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Comparative Analysis of Punjab National Bank & Kotak Mahindra Bank through CAMEL MODEL

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Abstract: ***Originally CAMEL method was devised as a supervision tool. Regulators assess the financial condition of banks through on-site and off-site surveillance. They rely on two analytical tools for off-site surveillance: supervisory screens and econometric models. Supervisory screens are combinations of financial ratios, derived from bank balance sheets and income statements that have in the past given forewarning of safety and soundness problems. Econometric models use sets of variables from banks' financial statements and economic environment to compute the probability that a bank will fail in a future period. In both methods, relevant variables have to be identified. In 1979, the bank regulatory agencies created the uniform financial institution rating system (UFIRS). Under the original UFIRS, a bank was assigned rating based on performance in five areas: Capital adequacy (C), Assets quality (A), Management quality (M), Earning capacity (E) and Liquidity risk (L). Bank supervisors assigned a 1 through 5 rating for each of these components to form a composite rating for the bank. This 1 through 5 composite rating was known by the acronym CAMEL. The UFIRS was revised at the end of 1996 and CAMEL became CAMELS with the addition of a component grade for the sensitivity to market risk. CAMEL(s) thus provides a measurement of a bank's current overall financial, managerial, and operational and compliance performance. It is supposed to allow regulators to identify ailing banks, before failure happens and take corrective actions. Although CAMEL was initially devised for the American banking system, similar methodologies have been developed by various supervision authorities.***

Keywords: Capital Adequacy, Assets Quality, Management Quality, Earning capacity, Liquidity risk.

I. INTRODUCTION

The CAMEL methodology was originally adopted by North American bank regulators to evaluate the financial and managerial soundness of U.S. commercial lending institutions. The CAMEL reviews and rates five areas of financial and managerial performance: Capital adequacy, Asset quality, Management, Earnings, and Liquidity. Based on the conceptual framework of the original CAMEL, ACCION International developed its own instrument. Although the ACCION CAMEL reviews the same five areas as the original CAMEL, the indicators and ratings used by ACCION reflect the unique challenges and conditions facing the micro finance industry. To date, ACCION has used its CAMEL primarily as an internal assessment tool, which has contributed to setting performance standards both for the ACCION Network and for the micro finance industry as a whole. The MFI is required to gather the following information for a CAMEL examination: (1) financial statements; (2) budgets and cash flow projections; (3) portfolio aging schedules; (4) funding sources; (5) information about the board of directors; (6) operations/staffing; and (7) macroeconomic information. Financial statements form the basis of the CAMEL's quantitative analysis. MFIs are required to present audited financial statements from the last three years and interim statements for the most recent 12-month period. The other required materials provide programmatic information and show the evolution of the institution. These documents demonstrate to CAMEL analysts the level and structure of loan operations and the quality of the MFI's infrastructure and staffing.

Meaning:

A. Capital Adequacy

Leverage: the relationship between the risk-weighted assets of the MFI and its equity. Ability to raise equity: assessment of an MFI's ability to respond to a need to replenish or increase equity at any given time. Adequacy of reserves: measure of the MFI's loan loss reserve and the degree to which the institution can absorb potential loan losses.

B. Asset Quality

Portfolio Quality: Portfolio at risk: measures the portfolio past due over 30 days. Writeoffs/ write off policy: measures adjusted write-offs on CAMEL criteria. Portfolio classification system: review of portfolios aging schedules; assesses institution's policies associated with assessing portfolio risk. Fixed Assets: Productivity of long-term assets: evaluates MFI's policies for investing in fixed assets Infrastructure: -evaluation of whether it meets the needs of both staff and clients.

C. Management

Governance: how well the institution's board of directors functions, including the diversity ofits technical expertise, its independence from management, and its ability to make decisions flexibly and effectively. Human Resources: evaluates whether the department of human resources provides clear guidance and support to operations staff, including recruitment and training of new personnel, incentive systems for personnel, and performance evaluation system. Processes, controls and audit: the degree to

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which the MFI has formalized key processes and the effectiveness with which it controls risk throughout the organization, as measured by its control environment and the quality of its internal and external audit. Information Technology System: assesses whether computerized information systems are operating effectively and efficiently, and are generating reports for management purposes in a timely and accurate manner. Strategic planning and budgeting: whether the institution undertakes a comprehensive and participatory process for generating short- and long-term financial projections and whether the plan is updated as needed and used in the decision making process.

D. Earnings

Adjusted return on equity: measures the ability of the institution to maintain and increase its net worth through earnings from operations. Operational Efficiency: measures the efficiency of the institution and monitors its progress toward achieving a cost structure that is closer to the level achieved by formal financial institutions. Adjusted Return an Assets: measures how well the MFI's assets are utilized, or the institution's ability to generate earnings with a given asset base. Interest rate policy: assess the degree to which management analyzes and adjusts the institution's interest rates on micro finance loans (and deposits if applicable), based on the cost of funds, profitability targets, and macroeconomic environment

E. Liquidity Management

Liability structure: review of the composition of the institution's liabilities, including their tenor, interest rate, payment terms, and sensitivity to changes in the macroeconomic environment. Availability of funds to meet credit demand: measures the degree to which the institution has delivered credit in a timely and agile manner. Cash flow projections: evaluate the degree to which the institution is successful in projecting its cash flow requirements. Productivity of other current assets: evaluates extent to which the MFI maximizes the use of its cash, bank accounts, and short-term investments by investing in a timely fashion and at the highest returns, commensurate with its liquidity needs.

II. RESEARCH PROBLEM

Compare and evaluate of two banks these are The Punjab National Bank which is the Public sector bank to The Kotak Mahindra Bank which is Private sector bank by using the CAMEL model which is the Uniformed Financial Institution Rating System, Accepted worldwide.

III. RESEARCH OBJECTIVES

- The major objective behind study is to know the banking supervision system
- Comparison of one of the leading Public sector bank i.e. Punjab National Bank and one of the leading privet sector bank i.e. Kotak Mahindra Bank.
- Comparative analysis of both the bank through the ratios which have been used in the CAMELS.

IV. HYPOTHESIS

Hypothesis is usually considered as the principal instrument in the research. Ordinarily when one talks about hypothesis, one simply means a mere assumption or some supposition to be proved or disproved. But for a researcher hypothesis is a formal question that he intends to resolve. Thus “a hypothesis may be defined as a proposition or a set of propositions set forth as an explanation for the occurrence of some specified group of phenomena either asserted merely as a provisional conjuncture to guide some investigation or accepted as highly probable in the light of established facts.”

Types of Hypothesis

Null Hypothesis and Alternate Hypothesis:

Alternate hypothesis is usually the one which one wishes to prove and the null hypothesis is the one which one wishes to disprove. Thus a null hypothesis represents the hypothesis we are trying to reject, and alternate hypothesis is all other possibilities.

Test of Hypothesis

The Hypothesis testing determines the validity of the Assumption (Null Hypothesis) with the view to choose between two conflicting hypothesis about the value of population parameter. Hypothesis testing helps to decide on the basis of the sample data, weather the hypothesis about the population is likely to be true or not. Statisticians have developed several test of hypothesis (also known as the tests of significances) for the purpose of test of Hypothesis which can be classified as:

1. Parametric test or Standard tests of Hypothesis.
2. Non parametric tests or distribution-free tests of Hypothesis.

Important Parametric Tests

The important parametric tests are (1) Z test (2) T test (3) X^2 (4) F test.

All these parametric tests are based on assumption of normality i.e. the source of data is considered to be normally distributed. In some of the cases the population is not normally distributed, yet the tests will be applicable on accounts of the facts that we mostly deal with samples and sampling distributions closely approach normal distribution.

Here, the F-test is applicable which based on F distribution and is used to compare two independent samples. This test is also used in the context of analysis of variance for judging the significance of more than two sample means at one and the same time. Test statistic, F, is calculated and compared with its probable value for accepting or rejecting the Null Hypothesis.

The Hypothesis would be tested on the basis of sample data and test statistic F is found, using σ^2 S1 and σ^2 S2 the sample estimates in order to find out F. as stated below.

$$F = \frac{\sigma^2 S1}{\sigma^2 S2}$$

$$\sigma^2 S_1 = \frac{\sum(\overline{X_1}-X_1)^2}{(n_1 - 1)}$$

$$\sigma^2 S_2 = \frac{\sum(X_2-X_2)^2}{(n_2 - 1)}$$

While calculating F the numerator is always the grater variance. Tables for F distributions are prepared by Statisticians for the different value of F at different level of significance for different degrees of freedom for greater and smaller variance. By compairing the observed value of F with the corasponding table value, we can infer whether the difference between the variance of the samples could have arrision due to sampling fluctuation. If the calculated value is greater than the table value of F at certain level of significance for (N1 – 1) and (N2 – 1). Degree of freedom, we regard the F-ratio as significant. If F-ratio is considered non-significant, we accept the Null Hypothesis, but if F-ratio is considered significant, we then reject H0 (i.e. we accept the Ha).

When we use the ***F*** test, we presume that

1. The populations are normal;
2. Samples have been drawn randomly;
3. Observations are independent;
4. There is no measurement error.

The object of ***F*** test is to test the Hypothesis whether the two samples are from the same normal population with the equal variance. ***F*** test was initially used to verify the hypothesis, but now it mostly used in the context of analysis of variance.

V. DATA COLLECTION

The task of data collection begins after a research problem has been defined and research design/plan chalked out. While designing about the method of data collection to be used for the study.

There are 2 sources of data

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1) Primary Data:

- The data, which are collected for the first time, directly from the respondents to the base of knowledge & belief of the research, are called primary data.
- The normal procedure is to interview some people individually or in a group to get a sense of how people feel about the topic.

2) Secondary Data:

- When data are collected & compiled in a published nature, it is called secondary data.
- So far as this research is concerned, Internet & many magazines and the brochures have been referred to.
- The Annual Report is the main source of information.

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VI. C – CAPITAL ADEQUACY

Capital adequacy is stipulated by Bank for International Settlements (BIS) at Basle to ensure that the banks have enough capital to absorb losses from assets which turn bad. The norms are fixed as a percentage of risk weighted assets i.e. assets are, weighted on the basis of the risk involved in their realization. For example, cash is given a risk weight age of 0% and higher weight age for assets secured by goods, mortgage etc. In India Narasimham Committee recommendations have stipulated that Indian Banks particularly those with International Presence must have a capital adequacy of 8%. Capital adequacy reflects the overall financial condition of the banks and also the ability of the management to meet the need for additional capital. It is important for a bank to maintain deposits' confident and preventing the bank to go for bankrupt. Capital is seen as a cushion to protect depositors and promote the stability and efficiency of the financial system around the globe.

The following ratios measure Capital adequacy:

- Capital Adequacy Ratio
- Debt – Equity Ratio
- Advances to Assets
- G – Secs to Total Investment

Analysis:

The various ratios measuring Capital adequacy in case of Punjab National Bank (PNB) and Kotak Mahindra Bank (KMB). The banks are depicted in the Tables 1 and 1(a). It is obvious from the tables that PNB and KMB maintain average Capital Adequacy Ratio at 12.4% and 14.46% respectively between years 2005-06 to 2007-08. this shows that both the bank maintained higher CAR than the prescribed level. According to the norms of the RBI, each bank in India has to maintain 8% of their Risk Weighted Assets as capital with effect from March 2000. Here we can see the positive Growth of CAR of both the Banks.

If we talk about the Debt / Equity Ratio then in case of PNB it increases but decreases in case of KMB. That shows that the dependences on debt capital is decreases over the last three yeas. The Ratio of Advances to Assets is found higher continuously as far as the PNB is concerned but down tern in the KMB.

Table 1 : Capital Adequacy Ratio (in %)

Ratios	Banks	2005-06	2006-07	2007-08
Capital Adequacy Ratio (CAR)	PNB	11.95	12.29	12.96
	KMB	11.27	13.46	18.65
Debt – Equity Ratio	PNB	13.19	13.79	15.44
	KMB	7.59	6.62	4.57
Advance to Assets	PNB	51.37	59.47	60.04
	KMB	62.39	54.85	54.93
G-Sec to total Investment	PNB	81.40	81.06	81.89
	KMB	83.05	85.45	88.81

As regard the ratio of government security to total investment we can see the consistency in the PNB that they have invested average of 81.45% during the year 2005-06 to 2007-08. But if we see that particular ratio in case of KMB then we can see that they have invested average of 85.77% in government security. This ratio is representing that both the bank have good amount of investment in government security that a good sign for both the Bank.

The Study of Hypothesis:

Ho: There is no significant difference between capital adequacy of PNB and KMB.
Ha: There is a significant difference between capital adequacy of PNB and KMB.

Table 1(a) : Capital Adequacy Ratio (in %)

Ratios	Banks	Mean Ratio	Variance	F- VALUE	Significance 5%	Accept / Reject
Capital Adequacy Ratio (CAR)	PNB	12.4	0.2641	54.41	19.00	Reject
	KMB	14.46	14.37			
Debt – Equity Ratio	PNB	14.14	1.3575	1.75	19.00	Accept
	KMB	6.26	2.3773			
Advance to Assets	PNB	56.96	23.5173	1.25	19.00	Accept
	KMB	57.39	18.7576			
G-Secs to total Investment	PNB	81.45	0.17638	47.43	19.00	Reject
	KMB	85.77	8.3658			

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VII. A – ASSET QUALITY

The quality of assets is an important parameter to gauge the strength of the bank. The prime motto behind measuring the assets quality is to ascertain the component of the Non Performing Assets (NPA) as percentage of total asset. This indicates what types of advances the bank has made to generate interest income. Thus, asset quality indicates the type of debaters the bank is having.

The prime motto behind measuring the asset quality is to ascertain the quality of assets and majority of ratios in this segment are related to NPA. A credit facility is treated as past due when it remains outstanding for 30 days beyond the due date. An NPA is defined generally as a credit facility in respect of which interest or installment of principal is in arrears for two quarter or more. This segment contain following ratio.

- Gross NPAs to Total Assets
- Gross NPAs to Net Advances
- Total Investments to Total Assets
- Percentage Change in Gross NPAs

Analysis:

Tables 2 and 2 (a) represents assets quality position of the banks under study in terms of three ratio: Gross NPAs to Net Advances, Net NPAs to Net Advances and Net NPAs to Total assets. Data available in the aforesaid two tables indicate a tremendous improvement in assets quality of the Punjab National Bank but if we see the KMB we can analyze that it has been increasing in all the three years which is representing the worst condition for the bank that the Bank is not in a position to get interest from its investment. Here if we focus on the Total investment to total Assets which almost similar in case of the PNB which is having the average of 27.74 is representing that bank is making the utilization of its assets by investing and convert it into profitability.

Table – 2 Assets Quality Ratio (in %)

Ratios	Banks	2005-06	2006-07	2007-08
Gross NPAs to net advances	PNB	4.10	3.45	2.74
	KMB	0.08	2.08	1.94
Net NPAs to Net Advance	PNB	0.29	0.76	0.64
	KMB	0.24	1.98	1.78
Total Investment to total Assets	PNB	28.26	27.82	27.13
	KMB	28.06	34.45	32.28
Net NPAs to Total Assets	PNB	0.123	0.627	0.847
	KMB	0.14	1.08	0.98

But as far as the KMB is concerned we can see that it has the average of about the 31.60 which higher than the PNB. Here if we go through the Net NPAs to Total Assets then it seems that there is constant increase in that particular ratio in the PNB, while there is a fluctuate trend in the KMB.

The Study of Hypothesis:

Ho: There is no significant difference between Assets Quality of PNB and KMB.
Ha: There is significant difference between Assets Quality of PNB and KMB.

Table – 2(a) Assets Quality Ratio (in %)

Ratios	Banks	Mean Ratio	Variance	F-VALUE	significance 5%	Accept / Reject
Gross NPAs to net advances	PNB	3.43	0.4627	2.69	19.00	Accept
	KMB	1.37	1.2465			
Net NPAs to Net Advance	PNB	0.56	0.0596	15.20	19.00	Accept
	KMB	0.01	0.9065			
Total Investment to total Assets	PNB	27.74	0.3264	32.37	19.00	Reject
	KMB	31.60	10.5672			
Net NPAs to Total Assets	PNB	0.532	0.1362	1.93	19.00	Accept
	KMB	0.73	0.2665			

VIII. M – MANAGEMENT EFFICIENCY

Management Efficiency is another important element of the CAMEL model. The ratio in this segment involves subjective analysis to measure the efficiency and effectiveness of the management. The management of the bank takes crucial decisions depending on it's risk protection. It sets vision and goals for the organization and sees that it achieves them. This parameter is

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used to evaluate management efficiency as to assign premium to better quality banks and discount poorly managed ones. The ratio used to evaluate management efficiency.

Management is the most important ingredient that ensures sound functioning of banks. With increased competition in the Indian banking sector, efficiency and effectiveness have become the rule as banks constantly strive to improve the productivity of their employees. The major improvements in the style of management and productivity have come about in the all sectors of banks. Today, it is not uncommon to see the extended working hours, flexible time schedules, outsourcing marketing, etc. to attract and retain customers. The parameters used to assess the quality of management gives the measurement of the efficiency and effectiveness of management. The ratios of this segment are:

- Total Advances to Total Deposits
- Gross Profit Per Employee
- Net Profit Per Employee
- Business Per Employee
- Return on Net Worth

Analysis:

Tables 3 and 3 (a) exhibit the various ratios representing the level of management efficiency of the two banks under study. We might observe these tables almost each ratio indicate the uptrend irrespective of the Bank concerned. Here we can see the efficiency as well as the effectiveness of the bank through these ratios. As far as the first and foremost ratio of management efficiency is concerned we can see that PNB is converting average 67.74% deposits into advances while if we see the same ratio of the KMB then we can see the tremendous figure which is about 96.89% which is representing the better management. It shows that the KMB is converting its deposits into advances very efficiently. Later ratios are Business per employee and profit per employee which are about 2.48 and 0.026 as an average that shows the productivity of the human resource of the bank. At the same time if we see the those ratio of the KMB then we can see that these are 3.73 and 370 of Business per employee and profit per employee respectively.

Table – 3 Management Efficiency Ratio (in %)

Ratios	Banks	2005-06	2006-07	2007-08
Total advance to total deposits	PNB	62.35	69.06	71.79
	KMB	96.68	99.30	94.69
Business per employee	PNB	2.28	2.53	2.63
	KMB	352.00	383.91	383.84
Profit per employee	PNB	0.03	0.03	0.02
	KMB	4.15	3.13	3.81

This is good sign for the bank. If we can see the consistent growth of business per employee of both the bank. As far as the profit per employee ratio is concerned we can see the positive sign in the KMB but the same is not with the case of PNB.

The Study of Hypothesis:

Ho: There is no significant difference between Management Efficiency of PNB and KMB
Ha: There is significant difference between Management Efficiency of PNB and KMB

Table – 3(a) Management Efficiency Ratio (in %)

Ratios	Banks	Mean Ratio	Variance	F-VALUE	significance 5%	Accept / Reject
Total advance to total deposits	PNB	67.74	23.59	4.41	19.00	Accept
	KMB	96.89	5.35			
Business per employee	PNB	2.48	3.25	104.20	19.00	Reject
	KMB	373.25	338.67			
Profit per employee	PNB	0.026	0.0121	22.09	19.00	Reject
	KMB	3.70	0.27			

IX. E – EARNINGS QUALITY

The quality of earning is very important criterion that determines the ability of a bank to earn consistently, going into feature. It basically determines the profitability of the banks. it also explains the sustainability and growth in earnings in feature. This perameter gains importance in the light of the argument that much of a bank's income is earned through non core activity like investments, treasury oprerations, corporate advisery services and so on.

Investing additional funds forms an important part of the banking function along with lending. In the recent past, banks have been criticized for making most of their money from treasury operation and other investment rather than from core lending operation. Even as fee-based operations still account for a minority of the banks' revenues, the share of non-interest income is higher. The ratio of this section, assesses the quality of income in terms of income generated by core activities i.e., income from lending operations.

The following ratios are try to assess the quality of income in terms of income generated by core activity – earning by financing.

- Operating Profit by Average Working Fund
- Net Interest Margin to Total Assets
- Net Profit to Average Assets
- Interest Income to Total Income
- Non Interest Income to Total Income

Analysis:

The position of Punjab National Bank and Kotak Mahindra Bank that has emerged on the Basis of various ratios which have been used as indicators of Earning Quality of a Bank as per the CAMEL model is given in the Table – 4. It is seen through the table that the sustainability is there in the ratio of Operating Profit to average working fund of both the banks. But on the counter part we see the very next ratio of the PNB then we can clear down tern, but the same is not with the KMB as far as spread to total assets is concerned.

Table – 4Earning Quality Ratio (in %)

	Banks	**2005-06**	**2006-07**	**2007-08**
Operating profit to average working fund	PNB	2.04	2.30	2.07
	KMB	2.48	2.16	2.51
Spread to total assets	PNB	3.21	3.20	2.78
	KMB	3.73	3.11	4.32
Net profit to average assets	PNB	1.06	1.00	1.13
	KMB	3.07	3.23	2.28
Interest to total income	PNB	88.27	88.97	87.71
	KMB	76.72	80.54	84.54
Non Interest to total income	PNB	11.72	13.34	12.28
	KMB	23.27	19.45	15.45

Net profit to average assets ratio of both the banks showing the fluctuating trend. As per the interest income to total income we can see that PNB is having the average of 88.32 and if we talk about the KMB then 80.60 which is showing the ability of the bank to earn from its landing. Last but not least non interest income to total income ratio of both the banks 12.45 and 19.39 as an average respectively. If we talk about the KMB then it decreases from 2005-06 to 2007-08. Which shows the bank is emphasizes to earn from the interest income rather than from the non interest income.

The Study of Hypothesis:

Ho: There is no significant difference between of Earning Quality of PNB and KMB.
Ha: There is significant difference between of Earning Quality of PNB and KMB.

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Table – 4(a) Earning Quality Ratio (in%)						
Ratios	**Banks**	**Mean Ratio**	**Variance**	**F-VALUE**	**significance 5%**	**Accept/Reject**
Opr.Profit to ave. work.fund	PNB	2.14	0.025	1.52	19.00	Accept
	KMB	2.38	0.038			
Spread to total assets	PNB	3.06	0.0603	6.07	19.00	Accept
	KMB	3.72	0.3661			
Net profit to average assets	PNB	1.06	0.0043	60.16	19.00	Reject
	KMB	2.86	0.2587			
Interest to total income	PNB	88.32	0.3985	38.36	19.00	Reject
	KMB	80.60	15.29			
Non Interest to total income	PNB	12.45	0.6769	22.58	19.00	Reject
	KMB	19.39	15.29			

X. L – LIQUIDITY

Liquidity is very important for any organization dealing with money. Banks have to take proper care in handling liquidity risk while at the same time ensuring that a good percentage of funds are invested in higher return generating investments, so bank can generate the profit while at the same time to provide liquidity to the depositors. Among a bank's assets, cash investments are the most liquid.

The business of banking is all about borrowing and lending money. Timely repayment of deposits is of crucial importance to avoid a run on a bank. With co-operative banks going under frequently and with the recent collapse of GTB (Global Trust Bank) investors have become extremely sensitive. They are alert; they rush to the bank to withdraw money at the slightest hint of trouble. In such a scenario, even false rumours could wreck havoc with a bank. Hence, banks have to ensure that they always maintain enough liquidity. Through mandatory Statutory Liquidity Ratio (SLR) and Cash Reserve Ratio (CRR), RBI ensures that banks maintain ample liquidity. In fact, over the last few years banks have been awash with liquidity. It contains the following;

- Liquid Assets to Total Assets
- G – Secs to Total Assets
- Liquid Assets to Total Deposits

Analysis:

Table 5 representing the liquidity ratio as per the CAMEL Model of Punjab National Bank as well as the Kotak Mahindra Bank. As per the first ratio that is Liquid assets to total assets we can see the negative trend in the PNB but positive trend in the KMB. G-sec to total assts represents the portion of investment in the government security which is average of 22.59% in the PNB and 27.12% in the KMB. G-sec investment is considered as the most liquid investment which shows the liquidity position of both the Banks.

Table – 5 Liquidity Ratio (in %)				
Ratios	**Banks**	**2005-06**	**2006-07**	**2007-08**
Liquid asset to total asset	PNB	17.07	9.63	9.46
	KMB	5.82	6.50	7.59
G- sec to total asset	PNB	23.00	22.55	22.21
	KMB	23.30	29.44	28.63
Liquid asset total Deposit	PNB	20.71	11.18	11.31
	KMB	9.02	11.78	13.08

Liquid assets to total Deposits if we talk about then its quiet fluctuating as far as the PNB is concerned but up trend is seen in case of KMB. Liquidity is very crucial aspect of the banking system because they have to maintain SLR, as per the norms of the RBI. in order to meet their day to day transactions banks are keeping some amount of the deposits. That's why it is very important to maintain the liquidity so that it would be facilitating for the financial system in the country.

The Study of Hypothesis:

Ho: There is no significant difference between of Liquidity of PNB and KMB.
Ha: There is significant difference between of Liquidity of PNB and KMB.

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Table – 5(a) Liquidity Ratio (in %)						
Ratios	**Banks**	**Mean Ratio**	**Variance**	**F-VALUE**	**significance 5%**	**Accept/ Reject**
Liquid asset to total asset	PNB	12.05	18.88	23.68	19.00	Reject
	KMB	6.64	0.7972			
G- sec to total asset	PNB	22.59	0.1570	70.89	19.00	Reject
	KMB	27.12	11.13			
Liquid asset total Deposit	PNB	14.40	29.86	6.94	19.00	Accept
	KMB	11.29	4.30			

XI. CONCLUSION

As stated in the initial part of this research, CAMEL Model is used for ranking bank according to their performance. Here, I have made an attempt to rank the two banks under consideration. As per the below given table which prepared for the comparison purpose of one of the leading public sector bank i.e. Punjab National Bank and one of the leading bank of the public sector bank i.e. Kotak Mahindra Bank.

The excise is done in order to know that the soundness of the Banking system in the country which can be evaluated through the department of the banking supervision of the RBI CAMEL is the tools accepted through out the globe. However the systems and the control and every single thing is differ as far as the privet and the public sector banks are concerned. Here that can be seen through the below mentioned table which bank is better than the other one as per the ratio.

XII. ANALYSIS

Ranking of PNB and KMB on the Basis of the Average of CAMEL Model Ratios for the Period 2005-06 to 2007-08.			
CAMEL		**PNB**	**KMB**
C: Capital Adequacy Ratio	Capital adequacy Ratio		✓
	Debt Equity Ratio		✓
	Advances to assets Ratio		✓
	G-Sec to Total Investment		✓
A: Assets Quality	Gross NPAs to Net Advances		✓
	Net NPAs to Net Advances		✓
	Total Investment to Total Assets	✓	
	Net NPAs to Total Assets	✓	
M: Management Efficiency	Total Advances to Total Deposits		✓
	Business Per Employee		✓
	Profit Per Employee		✓
E: Earning Quality	Op. Profit to Average Working Fund		✓
	Spread to Total Assets		✓
	Net Profit to Average Assets		✓
	Interest Income to Total Income	✓	
	Non Int. Income to Total Income		✓
L: Liquidity	Liquid Assets to Total Assets	✓	
	G-Sec to Total Investment		✓
	Liquid Assets to Total Deposits	✓	

XIII. OBSERVATIONS

This project is attempt to examine and compare the performance of two Banks one which is public Sector Bank Punjab National Bank which have been operating their business more than 100 years while the other bank is Kotak Mahindra Bank which is one of the Leading Privet sector Bank. The analysis is based on the CAMEL Model. The study has brought out some interesting results, which are mentioned as follow:

- Both the Banks have succeeded in maintaining CAR at a higher level than the prescribed level.
- The Investment policy of the PNB is conservative as compare to KMB.
- Management Efficiency Ratio i.e. Total advances to total Deposits, Business per Employee Profit per Employee etc., shows that KMB outperformed PNB.

- The Earning Quality Ratio of Operating Income to Average Working Fund, Spread to Total assets, and Net Profit to Average Assets represents better efficiency of KMB as compare to PNB.

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- As far as the Interest income to Total Income is concerned we can say that PNB is better than KMB.
- The Liquidity Ratios i.e. Liquid Assets to Total Assets, G-sec to Total Investment Liquid Assets to Total Deposits of both the banks are good that means both the banks have better liquidity position

From the above points it is quite conspicuous that privet sector Kotak Mahindra Bank is better in some aspect and PNB is good with some aspect but all to gather both the banks are good enough. It is always depends on the Management that how much risk taking ability is there. Because higher the risk higher the return and lower the risk lower the return. But prevention is always better than cure.

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