

## CHAPTER: FIVE

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CHAPTER - FIVE -

ANALYSIS AND INTERPRETATION OF THE DATA :

5.1 INTRODUCTION :

As per directives of Reserve Bank of India and the bye-laws of Sangli Urban Co-operative Bank Ltd.; Sangli, loan policy is determined. While doing so, the provisions of the Banking Regulation Act, 1949 and the Co-operative Act are taken into consideration. The loans are advanced to the members, so also to the nominal members of the bank for the various developmental purposes - small industries, Cottage industries and other productive businesses. Similarly loans are also advanced to traders and Small entrepreneurs in the priority sector. Consumption loans are advanced to the customers to eliminate their family difficulties and facilitate the family life mainly by advancing hire - purchase loans for the purpose of two wheelers, T.V.; Refrigerator and other similar mechanical appliances.

More particularly, in this chapter, the researcher has made an attempt micro-level statistical study of the loans advanced by Sangli Urban Co-operative Bank Ltd.; (Main branch) Sangli to transport, agriculture and trade in possible details. In the above three areas she has tried to examine the different purposes for which the loans have been advanced and how far the bank has succeeded in serving

the purposes kept before eyes. Secondly, she has tried to know the nature and progress of the above types of loans during the period 1983-84 to 1987-88. She has also tried to trace out the drawbacks and weaknesses in the loan policy and attempt is made to suggest measures for improvement.

5.2 PROCEDURE OF ADVANCING LOANS :-

Sangli Urban Co-operative Bank Ltd., Sangli has formulated its own procedure in regard to the advances of the loans. Applications are accepted for loans and are scrutinized. Then the process of getting securities for loan is completed and finally the loan is being sanctioned. Documentation, follow-up, Supervision and Control procedure is strictly adopted.

After receiving all the information and data from the applicant for the loan, his loan proposed is submitted to the higher officer for further action and necessary recommendation. Then the loan proposal is submitted to the Board of Directors for final sanction or otherwise. Proper and correct documentation is an important factor for the safety of the bank advances. Documentation includes three important major parts - Stamping, Execution and Registration.

This bank seems to be very sensitive in following the principles of safety, liquidity and profitability. At the same time it has tried to serve social need oriented cause of up-lifting weaker section of the society. The bank has made significant efforts in serving the national socio-economic developmental cause and enhance national income by providing the banking facilities in different needy areas of Maharashtra.

5.3. PURPOSES OF LOANS SANCTIONED :

The bank has been sanctioning loans to its members, customers, servants etc. for various purposes- commercial, agricultural, transport, small and medium scale industrial development, housing ( construction and repairs), domestic consumption and education etc. The rate of interest is charged as per directives of Reserve Bank of India as well as bye-laws of the bank.

5.4 OVERALL VIEW OF THE BANK BUSINESS :

Sangli Urban Co-operative Bank Ltd.; Sangli has made determined efforts and significant progress during the period 1983-84 to 1987-88. Hence, the researcher has first made overall review of the bank business during the above stated period.

Year	No. of Shareholders	Share Capital	Total Deposits	Working Capital	Total Outstanding Loans	Total Outstanding Loans	Total Outstanding Loans	Total Outstanding Loans	Total Outstanding Loans	Total Outstanding Loans	Total Outstanding Loans	Total Outstanding Loans	Total Reserves and other Funds	Total Investment	Total Net Profit	Administrative Expenses	% to Working Capital	Dividend Amount	Dividend	Audit Category
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
1983-84	17393	35.83	2087.88	2590.38	1761.14	532.18	388.00	573.37	108.97	216.17	32.24	173.31	141.39	17.93	62.17	2.4	3.90	12	A	
1984-85	20164	37.83	2682.99	3289.57	2053.68	647.98	548.44	718.69	204.44	220.45	70.47	212.71	743.63	20.61	85.53	2.6	4.45	12	A	
1985-86	23195	38.65	3338.14	4197.88	2633.60	818.75	667.40	934.18	253.08	195.73	54.24	252.46	872.29	25.30	109.15	2.6	4.52	12	A	
1986-87	25985	39.21	4346.46	5347.46	3619.64	940.62	1010.00	2038.77	710.88	359.58	114.52	268.39	922.40	32.12	139.03	2.6	5.72	15	A	
1987-88	27787	40.99	6066.87	7297.94	5320.64	1258.03	1087.50	2896.55	577.53	386.78	142.60	313.52	1141.96	35.46	197.22	2.7	4.63	12	A	

**SOURCE :** The table is compiled from the figures of the bank records and annual reports of the bank.

**ANALYSIS :** 1) The figures of this table are showing increasing trend.

2) The figures of Net Profit are taken from the Profit and Loss A/c. of the bank.

3) Percentage to Working Capital =  $\frac{100}{\text{Administration Expenses}} \times \text{Working Capital}$

4)

Trade

Traditional Sector

Priority Sector

Economically Weaker Section

Economically Sound Section

The above table reveals that significant progress and achievement in banking business during the period of study.

The number of shareholders has been increased 17,393 during the year 1983-84 to 27,786 during 1987-88.

Share Capital has been increased from Rs. 35.83 lakhs in 1983-84 to Rs. 40.99 lakhs in 1987-88.

More particularly, the bank has made eye-catching progress in case of mobilising the deposits from the public. The deposits have gone up from Rs. 2,087.88 lakhs to Rs. 6,066.87 lakhs i.e. more than 2½ times within the shortest span of 5 years.

Working Capital of the bank also has been impressingly increased from Rs. 2,590.38 lakhs to Rs. 7,297.94 lakhs i.e. nearly 3 times.

The bank has shown outstanding loans Rs. 1,761.14 lakhs during 1983-84 and it has shot up to Rs. 5,320.64 lakhs during 1987-88. These figures clearly show that the outstanding loans are rapidly increasing and have become more than 3 times during the study period.

The bank has made very liberal advances to the middle class and lower class people for meeting their

domestic difficulties and the outstanding domestic loans during 1983-84 amounted to Rs. 532.18 lakhs and the figure has gone up during 1987-88 to Rs. 1,258.03 lakhs i.e. nearly 2½ times.

The bank in general through all its branches has advanced housing loans to the people in the lower and middle class stratas of the society and more particularly to the bank servants too. This is an impressive step taken by the bank in response to the national social cause. The total outstanding housing loans amounted to Rs. 388 lakhs during 1983-84 and the figure shot up to Rs. 1,087.50 lakhs during 1987-88. This is more than 3 times increase during the study period.

According to the directives of the Reserve Bank of India the bank has been advancing loans to the priority sector. During the year 1983-84 the bank had advanced Rs. 573.37 lakhs to the priority sector and it has been continuously increasing and found to be Rs. 2896.55 lakhs during 1987-88. Outstanding priority sector loans have gone up more than 5 times during the study period.

The bank advanced to the small traders were Rs. 108.97 lakhs during 1983-84 and the amount shot upto Rs. 577.53 lakhs during 1987-88 i.e. nearly more than 5½ times.

The loans advanced to transport during 1983-84 were Rs. 216.17 lakhs and the figure went up during 1987-88 to Rs. 386.78 lakhs. The increase during the study period is more than 1½ times. Similarly the outstanding loans of allied agricultural activities amounted to Rs. 32.24 lakhs during 1983-84 and the amount went up to Rs. 142.60 lakhs during 1987-88. The increase is nearly 5 times during 5 years period.

The bank had developed its reserves of Rs. 173.31 lakhs upto the year 1983-84 and they went upto Rs. 313.52 lakhs during 1987-88. Only during the period of 5 years the increase of reserves is found nearly double.

The investments of the bank upto 1983-84 were amounted to Rs. 141.39 lakhs and during the 5 years study period it shot upto Rs. 1141.96 lakhs by 1987-88. The increase of the investments is nearly 8 times.

The net profit of the bank during 1983-84 was Rs. 17.93 lakhs and it increased to Rs. 35.46 lakhs by 1987-88. The profits actually doubled during 5 years period.

Administrative expenses during 1983-84 were Rs. 62.17 lakhs and the figure went upto Rs. 197.22 lakhs during 1987-88 i.e. the expenses actually increased more than 3 times and the percentage share of the administrative expenses in the working capital was 2.4% during



1983-84 and it went on increasing upto 2.7% during 1987-88.

The dividend amount of the entire bank during 1983-84 was Rs. 3.90 lakhs, and the bank had distributed 12% dividend during the same year. Dividend amount also went on increasing gradually upto 4.63 lakhs by 1987-88 and the bank was distributing 12% dividend during all the 5 years period except during 1986-87 in which it had distributed 15% dividend on account of more increased profit.

Table No.2 reveals the picture of the percentage share of loans of the different major areas in total outstanding loans during the 5 years' study period.

During 1983-84 total outstanding domestic loans amounted to Rs. 532.18 lakhs which is 30.21% in the total outstanding loans. The domestic loans went on increasing gradually to Rs. 1,258.03 lakhs by 1987-88 and the % share during the said year in total outstanding loans was 23.64%. In this connection it is worth noting that the percentage share of outstanding domestic loan was 31.55% during 1984-85 and 31.08% during 1985-86 i.e. revealing an increase but the % share during 1986-87 was 25.98% which shows striking decrease and during 1987-88 it went down to 23.64%.

The % share of the outstanding housing loans in the total loans stands at 11.64 during 1983-84, 16.64 during 1984-85, 21.10 during 1985-86, 24.59 during 1986-87 and 27.47 during 1987-88. This clearly shows that the % of housing loans has been constantly increasing during all the 5 years period.

The % share of outstanding trade loans in the total outstanding loans during 1983-84 stands at 22.03, during 1984-85, at 26.70 during 1985-86 at 25.34, during 1986-87 - 27.90 and 1987-88 - 20.43. The % share went on increasing from 1983-84 to 1986-87 but decreased strikingly during 1987-88.

The share of priority sector loans in total outstanding loans upto 1984 amounted to 32.55%. From 1983-84 onwards it went on increasing. During 1984-85 it was 34.99%, 1985-86 - 35.47%, 1986-87 - 56.32% and during 1987-88 - 54.43%. Striking increase in percentage share is found during the last two years period of study.

Share of priority sector small traders loan in the total outstanding loans amounted to 6.18% upto 1984. It went on increasing during the study period - during 1984-85 - 9.95%, 1985-86 - 9.60%, 1986-87 - 19.63% and 1987-88 - 10.85%.

The share of total outstanding transport loan forms 12.27% upto 1984. It is a striking thing that the % share of the transport loan went on decreasing during the study period. It was 10.73% during 1984-85, 7.43% during 1985-86, 9.93% during 1986-87 and 7.26% during 1987-88.

The share of allied agricultural loans in total outstanding loans stands at 1.83% upto 1984. During the study period it is found increasing during 1984-85 - 3.43%, 1985-86 - 2.05%, 1986-87 - 3.16%, and 1987-88 - 2.68%.

SANGLI URBAN CO-OP. BANK LTD., SANGLI  
3. Table Showing The Picture Of Transport Loans' Growth During 1983-84 To 1987-88.  
(Rs. in lakhs)

Year	Total Working capital	Total outstanding Loans	No. of Accounts of Transport Loans	Total outstanding Transport Loans	% share of Transport Loans in Working Capital	% share of Transport Loans in total loans	Average amount of Transport loans on each account (Rs. in Thousands)
1	2	3	4	5	6	7	8
1983-84	2590.38	1761.14	418	216.17	8.34	12.27	51715.31
1984-85	3289.57	2053.68	537	220.45	6.70	10.73	41052.14
1985-86	4197.88	2633.60	508	195.73	4.66	7.43	38529.52
1986-87	5347.46	3619.64	835	359.58	6.72	9.93	43063.47
1987-88	7292.94	5320.84	1110	386.78	5.29	7.26	34845.04

SOURCE : Figures of the table are taken from the bank records and annual reports of the bank.

ANALYSIS :

1) % share of transport loans in Working Capital =  $\frac{100}{\text{Working Capital}} \times \text{Transport loans}$

2) % share of transport loans in total loans =  $\frac{100}{\text{Total loans}} \times \text{Transport loans}$

3) The figures of % and average amount is showing decrease in 1984-85, 1985-86 and 1987-88.

Table number 3 reflects the picture of growth of transport loans during the study period of 5 years. Upto the year 1984 the bank had advanced total loans to the tune of Rs. 216.17 lakhs and the amount has gone upto Rs. 386.78 lakhs during the year 1987-88. Though the amount advanced to transport operators seems to be increasing during the study period, the percentage share of transport loans in total outstanding loans, in working capital has gone down during the study period. The share of transport loan in total loans stands at 12.27% by the end of 1984 and then after 10.73% during 1984-85, 7.43% during 1985-86, 9.93% during 1986-87 and 7.26% during 1987-88.

Similarly, the share of transport loans in working capital was 8.34% by the end of 1984. It came down to 6.70% during 1984-85, 4.66% during 1985-86, and again little raised to 6.72% during 1986-87 and again fallen down 5.29% during 1987-88.

It is worth noting that the average amount of transport loans on each account stood at Rs. 51,715.31 thousands during 1983-84. It reduced down to 41,052.14 thousands during 1984-85, 38,529.52 thousands during 1985-86, but during 1986-87 it again slightly raised to Rs. 43,063.47 thousands and during it reduced down to Rs. 34,845.04 thousands. This reveals that bank has followed cautious policy of advancing loans to transport area during the study period.

Year	Total Working Capital	Total outstanding loans	No. of accounts of Allied Agricultural Loans	Total outstanding Allied Agricultural Loans	% share of Allied Agricultural Loans in Working Capital	% share of Allied Agricultural Loans in total loans	Average amount of Allied Agricultural Loans on each account (Rs. in Thousands)
1	2	3	4	5	6	7	8
1983-84	2590.38	1761.14	500	32.24	1.24	1.83	6448.00
1984-85	3289.57	2053.68	1009	70.47	2.14	3.43	6984.00
1985-86	4197.88	2633.60	900	54.24	1.29	2.05	6027.00
1986-87	5347.46	3619.64	1957	114.52	2.14	3.16	5851.81
1987-88	7297.94	5320.84	2261	142.60	1.95	2.68	6306.94

SOURCE : Above figures are taken from the bank records and annual reports of the bank.

ANALYSIS :

- 1) % share of agricultural loans to Working Capital =  $\frac{\text{Agricultural Loans}}{\text{Working Capital}} \times 100$
- 2) % share of agricultural loans to total loans =  $\frac{\text{Agricultural Loans}}{\text{Total Loans}} \times 100$

Table No. 4 presents the position of allied agricultural loans during the period 1983-84 to 1987-88. The agricultural loans advanced by the Sangli Urban Co-operative Bank Ltd., Sangli have been increasing markedly during the period 1983-84 to 1987-88. By the end of the year 1983-84 total outstanding allied agricultural loans at Rs. 32.24 lakhs and they increased to 70.47 lakhs during 1984-85 but to some extent fallen down to Rs. 54.24 lakhs during 1985-86 and again sharply risen to Rs. 114.52 lakhs during 1986-87 and Rs. 142.60 lakhs during 1987-88. This clearly shows that bank's contribution to agricultural development of allied areas is appreciable.

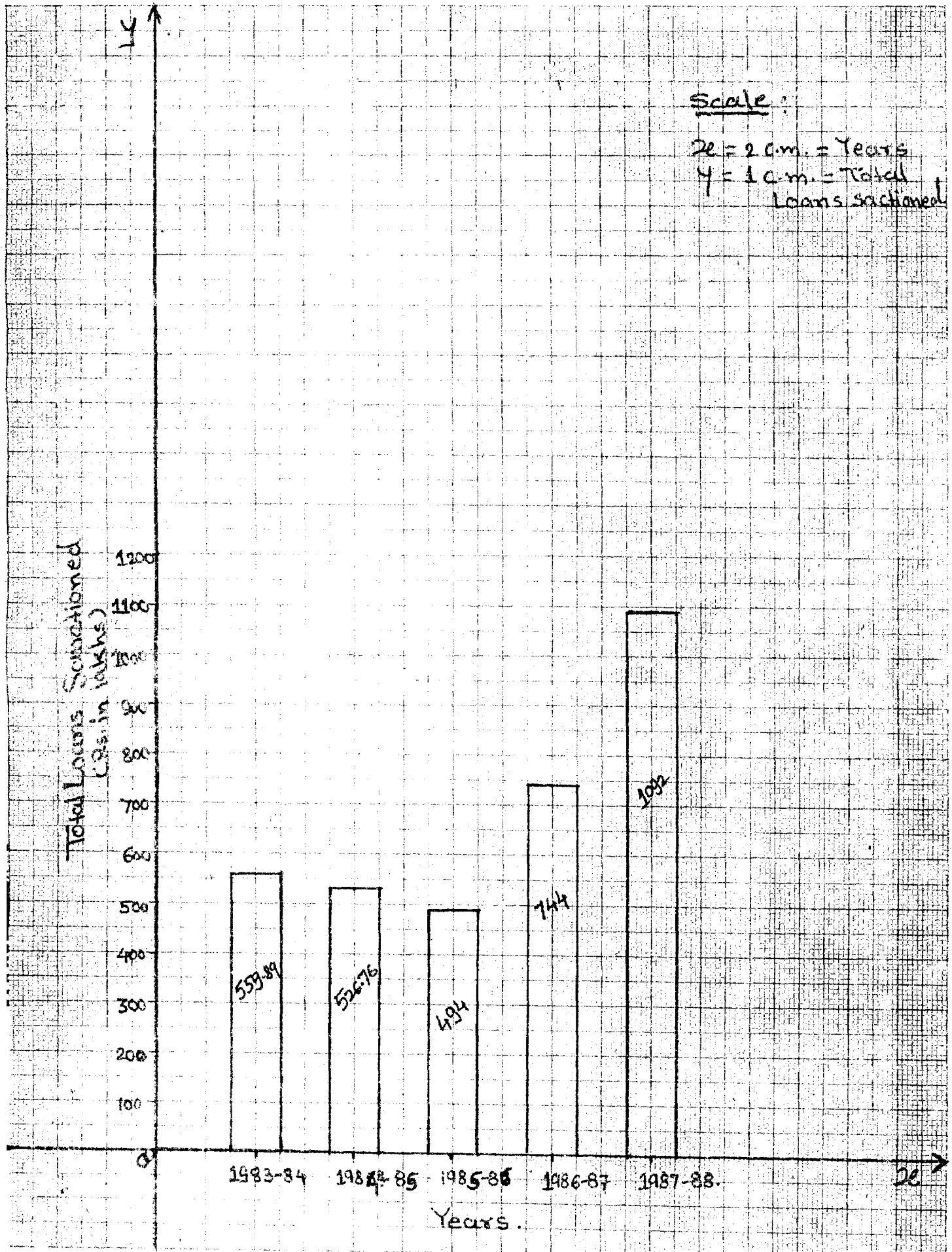
The % share of allied agricultural loans in total outstanding loans and so also in total working capital has been found increasing strikingly during the study period of 5 years. The share of allied agricultural loans in Working Capital stood at 1.24% during 1983-84, 2.14% during 1984-85, 1.29% during 1985-86, 2.14% during 1986-87 and 1.95% during 1987-88.

In the same manner share in total loans was Rs. 1.83% during 1983-84, 3.43% during 1984-85, 2.05% during 1985-86, 3.16% during 1986-87 and 2.68% during 1987-88.

The average amount of agricultural loans on each account seems to be near about constant during the study

period of 5 years. It stood at Rs. 6448.00 thousands during 1983-84, Rs. 6984.00 thousands during 1984-85, Rs. 6027.00 thousands during 1985-86, Rs. 5851.81 thousands during 1986-87 and Rs. 6306.64 thousands during 1987-88. Though the amount of agricultural loans on each account is nearly about same during the 5 years but in fact total agricultural loans advanced during 5 years period have gone up near about 5 times and the total number of beneficiaries also has increased  $4\frac{1}{2}$  times i.e. 500 to 2261.





Major

Table No.5 shows the picture of trade loans' growth during the period starting from 1983-84 to 1987-88. Upto the end of 1983-84 the trade loans amounted to Rs. 388.00 lakhs and this figure went on remarkably increasing during the 5 years period. It stood at Rs. 548.44 lakhs during 1984-85, Rs. 667.40 lakhs during 1985-86, Rs. 1010 lakhs during 1986-87 and Rs. 1087.50 lakhs during 1987-88. The amount increased about 2½ times. In the same manner total number of trade accounts also went on increasing from 1250 in 1983-84 to 5795 in 1987-88. This increase is nearly 5 times and the share of trade loans in total loans is found moving in between 20.43 to 27.90. It was 22.03 during 1983-84 and then it raised sharply 26.70 during 1984-85 and fallen down to 25.34 during 1985-86 and reached the peak point - 27.90% during 1986-87. But it is found suddenly falling down to 20.43 during 1987-88.

The share of trade loans in Working Capital gives the similar impression. It was 14.97% during 1983-84, 16.67% during 1984-85, 15.39% during 1985-86, 18.88% during 1986-87 and 14.90% during 1987-88. On the whole trade loans' policy looks to be well framed.

Priority sector small trade loans have been found increasing during the study period - 1983-84 to 1987-88. They were Rs. 108.97 lakhs during 1983-84, Rs. 204.44 lakhs during 1984-85, Rs. 253.08 lakhs during 1985-86, Rs. 710.88 lakhs during 1986-87 and Rs. 577.53 lakhs during 1987-88.

The share of priority sector small trade loans in total trade loans stood at 28.08% during 1983-84, 37.27% during 1984-85, 37.91% during 1985-86, and it sharply increased to 70.38% during 1986-87 then it fallen down to 53.10% during 1987-88.

Similarly, the share of priority sector small trade loans in working capital too reflects the same picture. During 1983-84 it was 4.20%, during 1984-85 - 6.21%, 1985-86 - 6.02%, during 1986-87 it raised to 13.29% and during 1987-88 again fallen down to 7.91%. All these analytical points suggest that the provision of priority sector small trade loan has been made much better than that of transport loan by the bank.

#### 5.5 MICRO-LEVEL STUDY OF MAIN BRANCH OF THE BANK -

The researcher has completely consentrated on her micro-level study of the advances of the main branch to transport, agriculture and trade. Hence, naturally it would be proper to take into consideration the contributory share of the main branch to the total banking business of the entire Sangli Urban Co-operative Bank during the period 1983-84 to 1987-88.

Main Branch's Total Overdues  
Cr Rs. in lakhs

Scale: -  
2c = 2 C.m. = Years  
4 = 1 C.m. = Total  
overdues.

100  
90  
80  
70  
60  
50  
40  
30  
20  
10  
0

1983-84 1984-85 1985-86 1986-87 1987-88

Years

33.19

46.32

51.20

73.50

97.39

Major

This table reveals the business share of the main branch in the total business of the entire bank during the 5 years study period.

To trace out the share of the main branch 5 important components -

a) Share Capital    b) Deposits    c) Working Capital  
d) Loans    and    e) Net Profit have been taken into consideration. During the five years' period share capital of the entire bank has increased from Rs. 35.83 lakhs by the end of 1983-84 to Rs. 39.99 lakhs during 1987-88. That means about 4 lakhs of total increase of the entire bank is noted. At the same time the share of main branch in the total share capital of the bank stood at Rs.7/- lakhs upto the year 1983-84 and by the end of 1987-88 it increased to Rs. 8 lakhs i.e. an increase of 1/- lakh Rs. share capital is made by main branch. Out of the total increase of Rs. 5 lakhs of entire bank Rs. 1 lakh increase has been contributed by the main branch. That means 1/5th of the share in the total share capital increase of the entire bank is made by the main branch. And when we look at the actual share capital contribution, the % share stands at 19.35 during 1983-84 and it has gone upto 20% during 1987-88.

The deposits of the entire bank during the study period of 5 years have gone up from Rs. 2087.88 lakhs during 1983-84 to Rs. 6066.87 lakhs during 1987-88. At the same time

the deposits of the main branch have been raised from Rs. 522 lakhs during 1983-84 to 1213.90 lakhs during 1987-88. The share of the main branch in the total deposits of the entire bank stand at 25% during 1983-84, 25% during 1985 and the slightly fallen down to 20.01% during 1985-86, 20.01% during 1986-87 and 20% during 1987-88. During the last 3 years of the study period the share of the main branch reflects 20% deposits' contribution to the entire deposits of the bank.

The Working Capital of the entire bank was Rs. 2590.38 lakhs during 1983-84 and it has gone upto Rs. 7297.94 lakhs during 1987-88. The share of the Working Capital contribution made by the main branch stands at Rs. 650-10 lakhs during 1983-84 and it has gone upto Rs. 1461.65 lakhs during 1987-88. The share of the main branch in the total working capital of the entire bank is found to be 25.09% during 1983-84, 20.00% during 1984-85 and then fallen to 20.05% during 1985-86, 19.27% during 1986-87 and 20.02% during 1987-88.

Total loans of the entire bank amounted to Rs. 1761.14 lakhs during 1983-84 and the figure shot upto Rs. 5320.84 lakhs during 1987-88. The total loans advanced by the main branch during the same period stood at Rs. 559.89 lakhs during 1983-84 and the amount went upto Rs. 1092.00 lakhs during 1987-88. The share contributed in advancing loans by the main branch stands at 31.79% during 1983-84, and it fallen down to

25.64% during 1984-85 again it came down to 18.75% during 1985-86, 20.55% during 1986-87 and 20.52% during 1987-88.

The net profits of the entire bank during the 5 years period amounted to Rs. 17.93 lakhs during 1983-84 and the figure went upto Rs. 35.46 lakhs during 1987-88. In this amount the contribution of net profit made by the main branch was Rs. 4.50 lakhs during 1983-84 and the amount went upto Rs. 7.09 lakhs during 1987-88. The share of the main branch stands at 25.09% during 1983-84, 25.03% during 1984-85, then it fallen down to 20.00% during 1985-86, 20.01% during 1986-87 and 19.99% during 1987-88.

Broadly speaking the share of the main branch in the entire business of the bank is about 1/5th in general. Hence, the researcher has pinned her attention to the aspect of making micro-study of the main branch as it holds key position.

If the business trends of the bank prevailing during the study period remain similar; the loans likely to be advanced and the profits to be earned by the main branch during the future period 1988-89 to 1994-95 - can be calculated by Regression Method as follows -

Total Loans Sanctioned by the Main Branch.

Year	Total Loans sanctioned by the main branch of the bank ( Y )
( Rs. in lakhs )	
1983-84	559.89
1984-85	526.76
1985-86	494.00
1986-87	744.00
1987-88	1092.00
Total ..	3416.65

Forecasting of Total Loans Sanctioned for 1988 to 1995 with the help of Regression Analysis.

X	$(X-\bar{X})$ X	X <sup>2</sup>	Y	$(Y-\bar{Y})$ (-Y)	Y <sup>2</sup>	XY
1	-2	4	559.89	-123.44	15237.4	246.88
2	-1	1	526.76	-156.57	24514.1	156.57
3	0	0	494.00	-189.33	35845.8	0
4	1	1	744.00	60.67	3680.8	60.67
5	2	4	1092.00	408.67	167011.1	817.34
15	0	10	3416.65	0	246289.2	1281.46

$$\bar{X} = \frac{\sum X}{N} = \frac{15}{5} = 3. \quad \bar{Y} = \frac{\sum Y}{N} = \frac{3416.65}{5} = 683.33$$

Coefficient of regression of Y on X

$$\therefore b_{yx} = \frac{\sum XY}{\sum X^2} = \frac{6.45}{10} = 0.64$$



The equation of line of regression of Y on X

$$= Y - \bar{Y} = by_x (X - \bar{X})$$

$$\therefore Y - 683.33 = 128.14 (X - 3)$$

When X = 6

$$Y - 683.33 = 128.14 (6 - 3)$$

$$\therefore Y - 683.33 = 128.14 (3)$$

$$\therefore Y - 683.33 = 384.42$$

$$\therefore Y = \underline{1067.75} \text{ ----- (1988-89)}$$

When X = 7

$$Y - 683.33 = 128.14 (7-3)$$

$$\therefore Y - 683.33 = 128.14 (4)$$

$$\therefore Y - 683.33 = 512.56$$

$$\therefore Y - 683.33 + 512.56$$

$$\therefore Y = \underline{1195.89} \text{ ----- (1989-90)}$$

When X = 8

$$Y - 683.33 = 128.14 (8 - 3)$$

$$\therefore Y - 683.33 = 128.14 (5)$$

$$\therefore Y - 683.33 = 640.7$$

$$\begin{array}{l} \circ \\ \bullet \bullet \end{array} Y = 683.33 + 640.7$$

$$\begin{array}{l} \circ \\ \bullet \bullet \end{array} Y = \underline{1324.03} \quad \text{-----} \quad ( 1990-91 )$$

When X = 9

$$Y - 683.33 = 128.14 \quad ( 9 - 3 )$$

$$\begin{array}{l} \circ \\ \bullet \bullet \end{array} Y - 683.33 = 128.14 \quad (6)'$$

$$\begin{array}{l} \circ \\ \bullet \bullet \end{array} Y - 683.33 = 768.64$$

$$\begin{array}{l} \bullet \\ \bullet \bullet \end{array} Y - 683.33 + 768.64$$

$$\begin{array}{l} \bullet \\ \bullet \bullet \end{array} Y - 683.33 + 768.64$$

$$\begin{array}{l} \circ \\ \bullet \bullet \end{array} Y = \underline{1452.17} \quad \text{-----} \quad ( 1991-92 )$$

When X = 10

$$Y - 683.33 = 128.14 \quad ( 10 - 3 )$$

$$\begin{array}{l} \bullet \\ \bullet \bullet \end{array} Y - 683.33 = 128.14 \quad ( 7 )$$

$$\begin{array}{l} \circ \\ \bullet \bullet \end{array} Y - 683.33 = 896.98$$

$$\begin{array}{l} \bullet \\ \bullet \bullet \end{array} Y - 683.33 + 896.98$$

$$\begin{array}{l} \circ \\ \bullet \bullet \end{array} Y = \underline{1580.31} \quad \text{-----} \quad ( 1992-93 )$$

When X = 11

$$\begin{aligned} Y - 683.33 &= 128.14 \quad (12-3) \\ \therefore Y - 683.33 &= 128.14 \quad (9) \\ \therefore Y - 683.33 &= 1153.26 \\ \therefore Y &= 683.33 + 1153.26 \\ \therefore Y &= \underline{1836.59} \quad \text{-----} \quad (1994-95) \end{aligned}$$

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Forecasted Figures

Year	Total Loans sanctioned by the main branch of the bank ( Rs. in lakhs )
1988-89	1067.75
1989-90	1195.89
1990-91	1324.03
1991-92	1452.17
1992-93	1580.31
1993-94	1708.45
1994-95	1836.59

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Net Profits of the Main Branch

Rs. in lakhs

Year (X)	Net Profits of the main branch ( Y )
1983-84	4.50
1984-85	5.16
1985-86	5.06
1986-87	6.43

1987-88

7.09

Total .. 28.24

Forecasting of Net Profits for 1988 to 1995 with the help of Regression Analysis.

X	x	x <sup>2</sup>	Y	y	y <sup>2</sup>	xy
1	-2	4	4.50	-1.14	1.29	2.28
2	-1	1	5.16	-0.48	0.23	0.48
3	0	0	5.06	-0.58	0.33	0.00
4	1	1	6.43	0.79	0.62	0.79
5	2	4	7.09	1.45	2.10	2.90
15	0	10	28.24	0.04	4.57	6.45

$$\bar{X} = \frac{\sum X}{N} = \frac{15}{5} = 3 \quad \bar{Y} = \frac{\sum Y}{N} = \frac{28.24}{5} = 5.64$$

Coefficient of regression of Y on X

$$b_{yx} = \frac{\sum xy}{\sum x^2} = \frac{6.45}{10} = 0.64$$

The equation of line of regression of Y on X.

$$Y - \bar{Y} = b_{yx} (X - \bar{X})$$

$$Y = 5.64 + 0.64 (X - 3)$$

When X = 6

$$Y - 5.64 = 0.64 (6 - 3)$$

$$Y - 5.64 = 0.64 (3)$$

•  $Y - 5.64 = 1.92$

•  $Y = 5.64 + 1.92$

•  $Y = \underline{7.56}$  ----- ( 1988-89 )

When X = 7

•  $Y - 5.64 = 0.64 ( 7 - 3 )$

•  $Y - 5.64 = 0.64 ( 4 )$

•  $Y - 5.64 = 2.56$

•  $Y = \underline{8.20}$  ----- ( 1989-90 )

When X = 8

•  $Y - 5.64 = 0.64 ( 8 - 3 )$

•  $Y - 5.64 = 0.64 ( 5 )$

•  $Y - 5.64 = 3.20$

•  $Y = \underline{8.84}$  ----- ( 1990-91 )

When X = 9

•  $Y - 5.64 = 0.64 ( 9 - 3 )$

•  $Y - 5.64 = 0.64 ( 6 )$

•  $Y - 5.64 = 3.84$

•  $Y = \underline{9.48}$  ----- ( 1991-92 )

When X = 10

$$Y - 5.64 = 0.64 ( 10 - 3 )$$

$$Y - 5.64 = 0.64 ( 7 )$$

$$Y - 5.64 = 4.48$$

$$Y = \underline{10.12} \quad \text{-----} \quad (1992-93 )$$

When X = 11

$$Y - 5.64 = 0.64 ( 11 - 3 )$$

$$Y - 5.64 = 0.64 ( 8 )$$

$$Y - 5.64 = 5.12$$

$$Y = 5.64 + 5.12$$

$$Y = \underline{10.76} \quad \text{-----} \quad (1993-94 )$$

When X = 12

$$Y - 5.64 = 0.64 ( 12 - 3 )$$

$$Y - 5.64 = 0.64 ( 9 )$$

$$Y - 5.64 = 5.76$$

$$Y = 5.64 + 5.76$$

$$Y = \underline{11.40} \quad \text{-----} \quad ( 1994-95 )$$

Forècasted Figures

Year	Profit ( Rs. in lakhs )
1988-89	7.56
1988-90	8.20
1990-91	8.84
1991-92	9.48
1992-93	10.12
1993-94	10.76
1994-95	11.40

RESULT : If the trend of profit remains same, the position of profit in the years 1988-89 to 1994-95 will be shown in the above table.

Net Profits of the main branch  
(Rs. in lakhs)

Scale:

2c = 2 c.m. = Years  
1y = 1 c.m. = Net profits  
of the main branch.

10  
9  
8  
7  
6  
5  
4  
3  
2  
1  
0

1983-84

1984-85

1985-86

1986-87

1987-88

4.50

5.16

5.06

6.43

7.09

Years

Major



The above table presents the view of transport loans advanced for different types of transport vehicles by the main branch of the bank during 1983-84 to 1987-88. Here we find the detailed account of advances made to different types of transport operators and their percentage share in the total transport loans.

Upto the end of year 1983-84 there were 105 number of accounts of total transport operators. It increased to 124 during 1984-85, 120 during 1985-86, 167 during 1986-87 and 222 during 1987-88. The total amount of transport loans advanced by the main branch stood at Rs. 53.04 lakhs upto the end of 1983-84, it slightly increased to Rs.55.11 lakhs during 1984-85, then sharply fallen down to Rs. 39.15 lakhs during 1985-86 and again gone upto Rs. 72.00 lakhs during 1986-87 and Rs. 77.36 lakhs during 1987-88. This amount has been divided into the advances made to the different category of transport operators.

The total number of accounts of trucks/delivery vans operators was 6 by the end of 1983-84 and it went upto 10 during 1984-85 and 1985-86. Again it gone up sharply to 26 during 1986-87 and 34 during 1987-88. The total amount advanced to this type of transport operators was Rs. 35.00 lakhs upto the end of 1983-84, Rs. 36.00 lakhs during 1984-85;

Rs. 26.00 lakhs during 1985-86 and it gone up to Rs. 46.00 lakhs during 1986-87 and Rs. 47.00 lakhs during 1987-88.

The share of the truck/delivery van loans in total transport loans stands at 65.98% upto the end of 1983-84, 65.32% during 1984-85, 66.41% during 1985-86, 63.88% during 1986-87 and 60.75% during 1987-88.

Though the number of accounts of truck/delivery van operators appear to be increasing during the study period, Actually the amount advanced to them has not been increased in the same proportion. When we look at the % share of loans advanced to truck/delivery operators, it was initially 65.98% upto the end of 1983-84 and actually came down to 60.75% by the end of 1987-88. The % share has not been much disturbed. It is moving in between 66.41% and 60.75%.

During the study period the total no. of loan accounts of taxi/tempo/rickshaw operators stood at 34 upto the end of 1983-84; it became 44 during 1984-85; reduced to 40 during 1985-86 and increased to 51 during 1986-87; to 68 during 1987-88. Actually the amount advanced to this type of transport operators was Rs. 11 lakhs by the end of 1983-84; Rs. 12 lakhs during 1984-85; and was reduced to Rs. 8 lakhs during 1985-86, then raised again to Rs. 18 lakhs during and to Rs. 20 lakhs during 1987-88. The share of the this type of loans in the total transport loans was 20.73% during

1983-84; 21.77% during 1984-85; 20.43% during 1985-86; then it went upto 25% during 1986-87 and 25.85% by the end of 1987-88. The number of accounts the total amount advanced to and the share of this type of transport operators has been found gradually increasing during the 5 years study period.

The number of accounts of the two wheeler borrowers was 65 during 1983-84; 70 during 1984-85 and 1985-86; then it raised to 90 during 1986-87 and 120 by the end of 1987-88. The amount advanced was Rs. 7.04 lakhs during 1983-84; Rs.7.11 lakhs during 1984-85; then it reduced to Rs. 5.15 lakhs during 1985-86; and to Rs. 8.00 lakhs during 1986-87 but again increased to Rs. 10.36 lakhs by the end of 1987-88. The share of two wheeler borrower in the total transport loans stands at 13.27% during 1983-84; 12.90% during 1984-85, 13.15% during 1985-86; 11.11% during 1986-87 and 13.39% during 1987-88. By the above analysis it is clear that the advances to the two wheeler owners stand nearly in the same proportion without radical changes. The % share moves roughly between 11 and 13%.

If the business trends of the bank prevailing during the study period remain similar, the total transport loans likely to be advanced by the main branch during the future period 1988 to 1995 can be calculated by Regression Method

as follows :

Total Transport loans sanctioned by the Main Branch  
( Rs. in lakhs )

Year	Total transport loans sanctioned by main branch of the bank ( Y )
1983-84	53.04
1984-85	55.11
1985-86	39.15
1986-87	72.00
1987-88	77.36
Total ..	296.66

Forecasting of total transport loans for 1988 to 1995  
with the help of Regression Analysis.

X	$(X-\bar{X})$ x	$x^2$	Y	$(Y-\bar{Y})$ Y	$y^2$	xy
1	-2	4	53.04	-6.29	39.56	12.58
2	-1	1	55.11	-4.22	17.80	4.22
3	0	0	39.15	-20.28	407.23	0
4	1	1	72.00	12.67	160.52	12.67
5	2	4	77.36	18.03	325.08	36.06
15	0	10	296.66	0.01	950.19	65.53

$$N = 15; \quad x = 0; \quad x^2 = 10; \quad Y = 296.66 \quad y = 0.01$$

$$y^2 = 950.19 \quad \Sigma xy = 65.53$$

$$\bar{X} = \frac{\Sigma X}{N} = \frac{15}{5} = 3 \quad \bar{Y} = \frac{\Sigma Y}{N} = \frac{296.66}{5} = 59.33$$

Coefficient of regression of Y on X

$$b_{yx} = \frac{\sum XY}{\sum X^2} = \frac{65.53}{10} = 6.55$$

The equation of line of regression of Y on X

$$= Y - \bar{Y} = b_{yx} ( X - \bar{X} )$$

$$\therefore Y - 59.33 = 6.55 ( X - 3 )$$

Values of Y when X = 6, 7, 8, 9, 10, 11, 12

When X = 6

$$Y - 59.33 = 6.55 ( 6 - 3 )$$

$$\therefore Y - 59.33 = 6.55 ( 3 )$$

$$\therefore Y - 59.33 = 19.65$$

$$\therefore Y = 59.33 + 19.65$$

$$\therefore Y = \underline{78.98} \quad \text{----- ( 1988-89 )}$$

When X = 7

$$Y - 59.33 = 6.55 ( 7 - 3 )$$

$$\therefore Y - 59.33 = 6.55 ( 4 )$$

$$\therefore Y - 59.33 = 26.20$$

$$\therefore Y = 59.33 + 26.20$$

$$\therefore Y = \underline{85.53} \quad \text{----- ( 1989-90 )}$$

When X = 8

$$Y - 59.33 = 6.55 ( 8 - 3 )$$

$$\bullet \bullet \bullet Y - 59.33 = 6.55 ( 5 )$$

$$\bullet \bullet \bullet Y - 59.33 = 31.25$$

$$\bullet \bullet \bullet Y = 59.33 + 31.25$$

$$\bullet \bullet \bullet Y = \underline{90.58} \quad \text{-----} \quad ( 1990-91 )$$

When X = 9

$$Y - 59.33 = 6.55 ( 9 - 3 )$$

$$\bullet \bullet \bullet Y - 59.33 = 6.55 ( 6 )$$

$$\bullet \bullet \bullet Y - 59.33 = 39.3$$

$$\bullet \bullet \bullet Y = 59.33 + 39.3$$

$$\bullet \bullet \bullet Y = \underline{98.63} \quad \text{-----} \quad ( 1991-92 )$$

When X = 10

$$Y - 59.33 = 6.55 ( 10 - 3 )$$

$$\bullet \bullet \bullet Y - 59.33 = 6.55 ( 7 )$$

$$\bullet \bullet \bullet Y - 59.33 = 45.85$$

$$\bullet \bullet \bullet Y = 59.33 + 45.85$$

$$\bullet \bullet \bullet Y = \underline{105.18} \quad \text{-----} \quad ( 1992-93 )$$

When X = 11

$$Y - 59.33 = 6.55 \quad ( 11 - 3 )$$

$$\bullet \quad Y - 59.33 = 6.55 \quad ( 8 )$$

$$\bullet \quad Y - 59.33 = 52.4$$

$$\bullet \quad Y = 59.33 + 52.4$$

$$\bullet \quad Y = \underline{111.73} \quad \text{-----} \quad ( 1993-94 )$$

When X = 12

$$Y - 59.33 = 6.55 \quad ( 12 - 3 )$$

$$\bullet \quad Y - 59.33 = 6.55 \quad ( 9 )$$

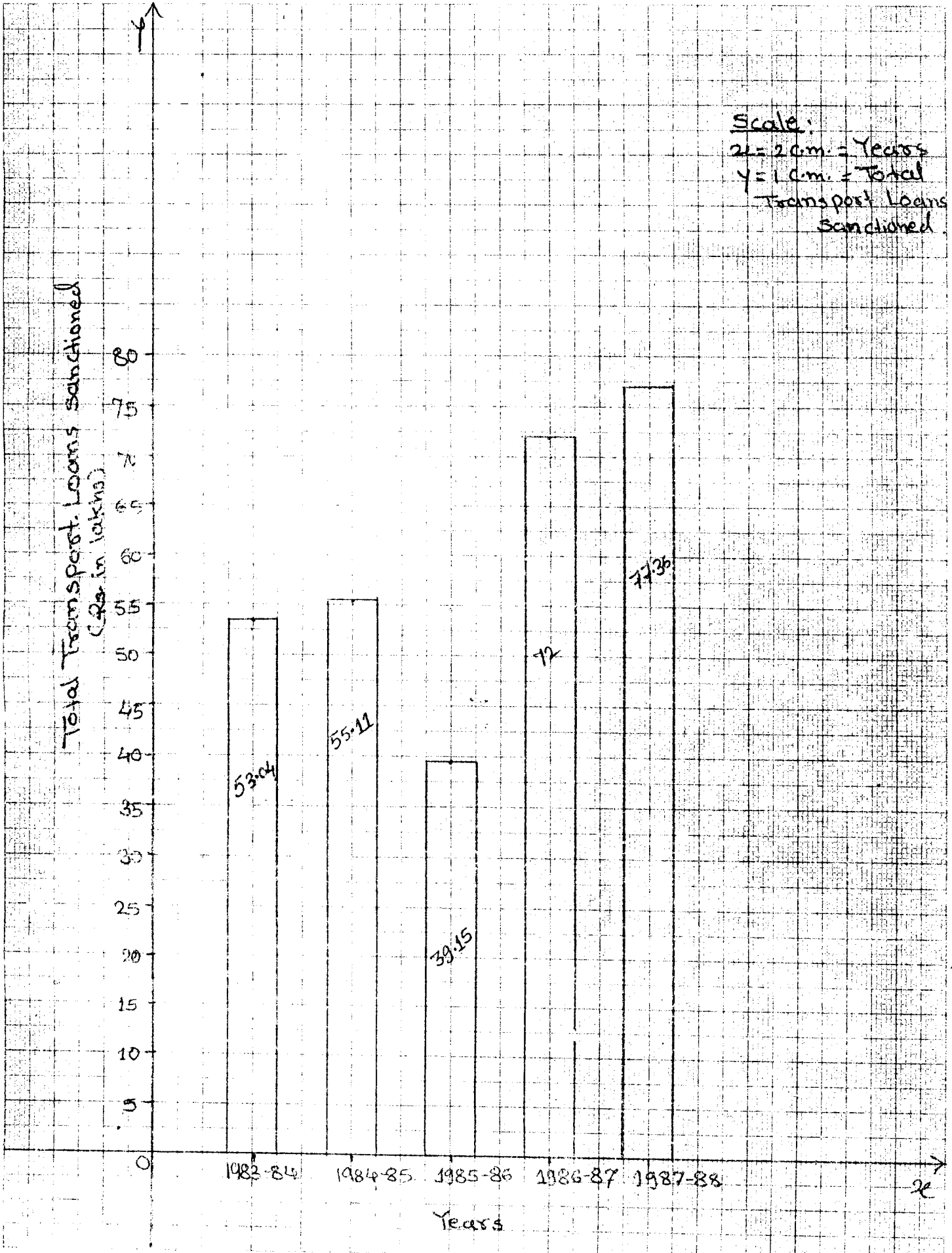
$$\bullet \quad Y - 59.33 = 58.95$$

$$\bullet \quad Y = 59.33 + 58.95$$

$$\bullet \quad Y = \underline{118.28} \quad ( 1994-95 )$$

Forecasted Figures

Year	Total transport loans will be sanctioned by the main branch ( Rs. in lakhs )
1988-89	78.98
1989-90	85.53
1990-91	90.58
1991-92	98.63
1992-93	105.18
1993-94	111.73
1994-95	118.28



Major



Table no. 8 presents the picture of allied agricultural loans advanced by the main branch for different purposes during 1983-84 to 1987-88.

The number of accounts of allied agricultural loans went on increasing during the study period. It was 125 during 1983-84; 252 during 1984-85; 180 during 1985-86 then raised upto 391 during 1986-87 and 452 during 1987-88. The total amount advanced to allied agricultural purposes was Rs. 8.06 lakhs during 1983-84; Rs. 8.11 lakhs during 1984-85; Rs. 10.85 lakhs during 1985-86, then sharply increased to Rs. 23.00 lakhs during 1986-87 and Rs. 28.52 lakhs during 1987-88.

The number of accounts of the borrowers for lift irrigation/machinery etc. was 75 during 1983-84; then sharply increased to 140 during 1984-85; again fallen down to 95 during 1985-86; then steeply increased to 251 during 1986-87 and 268 during 1987-88. In the beginning of the study period i.e. 1983-84 the total loans advanced for this type were Rs. 5.80 lakhs. The amount increased more than 2½ times i.e. Rs. 13.00 lakhs during 1984-85. It came down to Rs. 8.08 lakhs during 1985-86, and again sharply increased to Rs. 17.00 lakhs during 1986-87, and Rs. 19.15 lakhs by the end of 1987-88. The share of lift irrigation/machinery borrowers in the total agricultural loans is striking one. It stands at 65.75% during 1983-84; 71.78% during 1984-85;

74.47% during 1985-86; 73.91% during 1986-87 and 67.14% during 1987-88.

Though the bank is not allowed by Reserve Bank of India to advanced loans directly for actual crop development etc. the efforts of the bank in providing aids to agriculture are worth notable from the above table.

The number of accounts of the farmers borrowing for dairy farming purpose was 40 during 1983-84; it doubled actually i.e. became 82 during 1984-85; then 70 during 1985-86; and again sharply increased to 100 during 1986-87; 120 during 1987-88. The total loans disbursed by the main branch were Rs. 2.06 lakhs during 1983-84; Rs. 4.40 lakhs during 1984-85; Rs. 2.43 lakhs during 1985-86; Rs. 5.08 lakhs during 1986-87 and Rs. 7.57 lakhs during 1987-88. The share of the dairy farming loans in the total allied agricultural loans stood at 25.55% during 1983-84; 24.29% during 1984-85; 22.39% during 1985-86; 22.08% during 1986-87 and 26.54% during 1987-88. The % moves in between 22.03% and 26.54%. The advances for dairy farming are appreciable.

In the same manner the bank has made advances to poultry farming also. The number of accounts of poultry farming borrowers was 10 during 1983-84; it increased to 30 during 1984-85; then fallen down to 15 during 1985-86; again increased to 40 during 1986-87 and 64 during 1987-88.

The total amount of poultry loans was Rs. 0.25 lakhs during 1983-84; then it increased to Rs. 0.71 lakhs during 1984-85; but fallen down to Rs. 0.34 lakhs during 1985-86; and again increased to Rs. 0.92 lakhs during 1986-87 and Rs. 1.80 lakhs during 1987-88. The share of poultry farming loans in total agricultural loans was 2.48% during 1983-84; 3.92% during 1984-85; 3.13% during 1985-86; 4.00% during 1986-87 and 6.31% during 1987-88.

Though the bank has made beginning of advancing loans to poultry farming it is not upto the expectation.

If the business trends of the bank prevailing during the study period remain similar, the allied agricultural loans likely to be advanced by the main branch during the future period - 1988-89 to 1994-95 can be calculated by Regression Method as follows -

Total Agricultural Loans sanctioned by the Main Branch. ( Rs. in lakhs )

Year: (X)	Total agricultural loans sanctioned by the main branch of the bank ( Y )
1983-84	8.06
1984-85	18.11
1985-86	10.85
1986-87	23.00
1987-88	28.52
Total ..	<u>88.54</u>

Forecasting of total agricultural loans for 1988 to 1995 with the help of Regression Analysis.

X	x	x <sup>2</sup>	Y	Y	Y <sup>2</sup>	xy
1	-2	4	8.06	-9.54	92.92	19.28
2	-1	1	18.11	0.41	0.16	0.41
3	0	0	10.85	-6.85	46.92	0
4	1	1	23.02	5.30	28.09	5.30
5	2	4	28.52	10.82	117.07	21.64
15	0	10	88.54	0.04	285.16	46.63

$$\bar{X} = \frac{\sum X}{N} = \frac{15}{5} = 3 \quad \bar{Y} = \frac{\sum Y}{N} = \frac{88.54}{5} = 17.70$$

Coefficient of regression of Y on X

$$b_{yx} = \frac{\sum xy}{\sum x^2} = \frac{46.63}{10} = 4.66$$

The equation of line of regression of Y on X.

$$Y - \bar{Y} = b_{yx} (X - \bar{X})$$

$$Y - 17.70 = 4.66 (X - 3)$$

when X = 6, 7, 8, 9, 10, 11, & 12 values of Y = ?

When X = 6

$$Y - 17.70 = 4.66 (6 - 3)$$

$$Y - 17.70 = 4.66 (3)$$

$$Y - 17.70 = 13.98$$

$$Y = 17.70 + 13.98$$

$$Y = 31.68$$

----- (1988-89)

When X = 7

$$Y - 17.70 = 4.66 \quad ( 7 - 3 )$$

$$\therefore Y - 17.70 = 4.66 \quad ( 4 )$$

$$\therefore Y - 17.70 = 18.64$$

$$\therefore Y = 17.70 + 18.64$$

$$\therefore Y = \underline{36.34} \quad \text{-----} \quad ( 1989-90 )$$

When X = 8

$$Y - 17.70 = 4.66 \quad ( 8 - 3 )$$

$$\therefore Y - 17.70 = 4.66 \quad ( 5 )$$

$$\therefore Y - 17.70 = 23.30$$

$$\therefore Y = 17.70 + 23.30$$

$$\therefore Y = \underline{41.00} \quad \text{-----} \quad ( 1990-91 )$$

When X = 9

$$Y - 17.70 = 4.66 \quad ( 9 - 3 )$$

$$\therefore Y - 17.70 = 4.66 \quad ( 6 )$$

$$\therefore Y - 17.70 = 27.96$$

$$\therefore Y = 17.70 + 27.96$$

$$\therefore Y = \underline{45.66} \quad \text{-----} \quad ( 1991-92 )$$

When X = 10

$$Y - 17.70 = 4.66 \quad ( 10 - 3 )$$

$$\bullet \bullet \bullet Y - 17.70 = 4.66 \quad ( 7 )$$

$$\bullet \bullet \bullet Y - 17.70 = 32.62$$

$$\bullet \bullet \bullet Y = 17.70 + 32.62$$

$$\bullet \bullet \bullet Y = \underline{50.32} \quad \text{----- ( 1992-93 )}$$

When X = 11

$$Y - 17.70 = 4.66 \quad ( 11 - 3 )$$

$$\bullet \bullet \bullet Y - 17.70 = 4.66 \quad ( 8 )$$

$$\bullet \bullet \bullet Y - 17.70 = 37.28$$

$$\bullet \bullet \bullet Y = \underline{54.28} \quad \text{----- ( 1993-94 )}$$

When X = 12

$$Y - 17.70 = 4.66 \quad ( 12 - 3 )$$

$$\bullet \bullet \bullet Y - 17.70 = 4.66 \quad ( 9 )$$

$$\bullet \bullet \bullet Y - 17.70 = 41.94$$

$$\bullet \bullet \bullet Y = 17.70 + 41.94$$

$$\bullet \bullet \bullet Y = \underline{59.64} \quad \text{----- ( 1994-95 )}$$

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Forecasted Figures

( Rs. in lakhs )

Year	Total agricultural loans will be sanctioned by main branch
1988-89	31.68
1989-90	36.34
1990-91	41.00
1991-92	45.66
1992-93	50.32
1993-94	54.28
1994-95	59.64

Scale:  
2.5 cm. = Years  
1 cm. = Total  
Agricultural loans  
Sanctioned.

Total Agricultural Loans Sanctioned  
(Rs. in lakhs)

0  
5  
10  
15  
20  
25  
30

1983-84 1984-85 1985-86 1986-87 1987-88

Years

8.06

18.21

10.35

23.00

28.52

Major



Table number 9 presents the detailed information of trade loans advanced by the main branch to different category of traders and businessmen in the traditional sector and so also the loans advanced to small traders and street sellers etc. in priority sector during the period 1983-84 to 1987-88.

During the study period of 5 years total number of accounts of different types of trade loans were 385 at the beginning i.e. in 1983-84; during 1984-85 it was 550; 1985-86 - 556; and sharply increased during 1986-87 - 1019 and in 1987-88 - 1169. The accounts increased nearly 3 times. The amount of loan advanced to all sort of traders and businessmen was Rs. 97 lakhs during 1983-84; Rs. 137.11 lakhs during 1984-85; Rs. 133.60 lakhs during 1985-86; Rs. 202.00 lakhs during 1986-87 and Rs. 217.50 lakhs during 1987-88. Total trade loans also increased more than twice.

Out of the above stated trade loans different category of traders and businessmen have been advanced different amounts of loans. Total number of cloth merchants was 20 during 1983-84; 26 during 1984-85; 30 during 1985-86; 21 during 1986-87 and 32 during 1987-88. The total amount of loans advanced to cloth merchants was Rs. 15.40 lakhs during 1983-84, Rs. 18.17 lakhs during 1984-85, Rs. 20.10 lakhs during 1985-86, Rs. 16.30 lakhs during

1986-87 and Rs. 21.20 lakhs during 1987-88. The share of total cloth loan in total trade loans was 15.37% during 1983-84; 13.63% during 1984-85; 15.04% during 1985-86; 8.06% during 1986-87 and 9.74% during 1987-88. This percentage share reveals the fact that total loans advanced to cloth merchants in the traditional sector has been decreased notably during the last two years study period.

The number of accounts of the loans advanced to grocers was 30 during 1983-84, 35 during 1984-85, 40 during 1985-86, 26 during 1986-87 and 41 during 1987-88. Total amount of loans advanced to grocers was Rs. 8.60 lakhs during 1983-84, Rs. 10.20 lakhs during 1984-85; Rs. 12.50 lakhs during 1985-86; Rs. 8.80 lakhs during 1986-87 and Rs. 12.80 during 1987-88. The share of loans advanced to grocers in total trade loans stands at 8.86% during 1983-84, 7.43% during 1984-85, 9.35% during 1985-86, 4.35% during 1986-87 and 5.88% during 1987-88. The share of loans advanced to grocers has been reduced by nearly 25%.

The number of accounts of the loans advanced to medical/stationary merchants was 15 during 1983-84, 23 during 1984-85, 26 during 1985-86, 17 during 1986-87 and 29 during 1987-88. The total loans advanced to medical/stationary, store merchants were Rs. 8.70 lakhs during

1983-84 Rs. 14.30 lakhs during 1984-85, Rs. 15.60 lakhs during 1985-86. Rs. 9.00 lakhs during 1986-87 and Rs.17.90 lakhs during 1987-88. The share of the medical/stationary stores' loans in the total trade loans was 8.96% during 1983-84, 10.42% during 1984-85, 11.66% during 1985-86, 4.42% during 1986-87 and 8.22% during 1987-88. In case of medical and stationary advances also the bank has reduced the amount during the last two years of study period.

The number of accounts of all other merchants loans in the traditional sector was 85 during 1983-84, 91 during 1984-85, 94 during 1985-86, 56 during 1986-87 and 98 during 1987-88. The total amount of loans advanced to all other merchants in the traditional sector was Rs. 37.30 lakhs during 1983-84, Rs. 42.80 lakhs during 1984-85, Rs. 44.80 lakhs during 1985-86, Rs. 25.90 lakhs during 1986-87 and Rs. 50.10 lakhs during 1987-88. The share of all other traditional merchants' loans in the total trade loans stood at 38.45% during 1983-84, 31.21% during 1984-85, 33.53% during 1985-86, 12.82% during 1986-87 and 23.03% during 1987-88. In this case also the % share during the last two years has notably gone down.

On the whole the bank seems to have revised its policy of advancing trade loans by curtailing traditional sector loans and diverting the amount to the priority sector small trade borrowers.

The number of accounts of small traders and street sellers in the priority sector were 235 during 1983-84, 375 during 1984-85, 366 during 1985-86, 819 during 1986-87 and 959 during 1987-88. The total amount of loans advanced to small traders and street sellers etc. in priority sector stood at Rs. 27 lakhs during 1983-84, Rs. 51.11 lakhs during 1984-85, Rs. 40.60 lakhs during 1985-86, Rs. 142 lakhs during 1986-87 and Rs. 115.50 lakhs during 1987-88. Their share in the total trade loans was 27.83% during 1983-84, 37.27% during 1984-85, 30.38% during 1985-86, 70.29% during 1986-87 and 53.10% during 1987-88. More particularly, the total amount of loans advanced to small traders in the priority sector and their % share in the total trade loans has been strikingly increased during 1986-87. On the whole, the bank has given prominence to small borrowers in the priority sector.

Especially, the bank has advanced more persons who are economically weaker in the priority sector. The total number of accounts of this type of borrowers was 150 during 1983-84, 250 during 1984-85, 240 during 1985-86, 614 during 1986-87 and 693 during 1987-88. Out of the total accounts of small traders and businessmen in priority sector more than 60% were economically weaker borrowers during the beginning year of the study period and more than 72% during the ending year of the study period. Total

loans advanced to economically weaker borrowers amounted to Rs. 3.00 lakhs during 1983-84, Rs. 15.22 lakhs during 1984-85, Rs. 16.00 lakhs during 1985-86, Rs. 39.05 lakhs during 1986-87 and Rs. 89.00 lakhs during 1987-88. Their share in total trade loans stood at 8.24% during 1983-84, 11.10% during 1984-85, 11.97% during 1985-86, 19.33% during 1986-87 and 40.91% during 1987-88. It is striking point that during the last year of study period the loans advanced to economically weak section in the priority sector has sharply gone up and has occupied 40.91% in the total trade loans.

If the business trends of the bank prevailing during the study period remain similar, the trade loans likely to be advanced by the main branch during the future period - 1988-89 to 1994-95 can be calculated as follows -

Total Trade Loans Sanctioned by the Main Branch.

( Rs. in lakhs )

Year (X)	Total Trade Loans sanctioned by the Main Branch of the bank. (Y)
1983-84	97.00
1984-85	137.11
1985-86	133.60
1986-87	202.00
1987-88	217.50
Total ..	<u>787.21</u>

Forecasting of total trade loans sanctioned for  
1988 to 1995 with the help of Regression Analysis.

X	(X - $\bar{X}$ ) x	x <sup>2</sup>	Y	(Y - $\bar{Y}$ ) Y	Y <sup>2</sup>	xy
1	-2	4	97.00	-60.44	3652.99	120.88
2	-1	1	137.11	-20.33	409.25	20.33
3	0	0	133.60	-23.84	568.34	00.00
4	1	1	202.00	44.56	1985.59	44.56
5	2	4	217.50	60.06	3607.20	120.12
15	0	10	787.21	0.01	10223.37	305.89

$$X = \frac{\sum X}{N} = \frac{15}{5} =$$

$$Y = \frac{\sum Y}{N} = \frac{787.21}{5} = 157.44$$

∴ Coefficient of regression of Y on X :-

$$b_{yx} = \frac{\sum xy}{\sum x^2}$$

$$\therefore 305.89 = 30.58 \quad \therefore b_{yx} = \underline{\underline{30.58}}$$

The equation of line of regression of Y on X :-

$$Y - \bar{Y} = b_{yx} (X - \bar{X})$$

$$Y - 157.44 = 30.58 (X - 3)$$

Now the value of when X = 6, 7, 8, 9, 10, 11, 12.

\* NOTE : The above 6 to 12 number indicates the years from 1988 to 1995.

When X = 6

$$Y - 157.44 = 30.58 (6 - 3)$$

$$\therefore Y - 157.44 = 30.58$$

$$\therefore Y - 157.44 = 91.74$$

$$\therefore Y = 157.44 + 91.74$$

$$\therefore Y = 249.18 \quad \text{----- ( 1988-89 )}$$

When X = 7

$$Y - 157.44 = 30.58 (7 - 3)$$

$$\therefore Y - 157.44 = 30.58 (4)$$

$$\therefore Y - 157.44 = 122.32$$

$$\therefore Y = 157.44 + 122.32$$

$$\therefore Y = 279.76 \quad \text{----- ( 1989-90 )}$$

When X = 8

$$Y - 157.44 = 30.58 (8 - 3)$$

$$\therefore Y - 157.44 = 30.58 (5)$$

$$\therefore Y - 157.44 = 152.9$$

$$\therefore Y = 157.44 + 152.9$$

$$\therefore Y = 310.34 \quad \text{----- ( 1990-91 )}$$

When X = 9

$$Y - 157.44 = 30.58 ( 9 - 3 )$$

$$\therefore Y - 157.44 = 30.58 (6)$$

$$\therefore Y - 157.44 = 183.48$$

$$\therefore Y = 157.44 + 183.48$$

$$\therefore Y = 340.92 \quad \text{-----} (1991-92)$$

When X = 10

$$Y - 157.44 = 30.58 ( 10 - 3 )$$

$$\therefore Y - 157.44 = 30.58 ( 7 )$$

$$\therefore Y - 157.44 = 214.06$$

$$\therefore Y = 157.44 + 214.06$$

$$\therefore Y = 381.50 \quad \text{-----} ( 1992-93 )$$

When X = 11

$$Y - 157.44 = 30.58 ( 11 - 3 )$$

$$\therefore Y - 157.44 = 30.58 ( 8 )$$

$$\therefore Y - 157.44 = 244.64$$

$$\therefore Y = 157.44 + 244.64$$

$$\therefore Y = 402.08 \quad \text{-----} ( 1993-94 )$$



When X = 12

$$Y - 157.44 = 30.58 ( 12 - 3 )$$

$$\circ \circ Y - 157.44 = 30.58 ( 9 )$$

$$\circ \circ Y - 157.44 = 275.22$$

$$\circ \circ Y = 157.44 + 275.22$$

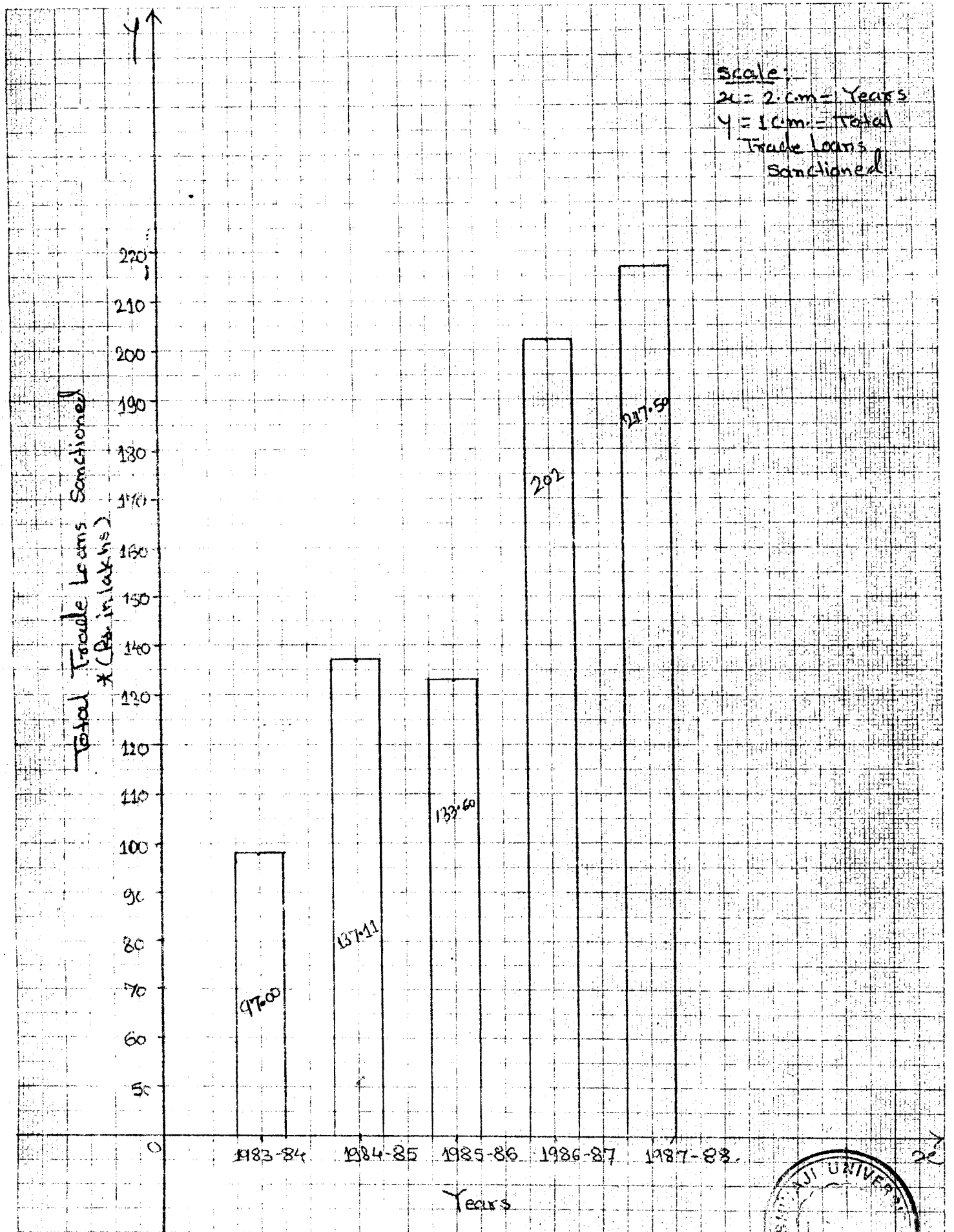
$$\circ \circ Y = 432.66 \quad \text{-----} ( 1994-95 )$$

Forecasted Figures

(Rs. in lakhs )

Years Total trade loans will be sanctioned by the main branch of the bank.

1988-89	249.18
1989-90	279.76
1990-91	310.34
1991-92	340.92
1992-93	381.50
1993-94	402.08
1994-95	432.66



Major



Table number 10 presents the % share of priority sector loans in Working Capital and total loans; so also share of transport loans in priority sector loans, Working Capital and total loans.

At the beginning of the study period during 1983 -84 main branch had advanced Rs. 143.35 lakhs to priority sector and it went up to Rs. 581.00 lakhs by the end of 1987-88 which is nearly 4 times. The share of priority sector loans in working capital stood at 22.08% and the same in total loans 25.60% during 1983-84 and went on increasing by the end of study period i.e. 1987-88 - 39.80% ( in Working Capital) and 53.20% ( in total loans). This shows that the bank's efforts are made in increasing the share of priority sector loan to meet the condition of directives of Reserve Bank of India.

Total loans advanced to transport operators during 1983-84 were Rs. 53.04 lakhs and are found increased to Rs. 77.36 lakhs by the end of 1987-88. The share of transport loans in priority sector loans, in total loans and in working capital stood at 37%, 9.47% and 8.17% respectively during the year 1983-84 and by the end of the study period it is found to be considerably decreased to 13.31%, 7.08% and 5.30% respectively.

The percentage share of the priority sector loans advanced by the main branch remains same as in table no.10 in working capital and total loans during the study period.

Total loans advanced to agriculturists during 1983-84 were Rs. 8.06 lakhs and are found increased to Rs. 28.52 lakhs during 1987-88. The share of allied agricultural loans in priority sector loans, in total loans and in working capital stood at 5.62%, 1.43% and 1.24% respectively during the year 1983-84 and by the end of study period the percentage is near about constant i.e. 4.90%, 2.61% and 1.95% respectively, during 1987-88.

1983-84	649.00	559.89	143.35	22.08	25.60	97.00	14.94	17.32	27.00	4.16	4.82	27.83
1984-85	822.37	526.76	179.67	21.84	34.10	137.11	16.67	26.02	51.11	6.21	9.70	37.27
1985-86	839.60	494.00	187.00	22.27	37.85	133.60	15.91	27.04	40.60	4.83	8.21	30.38
1986-87	1069.49	744.00	407.16	38.07	54.72	202.00	18.88	27.15	142.00	13.27	19.08	70.29
1987-88	1459.60	1092.00	581.00	39.80	53.20	217.50	14.90	19.91	115.50	7.91	10.57	53.10

SOURCE : Figures of the table are taken from annual reports and bank records of the bank.

ANALYSIS : 1) % share of priority sector loans :

a) in Working Capital =  $\frac{100}{100}$  X  $\frac{\text{Priority Sector loans}}{\text{Working Capital}}$

b) in total loans =  $\frac{100}{100}$  X  $\frac{\text{Priority Sector loans}}{\text{Total loans}}$

2) % share of total trade loans :

a) in Working Capital =  $\frac{100}{100}$  X  $\frac{\text{Total trade loans}}{\text{Working Capital}}$

b) in total loans =  $\frac{100}{100}$  X  $\frac{\text{Total trade loans}}{\text{Total loans}}$

3) % share of small traders' loans in priority sector :

a) in Working Capital =  $\frac{100}{100}$  X  $\frac{\text{Small traders' loans}}{\text{Working Capital}}$

c) in total trade loans =  $\frac{100}{100}$  X  $\frac{\text{Small traders' loans}}{\text{Total trade loans}}$

4) Loans advanced to priority sector are showing increase.

5) Loans advanced to trade are decreased in 1985-86

6) Small traders' loans are decreased in 1985-86 and 1987-88.

This table shows the percentage share of traditional trade loans, advanced by the main branch, in Working Capital and total loans; So also % share of priority sector small trade loans in working capital, total loans and in total trade loans during the study period.

Main branch had advanced loans to traditional traders during 1983-84 Rs. 97.00 lakhs and by the end of study period it was increased to Rs. 217.50 lakhs. But its share in Working Capital as well as in total loans stands near about constant i.e. during 1983-84 the share in working capital stood at 14.94% and the same by the end of 1987-88 was 14.90%. Similarly, share in total loans was 17.32% during 1983-84 and 19.91% by the end of 1987-88. We do not find notable changes in the % share of traditional trade loans during the study period.

The loans advanced to priority sector and its % share in Working capital as well as in total loans is same which has been presented in table no. 10.

The share of priority sector small trade loans in Working capital, total loans and in total trade loans stands at 4.16%, 4.32%, and 27.33% respectively during 1983-84. And it has increased to 7.91%, 10.57% and 53.10% respectively by the end of 1987-88. The share of small trade loans has been nearly doubled. Only during 1987-88 the % share had strikingly increased that was 13.27% in working capital, 19.08% in total loans and 70.29% in total trade loans.

13. Table Showing The Picture of Break-up of Total Outstanding Loans Into Secured And Un-Secured Loans And Their Percentage To Total Loans During 1983-84 To 1987-88.

Rs. in lakhs

Year	Total out- -standing Loans	Total out- standing secured Loans	% to total outst- anding Loans	Total unse- -cured out- -standing Loans	% to total outst- anding Loans
1	2	3	4	5	6
1983-84	559.89	475.91	85	83.98	14.99
1984-85	526.76	474.08	89.99	52.68	10
1985-86	494.00	385.32	78	108.68	22
1986-87	744.00	647.28	87	96.72	13
1987-88	1092.00	1028.20	94.15	163.80	15

SOURCE : Above figures are taken from the bank records and annual reports of the bank.

ANALYSIS :

- 1) % share secured loans in total loans =  $\frac{100}{\text{Total loans}} \times \frac{\text{Secured loans}}{1}$
- 2) % share of unsecured loans in total loans =  $\frac{100}{\text{Total loans}} \times \frac{\text{Unsecured loans}}{1}$
- 3) Secured loans are showing decrease in 1984-85 and 1985-86.
- 4) Unsecured loans are showing decrease in 1984-85 and 1986-87.

This table presents the break-up of total outstanding loans made into secured and unsecured categories and so also their percentage share in total loans.

Total outstanding loans advanced by the main branch during 1983-84 were Rs. 559.39 lakhs out of which Rs. 475.91 lakhs were secured one, and Rs. 83.98 lakhs were unsecured and their share in outstanding loans was 85% and 14.99% respectively. The total outstanding loans went up to Rs. 1092.00 lakhs during 1987-88 and out of this amount Rs. 1028.20 lakhs were secured loans and Rs. 163.80 lakhs were unsecured loans. The share in outstanding total loans of the secured loans stood at 94.15% and 15% of unsecured loans by the end of study period. The bank has observed safety principle and made its advances more on security basis. Hardly maximum 15% loans are advanced without security.

5.6. STUDY OF THE OVERDUES :

Overdues are the great stumble blocks in the bank's functioning, and at times leads to some extent bad debts also creating losses to the bank. Hence, bank has to make wisely planned advances and take precautions steps in minimising the overdues and avoiding losses.



1983-84	33.19	5.10	7.5	6.09	18.34	0.93	1.08	1.05	3.16	17.24	0.16
1984-85	46.32	5.63	9.2	6.40	13.81	0.77	1.21	1.15	2.48	17.96	0.13
1985-86	51.20	6.08	9.7	4.50	8.78	0.53	0.91	0.95	1.85	21.11	0.11
1986-87	73.50	6.68	10.2	8.60	11.70	0.80	1.15	1.50	2.04	17.44	0.14
1987-88	97.39	6.66	9.10	10.10	10.37	0.69	0.92	2.60	2.66	25.74	0.17

SOURCE : Figures are taken from the annual reports and bank records.

ANALYSIS : 1) % Share of Transport Overdues :-

a) in total overdues =	100	X	Transport Overdues
	Total Overdues		1
b) in Working Capital =	100	X	Transport Overdues
	Working Capital		1
c) in total loans =	100	X	Transport Overdues
	Total loans		1

2) % Share of Economically Weaker Class Transport Overdues :

a) in total overdues =	100	X	Economically weaker class Overdues
	Total Overdues		1
b) in Working Capital =	100	X	Economically weaker class Overdues
	Working Capital		1
c) in transport overdues =	100	X	Economically Weaker class Overdues
	Transport Overdues		1
d) in total loans =	100	X	Economically Weaker class Overdues
	Total loans		1

The main branch had to face the total overdues of Rs. 33.19 lakhs during 1983-84 and they were constantly increasing all along the 5 years period. By the end of 1987-88 overdues stood at Rs. 97.39 lakhs. Their share in working capital and in total loans was 5.10% and 7.5% respectively during 1983-84 and it has gone up to 6.66% and 9.10% respectively by the end of 1987-88.

Out of the total overdues Rs. 6.09 lakhs during 1983-84 were the overdues of the transport operators and this amount increased to Rs. 10.10 lakhs by the end of 1987-88. The share of transport overdues in total overdues, working capital and in total loans stood at 13.34%, 0.93% and 1.08% respectively during 1983-84. It is reduced to some extent by the end of the 1987-88 and stood at 10.37%, 0.69% and 0.92% respectively.

Out of the above transport overdues the overdues caused by the economically weaker class transport operators amounted to Rs. 1.05 lakhs during 1983-84 and it increased to Rs. 2.60 lakhs by the end of 1987-88. The share of economically weaker class overdues in total overdues, in transport overdues, in working capital and in total loans stands at 3.16%, 17.24%, 0.16% and 0.18% respectively during 1983-84. By the end of the 1987-88 it was 2.66%,

25.74%, 0.17% and 0.23% respectively. The increase in the overdues more particularly in transport operators is a marking point but at the same time the bank can not stand away without advancing to transport business as it is a vital factor in the national economic development programme.

Under the above situations the researcher has tried to introduce " Bivariate Correlation " technique as a tool of minimising overdues through revised loans' policy of total advances and transport advances.

NOTE : The information which was not available from the annual reports and does not appear in the tables has been collected from the bank officer at personal interview.

Total Loans and Total Overdues  
( Rs. in lakhs )

	Total Loans Rs. ↓	400-500	500-600	600-700	700-800	800-900	900-1000	1000-2000	Total
30-40	↓	2	2	-	1	-	-	1	6
40-50	↓	-	1	-	-	-	-	-	1
50-60	↓	-	-	1	-	-	-	-	1
60-70	↓	-	-	-	-	-	-	-	0
70-80	↓	-	-	-	-	1	-	-	1
80-90	↓	-	-	-	-	-	-	-	0
90-100	↓	-	-	-	-	-	-	-	-
Total ..		2	3	1	1	1	1	1	10

SOURCE : Figures taken from bank officers at personal interview.

**TOTAL LOANS & TOTAL OVERDUES**  
\* (RS. IN LAKHS)

TOTAL LOANS ↓	TOTAL OVERDUES →										m	dx	m	dy	f	fdy	fdy <sup>2</sup>	fdx dy
	450	550	650	750	850	950	1050	1000-1100	1000-1100	1000-1100								
30-40	2	2	18	2	12	1	10	-	-	-	1	-9	6	-18	54	21		
40-50	-	1	4	-	-	-	-	-	-	-	-	-	1	-2	4	4		
50-60	-	-	-	1	1	1	-	-	-	-	-	-	1	-1	1	1		
60-70	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0		
70-80	-	-	-	-	-	-	1	1	-	-	-	-	1	1	1	1		
80-90	-	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0		
90-100	-	-	-	-	-	-	-	-	1	6	-	-	1	3	9	6		
	f	2	3	3	1	1	1	1	1	1	1	1	N=10	-17	69	33		
	fdx	-6	-6	-1	0	1	1	1	2	3	3	3	Σfdx = -7					
	fdx <sup>2</sup>	18	24	1	0	1	1	1	8	27	27	27	Σfdx <sup>2</sup> = 79					
	fdx dy	18	16	1	0	1	1	1	6	-9	-9	-9	Σfdx dy = 33					

### TOTAL LOANS & TOTAL OVERDUES

$$\begin{aligned} \text{NOW } r &= \frac{\sum dx dy - \frac{(\sum dx)(\sum dy)}{N}}{\sqrt{\sum dx^2 - \frac{(\sum dx)^2}{N}} \sqrt{\sum dy^2 - \frac{(\sum dy)^2}{N}}} \\ \therefore & \frac{33 - \frac{(-7) \times (-17)}{10}}{\sqrt{79 - \frac{(-7)^2}{10}} \sqrt{69 - \frac{(-17)^2}{10}}} \\ &= \frac{330 - 119}{\sqrt{79 \times 10 - (49)} \sqrt{69 \times 10 - (289)}} \\ &= \frac{211}{\sqrt{790 - 49} \sqrt{690 - 289}} = \frac{211}{\sqrt{741} \sqrt{401}} \\ &= \frac{211}{27.22 \times 20.02} = \frac{211}{544.44} \end{aligned}$$

$$\therefore r = +0.387$$

$$\therefore r = 0.38$$

RESULT : +0.38 indicates a moderately high degree of positive correlation between total loans and total overdues.

Total Transport Loans And Total Transport Overdues.

Rs. in lakhs. )

	30-40	40-50	50-60	60-70	70-80	Total
Total Transport Loans	1	2	-	3	2	8
Total Transport Overdues	-	1	-	-	-	1
	-	-	-	1	-	1
	-	-	-	-	-	0
<b>Total</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>4</b>	<b>2</b>	<b>10</b>





## TOTAL TRANSPORT LOANS & TOTAL TRANSPORT OVERDUES

$$\begin{aligned} \text{NOW } r &= \frac{\sum dx dy - \frac{(\sum dx)(\sum dy)}{N}}{\sqrt{\sum dx^2 - \frac{(\sum dx)^2}{N}} \sqrt{\sum dy^2 - \frac{(\sum dy)^2}{N}}} \\ &= \frac{(-1) - \frac{(+3)(-13)}{10}}{\sqrt{19 - \frac{(3)^2}{10}} \sqrt{25 - \frac{(-13)^2}{10}}} \\ &= \frac{-10 + 39}{\sqrt{190 - 9} \sqrt{250 - 169}} = \frac{29}{\sqrt{181} \sqrt{81}} \\ &= \frac{29}{13.45 \times 9} = \frac{29}{121.05} \\ &= 0.23 \\ \therefore r &= 0.23 \end{aligned}$$

RESULT : +0.23 indicates a moderately high degree of positive correlation between total transport loans and total transport overdues.

The percentage share of the overdues by the main branch in working capital and in total loans, remains same as in table No. 14 during the study period.

Out of the total overdues Rs. 2.10 lakhs overdues of the agriculturists and this amount increased to Rs.9.20 lakhs by the end of 1987-88. The share of allied agricultural overdues in total overdues, working capital and in total loans stood at 6.32%, 0.32% and 0.37% respectively 1983-84. By the end of 1987-88 they stood at 9.44%, 0.06% and 0.84% respectively.

Out of the above agricultural overdues the overdues caused by economically weaker class agriculturists amounted to Rs. 0.90 lakhs during 1983-84 and it went up to Rs. 4.30 lakhs during 1987-88. The share of economically weaker class in total overdues, in agricultural overdues, in working capital and in total loans stands at 2.71%, 42.85%, 0.13% and 0.16% respectively during 1983-84. By the end of 1987-88 it was increased and stood at 4.41%, 46.73%, 0.29% and 0.39% respectively. To uplift the economically weaker class in the rural India - Small farmers, marginal farmers, landless agricultural labour and artisans etc. is the main goal kept before the eyes in making planned economic development. Hence, the bank is required to participate by all

means in the economic developmental activities and is bound to advance loans to allied agricultural activities and more particularly to weaker class in the rural areas. Only thing a bank can do is it should use novel statistical techniques and re-frame the advancing policy so as to minimise the overdues. With this view in mind the researcher has introduced the ' Bivariate Correlation ' technique.

Agricultural loans and Agricultural Overdues ( Rs. in lakhs )

	8-12	12-16	16-20	20-24	24-28	28-32	Total
Agricultural loans →	4	-	1	1	-	1	7
Rs.							
Agricultural overdues ↓	-	1	-	-	-	-	1
Rs.							
2-4							
4-6							
6-8							0
8-10				2			2
Total	4	1	1	3	0	1	10

# TOTAL AGRICULTURAL LOANS & TOTAL AGRICULTURAL OVERDUES

\* (RS. IN LAKHS)

	m	10	14	18	22	26	30		
TOTAL AGRICULTURAL LOANS	m	10	14	18	22	26	30		
TOTAL AGRICULTURAL OVERDUES	dx	-2	-1	0	1	2	3		
	m	8-4	12-16	16-20	20-24	24-28	28-32		
2-4	-2	4	16	1	-2	-	1	-6	
4-6	-1	-	1	-	-	-	-	-	1
6-8	0	-	-	-	-	-	-	-	0
8-10	1	-	-	-	2	2	-	-	2
	f	4	1	1	3	0	1	N=10	Σfdy = -13
	fdx	-8	-1	0	3	0	3	Σfdx = -3	Σfy <sup>2</sup> = 31
	fdx <sup>2</sup>	16	1	0	3	0	9	Σfdx <sup>2</sup> = 29	Σfdxdy = 11
	fdx <sup>2</sup> dy	16	1	0	0	0	-6	Σfdx <sup>2</sup> dy = 11	

TOTAL AGRICULTURAL LOANS & TOTAL AGRICULTURAL OVERDUES

NOW

$$r = \frac{\sum dx dy - \frac{(\sum dx)(\sum dy)}{N}}{\sqrt{\frac{\sum dx^2 - \frac{(\sum dx)^2}{N}}{N}} \sqrt{\frac{\sum dy^2 - \frac{(\sum dy)^2}{N}}{N}}}$$

$$= \frac{11 - \frac{(-3)(-13)}{10}}{\sqrt{29 - \frac{(-3)^2}{10}} \sqrt{31 - \frac{(-13)^2}{10}}}$$

$$= \frac{110 - 39}{\sqrt{290 - (9)} \sqrt{310 - (169)}}$$

$$= \frac{71}{\sqrt{281} \sqrt{149}} = \frac{71}{16.76 \times 11.87}$$

$$= \frac{71}{198.94}$$

$$= 0.356$$

$$\therefore r = +0.35$$

∴ r = +0.35

RESULT: This indicates a moderately high degree of positive correlation between total Agricultural loans & total Agricultural overdues.

This table presents total traditional trade overdues and their share in total overdues, total trade overdues, in working capital and total loans.

During the year 1983-84 the total traditional trade overdues amounted to Rs. 7.30 lakhs and they went on increasing upto the end of 1985-86 and then decreased during the last two years of the study. By the end of 1987-88 total amount of traditional trade overdues was Rs. 2.44 lakhs. The share of traditional trade overdues in total overdues, in trade overdues, in working capital and in total loans during the year 1983-84 was 21.99%, 60.33%, 1.12% and 1.30% respectively. By the end of 1987-88 the share came down to 14.78%, 53.33%, 0.98% and 1.31% respectively.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
33-84	33.19	5.10	7.5	12.10	36.45	1.36	2.16	4.80	14.46	39.66	0.73	0.85	1.80	14.87	5.42	14.87	37.50	0.27	0.32
34-85	46.32	5.63	9.2	17.25	37.24	2.09	3.27	6.45	13.92	37.39	0.78	1.22	2.30	13.33	4.96	13.33	35.65	0.27	0.43
35-86	51.20	6.08	9.7	16.80	32.81	1.99	3.40	6.30	12.30	37.50	0.74	1.27	2.10	13.09	4.29	13.09	34.92	0.26	0.44
36-87	73.50	6.87	10.2	25.05	34.08	2.34	3.36	11.50	15.64	45.90	1.07	1.54	4.10	16.36	5.57	16.36	35.65	0.38	0.55
37-88	97.39	6.66	9.10	26.75	27.46	1.83	2.44	12.35	12.68	46.16	0.94	1.13	5.05	18.87	5.18	18.87	40.89	0.34	0.46

SOURCE : Compiled from annual reports and bank records of the bank.

ANALYSIS : 1) % share of Priority Sector Small Trade Overdues :

a) in total overdues =	100	X	Priority Sector Overdues	1
b) in trade overdues =	100	X	Priority Sector Overdues	1
c) in Working Capital =	100	X	Priority Sector Overdues	1
d) in total loans =	100	X	Priority Sector Overdues	1

2) % Share of Priority Sector Economically Weaker Class :

a) in total loans =	100	X	Economically Weaker Class Overdues	1
---------------------	-----	---	------------------------------------	---

b) in total overdues =	100	X	Economically Weaker Class overdues	1
c) in trade overdues =	100	X	Economically Weaker Class Overdues	1
d) in priority Sector Trade Overdues =	100	X	Economically Weaker Class Overdues	1
e) in Working Capital =	100	X	Economically Weaker Class Overdues	1

3) Total priority sector small trade/business overdues showing decrease in 1985-86.

4) Total priority sector economically weaker class trade overdues have been showing decrease in 1985-86.



This table reveals the picture of the overdues caused by the priority sector small traders and economically weaker class borrowers. The total overdues caused by the priority sector small traders and economically weaker class borrowers amounted to Rs. 4.80 lakhs during 1983-84 and it went on constantly increasing during the 5 years study period and stood at Rs. 12.35 lakhs by the end of 1987-88. The share of priority sector small trade loans' overdues in total overdues, in total trade overdues, in working capital and in total loans was 14.46%, 39.66%, 0.73% and 0.85% respectively during 1983-84. By the end of 1987-88 it stood at 12.68%, 46.16%, 0.84% and 1.13% respectively. This shows that the % share of priority sector trade overdues has remained near about same during the study period.

But the total overdues caused by the economically weaker class borrowers is found increasing. During 1983-84 the total overdues of economically weaker class borrowers were Rs. 1.30 lakhs and the amount increased to Rs. 5.05 lakhs by the end of 1987-88. The share of this type of overdues in the total overdues, total trade overdues, in total priority sector trade overdues, Working Capital and total loans were 5.42%, 14.87%, 37.50%, 0.27% and 0.32% respectively during 1983-84 and the same stood at 5.18%, 18.87%, 40.89%, 0.34% and 0.46% respectively by the end of 1987-88.

Total Trade Loans and Total Trade Overdues  
( Rs. in lakhs )

	90-120	120-150	150-180	180-210	210-240	Total
Total Trade loans Rs. ↓	2	2	-	1	1	6
Total Trade Overdues Rs. ↓	-	2	-	-	-	2
	-	-	-	-	-	0
	-	-	-	2	-	2
<b>Total</b>	<b>2</b>	<b>4</b>	<b>0</b>	<b>3</b>	<b>1</b>	<b>10</b>

**TOTAL TRADE LOANS & TOTAL TRADE OVERDUES**  
\* (RS. IN LAKHS)

TOTAL TRADE LOANS & TOTAL TRADE OVERDUES	TOTAL TRADE LOANS										TOTAL TRADE OVERDUES				
	m	105	135	165	195	225	m	dx	dy	f	fdx	fdy	fdx <sup>2</sup>	fdy <sup>2</sup>	fdxdy
10-15	12	2	2	—	1	1	-2	4	—	1	-2	—	—	24	6
15-20	17	—	2	—	—	—	2	2	—	—	-2	—	2	2	
20-25	19	—	—	—	—	—	—	—	—	—	0	—	0	0	
25-30	23	—	—	—	2	—	—	—	—	—	2	—	2	2	
		2	4	0	3	1	4	0	3	1	3	2	3	2	10
		-4	-4	0	3	2	-4	0	3	2	-3	2	-3	19	
		8	4	0	3	4	4	0	3	4	19	4	19	10	
		8	6	0	0	-4	6	0	0	-4	10	-4	10	10	
		<b>f</b>	<b>fdx</b>	<b>fdy</b>	<b>f</b>	<b>fdx<sup>2</sup></b>	<b>fdy<sup>2</sup></b>	<b>fdxdy</b>	<b>N=10</b>	<b>Σdx = -3</b>	<b>Σdy = -12</b>	<b>Σdx<sup>2</sup> = 19</b>	<b>Σdy<sup>2</sup> = 28</b>	<b>Σdxdy = 10</b>	

## TOTAL TRADE LOANS & TOTAL TRADE OVERDUES

NOW

$$\begin{aligned} r &= \frac{\sum dx dy - \frac{(\sum dx)(\sum dy)}{N}}{\sqrt{\sum dx^2 - \frac{(\sum dx)^2}{N}} \sqrt{\sum dy^2 - \frac{(\sum dy)^2}{N}}} \\ &= \frac{10 - \frac{(-3) \times (-12)}{10}}{\sqrt{19 - \frac{(-3)^2}{10}} \sqrt{28 - \frac{(-12)^2}{10}}} \\ &= \frac{100 - 36}{\sqrt{190 - 9} \sqrt{280 - 144}} = \frac{64}{\sqrt{181} \sqrt{136}} \\ &= \frac{64}{13.45 \times 11.66} = \frac{64}{156.82} \\ &= 0.408 \end{aligned}$$

$$\therefore r = +0.40$$

RESULT: +0.40 indicates a moderately high degree of positive correlation between total trade loans and total trade overdues.

5.7 STUDY OF THE ECONOMICALLY BENEFITED AND NON-BENEFITED BORROWERS :

The researcher has tried to go into the depth of the loans advanced by the main branch of the bank and overdues caused on account of different reasons. Hence, she has tried to trace out economically benefited and non-benefited borrowers during the study period and also know the causes of overdues caused by the non-benefited borrowers.

18. Table Showing The Picture of Break-up of Total Borrowers into Benefited and Non-Benefited Borrowers During 1983-84 to 1987-88.

Year	Total No. of Borrowers	No. of Economically benefited borrowers	% to total Borrowers	No. of Economically Non-Benefited Borrowers.	% to total Borrowers
1	2	3	4	5	6
1983-84	615	569	92.52	46	7.47
1984-85	926	823	88.87	103	11.12
1985-86	856	761	88.90	95	11.09
1986-87	1577	1419	89.98	158	10.01
1987-88	1833	1650	90.01	183	9.98

SOURCE : The above figures are taken from the annual reports of the bank.

NOTE : Total Borrowers = Trade + Transport + Agricultural Borrowers.

In this table the total borrowers have been divided into two groups. First - economically benefited group of borrowers; second economically non-benefited group of borrowers during the period 1983-84 to 1987-88.

The total number of borrowers in the beginning of the study period i.e. 1983-84 was 615 and this figure went on increasing by the end of study period i.e. 1987-88 to 1833. During 5 years period the borrowers went on increasing and the figure is near about 3 times.

Out of the above borrowers actually benefited borrowers during 1983-84 was 569 and the number of benefited borrowers actually increased to 1650 by the end of 1987-88. Here also we trace gradual increase in the economically benefited borrowers the figure is nearly 3 times by the end of study period. The share of economically benefited borrowers in the total borrowers stood at 92.52% during 1983-84 and it remained moving in between 88.87% and 92.52%. By the end of 1987-88 the share was 90.01%.

The number of economically non-benefited borrowers at the beginning i.e. during 1983-84 was 46 and it sharply increased 103 during 1984-85 then onwards it went on increasing to 183 by the end of the 1987-88. The figure actually increased about 4 times and the share of economically non benefited borrowers in the total borrowers during 1983-84 was 7.47% and it increased to 11.12% during 1984-85;

11.09% during 1985-86; then after slightly fallen down to 10.01% during 1986-87 and 9.98% during 1987-88.

19. Table Showing The Picture of Break-up Economically Benefited Borrowers During 1986-87

Benefits Enjoyed	Total No. of Traders Benefited	% to total Borrowers	Total No. of Transport operators Benefited	% to total Borrowers	Total No. of Agriculturists Benefited	% to total Borrowers
1	2	3	4	5	6	7
1) Increased Profit/Income	47	23.5	30	15.00	103	51.5
2) Improved Standard of living	34	17.0	22	11.00	70	35.0
3) Better Housing Facility	22	11.0	11	5.5	20	10.0
4) Better Education to children	39	19.5	18	9.0	80	40.0
5) Social Service (Donation)	13	6.5	4	2.0	10	5.00

SOURCE : Sample survey of 25% of total borrowers i.e. 200 borrowers are interviewed

ANALYSIS :

1) 200 Borrowers = Total borrowers of 1986-87  
 - Total borrowers of 1985-86

. . . 1577 - 856 = 721

25% of 721 = 180.25

But actually 200 borrowers are interviewed.

- 2) Out of 200 borrowers 90% are benefited and 10% are non-benefited at the end of 1986-87.

This table is throwing light on the picture how the different borrowers have been economically benefited by their borrowed loans during the year 1986-87. For this study propose the sample survey of roughly 25% of the total borrowers that means of 200 borrowers has been made by way of personal interview. During the year 1986-87 total borrowers were 721 and 25% of those borrowers actually comes to little more than 180. Hence, the researcher for convenience purpose has interviewed actually 200 borrowers.

Out of these interviewed 200 borrowers 90% are found economically benefited. Out of them 47 were trade borrowers, 30 were transport borrowers and 103 were agricultural borrowers whose income was increased on account of additional profits enjoyed by using the borrowed funds and their share share in the total borrowers stood at 23.5% and 51.5% respectively.

The borrowers whose standard of living was improved were 34 traders, 22 transport operators and 70 agriculturists and their in the total borrowers was 17%, 11% and 35% respectively.



The borrower who provided better education to their children were 39 traders, 18 transport operators and 80 agriculturists. Their share in the total borrowers was 19.5%, 9% and 40% respectively.

Lastly, the borrowers who contributed donations to the social institutions were 13 traders, 4 transport operators and 10 agriculturists. Their share in the total borrowers at 6.5%, 2% and 5% respectively.

20. The Showing The Picture of Break-up of Economically Non-Benefited Borrowers And Causes of Overdues During 1986-87.

Causes of overdues	Total No. of Non-Benefited Trade Borrowers	% to total Borrowers	Total No. of Benefited Transport Operators	% to total Borrowers	Total No. of Non-Benefited Agriculturists	% to total Borrowers
1	2	3	4	5	6	7
1) Willful Defaulter	1	0.5	2	1	3	1.5
2) Unplanned investments and capital deficiency	2	1	-	-	2	1
3) Funds used for otherwise purposes	1	0.5	1	0.5	5	2.5
4) Accidents/ Mishaps	-	-	1	0.5	-	-
5) Natural Calamities	-	-	-	-	2	1

SOURCE : Sample Survey of 200 borrowers is taken.  
 Out of 200, 10% borrowers are non benefited.  
 i.e. 20 borrowers.

ANALYSIS : (1) More No. of Traders are non-benefited because of unplanned investments & capital deficiency.  
 (2) In case of transport operators, more no. of non-benefited are willful Defaulters.  
 (3) Agriculturists are non-benefited because more of them had used funds for otherwise purposes.

This table presents the picture of economically non-benefited borrowers an attempt of finding out the causes of overdues caused during the survey year, 1986-87. The same survey of 200 borrowers was made by way of personal interview and the researcher found that out of these 200 borrowers 10% i.e. 20 borrowers were economically non-benefited. Amongst those who caused the overdues, 1 trader, 2 transport operators and 3 agriculturists were found to be willful defaulters and their share in the total borrowers was 0.5% 1% and 1.5% respectively.

Those who did not make planned investment of their borrowed funds and met capital losses were traders and 2 agriculturists. Their share in the total borrowers was 1% and 1% respectively. No transport operator was found in this category.

Those who used their borrowed funds for otherwise purposes without investing the funds for the proper purpose. Amongst such persons 1 was trader, 1 transport operator and 5 agriculturists. Their share in the total borrowers was 0.5%, 0.5% and 2.5% respectively.

Amongst the borrowers who had to face accidents and mishaps in their business no trader was found; 1 transport operator had met and also no agriculturist faced such situation. The share in the total borrowers facing accident transport operator was 0.5%.

Amongst the non-benefited borrowers who faced natural calamities no traders and transport operators had to face natural calamities but 2 agriculturists were victims of such situation and their share was 1% in the total borrowers.

21. Table Showing The Picture of Break-up of Economically Non-Benefitted Borrowers who used funds for otherwise purposes during 1986-87

Borrowed funds used for other-wise purposes.	Total No. of Non-Benefited Traders.	% to total Borrowers	Total No. of Non-benefited Transport operators	% to total Borrowers	Total No. of Non-Benefited Agriculturists	% to total borrowers
1	2	3	4	5	6	7
1) Marriage/ Ceremonial functions	1	0.5	1	0.5	5	2.5
2) Domestic Consumption	-	-	-	-	3	1.5
3) Children Education	-	-	-	-	-	-
4) Health & Medical expenditure	-	-	-	-	2	1
5) Bad Habits/ Drinks, Drugs etc.	-	-	3	1.5	5	2.5

SOURCE : Sample survey of 200 borrowers is taken; Out of them 10% are non benefited borrowers.

ANALYSIS:

The % of non-benefited agriculturists is comparatively more than traders and transport operators.

This table shows the nature of borrowers who did not use the funds for the purpose they had borrowed but they abused the borrowed funds irresponsibly for otherwise purposes during the sample survey year 1986-87. The researcher had interviewed totally 20 economically non-benefited borrowers and out of them 1 trader, 1 transport operator and 5 agriculturists had actually used their borrowed business funds for celebrating married and other ceremonial functions. Their share in the total borrowers was 0.5%, 0.5% and 2.5% respectively.

Some of the non-benefited borrowers who used their borrowed funds for domestic consumption and meeting household difficulties. Amongst them 3 agriculturists are found of this nature and their share in the total borrowers is 1.5%.

Amongst the persons who spent the borrowed business funds for health and medical purposes; 2 agriculturists are found of this nature and their share in total borrowers is 1%.

Amongst the persons who abused their business funds and spent on drinks/drugs etc. 3 transport operators and 5 agriculturists were of this nature. Their share in the total borrowers was 1.5% and 2.5% respectively.

22. Table Showing The Picture of The Actions Taken To Recover Overdues And Recovery Made During 1983-84 To 1987-88

( Rs. in lakhs )

Year	No. of defaulters 'Overdues A/c.	Total outstanding amount of overdues	No. of defaulters to whom warning letters sent	No. of defaulters to whom notices served	No. of suits filed in the court of law	No. of Court Awards Received	Total amount of Overdues Recovered	No. of defaulters against whom 'No action' taken
1	2	3	4	5	6	7	8	9
1983-84	273	33.20	82	121	12	4	1.05	54
1984-85	473	46.33	240	130	9	11	3.00	83
1985-86	431	51.19	190	120	39	12	2.55	70
1986-87	440	73.56	209	106	53	22	4.54	50
1987-88	529	96.79	230	125	58	20	7.00	96

SOURCE : Table is prepared with the help of bank records and personal interviews.

In the above table the researcher has taken an account of the actions taken by the main branch during the period 1983-84 to 1987-88 to make recovery of overdues.

During the above said period there were 273 total defaulters during the year 1983-84 and the total outstanding amount of overdues was Rs. 33.20 lakhs. Hence bank had sent warning letters to 82 persons; served notices to 121 persons; filed suits in the court of law against 12 persons; and the court award was received in the case of 4 defaulters. The amount recovered during the said year was Rs. 1.05 lakhs but bank had taken no action against 54 defaulters.

During 1984-85 there were 473 total defaulters and the total amount of overdues was Rs. 46.33 lakhs. Hence bank had sent warning letters to 240 persons; served notices to 130 persons, filed suit in the court of law against 9 persons and the court award was received in the case of 11 defaulters. The amount recovered during the said year was Rs. 3 lakhs but bank had taken no action against 83 defaulters.

During 1985-86 there were 431 Defaulters and the total amount of overdues was Rs. 51.19 lakhs. Hence bank had sent warning letters to 190 persons; served notices to 120 persons; filed suits against 39 persons and the court award was received in the case of 12 defaulters. The

amount recovered during this year was Rs. 2.55 lakhs but bank had taken no action against 70 defaulters.

440 defaulters were during 1986-87 and the total amount of overdues was Rs. 73.56 lakhs. Hence bank had sent warning letters to 209 persons; served notices to 106 persons, filed suits against 53 persons and the court award was received in case of 22 defaulters. The amount recovered during this year was Rs. 4.54 lakhs but bank had taken no action against 50 defaulters.

By the end of 1987-88 there were 529 defaulters and total amount of overdues was Rs. 96.79 lakhs. Therefore, bank had sent warning letters to 230 persons; served notices to 125 persons; filed suits against 58 persons and court award was received in case of 20 defaulters. The amount recovered during this year was Rs. 7 lakhs but bank had taken no action against 96 defaulters.



23. Period And Cost Required Normally For  
Recovery of Overdues

Stages	Time ( in weeks )	Cost ( in Rs. )
1) Warning Letters	3	1.00
2) Notice	4	10.00
3) Suit filing and Hearing	52	1200.00
4) Arguments And Judgement	2	600.00
5) Recovery Award	2	200.00
6) Actual Overdues Recovery	3	60.00
	<u>66</u>	<u>Rs. 2071.00</u>

SOURCE : Above information is collected in personal interview of the bank officers.

This table throws light on the fact that the period totally required for the recovery of the overdues passing from the 6 different stages. Systematically followed by the bank. Also roughly presents the cost of overdues recovery.

The bank sent warning letters first, then notice. Afterwards filing suit in the court and hearing then argument and judgement. After this recovery award and finally actual overdues recovery action is taken. For all these stages the bank requires 66 weeks normally and the total amount of expenses is normally Rs. 2071.