\sqrt{(w_1-d_1)^2+(w_2-d_2)^2+(w_3-d_3)^2}}{\sqrt{(3)}}$$

Here the value of the index takes a value zero for no financial inclusion and unity for complete financial inclusion. The major advantage of this index is that it can be used to compare the extent of financial inclusion at various levels of aggregation and different points of time.

$$FII = \frac{1}{2}(A1+A2)$$

On the basis of FII value, all considered states have been classified into three categories i.e.

i) $0.5 < FII \leq 1$ – high financial inclusion

ii) $0.3 \leq FII < 0.5$ – medium financial inclusion

iii) $0 \leq FII < 0.3$ – low financial inclusion

Further, multiple regression was applied to analyse the impact of financial inclusion's dimensions (D1, D2, and D3) on financial inclusion. The equation used for regression analysis was

$$Y = \beta_o + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3$$

Where

Y= Financial inclusion index

β_o= intercept

β_1, β_2, β_3= Coefficients of the independent variables and

X_1, X_2, X_3 = Independent variables (Availability (D1), penetration (D2) and usage (D3).

IV

RESULTS AND DISCUSSION

Three dimensions have been taken for the study to measure the financial inclusion among the districts of Haryana. Those three dimensions are availability, penetration, and usage. The parameters taken for each dimension have been mentioned in the research methodology. Tables 2, 3, and 4 show the values and ranks for each district under availability, penetration, and usage dimension respectively. While TABLE 5 has revealed the results of level of financial inclusion for each district of Haryana.

TABLE 2: DISTRICT WISE AVAILABILITY DIMENSION IN HARYANA (March 2021)

District	Population	Branches	Number of bank branches per 10,000 population	D1 (Availability)	Rank
Ambala	1128350	274	2.43	0.37	3
Bhiwani	1634445	158	0.97	0.05	20
Faridabad	1809733	332	1.83	0.24	11
Fatehabad	942011	160	1.70	0.21	13
Gurugram	1514432	789	5.21	1.00	1
Hisar	1743931	278	1.59	0.19	14
Jhajjar	958405	171	1.78	0.23	12
Jind	1334152	173	1.30	0.12	18
Kaithal	1074304	169	1.57	0.18	16
Karnal	1505324	332	2.21	0.32	5
Kurukshetra	964655	230	2.38	0.36	4
Mahendragarh	922088	126	1.37	0.14	17
Mewat	1089263	83	0.76	0.00	21
Palwal	1042708	113	1.08	0.07	19
Panchkula	561293	228	4.06	0.74	2
Panipat	1205437	245	2.03	0.29	8
Rewari	900332	181	2.01	0.28	9
Rohtak	1061204	222	2.09	0.30	6
Sirsa	1295189	207	1.60	0.19	15
Sonipat	1450001	297	2.05	0.29	7
Yamunanagar	1214205	227	1.87	0.25	10

*Charkhi Dadri is not included in the list as it was not formed during the census 2011.
Source: Census 2011 and Quarterly Statistics on Deposits and Credit of Scheduled Commercial Banks, RBI. The researcher's calculation is based on the secondary data.

As per Table 2, the highest number of bank branches per 10,000 population lies in Gurugram with a value of 5.21, whereas the lowest number of branches per 10,000 population lies in Mewat district with a dimension value of 0.76. Only two districts i.e. Gurugram and Panchkula have values more than 0.5 of availability dimension. Other districts namely Ambala, Bhiwani, Faridabad, Fatehabad, Hisar, Jhajjar, Jind, Kaithal, Karnal, Kurukshetra, Mahendragarh, Palwal, Panipat, Rewari, Rohtak, Sirsa, Sonipat, Yamunanagar have values lesser than 0.5 under availability dimension. Mewat stood at the last rank with a value of 0.00.

As per Table 3, the highest number of total accounts as per the proportion of the total population lie in Gurugram district with the value of 7.05. Whereas lowest number of accounts per proportion of population lie in the Mewat district of Haryana

with a value of 1.09. Only Gurugram has hit a value above 0.5 for penetration dimension, while rest of the districts had a value less than 0.5. Mewat here stood at last rank with a value 0.00 of penetration dimension.

TABLE 3. DISTRICT WISE PENETRATION DIMENSION IN HARYANA (March 2021)

Districts	Population (P)	Savings accounts (No.)	Credit accounts (No.)	Total accounts (No.) (A)	A/P	D2 (Penetration)	Rank
Ambala	1128350	2696731	313233	3009964	2.67	0.26	4
Bhiwani	1634445	1774215	214827	1989042	1.22	0.02	20
Faridabad	1809733	4652256	447090	5099346	2.82	0.29	3
Fatehabad	942011	1607794	212281	1820075	1.93	0.14	15
Gurugram	1514432	9400694	1269225	10669919	7.05	1.00	1
Hisar	1743931	2982251	381989	3364240	1.93	0.14	14
Jhajjar	958405	1623776	177870	1801646	1.88	0.13	16
Jind	1334152	1925465	240807	2166272	1.62	0.09	18
Kaithal	1074304	2011339	219424	2230763	2.08	0.17	12
Karnal	1505324	3101382	418200	3519582	2.34	0.21	7
Kurukshetra	964655	2044373	277102	2321475	2.41	0.22	6
Mahendragarh	922088	1556165	132807	1688972	1.83	0.12	17
Mewat	1089263	1123892	63349	1187241	1.09	0.00	21
Palwal	1042708	1529490	130948	1660438	1.59	0.08	19
Panchkula	561293	1976784	211139	2187923	3.90	0.47	2
Panipat	1205437	2392934	296617	2689551	2.23	0.19	10
Rewari	900332	1970259	264877	2235136	2.48	0.23	5
Rohtak	1061204	2195266	261591	2456857	2.32	0.21	8
Sirsa	1295189	2456702	302368	2759070	2.13	0.17	11
Sonipat	1450001	2632303	243167	2875470	1.98	0.15	13
Yamunanagar	1214205	2423259	276130	2699389	2.22	0.19	9

*Charkhi Dadri is not included in the list as it was not formed during the census 2011.
Source: Census 2011 and Quarterly Statistics on Deposits and Credit of Scheduled Commercial Banks, RBI and EPW Research Foundation. The researcher's calculation is based on the secondary data.

As per Table 4, the highest value of credit and deposit ratio lies in district Kaithal with a value of 0.97 which shows that there is less gap between credit given and deposit amount in the banks. While, lowest value of the credit-deposit ratio lies in district Rewari of Haryana with a value of 0.37, which states that there is a huge

amount of deposits in banks while less credit is given by the banks as per the population of the district.

TABLE 4. DISTRICT WISE USAGE DIMENSION IN HARYANA (March 2021)

Distt	Deposit (₹ crores)	Credit (₹ crores)	Credit/ deposit	D3 (Usage)	Rank
Ambala	21612	8987	0.42	0.08	20
Bhiwani	8268	5404	0.65	0.47	8
Faridabad	53822	23787	0.44	0.12	15
Fatehabad	6076	5741	0.94	0.95	2
Gurugram	243642	107264	0.44	0.12	16
Hisar	18289	15581	0.85	0.80	6
Jhajjar	12142	5315	0.44	0.12	17
Jind	8164	6451	0.79	0.70	7
Kaithal	6846	6658	0.97	1.00	1
Karnal	18562	17187	0.93	0.92	5
Kurukshetra	13168	7299	0.55	0.31	11
Mahendragarh	7679	3270	0.43	0.10	19
Mewat	2811	1761	0.63	0.43	9
Palwal	5755	2807	0.49	0.20	13
Panchkula	34721	16018	0.46	0.16	14
Panipat	14613	13697	0.94	0.94	3
Rewari	13958	5121	0.37	0.00	21
Rohtak	18629	9164	0.49	0.21	12
Sirsa	9397	8766	0.93	0.93	4
Sonipat	21168	9222	0.44	0.11	18
Yamunanagar	14241	8144	0.57	0.34	10

*Charkhi Dadri is not included in the list as it was not formed during the census 2011.
Source: Quarterly Statistics on Deposits and Credit of Scheduled Commercial Banks, RBI. The researcher's calculation is based on the secondary data.

Many districts lied above the range of 0.5 namely Kaithal, Fatehabad, Panipat, Sirsa, Karnal, Hisar, and Jind. Districts Bhiwani, Kurukshetra, Mewat, and Yamunanagar have values between 0.3 and 0.5. Rewari stood at last rank for usage dimension with a value 0.00.

Table 5 states the results calculated for FII for all the districts of Haryana encompassing the three dimensions i.e. availability (D1), penetration (D2), and usage

(D3). Thereafter, the level of financial inclusion i.e. high, medium, and low was calculated by the FII score.

TABLE 5. DISTRICT WISE FINANCIAL INCLUSION INDEX (FII) STATUS OF HARYANA

Distt	D1 (Availability)	D2 (Penetration)	D3 (Usage)	FII (Index)	Rank	Category
Ambala	0.37	0.26	0.08	0.25	12	Low financial inclusion ($0 \leq FII < 0.3$)
Bhiwani	0.05	0.02	0.47	0.21	15	
Faridabad	0.24	0.29	0.12	0.22	14	
Jhajjar	0.23	0.13	0.12	0.16	19	
Kurukshetra	0.36	0.22	0.31	0.30	10	
Mahendragarh	0.14	0.12	0.10	0.12	20	
Mewat	0.00	0.00	0.43	0.18	17	
Palwal	0.07	0.08	0.20	0.12	21	
Rewari	0.28	0.23	0.00	0.18	18	
Rohtak	0.30	0.21	0.21	0.24	13	
Sonipat	0.29	0.15	0.11	0.19	16	
Yamunanagar	0.25	0.19	0.34	0.26	11	
Fatehabad	0.21	0.14	0.95	0.45	6	Medium financial inclusion ($0.3 \leq FII < 0.5$)
Hisar	0.19	0.14	0.80	0.39	8	
Jind	0.12	0.09	0.70	0.33	9	
Kaithal	0.18	0.17	1.00	0.46	4	
Karnal	0.32	0.21	0.92	0.48	2	
Panchkula	0.74	0.47	0.16	0.46	5	
Panipat	0.29	0.19	0.94	0.48	3	
Sirsa	0.19	0.17	0.93	0.44	7	
Gurugram	1.00	1.00	0.12	0.65	1	High financial inclusion ($0.5 < FII \leq 1$)

Source: Authors' estimation

The results shown in Figure 4 revealed that Gurugram is the only district to have an FII score of more than 0.5 among the twenty-one districts of Haryana. Eight districts namely Karnal, Panipat, Kaithal, Panchkula, Fatehabad, Sirsa, Hisar, and Jind were covered in the range of medium level of financial inclusion. Remaining all the twelve districts lies in the category of low level of financial inclusion. We can see from TABLE 2 that district Gurugram has the highest number of bank branches per 10,000 people i.e. it ranked number 1 in availability dimension. It is not sufficient to have only the availability of bank branches in the area but there should also be the

proportion of users (or we can say number of accounts) as per the population. Gurugram (from Table 3) also has the highest number of accounts (savings and credit) among all the districts as per the proportion of the total population. There is availability of banks and users but the usage dimension (credit-deposit ratio) is less in Gurugram which shows that savings are more but there is less credit facilities given by banks. Whereas, if we observe the case of district Mewat, the scenario is almost the opposite. There are less number of bank branches and less number of total accounts as per the population, which is why it stood last in the FII. But one interesting fact was found in the study that the credit-deposit ratio in Mewat was quite good than in Gurugram i.e. 0.43 which stated that there is less gap between credit and deposit amount. Almost similar findings to present study were found by Poonam (2019). The researcher revealed in the study of calculating the index of financial inclusion that Gurugram stood at first rank among all the districts with high levels of financial inclusion, while Mewat stood at last with the lowest level of financial inclusion. Further, regression analysis was performed to confirm the effect of independent variables viz. availability, penetration, and usage on financial inclusion in overall Haryana.

TABLE 6. REGRESSION ANALYSIS TO STUDY THE IMPACT OF D1, D2, AND D3 ON FII.

Particulars	Coefficient (Beta)	p-value
Intercept	0.02	0.000
D1 (Availability)	0.35	0.000*
D2 (Penetration)	0.34	0.000*
D3 (Usage)	0.24	0.000*

R- square= 0.99, Adjusted R-square= 0.98
*-Significant at 5% level.

Empirically, the estimating equation for regression was:

$$Y = 0.02 + 0.35\ (D1) + 0.34\ (D2) + 0.24\ (D3)$$

The null hypothesis is being rejected here as results in Table 6 revealed that the beta values of all coefficients were not equal to 0. Thus, all three dimensions had a significantly positive impact on financial inclusion. The results indicated that an increase in the availability, penetration, and usage dimension by 1 unit can raise FII by 0.35, 0.34, and 0.24 times respectively on average, keeping other variables constant. Similarly, the FII status by. Thus, it can be inferred from the above tabulation that complete financial inclusion demands more reach of the banks, enlarged bank users, and more volume of credit and deposit amount among the population. Similar findings were revealed by Lakshmanasamy (2010) where it was observed that banking penetration, availability, and usage of banking services were statistically significant at 1, 5, and 10 percent levels for five quantiles. He noticed that the effect increased with the rise in quantile levels in the distribution and also revealed that with the increase in availability, penetration, and usage dimension the

status of financial inclusion can be increased. Similar findings were revealed by Suci and Rikumahu (2021).

V

CONCLUSION

the data related to parameters of FII is not available for later years. The paper has shown the highest and lowest-ranked districts in availability, penetration, and usage dimensions as well (Sarma, 2008). District-wise FII was calculated with the consideration of the three ranges i.e. 0 to 0.3 (low level), > 0.3 to < 0.5 (medium level), and > 0.5 (high level). Only Gurugram among all the districts lied in the high level of financial inclusion. The districts included in the medium range of financial inclusion were Karnal, Panipat, Kaithal, Panchkula, Fatehabad, Sirsa, Hisar, and Jind. Whereas, the districts in the low range of financial inclusion were Kurukshetra, Yamunanagar, Ambala, Rohtak, Faridabad, Bhiwani, Sonipat, Mewat, Rewari, Jhajjar, Mahendragarh and Palwal. The major constraints found in low FII values were less number of bank branches as per the population, less number of bank accounts or customers due to low financial awareness, accessibility, proximity, and less credit versus deposit ratio. A similar suggestion was given by Alam and Rashid (2023) in the case study of Kashmir Valley. They suggested that there should be an increase in the new bank branches in remote areas for financial well-being. It was found that all the dimensions have a positive impact on financial inclusion which demands more number of banks according to the population, large number of bank users, and more volume of credit and deposit amount among the population. The results of regression analysis revealed that 1 unit increase in availability, penetration and usage dimensions will increase the financial inclusion status in Haryana.

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