

# A Study on the Productivity of Tripura Gramin Bank (TGB)

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**Abstract**—Tripura Gramin Bank (TGB) is the only Regional Rural Bank operating in Tripura since its inception in 1976. The bank was introduced for economic development of rural areas of Tripura. The prime objective of this bank was improvement of socioeconomic condition of rural people of Tripura. It is essential to examine the productivity of TGB since it is operating in the state for last 40 years. No analogous study is found in this respect. The present study is an attempt to examine the productivity of the bank for a period 2003-04 to 2016-17. Based on the availability of data this period is chosen. Secondary data is used from the Annual Reports of TGB for the study period. Broad parameters used are labor productivity and branch productivity. Labor productivity again looked into in terms of sub parameters i.e. deposit per staff, advance per staff, business per staff, and net profit per staff. Branch productivity is further looked into in terms of sub parameters i.e. deposit per branch, advance per branch, business per branch, and net profit per branch is used for the study. Select statistical tools i.e. CAGR, average, standard deviation, least square method; coefficient of determination is used to measure the status of productivity of TGB. The study reveals that, during the study period the productivity of TGB is improved.

**Keyword:** Productivity, deposit per staff, advance per staff, business per staff, net profit per staff. A study on the productivity of Tripura Gramin Bank (TGB).

## Introduction

Government has taken a bold step in 1975 to develop the rural economy of India. Implementation of M. Narasimhan committee (1975) report and promulgation of RRB act (1976) is resulted the formation of Regional Rural Bank and hence the Tripura Gramin Bank (TGB). Tripura Gramin Bank (TGB) with 144 branches is operating in Tripura. TGB is dedicated to improvement of the socioeconomic condition of the rural people of Tripura. Many studies are done to examine the performance of the RRB in terms of profitability and productivity in various parts of India but no studies is found on the productivity of TGB.

## Review of Literature

Brahamanandam and Dakshinamurthy (1985) have conducted a study on performance and productivity of regional rural bank

in India. They have concluded that, performance of RRB is improved through commendable jobs of RRB in deposit mobilization and credit deployment and hence the productivity of the bank. Reddy et.al. (1988) did a study on performance and productivity of Regional rural bank in India. The study concluded that RRB has done a good job in the rural areas through deposit mobilization and credit deployment and performance through productivity of RRB is improved.

Ahmed (1992) has conducted a study with an objective to evaluate the performance and productivity of RRB in India. The study concluded that district wise performance of deposit mobilization and credit deployment and hence the productivity is uneven and performance and productivity of RRB is not improved. Desai (1983) has conducted a study with an objective of assessing the profitability and productivity performance through credit deployment in the light of agricultural credit and deposit mobilization by RRB in India. The study revealed that, profitability and productivity performance through deposit mobilization and credit deployment in the rural area are not sound due to presence of commercial banks and cooperative banks. The findings of the study also claim that there is problem of demarcation of area of operation. Uddin (2003) has conducted a study with an objective to find out the working profitability and productivity performance of Regional Rural Bank in Uttarakhand. The study has revealed that profitability and productivity performance of RRB in Uttarakhand is improved through proper deposit mobilization, credit deployment and branch expansion

**Research Objective:** To examine the productivity of TGB during the study period.

## Research Question:

Does the productivity of TGB improved during the study period?

**Research Design:**

The present research is an empirical and explanatory type study.

**Research Methodology:**

The present study aimed to examine the productivity of Tripura Gramin Bank (TGB) for a period of 14 years from 2003-04 to 2016-17. Secondary data has been used to attain the objectives. Data has been collected from the published Annual Reports of TGB. The broad parameters used to analyze the productivity are labour productivity and branch productivity. Labour productivity again looked into in terms of deposit per staff, advance per staff, and business per staff, and net profit per staff. Branch productivity further looked into in terms of deposit per branch, advance per branch, business per branch and net profit per branch.

To analyze the collected data for the above mentioned parameters, selected statistical measures i.e. mean, standard deviation, annual average growth rate (AAGR) and compound annual growth rate (CAGR) have been used.

To witness the performance on productivity during the study period semi average methods are used. Moreover to perceive the trend, the straight line trend equation with respect to time has also been used for annual growth rate of selected parameters under study. Formulae used in this study are as follows.

$$CAGR = \left( \frac{\text{Amount at the end of study period}}{\text{Amount at the beginning of study period}} \right)^{\frac{1}{n}} - 1$$

Where, n= number of years

$$AAGR = \frac{\text{Sum of annual growth rates}}{\text{Number of years}}$$

**Limitation:**

The study is based on only secondary data of bank. For more intensive study primary data pertaining to bank customer, from the field, bank staff is supposed to be used.

**Scope of the study:**

The purpose of the study is to examine the status of productivity of TGB in Tripura State for the period 2003-04 to 2016-17. The scope of this study has been confined to Tripura state jurisdiction of Tripura Gramin Bank.

**Data analysis and discussion**

**Productivity:** Bank is collecting money as deposit through deposit mobilization and invests money through credit deployment. In this process productivity of bank plays the most crucial role to determine the ability of the bank to generate profit. Ability of the bank is examined by labour productivity and branch productivity. Labour productivity of

bank is examined by the ability of the bank staff to collect deposit and deploy it as credit efficiently so that the deployed credit is returned to bank in due time with interest. Labour productivity is measured in terms of deposit per staff, advance per staff, business per staff and net profit per staff. In the similar line the ability of the bank branch is examined by the capacity of the bank to collect deposit and deploy as credit so efficiently that the deployed credit is returned to the branch in due time with interest. The branch productivity is measured in terms of deposit per branch, advance per branch, business per branch and net profit per branch. It is observed from Table-1 that the deposit per staff is increased 6.85 times during the study period. The average deposit per staff during the study period is Rs.3.49 crore. The CAGR of deposit per staff is 0.15%. There is a standard deviation of Rs.1.97 crore for deposit per staff. The advance per staff is increased 8.81 times during the study period. The average advance per staff is Rs.0.63crore. The CAGR of advance per staff is 0.17%. The standard deviation of advance per staff is Rs.0.36 crore. The business per staff of TGB is increased 7.04 times during the study period. The average business per staff during the study period is Rs.4.13crore. There is a standard deviation of Rs.2.28 crore for the business per staff of TGB. The net profit per staff of TGB is increased 8 times during the study period. The average net profit per staff during the study period is Rs.0.04 crore. The CAGR of net profit per staff during the

**Table 1: Labour productivity of Tripura Gramin Bank**

Years	Deposit per staff (Rs. in crore)	Advance per staff (Rs. in crore)	Business per staff (Rs. in crore)	Net profit per staff (Rs. in crore)
2003-04	1.04	0.11	1.15	0.01
2004-05	1.09	0.14	1.23	0
2005-06	1.35	0.27	1.62	0
2006-07	1.56	0.28	1.85	0
2007-08	1.92	0.81	2.73	0.01
2008-09	2.53	0.37	2.91	0.03
2009-10	3.15	0.42	3.57	0.05
2010-11	3.37	0.53	3.9	0.03
2011-12	4.08	0.79	4.88	0.07
2012-13	4.57	0.95	5.52	0.1
2013-14	4.49	0.94	5.43	0.1
2014-15	5.3	0.95	6.25	0.05
2015-16	6.27	1.16	7.42	0.06
2016-17	7.13	0.97	8.1	0.08
SD	1.97	0.36	2.28	0.04
Average	3.49	0.63	4.13	0.04
CAGR	0.15	0.17	0.15	0.16

Source- Compiled and computed from annual report of TGB.

Study period is 0.16%. There is a standard deviation of Rs.0.04 crore for the net profit per staff.

Parameters	Average during (2004-2017)	Average during (2011-2017)	Result
Deposit per staff	1.81	5.03	Improved
Advance per staff	0.35	0.90	Improved
Business per staff	2.15	5.93	Improved
Net profit per staff	0.01	0.07	Improved

Source: Compiled and computed from various annual reports of TGB

Table-2 shows the semi average of labour productivity of TGB in terms of deposit per staff, advance per staff, business per staff and net profit per staff. It is observed that semi average of labour productivity of TGB in terms of deposit per staff, advance per staff, business per staff and net profit per

Year	Deposit per branch (Rs.in crore)	Advance per branch (Rs. in crore)	Business per branch (Rs.in crore)	Net profit per branch (Rs.in crore)
2003-04	8.38	0.93	9.31	0.05
2004-05	8.71	1.12	9.83	0.01
2005-06	10.76	2.19	12.95	0.01
2006-07	12.14	2.18	14.32	0.01
2007-08	13.49	5.72	19.21	0.05
2008-09	16.31	2.41	18.72	0.20
2009-10	18.47	2.45	20.92	0.32
2010-11	19.95	3.16	23.11	0.15
2011-12	22.56	4.39	26.95	0.41
2012-13	22.72	4.72	27.44	0.52
2013-14	25.73	5.41	31.13	0.60
2014-15	29.27	5.22	34.49	0.25
2015-16	33.56	6.19	39.75	0.31
2016-17	37.37	5.08	42.45	0.40
SD	9.14	1.78	10.60	0.20
AVERAGE	19.96	3.66	23.61	0.23
CAGR	0.11	0.13	0.11	0.17

Source: Compiled and computed from Annual Reports of TGB(2004-2017)

staff is improved during the study period. So it is inferred that labour productivity of TGB is improved during the study period.

Parameters	Straight line trend Equations with respect to time	R <sup>2</sup>	Regression coefficient (β)	Direction of the trend
Deposit per staff	$y = -0.0482 + 0.4621x$	0.967	Positive	Upward trend

Advance per staff	$y = 0.0449 + 0.0769x$	0.829	Positive	Upward trend
Business per staff	$y = -0.0033 + 0.5391x$	0.9763	Positive	Upward trend
Net profit per staff	$y = -0.0112 + 0.0071x$	0.6302	Positive	Upward trend

Source: Compiled and computed from various annual reports of TGB

Table-3 above shows the straight line trend equations with respect to time for the deposit per staff, advance per staff, business per staff and net profit per staff of TGB. It is observed that deposit per staff, advance per staff, business per staff and net profit per staff is having positive regression coefficient (β) (+)0.4621, (+)0.0769, (+)0.5391 and (+)0.0071 respectively with coefficient of determination 96.7%, 82.9%, 97.63% and 63.02% respectively. *This is inferred that deposit per staff, advance per staff, business per staff and net profit per staff of TGB has a positively rising trend during the study period.*

It is observed from table-4 that deposit per branch of TGB is increased 4.45 times during the study period. The average deposit per branch during the study period is Rs.19.96 crore. The CAGR of deposit per branch is 0.11%. There is a standard deviation of Rs.9.14 crore for deposit per branch of TGB during the study period. Advance per branch is increased 5.46 times during the study period. The average advance per branch is Rs.3.66 crore. The CAGR of advance per branch during the study period is 0.13%. The standard deviation of the advance per branch is Rs.1.78 crore. The business per branch and net profit per branch of TGB is increased 4.55 times and 8 times respectively during the study period. The average business per branch and average net profit per branch is Rs.23.61 crore and Rs.0.23 crore respectively. The CAGR of business per branch and net profit per branch is 0.11% and 0.17% respectively. The standard deviation of business per branch and net profit per staff is Rs.10.60 crore and Rs.0.20 crore respectively.

Parameters	Average during (2004-2010)	Average during (2011-2017)	Result
Deposit per branch	12.61	27.31	Improved
Advance per branch	2.43	4.88	Improved
Business per branch	15.04	32.19	Improved
Net profit per branch	0.09	0.38	Improved

Source: compiled and computed from various annual reports of TGB.

It is observed in the table-5 that the semi average of branch productivity in terms of deposit per branch, advance per branch, business per branch is improved.

Parameters	Straight line Equations with respect to time	R <sup>2</sup>	Regression coefficient (β)	Direction of the trend
Deposit per branch	$y = 3.8324 + 2.1502x$	0.9682	Positive	Upward trend
Advance per branch	$y = 0.997 + 0.3544x$	0.6911	Positive	Upward trend
Business per branch	$y = 4.8299 + 2.5044x$	0.9765	Positive	Upward trend
Net profit per branch	$y = -0.0444 + 0.0373x$	0.6141	Positive	Upward trend
<i>Source:</i> compiled and computed from various annual reports of TGB				

It is observed from table-6 that all the trend equations has positive regression coefficient (+) 2.1502, (+) 0.3544, (+) 2.5044 and (+) 0.0373 respectively along with coefficient of determination 96.82%, 69.11%, 97.65%, 61.41% respectively. *From the above discussion it is inferred that, the branch productivity of TGB in terms of deposit per branch, advance per branch, business per branch and net profit per branch has a positively rising trend during the study period.*

#### Findings:

- The labour productivity of TGB in terms of deposit per staff, advance per staff, business per staff and net profit per staff is improved and has a positively rising trend during the study period.
- The branch productivity of TGB in terms of deposit per branch, advance per branch, business per branch and net profit per branch is improved with a positively rising trend during the study period.

#### Suggestion

Improvement of productivity of any business is a good sign of profitability. To hold the trend for a long period TGB has to give more effort towards more deposit mobilization and credit deployment and inspiring the workforce for improvement of working capacity and hence productivity.

#### Conclusion

After details analysis of 14 years data related to productivity of TGB we have arrived at the conclusion to say that TGB is in the right track of improved productivity which is a good sign of profit generation.

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