

Index of Financial Inclusion : A Study of Haryana State



Dr. Lalit Manopati
Lecturer in Commerce
GSSS Pabra, Hisar(Haryana)
Email: lalitmanopati06@gmail.com

Abstract

Depending on the stage of development, the degree of financial inclusion differs from country to country or region to region. The study has focused on the progress of various initiatives taken by the central and state government for an inclusive financial system. While measuring the level of financial inclusion in Haryana state, the study has focused on the banking, deposit and credit dimension of financial inclusion. According to the values of the index, Gurugram and Panchkula are some of the districts having wider extent of financial inclusion as compare to other districts of the state. Faridabad, Karnal and Ambala fall under the category of medium financial inclusion, whereas the extent of financial inclusion is found to be significantly low in other remaining districts of the state. After analysing the index of financial inclusion, it can be concluded that some districts have increased the banking services in the last few years due to increasing in banking facilities in these districts.

Keywords: Index, IFI, Financial Inclusion, Banking services, Districts, Haryana.

Introduction

Finding innovative ways to provide banking and financial services to the poor may instigate inclusive growth for the developing countries. Depending on the stage of development, the degree of financial inclusion differs from country to country, region to region, state to state or district to district. To measure the level of financial inclusion the index includes various basic dimensions of an inclusive financial system. The bank accounts may be all types of deposit and credit accounts but generally only the saving accounts are considered as more realistic measure (Thorat, 2007). Although, as a measure of financial inclusion based on proportion of adults or households having a bank account ignore some important aspects of an inclusive financial system. These aspects are related to the usage and quality of financial services. Having a bank account may not imply that the account is utilised adequately (Kempson et al, 2004). This emphasizes another dimension of financial inclusion- 'Usage'. The policy maker of different countries uses various indicators of financial sector to measure usages of bank accounts. The commonly used indicators are: geographic branch penetration, loan and deposit accounts per capita, deposit income ratio and loan-income ratio etc.

The Global Findex Database (Demirguc- Kunt and Klapper, 2012), a study of World Bank, provide interesting indicators of financial inclusion

based on a primary survey of 150,000 adults in 148 countries during 2011. These indicators include share of adults having an account with formal financial institution, share of adults who saved and borrowed through formal account, share of adults who used informal method to save, informal sources to borrow and shares of adults with credit or debit cards and many more. These indicators provide interesting and useful information on the nature of inclusiveness of a system. It was found that only 35 per cent of adults in India using formal account as compared to United Kingdom (97 per cent, highest) and Paraguay (22 per cent, lowest). After that a study of Mandira Sarma (2012) has evolved a concept of Index of Financial Inclusion (IFI) to make it more comprehensive indicator of inclusion in an economy and includes three basic dimensions: banking penetration, availability of banking services and usage dimension. While considering the growth of financial inclusion in Haryana state, the present study has focused on the banking, deposit and credit dimensions of financial inclusion.

Research Methodology

The secondary data has been collected from websites of State Government, Central Government and Reserve Bank of India, bank circulars, State Level Bankers Committee reports, textbooks, periodicals, research journals, policy papers, survey reports and reports published by MFI, World Bank etc. The extent of financial

inclusion is related with accessibility, availability and usages of the banking products and services. Hence, there is a need to calculate a composite index of financial inclusion to compare the extent of financial inclusion among various districts of the state. The first step towards determining the extent of financial inclusion is to identify the indicators that measure the level of accessibility and usage of financial services in a district. It includes Branch indicator (D₁), Deposit Indicator (D₂) and Credit Indicator (D₃) and calculate a composite index by using these indicators. It has a scale of 0 to 1, where zero indicates complete financial exclusion and one indicates complete financial inclusion.

Inclusion Programs

Table-1 presented the achievements of banking sector in last thirteen years i.e. 2005-18 with percentage growth year-to-year in Haryana state. The progress of Commercial Banks and Regional Rural Banks in respect of number of bank branches, deposits and various types of advances such as: advances to priority sectors, agriculture, micro & small enterprises, weaker sector etc. As per the data available from State Level Banker’s Committee (SLBC) the number of bank branches of commercial banks and Regional Rural Banks (RRBs) in March, 2005 was 1,643 which is now reached up to 4,718 in March, 2018 with a compound annual growth rate of 8.45 per cent during the period.

Progress under various Initiatives of Financial

Table 1: Progress of Commercial Banks and RRBs (Key Parameters)

(Amount in ` Crore)

Year ended	No. of Branches	Deposits	Advances	PS Adv.	Agriculture	MSME	Adv. to WS
Mar-05	1643	35,423	19,455	12,666	6,175	2,965	2,004
Mar-06	1703 (3.65)	46,584 (31.51)	29,903 (53.70)	18,650 (47.24)	8,305 (34.49)	3,746 (26.34)	2,645 (31.99)
Mar-07	1816 (6.64)	59,403 (27.52)	37,254 (24.58)	22,350 (19.84)	11,115 (33.84)	4,752 (26.86)	3,309 (25.10)
Mar-08	1970 (8.48)	70,919 (19.39)	48,547 (30.31)	27,048 (21.02)	14,390 (29.46)	6,151 (29.44)	4,552 (37.56)
Mar-09	2112 (7.21)	82,875 (16.86)	64,738 (33.35)	32,279 (19.34)	16,929 (17.64)	8,437 (37.16)	5,835 (28.19)
Mar-10	2315 (9.61)	1,03,109 (24.42)	71,743 (10.82)	39,108 (21.16)	19,083 (12.72)	11,494 (36.23)	7,197 (23.34)
Mar-11	2537 (9.59)	1,19,711 (16.10)	91,528 (27.58)	43,044 (10.06)	20,948 (9.77)	15,845 (37.85)	10,448 (45.17)
Mar-12	2886 (13.76)	1,41,585 (18.27)	1,20,471 (31.62)	51,113 (18.75)	24,972 (19.21)	18,337 (15.73)	12,961 (24.05)
Mar-13	3289 (13.96)	1,67,203 (18.09)	1,39,009 (15.39)	64,152 (25.51)	27,835 (11.46)	23,591 (28.65)	14,019 (8.16)
Mar-14	3815 (15.99)	1,92,126 (14.91)	1,57,826 (13.54)	79,037 (23.20)	33,009 (18.59)	31,830 (34.92)	17,903 (27.71)
Mar-15	4271 (11.95)	2,13,556 (11.15)	1,79,142 (13.51)	86,415 (9.33)	35,943 (8.89)	35,943 (12.92)	19,516 (9.01)
Mar-16	4493 (5.20)	2,43,650 (14.09)	1,92,145 (7.26)	1,06,467 (23.20)	43,422 (20.81)	48,193 (34.08)	23,976 (22.85)
Mar-17	4698 (4.56)	2,96,683 (21.77)	1,97,107 (2.58)	1,12,395 (5.57)	46,041 (6.03)	49,854 (3.45)	25,094 (4.66)
Mar-18	4718 (0.43)	3,40,128 (14.64)	2,37,187 (20.33)	1,30,010 (15.67)	49,429 (7.36)	60,467 (21.29)	25,466 (1.48)
Mean	3019.00	150925.36	113289.64	58909.57	25542.57	22971.79	12494.64
STDV	1173.21	95478.53	71206.85	38120.93	14201.08	19239.05	8642.68
CV (%)	38.86	63.26	62.85	64.71	55.60	83.75	69.17
CAGR	8.45	19.01	21.21	19.62	17.35	26.10	21.60

(%)							
-----	--	--	--	--	--	--	--

Source: Compiled from Agenda Papers, Meetings of State Level Banker’s Committee (Haryana) various issues.

Note: Figure in parentheses shows the percentage over previous year.

Coverage of Banking according to Area and Population

Banking Services are needed to reach each and every part of the country. On the basis of number of commercial banks, area and the population of the state; it is notable to know the number of bank offices per thousand square kilometres in the state and also the number of bank offices behind per lacs of population every year in the state. During the year 2006, there were only 39 bank offices in every thousand square km. and as on March 2017, it has reached up to 74 numbers of banks in every

thousand sq. km. in the state. As like the population increases in the state, the number of offices behind per lacs of population also increased from year to year. During the year 2006, the number was only 08 and now it has been reached up to 13 bank offices for every one lac of population in the state. The number of bank offices per thousand square km. has almost doubled in last few years. Following table-2 enables to understand these facts of Haryana state in all districts.

Table2: Number of Bank Offices in Haryana State per thousand square kilometres of area and per lakh of population (District-Wise)

Districts	Number of Commercial Bank Offices (as on 2017)	Area (1000 Sq. kms. As per census 2011)	Number of Bank Offices (per 1000 sq. km. of area)	Population* (in lakh)	Number of Bank Offices (per lakh of Population)
1	2	3	4	5	6
Ambala	177	1.57	112	11.28	16
Panchkula	206	0.898	229	5.61	37
Yamunanagar	138	1.768	78	12.14	11
Kurukshetra	145	1.53	95	9.65	15
Kaithal	104	2.317	45	10.74	10
Karnal	226	2.52	90	15.05	15
Panipat	165	1.268	130	12.05	14
Sonipat	172	2.122	81	14.50	12
Rohtak	143	1.745	82	10.61	13
Jhajjar	84	1.834	46	9.58	9
Faridabad	268	0.741	362	18.09	15
Palwal	53	1.359	39	10.43	5
Gurugram	600	1.258	477	15.14	40
Nuh	37	1.507	25	10.89	3
Rewari	94	1.594	59	9.00	10
Mahendragarh	75	1.899	39	9.22	8
Bhiwani	109	4.778	23	16.34	7
Jind	104	2.702	38	13.34	8
Hisar	165	3.983	41	17.44	9
Fatehabad	92	2.538	36	9.42	10
Sirsa	126	4.277	29	12.95	10
Total	3,283	44.212	74	253.51	13

Source: statistical abstract of Haryana 2016-17.

Note: 1. Totals may not tally on account of rounding off.

Gurugram (477) and Faridabad districts (362) have highest number of commercial bank offices in

every thousand square km. Out of 22 districts (excluding CharkhiDadri) of state, only 10 districts

have more or equal number of bank offices on every thousand sq. km. area as compare to the state's total. Gurugram district also has highest number of bank offices in the district for every one lacs of population. For a record, it has 40 bank offices for every one lacs population in the district. Here, Panchkula secured second rank with a little difference of 03 bank offices. Whereas, eight districts have more or equal number of bank offices per lacs population as compare to the state's 13 bank offices for every one lac population.

Progress of Financial Inclusion Plan in Haryana

In Haryana, banks are in the process of implementing Financial Inclusion Plan to provide

banking outlets and services in the unbanked villages having a population of over 2000 in Haryana. During the first phase, there were 1,843 unbanked villages which have been allocated among banks on the basis of Service Area Approach. Under EBT scheme 10 districts were allotted to private sector banks: Axis bank (5), ICICI Bank (4), HDFC Bank (1), out of 21 districts of the state. As on 31st March, 2012 the number of BCs appointed reached to 1,727 and number of FI accounts increased to 7,37,641 in the state. The banks have successfully achieved the target as presented in the following table:

Table3: State-wise FIP Progress as on 31.03.2012 (First Phase)

Name of state	Total no. of Villages allotted	No. of villages covered	%age of villages covered	No. of villages yet to be covered	Total No. of BCs appointed	Total No. of FI accounts
India	74,414	74,199	99.7	215	62,468	3,16,37,553
Haryana	1,838	1,838	100	0	1,727	7,37,641

Source: SLBC Conveners, Ministry of Finance.

During the second phase of financial inclusion, banks were allocated 4,077 villages with population below 2000 in the state with a view to ensure banking services either through IT based BC model or Brick & Mortar branches. Banks have covered all of the total allocated villages within the specified time period. After successful coverage of villages allotted under first and second phase of financial inclusion; a list of 194 villages with population more than 5000 has been prepared for the third phase of financial inclusion. Out of them, 139 villages have been covered through brick & motor branches in these villages as on April, 2019.

Index of Financial Inclusion (IFI) and its Indicators

The Index of Financial Inclusion (IFI) value showed the continued progress of banking services along with its three dimensions of financial inclusion i.e. Branch Penetration, Deposit Penetration and Credit Penetration. Since, the

dimension components do not denote financial inclusion separately. So, these components should be aggregated into a single composite index of financial inclusion (IFI). Here, it is also important to know the extent of financial inclusion during 2006 and 2017. The values of three indicators and composite financial inclusion index along with rank- order of all districts of Haryana state during the period March, 2006 has been presented in the following table-4. The analysis shows that the Panchkula district has gained maximum value (0.927) of composite index, whereas Gurugram district has highest value (1.00) in two dimensions: Offices and Deposits. Nuh district has gained the minimum value (0.00) for financial services. The first rank has been secured by Panchkula district, while Nuh has secured last rank i.e. 20th. This is due to the reason of more financial accessibility, availability and usability of banking services in Panchkula district as compare to other districts of the state.

Table 4: Value of Determinants Used for Financial Inclusion in Haryana (March, 2006)

Sr. no.	District	Ai-mi/ Mi-mi (Office)	Ai-mi/ Mi-mi (Deposits)	Ai-mi/ Mi-mi (Credits)	Composite Index IFI	Rank
		D ₁	D ₂	D ₃		
1	Ambala	0.479	0.178	0.237	0.286	3
2	Panchkula	0.875	0.982	1.000	0.927	1
3	Yamunanagar	0.327	0.107	0.172	0.196	7
4	Kurukshetra	0.213	0.111	0.206	0.175	9

5	Kaithal	0.091	0.046	0.129	0.088	16
6	Karnal	0.254	0.103	0.291	0.212	6
7	Panipat	0.318	0.141	0.359	0.267	4
8	Sonipat	0.128	0.125	0.080	0.111	13
9	Rohtak	0.423	0.176	0.219	0.265	5
10	Jhajjar	0.075	0.076	0.088	0.080	17
11	Faridabad	0.141	0.181	0.231	0.183	8
12	Gurugram	1.000	1.000	0.645	0.795	2
13	Nuh	0.000	0.000	0.000	0.000	20
14	Rewari	0.251	0.098	0.087	0.142	11
15	Mahendragarh	0.057	0.033	0.043	0.044	18
16	Bhiwani	0.139	0.048	0.082	0.089	15
17	Jind	0.008	0.030	0.089	0.042	19
18	Hisar	0.156	0.076	0.249	0.158	10
19	Fatehabad	0.110	0.051	0.118	0.092	14
20	Sirsa	0.242	0.050	0.120	0.133	12

Source: Compiled from reports of Statistical Abstract of Haryana, Various Issues.

Note: Till 2006, there were 20 districts in Haryana state. Palwal became 21st district as on 15 August, 2008 and CharkhiDadri became 22nd district in November, 2016 officially. So data of these two districts are not available.

The following table-5 categorises the districts of Haryana state in three different categories of financial inclusion- High, medium and Low extent

of Financial Inclusion. According to the values of the index (2006), Panchkula and Gurugram districts having wider extent of financial inclusion. Ambala, Panipat and Rohtak come under the category of medium financial inclusion. The extent of financial inclusion is found to be significantly low in other remaining districts of the state

Table 5: Distribution of Districts on the basis of IFI (2006)

Sr. no.	IFI	Categories	Districts
1.	High Financial Inclusion	$0.6 \leq IFI \leq 1$	Panchkula, Gurugram
2.	Medium Financial Inclusion	$0.25 \leq IFI < 0.6$	Ambala, Panipat, Rohtak
3.	Low Financial Inclusion	$0 \leq IFI < 0.25$	Karnal, Yamunanagar, Faridabad, Kurukshetra, Hisar, Rewari, Sirsa, Sonipat, Fatehabad, Bhiwani, Kaithal, Jhajjar, Mahendragarh, Jind, Nuh.

Source: Compiled from reports of Statistical Abstract of Haryana, Various Issues.

Value of IFI and its indicators in 2017

Table-6 exhibits the values of three indicators and composite financial inclusion index along with rank- order of all districts of Haryana state as on March, 2017. The analysis shows that the Gurugram district has gained maximum value (1.00) of composite index, whereas Panchkula district has a composite value of 0.652 as per the

data 2017. Nuh district has no value for financial services. First rank is secured by Gurugram district, while Nuh has secured last rank of 21st. This is due to the reason of more financial accessibility, availability and usability of banking services in Gurugram district as compare to other districts of the state.

Table 6: Value of Determinants Used for Financial Inclusion in Haryana (March, 2017)

Sr. no.	District	Ai-mi/ Mi-mi (Office)	Ai-mi/ Mi-mi (Deposits)	Ai-mi/ Mi-mi (Credits)	Composite Index	Rank
		D ₁	D ₂	D ₃		
1	Ambala	0.339	0.139	0.128	0.196	5
2	Panchkula	0.919	0.468	0.728	0.652	2

3	Yamunanagar	0.220	0.077	0.098	0.129	10
4	Kurukshetra	0.321	0.080	0.124	0.168	8
5	Kaithal	0.173	0.024	0.113	0.1013	14
6	Karnal	0.321	0.078	0.295	0.224	4
7	Panipat	0.284	0.079	0.228	0.193	6
8	Sonipat	0.234	0.089	0.084	0.133	9
9	Rohtak	0.278	0.140	0.125	0.178	7
10	Jhajjar	0.148	0.062	0.095	0.1009	15
11	Faridabad	0.315	0.236	0.273	0.274	3
12	Palwal	0.047	0.021	0.025	0.031	20
13	Gurugram	1.000	1.000	1.000	1.000	1
14	Nuh	0.000	0.000	0.000	0.000	21
15	Rewari	0.194	0.081	0.069	0.113	12
16	Mahendragarh	0.131	0.037	0.032	0.065	18
17	Bhiwani	0.090	0.031	0.047	0.056	19
18	Jind	0.121	0.023	0.075	0.072	17
19	Hisar	0.167	0.059	0.149	0.124	11
20	Fatehabad	0.176	0.028	0.098	0.099	16
21	Sirsa	0.175	0.031	0.108	0.103	13

Source: Compiled from reports of Statistical Abstract of Haryana, Various Issues.

Note: Charkhi Dadri became 22nd district in November, 2016 officially. So data of this district is not available.

The performance of all the districts can be categorised in three groups. The figure-1 categorises all the districts of Haryana state in three different categories of financial inclusion - High, Medium and Low extent of Financial Inclusion. According to the values of the index (2017), Gurugram and Panchkula are some of the districts having wider extent of financial inclusion as compare to other districts of the state. Faridabad, Karnal and Ambala fall under the category of medium financial inclusion. The extent of financial inclusion is found to be significantly low in other remaining districts of the state. This indicates that maximum number of districts comes

under the category of Low financial inclusion due to minimum access and usage of financial services as compare to other districts.

Comparative Analysis of Index of Financial Inclusion in Haryana (2006 versus 2017)

The variation of composite value among the districts in 2017 as compare to 2006 is presented in table-7. It has been found that Gurugram district which was at the second position during the year 2006 comes on first position in the year 2017 with a maximum value of 1.00 in financial inclusion index, due to tremendous growth of banking services in last 11 years. Whereas Nuh district remains on last position due to less accessibility, availability and usability of financial services in the district.

Table 7: Comparative Analysis of IFI in Haryana (2006 vs. 2017)

Sr. no.	District	Composite Index		Rank	
		2006	2017	2006	2017
1	Ambala	0.286	0.196	3	5
2	Panchkula	0.927	0.652	1	2
3	Yamunanagar	0.196	0.129	7	10
4	Kurukshetra	0.175	0.168	9	8
5	Kaithal	0.088	0.1013	16	14
6	Karnal	0.212	0.224	6	4
7	Panipat	0.267	0.193	4	6
8	Sonipat	0.111	0.133	13	9
9	Rohtak	0.265	0.178	5	7
10	Jhajjar	0.080	0.1009	17	15
11	Faridabad	0.183	0.274	8	3

12	Palwal	N.A.	0.031	N.A.	20
13	Gurugram	0.795	1.000	2	1
14	Nuh	0.000	0.000	20	21
15	Rewari	0.142	0.113	11	12
16	Mahendragarh	0.044	0.065	18	18
17	Bhiwani	0.089	0.056	15	19
18	Jind	0.042	0.072	19	17
19	Hisar	0.158	0.124	10	11
20	Fatehabad	0.092	0.099	14	16
21	Sirsa	0.133	0.103	12	13

Source: Compiled from reports of Statistical Abstract of Haryana, Various Issues.

Note: Data of Palwal districts was not available in 2006.

Although some districts have improved their banking services in terms of accessibility, availability and usability as well as their ranking from 2006 to 2017. While the ranking of some

other districts have reduced due to low accessibility, availability and usability of banking services as compare to other districts. Table-8 helps to distinguish the districts who have improved their rank-order or vice-versa.

Table 8: Variation among the rank-order of districts in 2006 & 2017

Rank Increasing Districts	Rank Decreasing Districts
Gurugram (2-1), Faridabad (8-3), Karnal (6-4), Kurukshetra (9-8), Sonapat (13-9), Kaithal (16-14), Jhajjar (17-15), Jind (19-17),	Panchkula (1-2), Ambala (3-5), Panipat (4-6), Rohtak (5-7), Yamunanagar (7-10), Hisar (10-11), Rewari (11-12), Sirsa (12-13), Fatehabad (14-16), Bhiwani (15-19), Nuh (20-21).

Source: Compiled from reports of Statistical Abstract of Haryana, Various Issues.

Note: Figure in Parenthesis shows their variation from previous ranking to new ranking.

The above table exhibits that some districts have improved from their previous ranking. Such as: Gurugram district comes on 1st rank from 2nd rank in 2006, Faridabad district reached on 3rd position from 8th position, Karnal jumped on 4th from its 6th position, Kurukshetra reached at 8th place this time from 9th in 2006. Kaithal, Jhajjar and Jind also improved their ranking as well as their index value. However, some districts have skipped from their highest rank to lowest rank during the period. These are- Panchkula that comes on 2nd from 1st position, Ambala reached at 5th from 3rd in 2006, Panipat skipped at 6th position in 2017 from 4th in 2006, Rohtak recorded a decline of 2 ranks and reached on 7th in 2006, Hisar moved to 11th position from 10th position. Rewari, Sirsa, Fatehabad, Bhiwani and Nuh also skipped from their higher ranking to lower ranking. But Mahendragarh district does not change its rank and remains on 18th position this time too. After analysing the index of financial inclusion, it can be concluded that some districts have increased the banking services in the last few years due to increasing in banking facilities in these districts.

Conclusion

The extent of financial inclusion is related with accessibility, availability and usages of the banking products and services. The number of commercial bank offices in per thousand square kilometres shows a remarkable growth along with the increase in number of bank offices in the state. While considering the growth of financial inclusion in Haryana state, the study has focused on the banking, deposit and credit dimension of financial inclusion. According to the values of the index, Gurugram and Panchkula are some of the districts having wider extent of financial inclusion as compare to other districts of the state. Faridabad, Karnal and Ambala fall under the category of medium financial inclusion. The extent of financial inclusion is found to be significantly low in other remaining districts of the state. After analysing the index of financial inclusion, it can be concluded that some districts have increased the banking services in the last few years due to increasing in banking facilities in these districts.

References

1. Arora, R. U. (2010). Measuring Financial Access. *Discussion Paper. Griffith Business School, Griffith University, Australia.*
2. Chattopadhyay, S. K. (2011). Financial Inclusion in India: A case-study of West

- Bengal. *Department of Economic and Policy Research*, RBI Working Paper Series No.8 (July).
3. CRISIL Inclusix (2013). CRISIL Inclusix An index to measure India's progress on Financial Inclusion. *An initiative by CRISIL (a Standard & Poor's Company)*. Developed with support from Ministry of Finance, Government of India and Reserve Bank of India. June, 2013.
 4. Demircuc- Kunt, A.& Klapper, L. (2012) Measuring financial inclusion: The Global Findex Database. *Policy Research Working Paper 6025, The World Bank*.
 5. Kempson, E., Atkinson & O. Pilley (2004). Policy level response to financial exclusion in developed economies: lessons for developing countries. *Reports of personal Finance Research Centre, University of Bristol*.
 6. Laha, A. and Kuri, P. K. (2011). Determinants of Financial Inclusion: A Study of Some Selected Districts of West Bengal, India. Part of the *ICSSR Major Research Project*.
 7. Sarma, M. (2008). Index of financial inclusion. *Indian Council for Research on International Economic Relations (ICRIER). Working paper no. 215*.
 8. Sarma, M. (2012). Index of financial inclusion - A measure of financial sector inclusiveness. *Berlin Working Papers on Money, Finance and Development, Working paper No. 07/2012*.
 9. Statistical Abstract of Haryana 2007-08, 2008-09, 2010-11, 2012-13, 2013-14, 2015-16 and 2016-17 (SLBC), Government of Haryana.
 10. White Paper on State Finances (Part I), Finance Department, March 2015. Govt. of Haryana.
- World Bank report (2012).
1. .