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## THE POWER FACTORS FOR BUSINESS DEVELOPMENT: A STUDY WITH REFERENCE TO SELECT COMMERCIAL BANKS

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#### ABSTRACT

The banking sector plays an important role in the financial system by channelizing the scarce recourses in optimal use and facilitating monetary policies as well. So, careful performance analysis & evaluation of Banking Institutions to ensure a healthy financial system and an effective economy are essential. In the Modern Banking era, several Key factors via, M-SERVQUAL, MIS, Green HRM, Best Managerial & Administrative Practices, Career Growth, leadership, an evaluation of BASEL rules & CAMEL Parameters and the likes have been perceived to be the influencing factors of Business Development through improvement in Operational Performance of banking organizations. Current modern and highly digital banking culture has created so many challenges for banking organizations. Under this setting, an attempt is made to study the Power Factors for Business Development via Improving the Operational Performance in the Banking Organizations, Visakhapatnam, Andhra Pradesh, India. For this purpose, the quantitative study design approach has been adopted with two questionnaires with the sample of 300 respondents. Study has tested the hypothesis and revealed that there is significance in the variables taken for the study, there is an impact of the Key Success rescaled variable dimensions identified from the study on the improvement of Operational Performance of the banking organizations, selected for the study and finally results in Business Development.

Key Words: M-SERQUAL Dimensions, Key Success factors of Banking, MIS, Managerial & Administrative variables, CAMEL & BASEL Norms, Green HRM, Bank Operational Performance

#### I. INTRODUCTION:

The Banking system is a component of the financial system, which plays an important role in the economic development of countries across the world. There is a strong correlation between financial system and economic growth across the nations. The development of an economy largely depends on the deployment and optimal use of resources and, most importantly, on the performance of different sectors in the economy.

Thus, careful evaluation and analysis of the operations of banks to ensure a healthy financial system and an effective economy is essential. The Power Factors that are useful for Business Development in the Banking industry are Modern (M)- SERVOUAL factors, the parameters under CAMEL & BASEL norms, variables under Management (Marketing, HRM, ICT, Financial Management, Investment Management, NPA handling etc) and Administrative (Leadership Styles, Policies, Vision & Mission, Career Progression, Job engagement & satisfaction, Green Practices etc) systems. In the Present Modern era, the quality services become very important factor with changing facets influencing the performance of the banks through customer satisfaction. Previously, the determinants of quality retail banking services were tangibility, reliability, responsiveness, assurance, empathy, efficiency, and confidence, reflecting a combination of SERVQUAL and BSQ scales (Tran Van Quvet et al 2015). The Modern Banking is fully advancing towards digitalization which has been clearly emphasized by the Govt of India in the recent Union Budget 2022, mentioned that all post offices in the country have to be fully digitalized besides fully digitalized core banking system, followed by the digital payment initiatives in the banking sector as such the scheduled commercial banks to set up 75 fully digital bank branches in 75 districts in our country (www.india.gov.in). Furthermore, The Information quality measurement in online banking has been gaining wide attention. Thus, many prior studies have sought to show major components of Information quality management linked with electronic environment. Similarly, CAMEL and BASEL norms, Management and Administrative systems are perceived to be exert their influence on Competitive Advantage, Sustainability & Business Development in the banking Sector via customer satisfaction, improving operational performance, For this purpose, an attempt is made to study the Power Factors for Business Development via Improving the Operational Performance in the Banking Organizations, Visakhapatnam, Andhra Pradesh, India. The quantitative study design approach with two pre-structured questionnaires have been used to collect the data from the target population included current customers (1Q), and Managers/PROs/other employees (2Q) of the select banking organizations, Visakhapatnam, AP, India. The sample size is determined to be 300 (220 customers and 80 employees) and the data generated from the sample have been analyzed with the help of SPSS 25.

#### II. THE POWER FACTORs:

The Power Factors for the improvement of operational performance in banking sector are

*IIa. M-SERVQUAL Variables:* The Modern service quality has been one of the most effective means of establishing a competitive position and improving profitability & performance. Banks must measure and determine their level of service quality, if they desire to keep their customers by satisfy their needs. It is a primary means of providing a competitive advantage to banks, In order to achieve repeat bank transactions by the customers in the increasing competitive banking business; banks should organize their operations according to the needs of the customers (Meshach G.G and Teresa M.N 2016). The Modern Banking Service Quality (M-SERVQUAL) can be defined as a desired level of services that a customer can enjoy from anywhere through On line and Offline banking and other facilities which include Reception, Information Quality and Security (RQS), Effective Mobile Banking & Complaint Handling (MB&CH), Online

Reservation Charges and CRM (RC & CRM), Time Management (TM) and Attending Problems (AP), rendered by any banking organization. The SERVQUAL variable, used in factor analysis to derive the above definition via rescaled variable factors as an output of The Modern Service Quality scale of variables comprising 21 variables and 5 rescaled dimensions. The success factors are found to be Employee Empowerment, Service Culture and Bank Evidence, Benchmarking Union involvement, Customer Satisfaction, values and ethics (Lakshmi & Srinivasarao 2020). The existing research leads exposed that business strategy, profitability, and strategic risk management are the priority components of banking strategic management (Kryvych et al 2020).

IIb. The CAMEL & BASEL Variables: The CAMEL rating system is an effective monitoring measure which was first applied in the United States in 1979. The CAMEL's crucial indicators are independent variables (Capital Adequacy, Asset Quality, Management Effectiveness, Liquidity of Bank) and Return on Assets (ROA), Return on Equity (ROE), and Net Interest Margin (NIM) as proxy for commercial banks' financial performance – dependent variables (Anh Huu Nguyen et al 2020). The Uniform Financial Institutions Rating System (UFIRS) was created in 1979 by the bank regulatory agencies. In 1988, the Basel Committee on Banking Supervision of the Bank of International Settlements (BIS) proposed the CAMELS framework for assessing financial institutions (Dash & Das, 2009). CAMELS rating system is an international bank-rating system where bank supervisory authorities rate institutions according to six factors for financial institution's operations: Capital adequacy, Asset quality, Management soundness, Earnings and profitability, and Liquidity and Sensitivity. In 1997, it included the sixth component, Sensitivity to market risk, to form the CAMELS framework. Actually CAMELS rating is a common phenomenon for all banking system all over the world. It is used in all over the country in the world. It is mainly used to measure a ranking position of a bank on the basis of few criteria. Bank's performance or rather solvency or insolvency has been given much attention both at the local and international level. Financial ratios are often used to measure the overall financial soundness of a bank and the quality of its management (Malihe Rostami 2015). The parameter Capital Adequacy (CA) includes Capital to Risk Assets Ratio (CRAR/CAR) measures the ability of a bank in absorbing losses arising from rick assets. The higher the ratio, better the financial health of the bank, Debt Equity Ratio (DER) indicates banks financial leverage. Lower the ratio is better and Coverage Ratio (Net Worth by reducing NPAs to Total Assets) indicates the availability of the capital to meet any incidence of loss assets in NPAs, followed by the 2<sup>nd</sup> parameter Asset Quality (AQ) that includes NPA to Net Advances shows the level of NPAs in Net Advances. Lower the ratios, better the performance, Govt Securities to Total Assets indicates the Bank strategy of maintaining the balance between Profits and Risks in investing its funds through perfect portfolios. The higher is safer, standard advances to total Advances Ratio shows the Proportion of High Performing Assets to total Advances given by the Banks. The higher is better; 3<sup>rd</sup> parameter Management Quality (MQ) covers Total Advances to Total Deposits point outs the ability of bank to converts its deposits in to advances. Higher the ratio is better, Business per Employee (Total Advances to Total Deposits/ No of Employees). Higher is better, Profit per Employee (Profit / no of Employees) point outs the maximising the profits per employee. Higher is

better; 4<sup>th</sup> parameter Earning Ability (EA) includes Return on Assets (NPAT/total Assets) indicates that the Profits earned by the bank per one rupee of investments and other assets. Higher is better, Income to Total Assets Ratio (NPATI to Assets) indicates that how much real income after taxes and Interests earned per one rupee of assets of the banks. Higher is better; Operating Profits to Total Assets Ratio indicates that the operational profit earned by the banks per every rupee of investment or asset. Higher is better, Cost to Income Ratio indicates that the proportion of cost per every rupee of income earned by the bank,5<sup>th</sup> parameter Liquidity includes Cash to Total Assets indicates the proportion of cash per every rupee of assets. Higher is better, Govt Securities to Total Assets indicates the proportion of Govt Securities per one rupee of Total Assets, Liquid Assets to total Deposits indicates the proportion of Liquid assets per every rupee of Deposit amount and explains the ability of bank to discharge its deposit obligations. Higher is better. Each of the component factors is rated on a scale of 1 (best) to 5 (worst). A composite rating is assigned as an abridgement of the component ratings and is taken as the prime indicator of a bank's current financial condition. The composite rating ranges between 1 (best) and 5 (worst), and also involves a certain amount of subjectivity based on the examiners'' overall assessment of the institution in view of the individual component assessments (CA, Ruchi Gupta 2014).

#### IIc. CUSTOMER SATISFACTION:

It plays an important role in the success of business strategies and helps organizations and businesses to increase their return and achieve competitive, leads to long term profits by making the customer loyal to the Organization. Customer satisfaction stems from recognizing companies that they have to interact with changing environment consistent with the behaviour of customers to maintain the survival and continuity of firms in competitive markets. Customer satisfaction is a model to facilitate results that are significant, consistent and effective to forecasting the financial ability of an organization (Arcot, Purna et al 2019). In banking industry, service quality is one of the most important aspects of the premium customer experience. Most organizations monitor their services quality on a regular basis to ensure maximum customer satisfaction and to improve customer retention and loyalty. E- service is obtained through mechanical interaction and mutual between the applicant and machine, and noticed that there are some challenges to electronic service providers since there is no direct contact between staff and customers, and consequently, the website became the basis for interaction between customers and organizations (Sulieman and Warda Fares 2017). The criteria for measuring the satisfaction level of customers regarding banking services are 1, Satisfaction: The perception developed by the customers that the goods or services are acceptable or tolerable; 2, Content: The features of goods or services and the underlying benefits gives customer a positive consumption experience; 3, Relived: The alleviation of the negative state of customers' mind of by the goods or services provided; 4, Novelty: The goods or services bring freshness and excitement in customers; 5, Surprise: The amazement and unexpected pleasure brought to people by services enjoyed (Mubbsher Munawar Khan 2014). Ease of use, credibility and customer attitude have significant influence on determination of customer satisfaction in banking sector.

More value added services in mobile banking apps and design more user friendly M-banking apps to enhance customer experience and satisfaction (Metlo, M et al 2021)

#### IId. OPERATIONAL EFFICIENCY:

The operational efficiency, service quality and managerial effectiveness are the main areas to observe the performance of a bank. The financial performance of a bank can be measured as the achievement of the bank in terms of profitability position, service quality, customer satisfaction and other relevant aspects. The profitability of a bank denotes the efficiency with which a bank deploys its total resources to optimize its net profits and thus serve as an index to the degree of asset utilization and managerial effectiveness (Maj Syed and Mohd Taqi 2017).

#### III. REVIEW OF LITERATURE:

Banks are key players in financial markets operations and play an important role in keeping a country's economy running smoothly. In today's highly competitive corporate environment, quality of services is an essential element for enhancing customer satisfaction and customer loyalty and has become an important factor in improving the performance of banks and in determining their success (Mubbsher Munawar Khan2014). The most frequently mentioned dimensions, as the main sources of satisfaction or dissatisfaction, were reliability, responsiveness, access, and accuracy. Some suggestions and recommendations were provided to improve the Internet banking service quality and, in turn, customer satisfaction (Jun, M. and Cai, S 2001). Excellent quality of online banking is a significant factor to improve performance of the banks and attract more clients. Information quality (INQ), E-service quality (E-SQ), system quality (SYQ) has a positive direct effect on commercial banks' performance" (PER) (Tariq and Norailis 2019). The increased demand for banking services; speed, service quality and customer satisfaction are going to be key differentiators for each bank's future success. Any bank coming with well trained employees and fully automated user friendly services have a lot of opportunities to maximize the customer satisfaction that can give the best of the banks' interest (Sarker, Md & Uddin, Borhan 2017). The appearance of personnel, courtesy, service dependability, accuracy and safety in transactions have strong positive influence on customers' mind. On the other hand, service promptness and individual attention to customers have negative impacts on customer satisfaction. However, the reliability, assurance and tangibility are given more importance (Das and, Fatema 2018). The five SERQUAL factors can be used to test banking services based on the whole system. The satisfaction of customers alone is not enough to retain them besides several other SERQUAL factors influence the Image of the Banking Organization (Tran Van Quyet et al 2015). Camel approach is significant tool to assess the relative financial strength of a bank and to suggest necessary measures to improve weaknesses of a bank. In India, RBI adopted this approach in 1996 (Dr. Srinivasan and Yuva Priya 2016). State Bank of India (SBI) and ICICI Bank are the two largest banks in India in public and private sectors respectively. ICICI has been a better performer in terms of profitability and management efficiency as compared to SBI for the study period (Brahma Chaudhuri 2018). CAMELS rating system for evaluating performance of banks on financial as well as non-finance aspects is a system in which target bank is evaluated by assigning a rank to the selected bank

based on its performance on select financial ratios. The HDFC Bank a private sector bank ranked first on the overall ranking followed by SBI and PNB both securing second rank and Kotak Mahindra bank ranked last. There is no significant difference between the performance of public sector banks and private sector banks working in Indian banking scenario (Dhanesh Kumar. K 2019). An attempt is made to analyse the financial soundness of 6 nationalised banks which are nationalised in the year 1980 viz., Andra Bank, Corporation Bank, Oriental Bank of commerce (OBC), Punjab and Sindh Bank, VIJAYA Bank, Punjab national Bank with the help of CAMEL rating approach for a period of 10 years starting from 2008 to 2018. After analysing the collected data it is found that the performance of ANDRA bank is comparatively better in majority of parameters that are being selected (Kumarsomaling B and Kirankumar R 2019). The capital adequacy, asset quality, liquidity and management efficiency affect the performance of Vietnamese commercial banks (Anh Huu et al 2020). CAMEL model as a tool is very effective, efficient and accurate to be used as a performance evaluator in banking industries and to anticipate the future and relative risk. "CAMELS" ratios are calculated in order to focus on financial performance (Malihe Rostami 2015).

#### IV. METHODOLOGY:

The main research questions are 1. What is the relationship between a set of the M- Servqual factors and customer satisfaction; how this phenomenon leads to Business Development of select Banking organizations for the study?; 2. How the CAMEL & BASEL Parameters influence the operational performance of select banking organizations and also how they influence the above factors and lead to Business Development. Further, how do the management and Administration variables influence Competitive Advantage, Sustainability & Business Development?. For this purpose, The quantitative study design approach with two pre structured questionnaires have been used to collect the data from the target population included current customers (1Q), and Managers/ PROs/ other employees (2Q) of the select banking organizations, Visakhapatnam, AP, India. The sample size is determined to be 300 (220 customers and 80 employees) and the data generated from the sample banking organization have been analyzed with the help of SPSS 25.

The main Objectives of the study are to identify the significant variables representing Service quality, Best managerial practices & Career Growth, Risk management, Management information system, Basel norms, of the Banking organizations, selected for the study; to identify the significant rescaled variables dimensions/factors representing above aspects of the sample, selected for the study; to redefine SERVQUAL of Banking Organizations in the present Modern Banking era; to find out the significance of the above dimensions / factors of the study and also to evaluate the influence of these Dimensions representing Service quality, Best managerial and administrative practices, Risk management, Management information system, Basel norms on the Operational Performance, Customer satisfaction, of the sample, selected for the study; to find out the correlation between these two factors and also to study the impact of these two factors via, Operational performance and Customer satisfaction on Business Development of the Banking organizations, selected for the study

#### Hypothesis of the Study:

H01 - There is no significance in M-SERVQUAL variables and their rescaled dimensions of the select Commercial Banks Selected for the study

H11 - There is significance in M-SERVQUAL variables and their rescaled dimensions of the select Commercial Banks Selected for the study

H02 - There is no significance in CAMEL & BASEL variables and their rescaled dimensions of the select Commercial Banks Selected for the study

H12 - There is significance in CAMEL & BASEL variables and their rescaled dimensions of the select Commercial Banks Selected for the study

H03 - There is no significant impact of M-SERVQUAL rescaled dimensions of the select Commercial Banks on Customer Satisfaction

H13 - There is significant impact of M-SERVQUAL rescaled dimensions of the select Commercial Banks on Customer Satisfaction

H04 - There is no significant impact of CAMEL & BASEL rescaled dimensions of the select Commercial Banks on Operational Performance

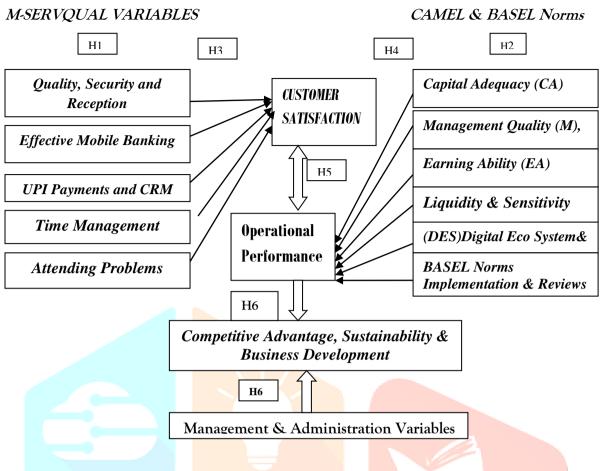
H14 - There is significant impact of CAMEL & BASEL rescaled dimensions of the select Commercial Banks on Operational Performance

H05 - There is no significant correlation between Customer Satisfaction and Operational Performance of the select Commercial Banks for the study

H15 - There is significant correlation between Customer Satisfaction and Operational Performance of the select Commercial Banks for the study

H03 - There is no significant combined impact of Operational Performance, Customer Satisfaction and Management & Administration on Competitive Advantage, Sustainability & Business Development of the select Commercial Banks for the study

H13 - There is significant combined impact of Operational Performance, Customer Satisfaction and Management & Administration on Competitive Advantage, Sustainability & Business Development of the select Commercial Banks for the study



#### Figure 4.1: A New Research Model: Rao's Power Factors in Banking Sector

#### V. STUDY ANALYSIS:

About 63.5 per cent of male customers and the Rest of them are female customers (About 36 per cent) who have participated in the survey. The occupation of the respondents has been elicited. About 48.3 per cent respondents are working in Private organizations, followed by Govt employees (about 22 percent), Business owners (about 20 per cent) and rest of them are farmers, contractors, house wives and DWACRA women belongs to others category. About 90 per cent of the respondents have opined that they have dependents. Rest of them representing (about 7.9 per cent) have no dependents and belongs to nuclear families. The details of the educational qualification of the respondents have also been elicited. About 44 per cent of the respondents have UG degree, followed by PG degree (about 36 per cent), Rest of them includes SSC, Inter, Non formal Education. About 46.5 per cent of the respondents have opined that they have Bank Accounts (Savings Bank or Current Bank or Both) with SBI, followed by Canara Bank (about 15.5 per cent), AXIS Bank (about 11.5 per cent) Indian Overseas bank (about 10 per cent), Indian Bank (about 5.5 per cent) and rest of them belongs to other public and private sector commercial banks. About 65 per cent of the respondents are SB Account holders only, followed by CA Holders (about 19.5 per cent) and Rest of them belongs to the category of the holders of both or multiple accounts. The Respondents knowledge on the bank services has been elicited. About 68 per cent of the respondents have opined that they have very good/full knowledge on bank services, followed by good knowledge (about 20 per cent), average knowledge (about 15.5 per cent) and rest of them have very limited or no knowledge in banking services and can have services with the help of others. About 54.2 per cent of the respondents have come under 1 to 5 years category of experience in using E- Services, followed by 5 to 10 years (about 25.8 per cent) and Rest of them (about 20 per cent) belongs to up to 1 year experience in using E- bank services. The satisfaction regarding E- bank services has been elicited from the respondents. About 55.9 per cent of the respondents have opined that they are fully satisfied with e-banking services provided by the banks through different online means, followed by the response (about 20 per cent) not satisfied fully with the E bank services offered by their respective banks due to several reasons and rest of them (about 24.1 per cent) have neutral opinion towards the E banking services offered by the banks. The main problems that the respondents have had encountered are Technical Problems (about 30 per cent), followed by No cash Boards (about 20 per cent), Funds transferring problems (about 15 per cent), Internet connectivity break down (about 12 per cent), Limitation on withdrawal (about 10 per cent). Privacy and Security (about 8 per cent), Rest of them includes non availability, Overcrowded ATM Centres, on line frauds and Rigidness in Services etc.

The specific problems that a bank customer can meet with ATM facility are elicited in the survey. About 25 per cent of the respondents have opined that they have Money availability problems with ATMs, followed by odd location (about 20 per cent), Withdrawal restrictions (about 10 per cent) and bank Charges (about 5 per cent). Significantly, Most of the Respondents (about 35 per cent) have opined that they have not any problems with ATMs and further, they add ATM facilities and other online flexibility in Bank transactions through UPI, Credit and Debit Card payments help them to lead high quality life in the society (about 40 per cent). There is a gradual decrease in the number of visits by Customers to their respective banks. In the study, About 50.4 per cent of the respondents have opined that they visit very rarely/ no visits to their respective banks, followed by less than 5 times (About 40.4 per cent), rest of them visits more than 5 times. The main motivators of the bank customers to utilize on line payment modes via UPI- Phone pe, Paytm, Google pay, PhonePe, BHIM app, MobiKwik, Google Tez, Uber, Chillr, SBI Pay, iMobile, Axis Pay, BOB UPI. The Best money transfer app between friends: Venmo, followed by Best for bank-to-bank transfers: Zelle, Best for Best for budding investors: Cash App, flexible payments: PayPal, Best for sending money internationally: Remitly. Similarly, the Top 10 Mobile Banking Apps in India are Kotak-811 & Mobile Banking, Followed by HDFC Bank Mobile Banking, YONO Lite SBI, Axis Mobile, IDBI Bank GO Mobile, Baroda M-Connect Plus, iMobile Pay by ICICI Bank and CANDI - Mobile Banking App. The main Motivator of Online Payments E- banking are Grocery payments (about 31.5 per cent), followed by; Food payments through UPI and Special Food apps (about 30 per cent)via (Zomato (about 28.5 per cent), Swiggy (about 18.5 per cent), Shupple (about 13.5 per cent), Uber Eats (about 13.5 per cent), Food Panda (about 11.5 per cent), Scootsy (about 8.5 per cent) and rest of them includes Dunzo, Box8 apps); travelling & ticketing (about 20 per cent), Apparel on line payments (about 10 per cent) and Rest of them includes Movie ticket online booking, Home appliances and other E-bill payments via bank account connectivity.

Reliability Statistics are calculated to reveal the Cronbach's Alpha and Cronbach's Alpha Based on Standardized Items which is 0.473 and 0.712 respectively. Hence the data collected and examined for the study is reliable. The ANOVA with Cochran's Test has been calculated. The Grand Mean is 23080.4116, Cochran's Q is 2977.477, significant at 0.01 level.

#### Va. FACTOR ANALYSIS, ANOVA & DESCRIPTIVE STATISTICS:

Factor Analysis is a statistical method used to describe variability among observed, correlated variables in terms of a potentially lower number of unobserved variables called factors. The purpose of factor analysis is to reduce many individual items into a fewer number of dimensions. Factor analysis can be used to simplify data, such as reducing the number of variables in regression models. The scores can be used as an index of all variables and can be used for further analysis (www.statisticssolutions.com).

The 21 M-Servqual variables taken are 1. Service quality orientation 2. Information quality 3. Time management 4. Responsiveness 5. Attending problems 6.easy accessibility, 7.online money transfers, 8.online reservations, 9.good bank mobile app,10. Good bank SMS services, 11.good bank USSD services, 12. Easy mobile access to a/c info 13. Good compliant handling, 14.good privacy and security, 15.personal loans, 16.quick services 17.merchant banking, 18.responsiveness 19. Good ambience 20.good CRM 21. Minimum bank charges. There is a significant variance which has been found in M- Servoual variables taken for the study via, TIME MANAGEMENT F 2.722, Sig .000 followed by RESPONSIVENESS F 2.514, Sig .000, ATTENDING PROBLEMS F 3.054, Sig .000, ONLINE RESERVATIONS F 2.529, Sig .000, GOOD BANK MOBILE APP F 3.302, Sig .000, GOOD BANK USSD SERVICES F 2.800, Sig .000, EASY MOBILE ACCESS TO A/C INFO F 3.555, Sig .000, GOOD PRIVACY AND SECURITY F 3.054, Sig .000, GOOD AMBIENCE F 2.800, Sig .000, GOOD CRM F 3.555, Sig .000, SERVICE QUALITY ORIENTATION F 2.187, Sig .001, INFORMATION QUALITY F 1.876, Sig .009, EASY ACCESSIBILITY F 1.791, Sig .014, GOOD BANK SMS SERVICES F 1.526, Sig .037, GOOD COMPLIANT HANDLING F 1.440, Sig .086, PERSONAL LOANS F 1.526, Sig .036, MINIMUM BANK CHARGES F 1.440, Sig .086. The Mean scores and their respective SD of M-SERVQUAL (Mean 4.3496 and SD 0.45987), & its variables have been derived in the study. The Good bank Mobile app is considered to be one of the best service quality variables (Mean 4.8700 and SD 0.37923) as opined by the respondents selected for the study, Followed by Good Bank SMS Services (Mean 4.7350 and SD 0.57132), Attending Problems (Mean 4.6300 and SD 0.78497), Easy Mobile Access to Account Information (Mean 4.3650 and SD 0.75806), Good Compliant Handling (Mean 4.3650 and SD 0.70303), Good Bank USSD Services (Mean 4.3450 and SD 0.83031), Online Money Transfers ( Mean 4.3400 and SD 0.68318), Information Quality (Mean 4.3300 and SD 0.95691), Good CRM (Mean 4.2450and SD 0.76676). Rest of them includes Responsiveness, Easy accessibility, Online reservations, Good privacy and security, Quick services, Good ambience, Minimum bank charges exercise marginal influence on SERVQUAL perception of the customers. The Time Management Perception of the customers has no influence with very low Mean scores and High SD. It infers that there is significance in Modern Service Quality (M-SRVQUAL) variables of select commercial banks in Visakhapatnam, AP, India. Similarly, the factor analysis revealed five factors accounting for about 75 per cent of the total variance. As such, the M-SERVQUAL variables have been formed in to five rescaled dimensions and labelled as Quality, Security and Reception-SQ-D1-5 variables (S.Nos:1,2,3,4,5), followed by *Effective Online Banking* -SQ-D2-3 variables (S.Nos:6,7,9), *Effective Mobile Banking & UPI Services* -SQ-D3-2 variables (S.Nos:11,12), *Security & Services*-SQ-D4-3 variables (S.Nos:13,14,15) *and GOOD Ambiance & CRM*- SQ-D5-3 variables (S.Nos:19.20,21). It infers that there is significance in the variables rescaled component dimensions representing M-SERVQUAL of select commercial banks in Visakhapatnam, AP, India. Hence, Null Hypothesis (H01) is rejected and Alternative Hypothesis (H11) is accepted.

The 20 parameters under 5 CAMEL ratings, taken for the study under I RF(rating factor) Capital Adequacy are (3p) CAR, Debt – equity ratio, Advances to total assets ratio, followed by the parameters (6p) of 2 RF Asset quality -Gross NPAs to gross advances ratio, Gross NPAs to net advances ratio, Net NPAs to net advances ratio, Gross NPAs to total assets ratio, Net NPAs to total assets ratio, Total investment to total assets ratio; the parameters (3p) of 3 RF- Management efficiency - Total advances to total deposits ratio, Business per employee, Profit per employee, parameters (5p) of 4 RF Earnings quality- Operating profit as percentage to total assets, Spread to total asset ratio, Net profit to average assets ratio, Interest income to total income ratio, parameters(3p) of 5 RF Liquidity position - Non – interest income to total income ratio, Liquidity assets to total assets ratio, Liquidity assets to total deposits ratio, Balance at bank and RBI to total assets and Sensitivity -Doubtful debts to Loans, Provisions of Ioan to Loans, Long term deposits to Deposits, Demand deposits to Deposits and also BASEL Norms Implementation & Reviews.

The Mean scores and their respective SD of CAMEL & BASEL parameters have been derived in the study. The 4 RF *Earnings quality* is considered to be one of the best variable (Mean 4.9246 and SD 0.45434) as opined by the respondents selected for the study, Followed by *Capital Adequacy* (Mean 4.9217 and SD .65645) *Management efficiency* (Mean 4.7128 and SD .64567), *Liquidity position* (Mean 4.5235 and SD 0. .85675), *Asset quality* (Mean 4.4953 and SD 0.73347) and also There is a significant variance which has been found in the above variables via, *Capital Adequacy* F 2.965, Sig .000 followed by *Earnings quality* F 2.554, Sig .000, *Liquidity position* F 2.914, Sig .000, *Management efficiency* F 2.653, Sig .000, *Earnings quality* F 3.398, Sig .000, *BASEL Norms Implementation & Reviews* F 1.989, Sig .003. It infers that there is significance in the parameters of *CAMEL & BASEL Norms* of select commercial banks in Visakhapatnam, AP, India Hence, Null Hypothesis (H02) is rejected and Alternative Hypothesis (H12) is accepted.

Model			Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	Sig. F Change
1	.631ª	.398	.342	.63686	.398	7.078	.000

#### **Vb. REGRESSION ANALYSIS:**

It is applied to examine the influence of two or more individual variables (y) on a dependent variable (x). Linear regression analysis is used to predict the impact of independent variables on the dependent variable (Outcome variables) by testing the hypothesis in the analysis.

# **5b.1: Model Summary-** dependent Variable: Customer Satisfaction, b. Predictors: (Constant), *Quality, Security and Reception* SQ-D1, *Effective Online Banking* SQ-D2, *Effective Mobile Banking* & *UPI Ser,* SQ-D3, *Security* & *Services* SQ-D4 and *GOOD Ambiance* & *CRM* SQ-D5.

The dependent variable- Customer Satisfaction which can be perceived to be influenced by above independent variables. The adjusted R square 0.342 reveals that there is about 34 per cent combined influence of the above independent variables (Table-5b.1). There is a significant difference that has been found in the influences of such independent variables on the dependent variable (F- 7.078, Sig 0.000) significant at 0.01\*\* level. It infers that there is a significant Impact of above M-Servqual rescaled variable dimensions on Customer Satisfaction of the select Banking organizations in Visakhapatnam, Andhra Pradesh, India. Hence, the Null Hypothesis (H03) is rejected and Alternative Hypothesis (H13) is accepted

#### 5b.2:Model Summary<sup>b</sup>

				Change Statistics Std. Error						
		R	Adjusted	of the	R Square	F			Sig. F	Durbin-
Model	R	Square	R Square	Estimate	Change	Change	df1	df2	Change	Watson
1	.732ª	.536	.469	.39974	.536	8.077	4	28	.000	2.319

a. Dependent Variable: Operational Performance, Predictors: (Constant), *Capital Adequacy* (CA), Management Quality (M), Earning Ability (EA), Liquidity and Sensitivity, (DES)Digital Eco System, BASEL Norms Implementation & Reviews

The adjusted R square 0.536 reveals that there is about 54 per cent combined influence of the above dependent variables (Table-5b.2). There is a significant difference that has been found in the influences of such independent variables on the dependent variable F 8.077 Sig .000, significant at 0.01 level \*\*. The t-values and their respective significant levels at 0.05 and 0.001 levels are presented. *Capital Adequacy (CA),* (t-5.529, sig .000), followed by *Management Quality (M),* (t-3.231, sig .013), *Earning Ability (EA),* (t-2.945, sig .070), *Liquidity and Basel Norms (L),* (t-1.678, sig .094) and *(DES) Digital Eco System,* (t-1.712, sig .093) have been found to be significant at either 0.05\* level (5b.2). It infers that there is an Impact of CAMEL rescaled variables dimensions on operational Performance of the select Banking organizations in Visakhapatnam, Andhra Pradesh, India. Hence, the Null Hypothesis (H04) is rejected and Alternative Hypothesis (H14) is accepted

The correlations of rescaled variable dimensions among CAMEL and M- SERVQUAL factors have been examined in order to find out the Correlation between the two group of rescaled variable dimensions taken for the study. The CAMEL Rescaled Variable Dimensions (S.Nos:1 to 6) have correlation among themselves

and with other group (M-SERVQUAL) of Rescaled Variable Dimensions as well. The 1<sup>st</sup> dimension 1-CV1-D1 has good correlation scores with CV1-D2 .558, CV2-D4 .542, CV3-D5 .514 CV4-D6 .529 and SQ-D4 .593 followed by 2<sup>nd</sup> dimension 2-CV1-D2 has good correlation scores with CV1-D1 .558, CV2-D3.579, CV2-D4 .510, CV3-D5.645, SO-D1.517, SO-D4 .598; CV2-D3 has correlation scores with CVI-D2 .579, CV2-D4 .623, CV3-D5.559, CV4-D6 .618, SQ-D1.607, SQ-D3 .543 and CV2-D4 has correlation scores with CVI-D1 .542, CVI-D2 .510, CV2-D3 .620, CV3-D5 .671, CV4-D6 .561, SQ-D2 .549, SQ-D3 .700, SQ-D4 .520; CV3-D5 has correlation scores with CVI-D1 .514, CVI-D2.645, CV2-D3.559, CV2-D4.671, CV4-D6.704, SQ-D1.505, SQ-D2.677; CV4-D6 has correlation scores with CVI-D1 .529, CV2-D3.618, CV2-D4.561, CV3-D5.704, SQ-D1.642, SQ-D4.516. Similarly the M- SERVQUAL variables have intra and inter correlation with other Rescaled Variable Dimensions. The Quality, Security and Reception (SQ-D1) has good correlation scores with CV1-D2 .517, CV2-D3.607, CV3-D5.505, CV4-D6 .642, SQ-D3 .509, SQ-D4.634, followed by *Effective* Online Banking (SQ-D2) CV2-D4 .549, CV3-D5 .677, SQ-D3 .538, SQ-D4.564; Effective Mobile Banking & UPI Ser, (SQ-D3) CV2-D3 .543, CV3-D4 .700, SQ-D1 .509, SQ-D2 .538, SQ-D4 .558; Security & Services (SQ-D4) CVI-D1.593, CVI-D2.598, CV2-D4. 570, CV4-D6 .526, SQ-D1.634, SQ-D2.564, SQ-D3.558 and GOOD Ambiance & CRM (SQ-D5) dimension hasn't any correlation with intra and inter rescaled variable dimensions, may be due to excessive importance of banking online transactions which minimizes or delinks customer average physical visits to banking organizations (Table 5b.3). It is inferred that there is a significant correlation between the Primary Rescaled Variable Dimensions (outcomes) such as Operational Performance and Customer Satisfaction of select commercial banks in Visakhapatnam, AP, India. Hence, the Null Hypothesis (H05) is rejected and Alternative Hypothesis (H15) is accepted. JCR

## Table 5b.3: Correlation between CAMEL and M- Servqual Rescaled Variable Dimensions / factors of Select Banking Organizations

1. $CV1-D1$ 1.000       .558       1.000         2. $BV1-D2$ .558       1.000       .558       1.000         3. $CV2-D3$ .254       .579       1.000       .4. $CV2-D4$ .542       .510       .623       1.000         5. $CV3-D5$ .514       .645       .559       .671       1.000       .600         6. $CV4-D6$ .529       .480       .618       .561       .704       1.000         7. $SQ-D1$ .234       .517       .607       .365       .505       .642       1.000	Rescaled Var	1	2	3	4	5	6	7	8	9	10	11	
6. CV4-D6 .529 .480 .618 .561 .704 1.000 7. <b>SQ-D1</b> .234 .517 .607 .365 .505 .642 1.000	1. CV1-D1		1.000										
6. CV4-D6 .529 .480 .618 .561 .704 1.000 7. <b>SQ-D1</b> .234 .517 .607 .365 .505 .642 1.000	2. BV1-D2	vension	.558	1.000									
6. CV4-D6 .529 .480 .618 .561 .704 1.000 7. <b>SQ-D1</b> .234 .517 .607 .365 .505 .642 1.000	3. CV2-D3	EL Dim	.254	.579	1.000								
6. CV4-D6 .529 .480 .618 .561 .704 1.000 7. <b>SQ-D1</b> .234 .517 .607 .365 .505 .642 1.000	4. CV2-D4	L& BAS	.542	.510	.623	1.000							
7. <i>SQ-D1</i> .234 .517 .607 .365 .505 .642 1.000	5. CV3-D5	CAMEI	.514	.645	.559	.671	1.000						
	6. CV4-D6		.529	.480	.618	.561	.704	1.000					
	7. <i>SQ-D1</i>	su	.234	.517	.607	.365	.505	.642	1.000				
8. <i>SQ-D2</i> .103 .135 .135 .549 .677 .240 .231 1.000	8. <i>SQ-D2</i>	imensio	.103	.135	.135	.549	.677	.240	.231	1.000			
8. SQ-D2       .103       .135       .135       .549       .677       .240       .231       1.000         9. SQ-D3       .450       .278       .543       .700       .454       .378       .509       .538       1.000         10.SQ-D4       .593       .598       .304       .570       .210       .526       .634       .564       .558       1.000	9. <i>SQ-D3</i>		.450	.278	.543	.700	.454	.378	.509	.538	1.000		
10. <i>SQ-D4</i> .593 .598 .304 .570 .210 .526 .634 .564 .558 1.000	10. <i>SQ-D4</i>	SERVQ	.593	.598	.304	.570	.210	.526	.634	.564	.558	1.000	
11. <i>SQ-D5</i> .245 .228 .130 .410 .320 .110 .151 .112 .110 .275 1.	11. <i>SQ-D5</i>	M.	.245	.228	.130	.410	.320	.110	.151	.112	.110	.275	1.000

Source: Study Analysis

Note1: Capital Adequacy (CA) (1-CV1-D1, 2-BV1-D2), Management Quality (MQ) (CV2-D3), Earning Ability (EA) CV2-D4, Liquidity & Sensitivity, CV3-D5, (DES) Digital Eco System & BASEL Norms Implementation & Reviews CV4-D6,

Note 2: *Quality, Security and Reception (*SQ-D1), *Effective Online Banking (*SQ-D2), *Effective Mobile Banking & UPI Ser, (*SQ-D3), *Security & Services (*SQ-D4) and GOOD *Ambiance & CRM* (SQ-D5). Note: C=CAMEL, B=BASEL,SQ= Servqual

Competitive Advantage, Sustainability & Business Development can be perceived to be influenced by independent variables via, *Operational Performance and Customer Satisfaction* along with Managerial and Administrative variables. The adjusted R square 0.405 reveals that there is about 41 per cent combined influence of the above dependent variables on Competitive Advantage, Sustainability & Business Development of the banking Organizations taken for the study (Table-5b.4).

#### Table 5b.4: Model Summary

Model	R	R	Adjusted R	Std. Error of the		
1	.663ª	.439	.405	.56744		

a. Predictors: (Constant), Operational Performance, Customer Satisfaction, Management & Administration Variables

b. Dependent Variable: Competitive Advantage, Sustainability & Business Development It infers that there is a combined influence of *Operational Performance, Customer Satisfaction and* Management & Administration Variables *as independent variables on the dependent variable* Competitive Advantage, Sustainability & Business Development. Hence, Ho6 is rejected and H16 is accepted.

#### VI. CONCLUSIONS & RECOMMENDATIONS

The Reception, Information Quality and Security, followed by Bank Mobile SMS, Security andComplaint Handling, Online Reservation, Charges and CRM, Time Management, Green HRM and Attending Problems are the major factors, that are improving bank performance through Customer satisfaction and play important role in the M-SERVQUAL of banking Sector. Furthermore, it also can help the decision makers of Indian Commercial banks to improve and develop the performance with the online banking system. However, reliability had only partial support. Implications of these results and limitations of this study are discussed for potential avenues for future research. The Banks should increase the professional level of staff members providing services directly to customers. Candidates with Management UG / PG Professional Qualifications would be useful to provide good business performance of Banking Organizations using, Perfect Implementation of M-SERVQUAL measures. In addition, they should have strong "soft" skills in the provision of services, including communication, negotiation, and sales skills. The administrative variables have also a clear impact on Business development in the banking sector.

The potential research should consider studies with more informative questionnaires covering all aspects with SERVQUAL and CAMEL ratings to examine and analyze the holistic Issues. The Website design Improvement, technology and Customer Satisfaction oriented Training Programmes programs have to be implemented for the better satisfaction of Customers and to Improve Business turnover of the Banking Organizations. In addition to undergoing training courses in that areas to speed up their response to customers and save time, assessments of customer satisfaction periodically appear on the website through customer feedback to improve weaknesses and enhance customer satisfaction are some of the significant remedial measures to improve customer satisfaction.

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