

Banking Sector Growth in Odisha: An Inter-District Analysis

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Abstract: This paper analysed district-wise growth rate of banking sector parameters such as deposit account per thousand population, number of branches per thousand km², and number of branches per lakh population, for two different periods i.e. for the period 2001 to 2010, and 2011 to 2020 of Odisha. This paper concludes in almost all the districts the banking sector growth is higher in the second period i.e. for the period 2001 to 2010 compared to the first period i.e. for the period 2011 to 2020.

Keywords: Banking, Growth, Deposit, Account

Introduction

Now-a day, Banking sector is the backbone for growth of any economy. A bank is an institution which accepts deposits from those people who have a surplus income, and lends this money to those who have a deficit in their income. Banking Regulation Act of 1949 defines banking as “accepting for the purpose of lending or investment, of deposits of money from the public, repayable on demand or otherwise, and withdraw able by cheque, draft, order or otherwise.

Review Of Literature

Beck (2005) introduces a new set of financial sector outreach indicators- geographic branch penetration, loan & deposits account per capita, loan-income and deposit-income ratios and so on. This paper finds that greater outreach is correlated with standard measures of financial development as well as with economic activity. The paper also finds that better communication and transport infrastructure and better governance are also associated with greater outreach.

Database and Methodology

The present study uses secondary data which are obtained from Basic Statistical Return of RBI, and Census Report.

Semi-log Model:

The change of banking sector parameter over time may be obtained by using the semi log model. Let the exponential model be

$$Y = \alpha \beta^t \varepsilon_i \dots\dots\dots (i)$$

Here ‘ α ’ and ‘ β ’ are parameters of the model. ‘ t ’ represents the time (in years) and is an independent variable. Similarly, ‘ Y ’ here representing the banking sector parameter such as deposit account per thousand population, number of branches per thousand km² and number of branches per lakh population are the dependent variables.

Taking logarithms on both sides of the equation, we have the log-linear model.

$$\text{Log } Y = \log \alpha + t \log \beta + \log \varepsilon_i$$

$$\text{Or Log } Y = A + Bt + u \dots\dots\dots (ii)$$

$$\text{Here, } A = \log \alpha \text{ and } B = \log \beta$$

If ‘ u ’ is well behaved, then ‘ A ’ and ‘ B ’ can be estimated taking ‘ t ’ (time) as the independent variable and log Y (logarithm of banking sector parameters) as the dependent variable. The banking sector parameters which are used in the present study are deposit account per thousand population, credit account per thousand population, no. of branches per thousand km², and no. of branches per one lakh population. Then, the growth rate can be found out from the estimated parameter

$$\text{That is, Growth rate} = [\text{Anti log } (\log \beta) - 1] \times 100$$

$$\text{Or Growth rate} = [\text{Anti log } (B) - 1] \times 100$$

The equation (ii) is called a semi log model because only the variable ‘ Y ’ or ‘ t ’ is in the logarithmic form. For descriptive purposes this model is called the log-linear model, because the dependent variable is in the logarithmic form. The coefficient ‘ β ’ measures the constant proportional or relative change in ‘ Y ’ for a given absolute change in ‘ t ’. If 100 is multiplied the relative change in ‘ Y ’, the result will give the percentage change in ‘ Y ’ for an absolute change in ‘ t ’

Growth Rate of Different Banking Sector Parameter for Two Periods: District Level

In this study growth rate of different banking sector parameters such as deposit account per thousand population, no. of branches per thousand km², and no. of branches per one lakh population is calculated.

TABLE 1
BANKING SECTOR PARAMETERS IN ODISHA AT 3 DISCRETE TIME-PERIODS

DISTRICTS	Deposit account per thousand population			branches per 1000 km ²			branches per lakh population		
	2001	2011	2020	2001	2011	2020	2001	2011	2020
ANUGUL	277	555	1489	11	16	27	6	8	12
BOUDH	138	267	1189	7	7	15	6	5	9
BOLANGIR	175	359	1245	11	14	23	5	5	8
BARGARH	138	377	1250	12	15	25	5	6	9
BALASORE	264	503	1371	31	36	63	6	6	9
BHADRAK	183	378	1376	25	35	59	5	6	9
CUTTACK	421	709	1608	44	58	101	7	9	14
DEOGARH	172	382	1320	7	8	14	7	7	12
DHENKANAL	272	470	1312	14	17	30	6	7	10
GANJAM	344	708	1450	23	32	50	6	8	11
GAJAPATI	190	501	1268	7	8	11	5	6	7
JHARSUGUDA	337	601	1649	16	27	45	7	10	15
JAJPUR	273	498	1524	28	39	72	5	6	10
JAGATSINGHPUR	365	599	1558	43	58	95	7	9	13
KHURDA	519	1074	2479	72	129	228	11	16	25
KEONJHAR	207	499	1317	11	17	23	6	8	10
KALAHANDI	118	312	1018	10	12	17	6	6	8
KANDHAMAL	139	363	1181	5	6	9	6	6	9
KORAPUT	191	397	1100	7	9	14	5	6	8
KENDRAPARA	271	494	1325	25	30	48	5	6	8
MALKANGIRI	90	277	898	3	4	8	4	3	7
MAYURBHANJ	241	627	1398	13	16	25	6	7	9
NOWRANGPUR	64	167	868	6	7	12	3	3	5
NUAPADA	129	303	1220	7	8	16	5	5	9
NAYAGARH	199	418	1387	14	17	30	6	7	11
PURI	300	537	1365	30	36	62	7	7	12
RAYAGADA	181	469	1095	7	9	14	6	7	9
SAMBALPUR	365	619	1662	12	16	26	9	10	15
SUBARNAPUR	157	367	1370	12	15	31	5	6	11
SUNDERGARH	381	560	1461	12	17	26	7	8	11
ODISHA	267	530	1410	14	20	32	6	7	11

Source: Values calculated from the data for districts of Odisha, Basic Statistical Return, RBI

Table 1 shows the comparison between 3 parameters: deposit account per thousand population, number of branches per thousand km² and number of branches per lakh population at 3 discrete time periods i.e. 2001, 2011 & 2020 for all the districts of Odisha. Khurda has the highest deposit account per thousand population in all the three periods; in 2001 Khurda has 519 deposit account per thousand population which is increased to 1074 in 2011 and 2479 in 2020. Number of branches per thousand km² in 2001 for Khurda is 72 in 2001 which jumped to 129 in 2011 and 228 in 2020. Number of branches per lakh population which was 11 in 2001

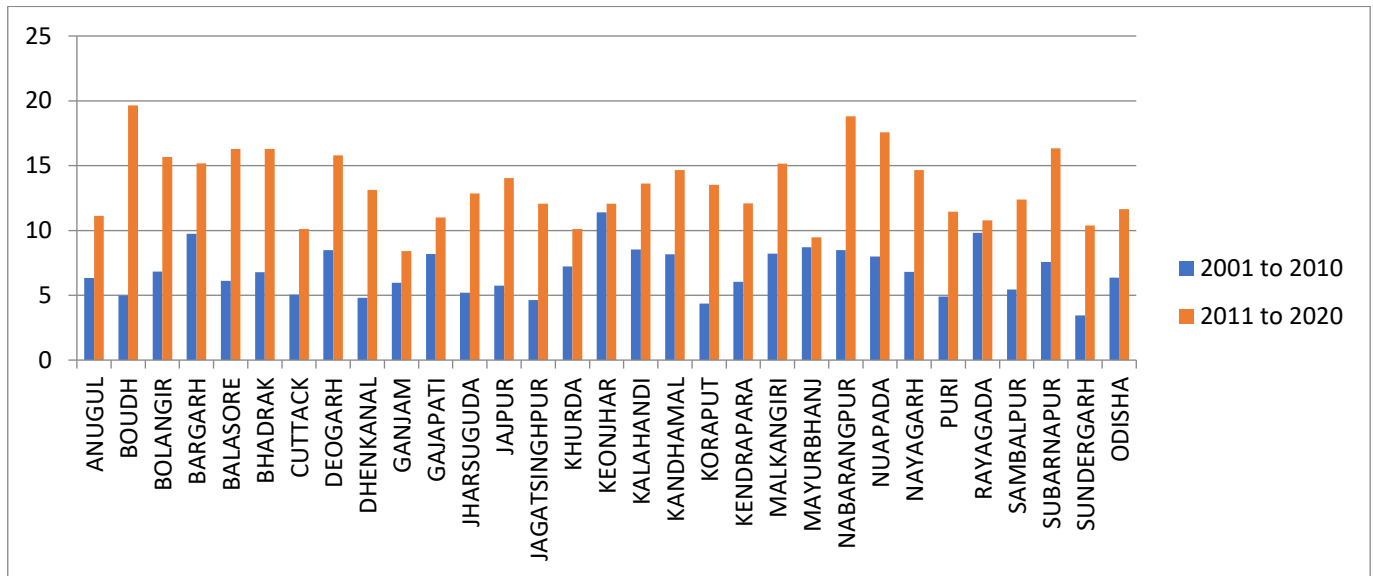
increased to 16 in 2010 and 25 in 2020. The table also shows Nowrangpur has the lowest deposit account per thousand population in all the three periods. In 2001, Nowrangpur has only 64 accounts per thousand population which increased to 167 in 2011 and 868 in 2020. Malkangiri has lowest number of branches per thousand km² in all the three periods. In 2001, Malkangiri has only 3 branches per thousand km² which is increased to 4 in 2011 and 8 in 2020. The district Nowrangpur has also lowest number of branches per lakh population in all the three periods. In 2001 and 2011 Nowrangpur has only 3 branches per lakh population which is increased to 5 in 2020.

TABLE-2**District Wise Growth Rate of Deposit Account Per 1000 Population at Two Time Periods**

DISTRICTS	2001 to 2010	2011 to 2020
ANUGUL	6.33	11.12
BOUDH	4.98	19.65
BOLANGIR	6.83	15.67
BARGARH	9.74	15.18
BALASORE	6.12	16.29
BHADRAK	6.77	16.29
CUTTACK	5.05	10.12
DEOGARH	8.48	15.78
DHENKANAL	4.8	13.13
GANJAM	5.97	8.41
GAJAPATI	8.18	11
JHARSUGUDA	5.2	12.85
JAJPUR	5.73	14.04
JAGATSINGHPUR	4.62	12.07
KHURDA	7.23	10.11
KEONJHAR	11.4	12.06
KALAHANDI	8.53	13.63
KANDHAMAL	8.17	14.65
KORAPUT	4.35	13.53
KENDRAPARA	6.05	12.09
MALKANGIRI	8.2	15.14
MAYURBHANJ	8.7	9.46
NABARANGPUR	8.48	18.81
NUAPADA	7.98	17.56
NAYAGARH	6.81	14.65
PURI	4.9	11.44
RAYAGADA	9.81	10.77
SAMBALPUR	5.45	12.38
SUBARNAPUR	7.57	16.33
SUNDERGARH	3.45	10.39
ODISHA	6.37	11.65

Source: Growth rate calculated from the data for districts of Odisha, BSR, RBI

Table 2 presents growth rate of the deposit account per thousand population at two different time intervals i.e. for the period 2001 to 2010 and 2011 to 2020. The table shows in all the districts the growth rate is higher in the second period as compared to first period. Keonjhar records highest growth rate in the first period whereas Boudh records highest growth rate in the second period. Sundergarh has lowest growth rate in the first period whereas Mayurbhanj has lowest growth rate in the second period.

Figure-1**Districtwide Growth Rate of Deposit Account Per Thousand Population in Two Different Periods****Table-3****District Wise Growth Rate of No. Of Branches Per 100000 Population**

DISTRICTS	2001 to 2010	2011 to 2020
ANUGUL	2.73	4.74
BOUDH	-2.72	6.84
BOLANGIR	0	5.11
BARGARH	1	5.11
BALASORE	0	5.83
BHADRAK	0	5.26
CUTTACK	2.62	4.71
DEOGARH	-0.75	5.05
DHENKANAL	0	4.85
GANJAM	1.51	3.62
GAJAPATI	0	2.003
JHARSUGUDA	5.19	5.29
JAJPUR	1.78	6.02
JAGATSINGHPUR	1.3	4.83
KHURDA	4.34	5.23
KEONJHAR	2.52	2.71
KALAHANDI	-0.44	3.5
KANDHAMAL	0	4.6
KORAPUT	1.78	3.98
KENDRAPARA	0	3.5
MALKANGIRI	-2.92	10.27
MAYURBHANJ	0.84	3.05
NABARANGPUR	-2.08	4.09
NUAPADA	1.56	6.23
NAYAGARH	-0.09	5.39
PURI	-0.09	5.84
RAYAGADA	0	3.47
SAMBALPUR	1.35	5.5
SUBARNAPUR	0	6.58
SUNDERGARH	1.41	3.95
ODISHA	1.51	5.28

Source: Growth rate calculated from the data for districts of Odisha, BSR, RBI

Table 3 shows the district-wise growth rate of the number of branches per one lakh population. In all the districts the growth rate is higher in the second period i.e. 2011 to 2020, compared to the first period i.e. 2001 to 2010. It is observed from the above table that in the first period there is a negative growth rate in some

districts such as Boudh, Deogarh, Kalahandi, Malkangiri, Nowrangpur, Nayagarh & Puri. Also, in the first period in some districts, the growth rate is zero, such districts are Balasore, Bhadrak, Dhenkanal, Gajapati, Kandhamal, Kendrapara, Rayagada & Subarnapur. But in the second period, all districts show a positive growth rate and also which is higher in comparison to the previous period.

Figure-2

District-Wise Growth Rate of Number of Branches Per One Lakh Population for Two Periods

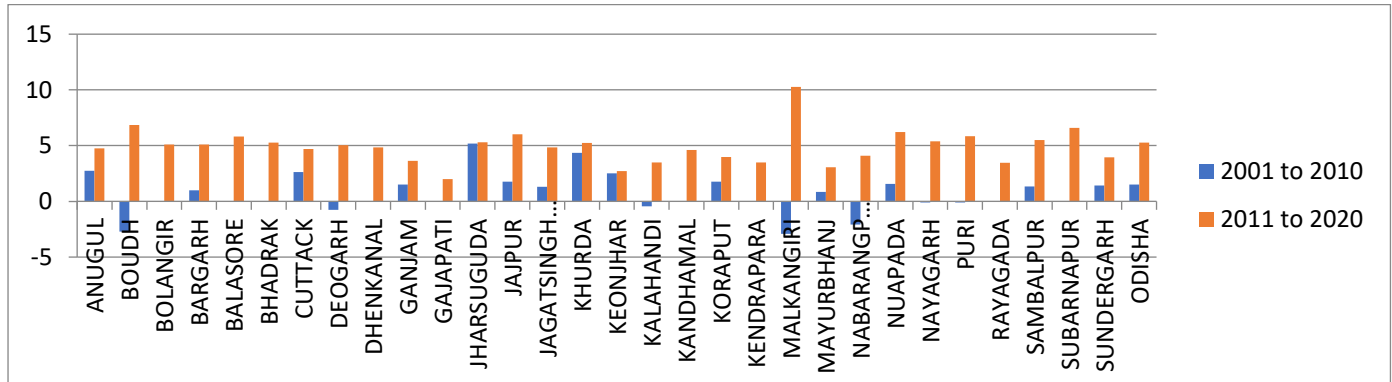


Table-4

District Wise Growth Rate of No. Of Branches Per 1000 Km²

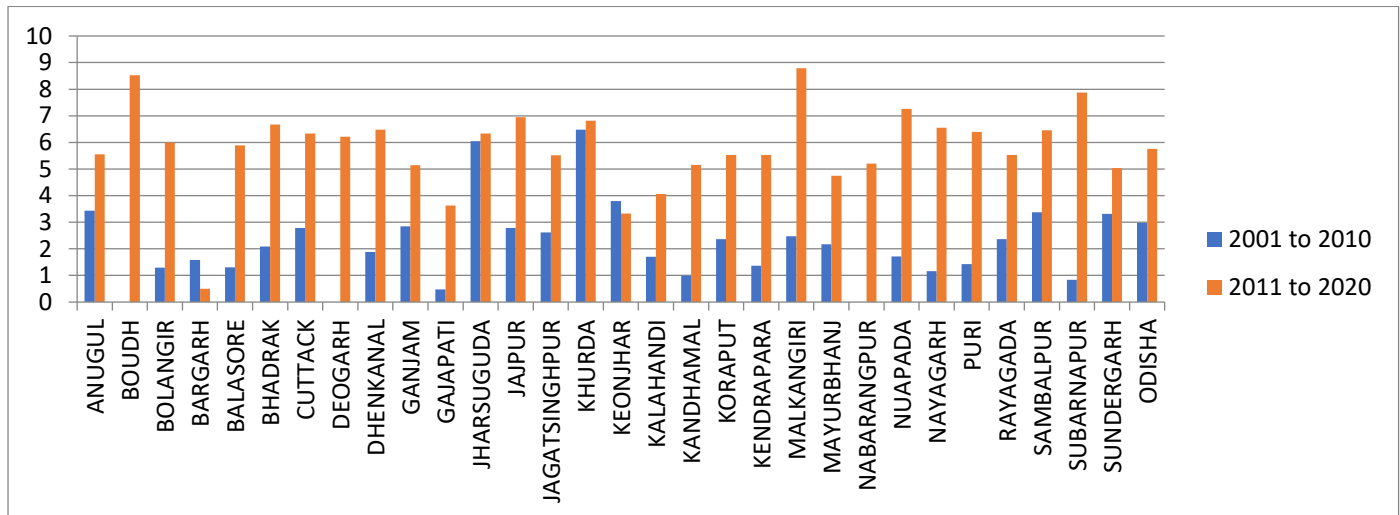
DISTRICTS	2001 to 2010	2011 to 2020
ANUGUL	3.44	5.55
BOUDH	0	8.52
BOLANGIR	1.29	6
BARGARH	1.58	0.5
BALASORE	1.31	5.89
BHADRAK	2.09	6.67
CUTTACK	2.79	6.33
DEOGARH	0	6.22
DHENKANAL	1.88	6.48
GANJAM	2.85	5.14
GAJAPATI	0.47	3.63
JHARSUGUDA	6.04	6.34
JAJPUR	2.78	6.95
JAGATSINGHPUR	2.62	5.52
KHURDA	6.48	6.81
KEONJHAR	3.8	3.33
KALAHANDI	1.7	4.06
KANDHAMAL	0.99	5.15
KORAPUT	2.37	5.53
KENDRAPARA	1.36	5.53
MALKANGIRI	2.47	8.79
MAYURBHANJ	2.17	4.75
NABARANGPUR	0	5.2
NUAPADA	1.71	7.26
NAYAGARH	1.16	6.55
PURI	1.42	6.39
RAYAGADA	2.37	5.53
SAMBALPUR	3.38	6.45
SUBARNAPUR	0.84	7.88
SUNDERGARH	3.32	5.03
ODISHA	2.98	5.76

Source: Growth rate calculated from the data for districts of Odisha, BSR, RBI

Table 4 presents the district-wise growth rate of the number of branches per thousand km². The above table depicts three districts namely: Boudh, Deogarh, and Nowrangpur recorded a zero percent growth rate in the first period. Most of the districts have shown a higher growth rate in the second period in comparison to the first period except Bargarh, and Keonjhar. In the first period, Jharsuguda records the highest growth rate, and in the second period, Malkangiri records the highest growth rate.

Figure-3

District-Wise Growth Rate of Number of Branches Per Thousand Km² For Two Periods



Conclusion

The paper concludes in almost all the districts there is increase in growth of banking sector parameters for all the variables. The variables are deposit account per thousand population, number of branches per thousand km², and number of branches per lakh population. In the period 2011 to 2020 the growth rate of all banking sector parameters in all the districts of Odisha are higher in comparison to the period 2001 to 2010.

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