Annex- 1

Market Price per Share of Sample Banks

Calculations of HBL

year	X	X-$\bar{X}$	(X-$\bar{X}$)^2
2005-2006	920	-584	341056
2006-2007	1100	-404	163216
2007-2008	1740	236	55696
2008-2009	1980	476	226576
2009-2010	1780	276	76176
Total	**ΣX= 7520**	**0**	Σ(X-$\bar{X}$)^2 = 862720

Mean $(\overline{X}) = \frac{\Sigma X}{n}$ =1504

Standard deviations (S.D) (σ) = $\sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}}$ =464.41

Coefficient of variation (C.V) = $\frac{S.D}{Mean} \times 100\%$ = 30.87%

Calculations of EBL

year	X	X-$\bar{X}$	(X-$\bar{X}$)^2
2005-2006	870	-1183.2	1399962
2006-2007	1379	-674.2	454545.6
2007-2008	2430	376.8	141978.2
2008-2009	3132	1078.8	1163809
2009-2010	2455	401.8	161443.2
Total	10266	9.09495E-13	3321739
Mean			

Mean $(\overline{X}) = \frac{\Sigma X}{n}$ =2053.2

Standard deviations (S.D) (σ) = $\sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}}$ =911.28

Coefficient of variation (C.V) = $\frac{S.D}{Mean} \times 100\%$ = 44.38%

Annex- 2

Net Worth per Share of Sample Banks

Calculations of HBL

year	X	X-$\bar{X}$	(X-$\bar{X}$)^2
2005-2006	239.59	-7.914	62.6314
2006-2007	228.72	-18.784	352.8387
2007-2008	264.74	17.236	297.0797
2008-2009	247.95	0.446	0.198916
2009-2010	256.52	9.016	81.28826
Total	**1237.52**	**2.84**	**794.0369**

Mean $(\overline{X}) = \frac{\Sigma X}{n}$ =247.5

Standard deviations (S.D) (σ) = $\sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}}$ =14.089

Coefficient of variation (C.V) = $\frac{S.D}{Mean} \times 100\%$ = 5.7%

Calculations of EBL

year	X	X-$\bar{X}$	(X-$\bar{X}$)^2
2005-2006	219.83	-50.916	2592.439
2006-2007	217.67	-53.076	2817.062
2007-2008	280.82	10.074	101.4855
2008-2009	321.77	51.024	2603.449
2009-2010	313.64	42.894	1839.895
Total	**1353.73**	**5.68E-14**	**9954.33**

Mean $(\overline{X}) = \frac{\Sigma X}{n}$ =270.74

Standard deviations (S.D) (σ) = $\sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}}$ =49.88

Coefficient of variation (C.V) = $\frac{S.D}{Mean} \times 100\%$ = 18.47%

Annex-3

Earnings per Share of Sample Banks

Calculations of HBL

year	X	$X-\bar{X}$	$(X-\bar{X})^2$
2005-2006	47.91	-10.58	111.9364
2006-2007	59.24	0.75	0.5625
2007-2008	60.66	2.17	4.7089
2008-2009	62.74	4.25	18.0625
2009-2010	61.9	3.41	11.6281
Total	292.45		146.8984

Mean $(\overline{X}) = \frac{\Sigma X}{n}$ =58.49

Standard deviations (S.D) (σ) = $\sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}}$ =6.06

Coefficient of variation (C.V) = $\frac{S.D}{Mean} \times 100\%$ = 10.44%

Calculations of EBL

year	X	$X-\bar{X}$	$(X-\bar{X})^2$
2005-2006	54.22	-23.22	539.1684
2006-2007	62.78	-14.66	214.9156
2007-2008	78.42	0.98	0.9604
2008-2009	91.82	14.38	206.7844
2009-2010	99.99	22.55	508.5025
Total	387.23	0.03	1470.331

Mean $(\overline{X}) = \frac{\Sigma X}{n}$ =77.44

Standard deviations (S.D) (σ) = $\sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}}$ =19.17

Coefficient of variation (C.V) = $\frac{S.D}{Mean} \times 100\%$ = 24.75%

Annex-4

Dividend per Share of Sample Banks

Calculations of HBL

year	X	X-$\bar{X}$	(X-$\bar{X}$)^2
2005-2006	1.32	-10.26	105.2676
2006-2007	0	-11.58	134.0964
2007-2008	11.58	0	0
2008-2009	30	18.42	339.2964
2009-2010	15	3.42	11.6964
Total	57.9	0	590.3568

Mean $(\overline{X}) = \frac{\Sigma X}{n}$ =11.58

Standard deviations (S.D) (σ) = $\sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}}$ =12.14

Coefficient of variation (C.V) = $\frac{S.D}{Mean} \times 100\%$ = 105%

Calculations of EBL

year	X	X-$\bar{X}$	(X-$\bar{X}$)^2
2005-2006	20	5	25
2006-2007	20	5	25
2007-2008	0	-15	225
2008-2009	25	10	100
2009-2010	10	-5	25
Total	75	0	400

Mean $(\overline{X}) = \frac{\Sigma X}{n}$ =15

Standard deviations (S.D) (σ) = $\sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}}$ =10

Coefficient of variation (C.V) = $\frac{S.D}{Mean} \times 100\%$ = 66.66%

Annex-5

Price Earnings Ratio of Sample Banks

Calculations of HBL

year	X	X-$\bar{X}$	(X-$\bar{X}$)^2
2005-2006	16.91	-3.19	10.1761
2006-2007	17.13	-2.97	8.8209
2007-2008	19.2	-0.9	0.81
2008-2009	18.57	-1.53	2.3409
2009-2010	28.69	8.59	73.7881
Total	100.5	0	95.936

Mean $(\overline{X}) = \frac{\Sigma X}{n}$ =20.1

Standard deviations (S.D) (σ) = $\sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}}$ =4.89

Coefficient of variation (C.V) = $\frac{S.D}{Mean} \times 100\%$ = 24.36%

Calculations of EBL

year	X	X-$\bar{X}$	(X-$\bar{X}$)^2
2005-2006	14.88	-4.89	23.9121
2006-2007	14.92	-4.85	23.5225
2007-2008	16.05	-3.72	13.8384
2008-2009	22	2.23	4.9729
2009-2010	31	11.23	126.1129
	98.85	0	192.3588

Mean $(\overline{X}) = \frac{\Sigma X}{n}$ =19.85

Standard deviations (S.D) (σ) = $\sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}}$ =6.93

Coefficient of variation (C.V) = $\frac{S.D}{Mean} \times 100\%$ = 35.076%

Annex -6

Dividend Yield of Sample Banks

Calculations of HBL

year	X	X-$\bar{X}$	(X-$\bar{X}$)^2
2005-2006	0.16	-0.842	0.708964
2006-2007	0	-1.002	1.004004
2007-2008	1.26	0.258	0.066564
2008-2009	2.73	1.728	2.985984
2009-2010	0.86	-0.142	0.020164
Total	5.01	0	4.78568

Mean $(\overline{X}) = \frac{\Sigma X}{n}$ =1.002

Standard deviations (S.D) (σ) = $\sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}}$ =1.093

Coefficient of variation (C.V) = $\frac{S.D}{Mean} \times 100\%$ = 109.167%

Calculations of EBL

year	X	X-$\bar{X}$	(X-$\bar{X}$)^2
2005-2006	4.49	2.65	7.0225
2006-2007	2.49	0.65	0.4225
2007-2008	0	-1.84	3.3856
2008-2009	1.81	-0.03	0.0009
2009-2010	0.41	-1.43	2.0449
	9.2	0	12.8764

Mean $(\overline{X}) = \frac{\Sigma X}{n}$ =1.84

Standard deviations (S.D) (σ) = $\sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}}$ =1.79

Coefficient of variation (C.V) = $\frac{S.D}{Mean} \times 100\%$ = 97.51%

Annex- 7

Current Ratio of Sample Banks

Calculations of HBL

year	X	X-$\bar{X}$	(X-$\bar{X}$)^2
2005-2006	1.01	-0.028	0.0008
2006-2007	1.04	0.002	4E-06
2007-2008	1.04	0.002	4E-06
2008-2009	1.05	0.012	0.0001
2009-2010	1.05	0.012	0.0001
Total	5.19	0	0.0011

Mean $(\overline{X}) = \frac{\Sigma X}{n}$ =1.38

Standard deviations (S.D) (σ) = $\sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}}$ =0.016

Coefficient of variation (C.V) = $\frac{S.D}{Mean} \times 100\%$ = 1.58%

Calculations of EBL

year	X	X-$\bar{X}$	(X-$\bar{X}$)^2
2005-2006	1.07	0.032	0.001024
2006-2007	1.06	0.022	0.000484
2007-2008	1.06	0.022	0.000484
2008-2009	1.05	0.012	0.000144
2009-2010	1.04	0.002	4E-06
Total	5.28	0.09	0.00214

Mean $(\overline{X}) = \frac{\Sigma X}{n}$ =1.056

Standard deviations (S.D) (σ) = $\sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}}$ =0.011

Coefficient of variation (C.V) = $\frac{S.D}{Mean} \times 100\%$ = 1.079%

Annex -8

Return on Total Assets of Sample Banks

Calculations of HBL

year	X	X-$\bar{X}$	(X-$\bar{X}$)^2
2005-2006	0.91	-0.31	0.0961
2006-2007	1.06	-0.16	0.0256
2007-2008	1.11	-0.11	0.0121
2008-2009	1.55	0.33	0.1089
2009-2010	1.47	0.25	0.0625
Total	6.1	3.33067	0.3052

Mean $(\overline{X}) = \frac{\Sigma X}{n}$ =1.22

Standard deviations (S.D) (σ) = $\sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}}$ =0.2762

Coefficient of variation (C.V) = $\frac{S.D}{Mean} \times 100\%$ = 22.64%

Calculations of EBL

year	X	X-$\bar{X}$	(X-$\bar{X}$)^2
2005-2006	1.17	-0.22	0.0484
2006-2007	1.5	0.11	0.0121
2007-2008	1.4	0.01	0.0001
2008-2009	1.5	0.11	0.0121
2009-2010	1.4	0.01	0.0001
Total	**6.97**	**0.02**	**0.0728**

Mean $(\overline{X}) = \frac{\Sigma X}{n}$ =1.39

Standard deviations (S.D) (σ) = $\sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}}$ =0.134

Coefficient of variation (C.V) = $\frac{S.D}{Mean} \times 100\%$ = 9.67%

Annex -9

Return on Equity of Sample Banks

Calculations of HBL

year	X	X-$\bar{X}$	(X-$\bar{X}$)^2
2005-2006	11.13	-2.31	5.3361
2006-2007	11.48	-1.96	3.8416
2007-2008	12	-1.44	2.0736
2008-2009	15.85	2.41	5.8081
2009-2010	16.75	3.31	10.9561
Total	67.21	0.01	28.0155

Mean $(\overline{X}) = \frac{\Sigma X}{n}$ =13.44

Standard deviations (S.D) (σ) = $\sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}}$ =2.64

Coefficient of variation (C.V) = $\frac{S.D}{Mean} \times 100\%$ = 19.688%

Calculations of EBL

year	X	X-$\bar{X}$	(X-$\bar{X}$)^2
2005-2006	26.18	2.39	5.7121
2006-2007	21.31	-2.48	6.1504
2007-2008	22.19	-1.6	2.56
2008-2009	24.64	0.85	0.7225
2009-2010	24.67	0.88	0.7744
Total	118.99	0.04	15.9194

Mean $(\overline{X}) = \frac{\Sigma X}{n}$ =23.79

Standard deviations (S.D) (σ) = $\sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}}$ =1.99

Coefficient of variation (C.V) = $\frac{S.D}{Mean} \times 100\%$ = 8.382%

Annex -10

Fixed Asset Turnover of Sample Banks

Calculations of HBL

year	X	$X-\bar{X}$	$(X-\bar{X})^2$
2005-2006	6.33	1.186	1.406596
2006-2007	5.07	-0.074	0.005476
2007-2008	5.95	0.806	0.649636
2008-2009	3.88	-1.264	1.597696
2009-2010	4.49	-0.654	0.427716
Total	25.72	0	4.08712

Mean $(\overline{X}) = \frac{\Sigma X}{n}$ =5.14

Standard deviations (S.D) (σ) = $\sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}}$ =1.01

Coefficient of variation (C.V) = $\frac{S.D}{Mean} \times 100\%$ = 19.65%

Calculations of EBL

year	X	$X-\bar{X}$	$(X-\bar{X})^2$
2005-2006	5.81	-0.974	0.948676
2006-2007	6.63	-0.154	0.023716
2007-2008	6.41	-0.374	0.139876
2008-2009	7.01	0.226	0.051076
2009-2010	8.06	1.276	1.628176
Total	33.92	0	2.79152

Mean $(\overline{X}) = \frac{\Sigma X}{n}$ =6.78

Standard deviations (S.D) (σ) = $\sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}}$ =0.83

Coefficient of variation (C.V) = $\frac{S.D}{Mean} \times 100\%$ = 12.31%

Annex-11

Total Assets Turnover of Sample Banks

Calculations of HBL

year	X	X-$\bar{X}$	(X-$\bar{X}$)^2
2005-2006	0.06	-0.006	3.6E-05
2006-2007	0.07	0.004	0.000016
2007-2008	0.06	-0.006	3.6E-05
2008-2009	0.07	0.004	0.000016
2009-2010	0.07	0.004	0.000016
Total	0.33	0	0.00012

Mean $(\overline{X}) = \frac{\Sigma X}{n}$ =0.066

Standard deviations (S.D) (σ) = $\sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}}$ =0.054

Coefficient of variation (C.V) = $\frac{S.D}{Mean} \times 100\%$ = 8.29%

Calculations of EBL

year	X	X-$\bar{X}$	(X-$\bar{X}$)^2
2005-2006	0.08	0.008	6.4E-05
2006-2007	0.08	0.008	6.4E-05
2007-2008	0.07	-0.002	4E-06
2008-2009	0.07	-0.002	4E-06
2009-2010	0.06	-0.012	0.000144
Total	0.36	4.16E-17	0.00028

Mean $(\overline{X}) = \frac{\Sigma X}{n}$ =0.072

Standard deviations (S.D) (σ) = $\sqrt{\frac{\Sigma(x-\bar{x})^2}{n-1}}$ =0.083

Coefficient of variation (C.V) = $\frac{S.D}{Mean} \times 100\%$ = 11.62%

Descriptive Statistics of Himalayan banks

S.N		N	Mean	Std. Deviations	C.V %
1.	MPS	5	1504	464.41	30.87
2.	NWPS	5	247.50	14.089	5.7
3.	EPS	5	58.49	6.06	10.44
4.	DPS	5	11.58	12.14	105.0
5.	P/E Ratio	5	20.1	4.89	24.36
6.	Dividend Yield	5	1.002	1.093	109.16
7.	Liquidity Ratio	5	1.38	0.016	1.58
8.	Return on Total Assets	5	1.22	0.2762	22.64
9.	Return on Equity	5	13.44	2.65	19.69
10.	Fixed Assets turn Over Ratio	5	5.14	1.01	19.65
11.	Total Assets Turnover ratio	5	0.066	0.054	8.29

Descriptive Statistics of Everest Bank Limited

S.N		N	Mean	Std. Deviations	C.V
1.	MPS	5	2053.2	911.28	44.38
2.	NWPS	5	270.75	49.88	18.47
3.	EPS	5	77.44	19.17	24.75
4.	DPS	5	15	10	66.66
5.	P/E Ratio	5	19.85	6.93	35.076
6.	Dividend Yield	5	1.84	1.79	97.51
7.	Liquidity Ratio	5	1.05	0.011	1.079
8.	Return on Total Assets	5	1.3940	1.3483	96.7217
9.	Return on Equity	5	23.76	2.00	8.68
10.	Fixed Assets turn Over Ratio	5	6.78	0.83	12.31
11.	Total Assets Turnover ratio	5	0.072	0.083	11.62

Correlations Coefficient of HBL

S.N		Correlations (r)	Coefficient of Determinations (r^2)	Standard error of correlations coefficient S.E (r)	Probable Error (P.E)
1.	MPS and EPS	0.833	0.695	0.1364	0.0920
2.	MPS and DPS	0.428	0.183	0.365	0.0246
3.	MPS and Dividend Yield	0.208	0.043	0.4280	0.2887
4.	MPS and PE Ratio	0.976	0.953	0.210	0.0142
5.	MPS and NWPS	0.619	0.383	0.275	0.1861
6.	MPS and Current Ratio	0.568	0.322	0.303	0.204
7.	MPS and ROA	0.722	0.521	0.2142	0.1445
8.	MPS and ROE	0.867	0.752	0.1109	0.0748
9.	MPS and NI/TA	0.502	0.252	0.3345	0.2256
10	MPS and NI/FA	0.58	0.31	0.2078	0.3081

Correlations Coefficient of EBL

S.N		Correlations (r)	Coefficient of Determinations (r^2)	Standard error of correlations coefficient S.E (r)	Probable Error (P.E)
1.	MPS and EPS	0.943	0.890	0.0492	0.0332
2.	MPS and DPS	0.183	0.034	0.4320	0.291
3.	MPS and Dividend Yield	0.618	0.382	0.2764	0.186
4.	MPS and PE Ratio	0.990	0.980	0.0089	0.0060
5.	MPS and NWPS	0.954	0.909	0.0407	0.0274
6.	MPS and Current Ratio	0.96	0.933	0.0300	0.0202
7.	MPS and ROA	0.325	0.106	0.3998	0.2697
8.	MPS and ROE	0.208	0.43	0.2549	0.1719
9.	MPS and NI/TA	0.934	0.873	0.0568	0.0383
10	MPS and NI/FA	0.967	0.936	0.0286	0.0193

Regressions Analysis of HBL

Regressions Model		a	b	See
Y= a+bx	EPS	-1656.9	51.522	242.6430
	DPS	9321.07	13.396	396.88
	DY	1014.864	72.192	429.548
	P/E Ratio	-436.801	75.821	94.795
	NWPS	-298.725	17.861	344.991
	CR	-12552.889	13140.74	361.471
	ROA	-124.965	993.5	303.96
	ROE	-592.47	125.013	218.88
	NI/NT	-1214	34866.66	379.73
	NI/FA	2166.44	-209.806	364.49

Regressions Analysis of EBL

Regressions Model		a	b	See
Y= a+bx	EPS	-1053.3	40.867	302.60
	DPS	1377.73	-14.463	8984.97
	DY	1660.34	71.490	715.89
	P/E Ratio	-1064.68	112.56	127.87
	NWPS	-1718.64	13.687	274.308
	CR	71677.213	-66776.923	236.517
	ROA	-1491.74	1902.833	860.86
	ROE	-726.11	79.42	890.56
	NI/NT	-7501.42	-8806	324.08
	NI/FA	-5033.33	913.052	230.500

ANOVAs analysis

	F- Ratio	D.F	Tabulated- Value	Result
MPS	3.850	(4, 4)	6.39	H_0 is accepted
NWPS	12.56	(4, 4)	6.39	H_0 is not accepted
EPS	10.01	(4, 4)	6.39	H_0 is not accepted
DPS	1.69	(4, 4)	6.39	H_0 is accepted
P/E Ratio	8.021	(4, 4)	6.39	H_0 is not accepted
Dividend Yield	2.69	(4, 4)	6.39	H_0 is accepted
Current Ratio	1.263	(4, 4)	6.39	H_0 is accepted
Return on Total Assets	2.726	(4, 4)	6.39	H_0 is accepted
Return on Equity	2.1996	(4, 4)	6.39	H_0 is accepted
Fixed Assets turn Over Ratio	2.199	(4, 4)	6.39	H_0 is accepted
Total Assets Turnover ratio	1.052	(4, 4)	6.39	H_0 is accepted

ANNEX-12

Correlation Coefficient and Regression between MPS and EPS

	HBL					EBL				
Year	EPS (X)	MPS (Y)	X^2	Y^2	XY	EPS (X)	MPS (Y)	X^2	Y^2	XY
2005-06	47.91	920	2445.30	698896	41340.20	54.22	870	894.01	198025	13305.50
2006-07	59.24	1100	2405.90	705600	41202.00	62.78	1379	2077.54	462400	30994.40
2007-08	60.66	1740	2295.36	846400	44077.20	91.82	2430	2939.81	756900	47171.40
2008-09	62.74	1980	3509.38	1210000	5924.00	99.99	3132	3943.84	1901641	86601.20
2009-10	61.90	1780	3679.64	3027600	105548.40	77.44	2455	6146.56	5904900	190512
Total	**292.45**	**7520**	**11890.28**	**6488496**	**238091.80**	**386.25**	**10266**	**16001.76**	**9223866**	**368584.50**

	HBL	EBL
Mean ($\overline{Y}$)	1504	2053.2
Mean ($\overline{X}$)	58.49	77.44
The Correlation Coefficient (r) = $\frac{N\Sigma XY-\Sigma X\Sigma Y}{\sqrt{N\Sigma X^2-\Sigma X^2}\sqrt{N\Sigma Y^2-(\Sigma Y)^2}}$	0.833	0.943
Coefficient of Determinations (r^2)	0.695	0.890
Standard Error of Correlation Coefficient S.E. (r) = $\frac{1-r^2}{\sqrt{N}}$	0.1364	0.0492
B = $\frac{n\Sigma xy-\Sigma x\Sigma y}{n\Sigma x^2-(\Sigma x)^2}$	51.522	40.867
A = $\overline{Y}-b.\overline{X}$	-1656.97	-1053.367
Standard Error of Estimate (See) = $\sqrt{\frac{\Sigma Y^2-a.\Sigma Y-b.\Sigma XY}{n-2}}$	242.64	302.607
Probable Error (P.E.) = $\frac{1-r^2}{\sqrt{N}}\times 0.6745$	0.0920	0.0332

Calculations for t-test

T-test for significance of an observed sample correlation coefficient of HBL and EBL between MPS and EPS

Set hypothesis

Null hypothesis H_0: $\rho = \rho_0$: there is, no significance difference between MPS & EPS

Alternative hypothesis H_1: $\rho \neq \rho_0$: there is, significance difference between MPS & EPS

Test statistic: Under H_0, then test static is

$$t = \frac{r}{\sqrt{1-r^2}} \times \sqrt{n-2}$$

$$t = \frac{0.833}{\sqrt{1-0.833^2}} \times \sqrt{5-2} \quad = 2.6143$$

Degree of freedom (n_1-1) = (4)

Level of significance

Assume 5%

Tabulated value =2.7761

Decision: The tabulated value is greater than calculated value so H0 is accepted it means there is no significance difference between MPS & EPS

$$t = \frac{0.943}{\sqrt{1-0.943^2}} \times \sqrt{5-2} = 4.90$$

Decision: The tabulated value is less than calculated value so H1 is accepted it means there is significance difference between MPS & EPS.

ANNEX-13

Correlation Coefficient and Regression between DPS and MPS

	HBL					EBL				
Year	DPS (X)	MPS (Y)	X^2	Y^2	XY	DPS (X)	MPS (Y)	X^2	Y^2	XY
2005-06	1.32	920	1.74	698896	1103.52	20	870	400	198025	8900
2006-07	0	1100	0	705600	0	20	1379	400	462400	13600
2007-08	11.58	1740	134.11	846400	10653.60	0	2430	0	756900	0
2008-09	30	1980	900	1210000	33000	25	3132	625	1901641	34475
2009-10	15	1780	225	3027600	26100	10	2455	100	5904900	24300
Total	**57.9**	**7520**	**1260.85**	**6488496**	**70857.12**	**75**	**10266**	**1525**	**9223866**	**81275**

	HBL	EBL
Mean ($\overline{Y}$)	1504	2053.2
Mean ($\overline{X}$)	11.58	15
The Correlation Coefficient (r) = $\frac{N\Sigma XY-\Sigma X\Sigma Y}{\sqrt{N\Sigma X^2-\Sigma X^2}\sqrt{N\Sigma Y^2-(\Sigma Y)^2}}$	**0.856**	**-0.168**
Coefficient of Determinations (r^2)	0.183	0.034
Standard Error of Correlation Coefficient S.E. (r) = $\frac{1-r^2}{\sqrt{N}}$	0.119	0.434
B = $\frac{n\Sigma xy-\Sigma x\Sigma y}{n\Sigma x^2-(\Sigma x)^2}$	13.396	-14.463
A = $\overline{Y}-b.\overline{X}$	932.078	1377.738
Standard Error of Estimate (See) = $\sqrt{\frac{\Sigma Y^2-a.\Sigma Y-b.\Sigma XY}{n-2}}$	396.88	894.971
Probable Error (P.E.) = $\frac{1-r^2}{\sqrt{N}} \times 0.6745$	**0.080**	**0.293**

Calculations for t-test

T-test for significance of an observed sample correlation coefficient of HBL and EBL between MPS and DPS

Set hypothesis

Null hypothesis H_0: $\rho = \rho_0$: there is, no significance difference between MPS & DPS

Alternative hypothesis H_1: $\rho \neq \rho_0$: there is, significance difference between MPS & DPS

Test statistic: Under H_0, then test spastic is

$$t = \frac{0.856}{\sqrt{1-0.856^2}} \times \sqrt{5-2} = 2.867$$

$$t = \frac{0.168}{\sqrt{1-0..168^2}} \times \sqrt{5-2} = 0.295$$

Degree of freedom (n_1-1) = (4)

Level of significance

Assume 5%

Tabulated value =2.7761

Decision: The tabulated value is greater than calculated value of HBL so H1 is accepted it means there is significance difference between MPS & DPS and the tabulated value of EBL is less than calculated value so H0 is accepted it means there is no significant difference between MPS & DPS.

ANNEX-14

Correlation Coefficient and Regression between MPS and DY

	HBL					EBL				
Year	DY (X)	MPS (Y)	X^2	Y^2	XY	DY (X)	MPS (Y)	X^2	Y^2	XY
2005-06	0.16	920	0.0256	698896	133.76	4.49	870	20.16	198025	1998.05
2006-07	0	1100	0	705600	0	2.94	1379	8.64	462400	1999.20
2007-08	1.26	1740	1.5876	846400	1159.20	0	2430	0	756900	0
2008-09	2.73	1980	7.4529	1210000	3003	1.81	3132	3.28	1901641	2495.99
2009-10	0.86	1780	0.7396	3027600	1496.40	0.41	2455	0.17	5904900	996.30
Total	**5.01**	**7520**	**9.8057**		**5795.36**	**9.65**	**10266**	**32.25**	**9223866**	**7489.54**
						HBL			**EBL**	
Mean $(\overline{Y})$						1504			2053.2	
Mean $(\overline{X})$						1.002			1.93	
The Correlation Coefficient (r) = $\frac{N\Sigma XY-\Sigma X\Sigma Y}{\sqrt{N\Sigma X^2-\Sigma X^2}\sqrt{N\Sigma Y^2-(\Sigma Y)^2}}$						**0.856**			**-0.76**	
Coefficient of Determinations (r^2)						0.043			0.328	
Standard Error of Correlation Coefficient S.E. (r) = $\frac{1-r^2}{\sqrt{N}}$						0.119			0.188	
B = $\frac{n\Sigma xy-\Sigma x\Sigma y}{n\Sigma x^2-(\Sigma x)^2}$						72.192			-271.490	
A = $\overline{Y}-b.\overline{X}$						1014.864			1660.342	
Standard Error of Estimate (See) = $\sqrt{\frac{\Sigma Y^2-a.\Sigma Y-b.\Sigma XY}{n-2}}$						429.548			715.891	
Probable Error (P.E.) = $\frac{1-r^2}{\sqrt{N}}\times 0.6745$						0.080			0.127	

Calculations for t-test

T-test for significance of an observed sample correlation coefficient of HBL and EBL between MPS and dividend yield

Set hypothesis

Null hypothesis H_0: $\rho = \rho_0$: there is, no significance difference between MPS & dividend yield

Alternative hypothesis H_1: $\rho \neq \rho_0$: there is, significance difference between MPS & dividend yield

Test statistic: Under H_0, then test spastic is

$$t = \frac{0.856}{\sqrt{1-0.856^2}} \times \sqrt{5-2} = 2.867$$

$$t = \frac{0.76}{\sqrt{1-0.76^2}} \times \sqrt{5-2} = 2.025$$

Degree of freedom (n_1-1) = (4)

Level of significance

Assume 5%

Tabulated value =2.7761

Decision: The tabulated value is greater than calculated value of HBL so H1 is accepted it means there is significance difference between MPS & DY and the tabulated value of EBL is less than calculated value so H0 is accepted it means there is no significant difference between MPS & DY.

ANNEX-15

Correlation Coefficient and Regression between P\E and MPS

	HBL					EBL				
Year	P/E (X)	MPS (Y)	X2	Y2	XY	P/E (X)	MPS (Y)	X^2	Y^2	XY
2005-06	16.91	920	285.95	698896	14136.76	14.88	870	221.41	198025	6621.60
2006-07	17.13	1100	293.44	705600	14389.20	14.92	1379	222.61	462400	10145.60
2007-08	19.2	1740	368.64	846400	17664.00	16.05	2430	257.60	756900	13963..50
2008-09	18.57	1980	344.84	1210000	20427.00	22	3132	484	1901641	30338
2009-10	28.69	1780	823.12	3027600	49920.60	31	2455	961	5904900	75330
Total		**7520**	**2115.12**	**6488496**	**116537.50**	**98.85**	**10266**	**2146.62**	**9223866**	**136398.7**

	HBL	EBL
Mean ($\overline{Y}$)	1504	2053.2
Mean ($\overline{X}$)	20.1	19.77
The Correlation Coefficient (r) = $\frac{N\Sigma XY-\Sigma X\Sigma Y}{\sqrt{N\Sigma X^2-\Sigma X^2}\sqrt{N\Sigma Y^2-(\Sigma Y)^2}}$	**0.976**	**0.990**
Coefficient of Determinations (r^2)	0.493	0.576
Standard Error of Correlation Coefficient S.E. (r) = $\frac{1-r^2}{\sqrt{N}}$	0.021	0.0088
B = $\frac{n\Sigma xy-\Sigma x\Sigma y}{n\Sigma x^2-(\Sigma x)^2}$	75.821	112.569
A = $\overline{Y}-b.\overline{X}$	-436.801	-1064.687
Standard Error of Estimate (See) = $\sqrt{\frac{\Sigma Y^2-a.\Sigma Y-b.\Sigma XY}{n-2}}$	94.795	127.878
Probable Error (P.E.) = $\frac{1-r^2}{\sqrt{N}} \times 0.6745$	0.014	0.0060

Calculations for t-test

T-test for significance of an observed sample correlation coefficient of HBL and EBL between MPS and price earnings ratio.

Set hypothesis

Null hypothesis H_0: $\rho = \rho_0$: there is no significance difference between MPS & price earnings ratio.

Alternative hypothesis H_1: $\rho \neq \rho_0$: there is significance difference between MPS & price earnings ratio.

Test statistic: Under $H_{0,}$ then test spastic is

$$t = \frac{0.976}{\sqrt{1-0.976^2}} \times \sqrt{5-2} = 7.762$$

$$t = \frac{0.990}{\sqrt{1-0.990^2}} \times \sqrt{5-2} = 12.15$$

Degree of freedom (n_1-1) = (4)

Level of significance

Assume 5%

Tabulated value =2.7761

Decision: The tabulated value is greater than calculated value so H1 is accepted it means there is significance difference between MPS & PE ratio of both banks.

ANNEX-16

Correlation Coefficient and Regression between NWPS and MVPS

	HBL					EBL				
Year	NWPS (X)	MVPS	X2	Y2	XY	NWPS (X	MPS (Y)	X^2	Y^2	XY
2005-06	239.59	920	61414.75	698896	207177.52	219.83	870	22530.01	198025	66794.50
2006-07	228.72	1100	60974.42	705600	207421.20	217.67	1379	29419.11	462400	116633.60
2007-08	264.74	1740	57403.37	846400	220422.80	280.82	2430	32815.32	756900	191286.90
2008-09	247.95	1980	52312.84	1210000	251592	321.77	3132	47380.23	1901641	300166.93
2009-10	256.52	1780	70087.27	3027600	460647.60	313.64	2455	85690.85	5904900	711333.90
Total	**1237.52**	**7520**	**302192.65**	**6488496**	**1347255.12**	**1353.75**	**10266**	**217835.52**	**9223866**	**1386215.8**

	HBL	EBL
Mean ($\overline{Y}$)	1504	2053.2
Mean ($\overline{X}$)	247.50	270.75
The Correlation Coefficient (r) = $\frac{N\Sigma XY-\Sigma X\Sigma Y}{\sqrt{N\Sigma X^2-\Sigma X^2}\sqrt{N\Sigma Y^2-(\Sigma Y)^2}}$	0.725	0.946
Coefficient of Determinations (r^2)	0.383	0.909
Standard Error of Correlation Coefficient S.E. (r) = $\frac{1-r^2}{\sqrt{N}}$	0.212	0.0469
B = $\frac{n\Sigma xy-\Sigma x\Sigma y}{n\Sigma x^2-(\Sigma x)^2}$	17.861	13.687
A = $\overline{Y}-b.\overline{X}$	-3298.725	-1718.649
Standard Error of Estimate (See) = $\sqrt{\frac{\Sigma Y^2-a.\Sigma Y-b.\Sigma XY}{n-2}}$	344.991	274.308
Probable Error (P.E.) = $\frac{1-r^2}{\sqrt{N}}\times 0.6745$	0.143	0.046

Calculations for t-test

T-test for significance of an observed sample correlation coefficient of HBL and EBL between MPS and NWPS

Set hypothesis

Null hypothesis H_0: $\rho = \rho_0$: there is, no significance difference between MPS & NWPS

Alternative hypothesis H_1: $\rho \neq \rho_0$: there is, significance difference between MPS & NWPS

Test statistic: Under H_0, then test spastic is

$$t = \frac{0.725}{\sqrt{1-0.725^2}} \times \sqrt{5-2} = 2.892$$

$$t = \frac{0.946}{\sqrt{1-0.946^2}} \times \sqrt{5-2} = 5.054$$

Degree of freedom (n_1-1) = (4)

Level of significance

Assume 5%

Tabulated value =2.7761

Decision: The tabulated value is greater than calculated value so H1 is accepted it means there is significance difference between MPS & NWPS of both banks.

ANNEX-17

Correlation Coefficient and Regression between CR and MVPS

	HBL					EBL				
Year	CR (X)	MVPS	X2	Y2	XY	CR (X)	MPS (Y)	X^2	Y^2	XY
2005-06	1.01	920	1.0201	698896	844.36	1.07	870	1.1449	198025	476.15
2006-07	1.04	1100	1.0816	705600	873.60	1.06	1379	1.1239	462400	720.80
2007-08	1.04	1740	1.0816	846400	956.80	1.06	2430	1.1239	756900	922.20
2008-09	1.05	1980	1.1025	1210000	1155	1.05	3132	1.1025	1901641	1447.95
2009-10	1.05	1780	1.1025	3027600	1827	1.04	2455	1.0816	5904900	2527.20
Total	**5.19**	**7520**	**5.3883**	**6488496**	**5656.76**	**15.28**	**10266**	**5.5765**	**9223866**	**6094.30**

	HBL	EBL
Mean ($\overline{Y}$)	15.4	2053.2
Mean ($\overline{X}$)	1.038	1.056
The Correlation Coefficient (r) = $\frac{N\Sigma XY-\Sigma X\Sigma Y}{\sqrt{N\Sigma X^2-\Sigma X^2}\sqrt{N\Sigma Y^2-(\Sigma Y)^2}}$	0.820	-0.737
Coefficient of Determinations (r^2)	0.322	0.933
Standard Error of Correlation Coefficient S.E. (r) = $\frac{1-r^2}{\sqrt{N}}$	0.146	0.204
B = $\frac{n\Sigma xy-\Sigma x\Sigma y}{n\Sigma x^2-(\Sigma x)^2}$	13140.741	-66776.923
A = $\overline{Y}-b.\overline{X}$	-12552.889	71677.231
Standard Error of Estimate (See) = $\sqrt{\frac{\Sigma Y^2-a.\Sigma Y-b.\Sigma XY}{n-2}}$	361.471	236.517
Probable Error (P.E.) = $\frac{1-r^2}{\sqrt{N}} \times 0.6745$	0.098	0.137

Calculations for t-test

T-test for significance of an observed sample correlation coefficient of HBL and EBL between MPS and current ratio

Set hypothesis

Null hypothesis H_0: $\rho = \rho_0$: there is, no significance difference between MPS & current ratio

Alternative hypothesis H_1: $\rho \neq \rho_0$: there is, significance difference between MPS & current ratio

Test statistic: Under H_0, then test spastic is

$$t = \frac{0.820}{\sqrt{1-0.820^2}} \times \sqrt{5-2} = 2.892$$

$$t = \frac{0.737}{\sqrt{1-737^2}} \times \sqrt{5-2} = 2.489$$

Degree of freedom (n_1-1) = (4)

Level of significance

Assume 5%

Tabulated value =2.7761

Decision: The tabulated value is greater than calculated value of HBL so H1 is accepted it means there is significance difference between CR & MVPS and the tabulated value of EBL is less than calculated value so H0 is accepted it means there is no significant difference between CR & MVPS.

ANNEX-18

Correlation Coefficient and Regression between ROTA and MVPS

	HBL					EBL				
Year	ROTA (X)	MVPS (Y)	X2	Y2	XY	ROTA(X)	MPS (Y)	X^2	Y^2	XY
2005-06	0.91	920	0.8281	698896	760.76	1.17	870	1.3689	198025	520.65
2006-07	1.06	1100	1.1236	705600	890.40	1.50	1379	2.25	462400	1020
2007-08	1.11	1740	1.2321	846400	1021.20	1.40	2430	1.96	756900	1218
2008-09	1.55	1980	2.4025	1210000	1705	1.50	3132	2.25	1901641	2068.50
2009-10	1.47	1780	2.1609	3027600	2557.80	1.40	2455	1.96	5904900	3402
Total	**6.1**	**7520**	**7.7472**	**6488496**	**6935.16**	**6.97**	**10266**	**9.7889**	**9223866**	**8229.15**

	HBL	EBL
Mean ($\overline{Y}$)	15.4	2053.2
Mean ($\overline{X}$)	1.22	1.394
The Correlation Coefficient (r) = $\frac{N\Sigma XY-\Sigma X\Sigma Y}{\sqrt{N\Sigma X^2-\Sigma X^2}\sqrt{N\Sigma Y^2-(\Sigma Y)^2}}$	0.868	0.836
Coefficient of Determinations (r^2)	0.521	0.106
Standard Error of Correlation Coefficient S.E. (r) = $\frac{1-r^2}{\sqrt{N}}$	0.110	0.134
B = $\frac{n\Sigma xy-\Sigma x\Sigma y}{n\Sigma x^2-(\Sigma x)^2}$	993.578	1902.833
A = $\overline{Y}-b.\overline{X}$	-124.965	-1491.749
Probable Error (P.E.) = $\frac{1-r^2}{\sqrt{N}}\times 0.6745$	0.0743	0.090

Calculations for t-test

T-test for significance of an observed sample correlation coefficient of HBL and EBL between MPS and ROTA

Set hypothesis

Null hypothesis H_0: $\rho = \rho_0$: there is, no significance difference between MPS & ROA

Alternative hypothesis H_1: $\rho \neq \rho_0$: there is, significance difference between MPS & ROA

Test statistic: Under H_0, then test spastic is

$$t = \frac{0.868}{\sqrt{1-0.868^2}} \times \sqrt{5-2} = 3.027$$

$$t = \frac{0.325}{\sqrt{1-0.325^2}} \times \sqrt{5-2} = 2.786$$

Degree of freedom (n_1-1) = (4)

Level of significance

Assume 5%

Tabulated value =2.7761

Decision: The tabulated value is greater than calculated value so H1 is accepted it means there is significance difference between MVPS & ROTA of both banks.

ANNEX-19

Correlation Coefficient and Regression between ROE and MVPS

	HBL					EBL				
Year	ROE (X)	MVPS	X2	Y2	XY	ROE(X)	MPS (Y)	X^2	Y^2	XY
2005-06	11.13	920	123.88	698896	9304.68	26.18	870	685.39	198025	11650.10
2006-07	11.48	1100	131.79	705600	9643.20	21.10	1379	445.21	462400	14348
2007-08	12	1740	144	846400	11040	22.19	2430	492.39	756900	19305.30
2008-09	15.58	1980	242.74	1210000	17138	24.64	3132	607.13	1901641	33978.56
2009-10	16.75	1780	280.56	3027600	29145	24.67	2455	608.61	5904900	59948.10
Total	**66.94**	**7520**	**922.97**	**6488496**	**76270.88**	**118.78**	**10266**	**2838.73**	**9223866**	**139230.06**

	HBL	EBL
Mean ($\overline{Y}$)	15.4	2053.2
Mean ($\overline{X}$)	13.4360	23.7560
The Correlation Coefficient (r) = $\frac{N\Sigma XY-\Sigma X\Sigma Y}{\sqrt{N\Sigma X^2-\Sigma X^2}\sqrt{N\Sigma Y^2-(\Sigma Y)^2}}$	0.876	-0.046
Coefficient of Determinations (r^2)	0.752	0.43
Standard Error of Correlation Coefficient S.E. (r) = $\frac{1-r^2}{\sqrt{N}}$	0.177	0.446
B = $\frac{n\Sigma xy-\Sigma x\Sigma y}{n\Sigma x^2-(\Sigma x)^2}$	125.013	79.429
A = $\overline{Y}-b.\overline{X}$	-592.478	-726.111
Standard Error of Estimate (See) = $\sqrt{\frac{\Sigma Y^2-a.\Sigma Y-b.\Sigma XY}{n-2}}$	218.886	
Probable Error (P.E.) = $\frac{1-r^2}{\sqrt{N}} \times 0.6745$	0.120	0.301

Calculations for t-test

T-test for significance of an observed sample correlation coefficient of HBL and EBL between MPS and ROE

Set hypothesis

Null hypothesis H_0: $\rho = \rho_0$: there is, no significance difference between MPS & ROE

Alternative hypothesis H_1: $\rho \neq \rho_0$: there is, significance difference between MPS & ROE

Test statistic: Under H_0, then test spastic is

$$t = \frac{0.876}{\sqrt{1-0.876^2}} \times \sqrt{5-2} = 3.145$$

$$t = \frac{0.046}{\sqrt{1-0.046^2}} \times \sqrt{5-2} = 0.0797$$

Degree of freedom (n_1-1) = (4)

Level of significance

Assume 5%

Tabulated value =2.7761

Decision: The tabulated value is greater than calculated value of HBL so H1 is accepted it means there is significance difference between ROE & MVPS and the tabulated value of EBL is less than calculated value so H0 is accepted it means there is no significant difference between ROE & MVPS.

ANNEX-20

Correlation Coefficient and Regression between NI/TA and MVPS

	HBL					EBL				
Year	NI/TA (X)	MVPS	X2	Y2	XY	NI/TA (X)	MPS (Y)	X^2	Y^2	XY
2005-06	0.06	920	0.0036	698896	26.70	0.08	870	0.0064	198025	26.70
2006-07	0.07	1100	0.0049	705600	47.60	0.08	1379	0.0064	462400	47.60
2007-08	0.06	1740	0.0036	846400	52.20	0.07	2430	0.0049	756900	52.20
2008-09	0.07	1980	0.0049	1210000	96.53	0.07	3132	0.0049	1901641	96.53
2009-010	0.07	1780	0.0049	3027600	170.10	0.06	2455	0.0036	5904900	170.10
Total	**0.33**	**7520**	**0.0219**	**6488496**	**393.13**	**0.36**	**10266**	**0.0262**	**9223866**	**393.13**

	HBL	EBL
Mean ($\overline{Y}$)	1504	2053.2
Mean ($\overline{X}$)	0.0660	0.0720
The Correlation Coefficient (r) = $\frac{N\Sigma XY-\Sigma X\Sigma Y}{\sqrt{N\Sigma X^2-\Sigma X^2}\sqrt{N\Sigma Y^2-(\Sigma Y)^2}}$	0.342	-0.740
Coefficient of Determinations (r^2)	0.252	0.873
Standard Error of Correlation Coefficient S.E. (r) = $\frac{1-r^2}{\sqrt{N}}$	0.394	0.202
B = $\frac{n\Sigma xy-\Sigma x\Sigma y}{n\Sigma x^2-(\Sigma x)^2}$	34866.667	-88064
A = $\overline{Y}-b.\overline{X}$	-1214	7501.429
Standard Error of Estimate (See) = $\sqrt{\frac{\Sigma Y^2-a.\Sigma Y-b.\Sigma XY}{n-2}}$	379.734	324.085
Probable Error (P.E.) = $\frac{1-r^2}{\sqrt{N}} \times 0.6745$	0.366	0.1364

Calculations for t-test

T-test for significance of an observed sample correlation coefficient of HBL and EBL between MPS and NI/TA

Set hypothesis

Null hypothesis H_0: $\rho = \rho_0$: there is, no significance difference between MPS & NI/TA

Alternative hypothesis H_1: $\rho \neq \rho_0$: there is, significance difference between MPS & NI/TA

Test statistic: Under H_0, then test spastic is

$$t = \frac{0.342}{\sqrt{1-0.342^2}} \times \sqrt{5-2} = 0.630$$

$$t = \frac{0.740}{\sqrt{1-0.740^2}} \times \sqrt{5-2} = 1.905$$

Degree of freedom (n_1-1) = (4)

Level of significance

Assume 5%

Tabulated value =2.7761

Decision: The tabulated value is greater than calculated value so H0 is accepted it means there is not significance difference between MPS & NI/TA of both banks.