Appendix – I

Trend Equation of Cash and Bank Balance

The trend equation of Cash and Bank Balance is obtained as:

YC = a + bx

Where,

Y denoted for the loan and advances and X for the term variable.

Fiscal Year	Cash And Bank Balance (y)	X=T-2009\010	X^2	XY	Trend
2007/08	7.87	-2	4	-15.74	7.884
2008/09	7.05	-1	1	-7.05	6.928
2009/10	5.72	0	0	0	5.972
2010/11	5.21	1	1	5.21	5.016
2011/12	4.01	2	4	8.02	4.06
N=5	$\sum y = 29.86$	0	$\sum x^2 - 10$	$\sum xy = (9.56)$	

$$a = \frac{\sum y}{n} = \frac{29.86}{5} = 5.972 \quad b = \frac{\sum xy}{\sum x^2} = \frac{-9.56}{10}$$

From (i) the required equation of the trend line is
YC = 5.972 + (-o.956)x

Trend values

For 2007\008, X = -2, YC = 5.972 + (-0.956) × (-2) = 7.884

2008\009, X = -1, YC = 5.972 + (-0.956) × (-1) = 6.928

2009\010, X = 0, YC = 5.972 + (-0.956) × (0) = 5.972

2010\011, X = 1, YC = 5.972 + (-0.956) × 1) = 5.016

2011\012, X = 2, YC = 5.972 + (-0.956) × (2) = 4.06

Appendix – II

Trend Equation of Loan and Advances

The trend equation of loan and advances is obtained as:

YL = a + bx

Where,

Y denoted for the loan and advances and X for the term variable.

Fiscal Year	Loan and Advance	X=T-2009\010	X^2	XY	Trend
2007/08	50.80	-2	4	-101.6	48.62
2008/09	47.07	-1	1	-47.01	50.207
2009/10	52.47	0	0	0	51.79
2010/11	52.74	1	1	52.74	53.37
2011/12	55.85	2	4	111.7	54.956
N=5	$\sum y = 258.93$	$\sum x = 0$	$\sum x^2 - 10$	$\sum xy = 15.83$	

$$a = \frac{\sum y}{n} = \frac{258.93}{5} \quad b = \frac{\sum xy}{\sum x^2} = \frac{15.83}{10} = 1.583$$

= 51.79

From (i) the required equation of the trend line is YL = 51.79 + 1.583x

Trend values

For 2007\008, X = -2, YL = 51.79 + 1.583 × (-2) = 48.62

2008\009, X = -1, YL = 51.79 + 1.583 × (-1) = 50.207

2009\010, X = 0, YL = 51.79 + 1.583 × 0 = 51.79

2010\011, X = 1, YL = 51.79 + 1.583 × 1 = 53.37

2011\012, X = 2, YL = 51.79 + 1.583×2) = 54.956

Appendix – III

Regression Analysis: Investment on Total Deposit

The equation of investment on Total deposit is obtained as;

Y (i) = a + bx (TD)

Where,

Y is denoted for investment and X is denoted for total deposit.

$$b = \frac{\sum xy}{\sum x^2}$$

$$b = \frac{20822587.55}{181858870.4}$$

b = 0.114

y = a + bx

14407.328 = a + 0.114 × 22158.917

a = -8881.211

$$SEE = \sqrt{\left(\frac{\sum y^2 - b\sum xy}{n-2} \right)}$$

$$SEE = \sqrt{\left(\frac{8732717.56 - 0.114 \times 20822587.55}{5-2} \right)}$$

SEE = 1455.901

The equation of investment on total deposit

Y (investment) = a + bx (Total Deposit)

<div align="center">

Appendix – IV

Regression Analysis: Loan and Advances on Total Deposit

</div>

The equation of loan and advances to total deposit is obtained by :

Y (LA) = a + bx (TD)

Where,

Y is denoted for loan and advances and X is denoted for total deposit.

$$b = \frac{\sum xy}{\sum x^2}$$

$$b = \frac{46771737.74}{181858870.4}$$

b = 0.257

Y= a + bx

16021 = a 0.257 × 22158.917

a = -10326.16

$$SEE = \sqrt{\left(\frac{\sum y^2 - b \sum xy}{n - 2} \right)}$$

$$SEE = \sqrt{\left(\frac{36730468.44 - 0.257 \times 46771737.74}{5 - 2} \right)}$$

SEE = 2871.71

The equation of loan and advances on total deposit

Y(LA) = a + bx (TD)

Y = - 10326.16

Appendix – V

Regression Analysis: Cash and Bank Balance on Current Liabilities

The equation of cash and bank to current liabilities is obtained by;

Y (CB) = a + bx (CL)

Where,

Y is denoted for cash and bank balance and X is denoted for current liabilities.

$$b = \frac{\sum xy}{\sum x^2}$$

$$b = \frac{(3362583.102)}{40465895.01}$$

b -0.083

Y=a + bx

1787.698 = a + (-0.0831) × 28494.041

A = - 4155.55

$$SEE = \sqrt{\frac{\left(\sum y^2 - b \sum xy\right)}{n-2}}$$

$$SEE = \sqrt{\frac{218169.829 - (-0.083) \times 3362583.102}{5-2}}$$

SEE = 407.13

The equation of cash and bank on current liabilities

Y (CB) = a + bx (CL)

Y = -4155.55 + (-0.083) x

Appendix - VI

Regression Analysis Loan and Advance and Net Profit

The equation of Loan and advance and net profit is obtained by

Where,

Y is denoted for net profit and X is denoted for Loan and Advance.

$$b = \frac{\sum xy}{\sum x^2} = \frac{1504706.616}{36729408.44}$$

$b = 0.041$

$Y = a + bx$

$431.296 = a + 0.041 \times 16021.299$

$A = 225.58$

$$SEE = \sqrt{\left(\frac{\sum y^2 - b\sum xy}{n-2}\right)}$$

$$SEE = \sqrt{\left(\frac{89637.797 - 0.41 \times 1504706.616}{5-2}\right)}$$

$SEE = 96.514$

The equation of loan and advance on net profit

Y (Net Profit) = a + bx (Loan and Advance)

$Y = 225.58 + 0.041x$

Appendix – VII

Regression Analysis: Net profit to Quick Assets Ratio on Quick Ratio

The equation of net profit to quick assets ratio and quick ratio is obtained by;

Where,

Y is denoted for net profit to quick assets ratio and X is denoted for quick ratio.

$$b = \frac{\sum xy}{\sum x^2} \quad b = \frac{(0.168)}{9.2} \quad\quad b = -0.018$$

Y = a + bx

1.44 = a + (-0.018) × 102.4

a = -3.28

$$SEE = \sqrt{\left(\frac{\sum y^2 - b \sum xy}{n-2} \right)}$$

$$SEE = \sqrt{\left(\frac{0.4088 - (-0.018) \times (-0.168)}{5-2} \right)}$$

SEE = 0.368

The equation of net profit to quick assets ratio and quick ratio

Y = -3.28 + (-0.018)x

Appendix – VIII

Regression Analysis: Return on Working Capital on Current Ratio

The equation of return on WC on current ratio is obtained by;

Y (NC) = a + bx (CR)

Where,

Y is denoted for net profit to current assets and X is denoted for current ratio.

$$b = \frac{\sum xy}{\sum x^2} \qquad b = \frac{(0.77)}{2.8} \qquad b = -0.275$$

$$Y = a + bx$$

$$1.37 = a + (-0.275) \times 107.8$$

$$a = -31.015$$

$$SEE = \sqrt{\left(\frac{\sum y^2 - b \sum xy}{n-2}\right)}$$

$$SEE = \sqrt{\frac{0.3824 - (-0.275) \times (-0.77)}{5-2}}$$

SEE = 0.238

The equation of return on WC and current ratio

Y(net profit to current assets ratio) = a + bx(Current ratio)

Y = -31.015 + (-0.275) x