CHAPTER – II

REVIEW OF LITERATURE

This chapter includes the ‘Review of Literature’ relevant to the topic under study for the thesis titled “Application of Balanced Scorecard in measuring employees' performance in selected banks”.

The literature reviewed is divided into two parts:

2.1 Studies Relating to Balanced Scorecard

2.2 Studies Relating to Four Perspectives of Balanced Scorecard
   2.2.1 Studies Relating to Financial Perspective
   2.2.2 Studies Relating to Customer Perspective
   2.2.3 Studies Relating to Internal Business Process Perspective
   2.2.4 Studies Relating to Learning and Growth Perspective

2.1 STUDIES RELATING TO BALANCED SCORECARD

Ahn Heinz¹ offered an insight into the process of elaborating the Balanced Scorecard for an organization. The author described strategic goals of the business unit to measure business performance by stating that for measuring financial perspective, goal should be to improve productivity other than market average, net margin, return on capital employed and turnover with customers. For customer perspective, the goals should be to have the best price/performance ratio and innovative service concepts as provided to customers. Moreover the goals in the customer perspective should especially support the achievement of financial goals. Process perspective must allow for the realization of solutions on the basis of standardized modules, having a sales network for end customers. The goal for potential perspective is to make employees motivated and competent, have a proper functioning of knowledge management and pursue a proactive human resource management.

Anand, Sahay and Saha\textsuperscript{2} identified the extent of usage of Balanced Scorecard and explored whether Indian firms use all the four perspectives namely financial, customers, internal business process and learning and growth in performance scorecard, identified the key performance indicators of performance scorecard in different perspectives and evaluated the performance of Balanced Scorecard as a management tool. The sample consisted of industries of consumer durables, engineering, chemicals, power generation, tractors, automobiles, information technology, textiles, logistics, banking, telecom services etc. Mean scores were measured. The major findings of the study depicted that Balanced Scorecard adoption rate was 45.28 percent in India. The financial perspective has been found to be the most important perspective followed by customers’ perspective, internal business process perspective and learning and growth perspective. Further difficulty in assigning weightage to different perspectives and establishing cause and effect relationship among these perspectives has been found to be the most critical issue while implementing Balanced Scorecard in India. It was also claimed by companies that implementation of Balanced Scorecard has led to the identification of cost reduction opportunities in their organization, which has resulted in improvement in bottom line.

Boulianne\textsuperscript{3} felt the need to have a reliable performance measure within a valid framework. The Balanced Scorecard has received great attention as a comprehensive model of performance taking into account both financial and non financial measures. The author examined the empirical reliability and validity of Balanced Scorecard and its associated measures. For the study, only business units of 100 employees or more were targeted. Respondents were asked to provide financial and non-financial data to calculate the return on asset, net profit margin, working capital ratio, revenue growth, marketing expenses to revenues, number of new products, number of new products offers, R and D expenses to revenues and revenue per employee measures. T-test including all variables, shows no significant differences between


manufacturing vs. service group. For financial dimension, Cronbach’s alpha coefficient is 0.64 but it would be higher by deleting working capital ratio. For the customer perspective, the alpha coefficient is 0.51, showing that market expenses to revenues and revenue growth are compatible enough for the purpose of reliability. For internal business processes dimension, alpha coefficient is 0.55 by deleting R and D expenses to revenue measure. Finally, for learning and growth dimension, alpha coefficient of 0.43 was obtained by deleting revenue per employee and alpha coefficient of 0.58 is obtained by deleting training expenses to revenue. The study helped to design the implementation of Balanced Scorecard in organizations by suggesting a set of measures with four dimensions.

Chi Jang-Der and Hung Feng-Hsu⁴ conducted an experiment on the popular software industry in China and Taiwan to view whether Balanced Scorecard is really helpful for improving performance or not? It was observed that company A using a Balanced Scorecard, take indicators- sales growth rate, selling and administrative ratio, product profitability. Company B and C not using Balanced Scorecard using control groups. It was experimented that company A with Balanced Scorecard system at the beginning of 2004, performing better than company B and C. With regard to customer perspective, number of customer complaints, customer satisfaction and market share are the indicators taken by company A. It was found that great progress has been made by company A as it has reduced the number of customer complaints. But it was found that there is less market share growth of company A as compared to company B and C. Indicators of internal business perspectives are work achievement rate, product delivery delay rate, production cost ratio. Indicators of learning and growth perspective are employee satisfaction, employee resignation rates, training expense ratio. The findings demonstrated that in comparison to control groups (not implementing Balanced Scorecard tool) and a company using Balanced Scorecard, it was observed that among companies, A company implementing Balanced Scorecard is successful in accomplishing the goals or have better

performance. The results confirmed that application of Balanced Scorecard could effectively enhance accomplishment of goals and performance.

Chiang and Lin\(^5\) evaluated the performance in two different industries (auto industry and national commercial bank) by means of Balanced Scorecard and data envelopment analysis. Indicators of financial perspectives are total revenue, operating income, cash flow and accounts receivable. Indicators of customer perspective are relative market share and growth of market share. Indicators of business perspective are total assets turnover, property plant and equipment turnover. Indicators of learning and growth perspective are administrative expenses per employee and salary and wages per employee. The interrelationships between different variables were measured. In terms of commercial bank industry, the salary and wages per employee is the most promising factor, positively related to plant and equipment turnover, which in turn positively relates to relative market share and the relative market share would be positively related to total revenue.

Coskun and Bayyurt\(^6\) determined the effects of measurement frequency of performance indicators of the Balanced Scorecard on managers’ satisfaction from the corporate performance. Factor analysis was performed to determine the factors of each of four perspectives of Balanced Scorecard; financial, customer, process and learning and growth dimensions. Further factor analysis was done to determine the factors of corporate performance satisfaction. After adding two more criterias i.e. overall performance and performance compared to competitors, correlation analysis was done to determine the effect of measurement frequency. Findings show that 'employees' capabilities' is the most effecting factor on the corporate performance satisfaction. Profitability, financial operation, operational activities, sales volumes follow the employees’ capabilities while effecting the

corporate performance satisfaction. Further market share is evaluated as the ineffective factor on corporate performance satisfaction.

Ian and Lawrie\(^7\) described changes in design of Balanced Scorecard as an evolution through three generations. 1\(^{st}\) generation Balanced Scorecard was initially described as a simple “4 box” approach to Performance Measurement System. In 2\(^{nd}\) generation Balanced Scorecard, two significant areas of concern were- filtering (the process of choosing measures to report) and clustering (deciding how to make grouping into perspectives). 3\(^{rd}\) generation Balanced Scorecard consist of destination statement i.e. to make rational decisions by developing a clear idea about what the organization is trying to achieve, its strategic objectives (represent the objectives chosen are mutually supportive), strategic linkage model and perspectives (chosen strategic objectives are spread across four zones or perspectives). To conclude, key criterion for the adoption of Balanced Scorecard is the ability to demonstrate value in its adoption.

Kordnaeij, Salmasi and Fruzande\(^8\) examined the effectiveness of formulated strategies with Balanced Scorecard approach in Iranian insurance firms with hypothesis that the organization achieves its objectives in financial, customer, internal business processes and innovation and learning perspectives. T-test was used, which showed t-values for all the perspectives at 5% significance level. Findings confirm all the values of financial perspectives. It was concluded that company is successful in achieving its objectives.

Namazi and Abhari\(^9\) sought to exploit practical performance evaluation techniques and reported the Balanced Scorecard adoption among the TSE firms. 200 qualified firms were identified. Reliable questionnaire was conveyed to them. Data was analyzed by t-test, binomial test and analysis of

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variance techniques. The findings revealed that the most dominant traditional performance evaluation measures employed by TSE firms are net income, operating income and total income and only 4.4% of them are exploiting cash flows. Almost 92.6% of the selected companies were not explicitly engaged with Balanced Scorecard. Most of them are embarking non financial measures. With respect to customer perspective, 58.8% respondents have indicated customer satisfaction as their first priority. Results of internal process perspective show that 32.4% of the respondents have selected percentage of sales of new products. Further, 41.2% of the respondents have indicated employees’ education hours as the firstly priority. Further age, education and experience of the respondents were not statistically significant in providing aforesaid results, but organizational position demonstrated a positive effect on the Balanced Scorecard’s adaptation.

2.2 STUDIES RELATING TO FOUR PERSPECTIVES OF BALANCED SCORECARD

2.2.1 Studies Relating to Financial Perspective

Angadi and Devraj John\textsuperscript{10} assessed the productivity and profitability of Indian scheduled commercial banks during the period 1969-80. Earnings and expenses of all scheduled commercial banks were taken into account. Productivity of scheduled commercial banks in terms of average deposit and credit per rupee of establishment expenses are recorded. Further profit per employee is ascertained. Findings reveal that during the period, productivity and profitability ratios of foreign banks were the highest, followed by State Bank group and 14 nationalized banks.

Arora Sangeeta and Kaur Shubpreet\textsuperscript{11} made an attempt to study the determinants of diversification of banks in India and further analyzed the financial performance of banks in India over the period 2000 to 2006. Profitability ratios like return on assets, interest income, non interest income


had been measured. A continuous decline in interest margins after 2001 indicated that a low level of interest margins push the banks to generate income from alternative sources of revenues other than interest income. Interest income was still found to be major source of income in the operations of Indian banks. It was suggested that banks would have to concentrate more on providing better, faster and efficient customer services.

D’Souza Errol\textsuperscript{12} measured the performance of public sector banks by certain financial ratios as spreads/ working funds, turnover per employee. It was observed that efficiency of public sector banks had declined during the 1990s as spread/ working fund ratio was less as compared to previous years. The profitability of Public sector banks improved but banks are lagging behind for ability to attract deposits. Further, turnover/ employee ratio of public sector banks improved, but it was doubled in private and foreign banks.

Goyal Ritu and Kaur Rajinder\textsuperscript{13} examined performance of new private sector banks in India for the period ranging from 2001-2007. Capital adequacy ratios, asset quality ratio, Net NPA ratio, interest income to total income were measured. Effectiveness of the employees was measured by using the ratios- profit per employee and business per employee. It was analyzed that interest income as a proportion of total income was maximum for HDFC bank. The business per employee was maximum for IndusInd Bank and profit per employee was maximum for ICICI Bank.

Kumar Sharad and Sreeramula\textsuperscript{14} compared the employee productivity and employee cost ratios between the traditional banks and modern banks for the period 1997 to 2008. Employee productivity constituted business per employee and profit per employee ratios. Employee cost to operating expenses was recorded. The research concluded that the performance of modern banks (foreign and new private sector banks) was superior than the traditional banks (public sector and old private sector banks).

Mathur KBL\textsuperscript{15} examined the argument extended to build a case for privatization of the public sector banks in India. To measure the financial position, return on total assets, non performing assets of public sector banks and capital to risk, weighted assets ratios were measured. Deposits, advances, net profits and assets of all scheduled commercial banks were compared. Return on total assets and Net non performing assets are the parts of research study. Further it was concluded that the case for privatization of Public Sector Banks in India was not strong enough on the grounds proposed by the advocates of privatization. It was suggested to be safe to mountain public sector character of the bank till the conditions for privatization are conducive enough.

Misra Swarup Biswa\textsuperscript{16} made an attempt to enquire as to factors influencing the performance of Regional Rural Banks and the role played by the sponsored banks. The study confined to the period starting from the year 1980 to 2004. Capital, deposits, investments, total assets, interest earned, interest expended, operating profit were the parameters. It was analyzed that between the year 2000 and 2004, loans disbursed by Regional Rural Banks are more than double reflecting the efforts taken by the banks to improve credit flow to the rural sector. Further credit –deposit ratio had shown an improvement and went up from around 39 percent in March 2002 to 44.5 percent in March 2004.

Mittal and Dhade\textsuperscript{17} compared various categories of banks on the basis of their productivity and profitability. Research study included 27 public sector banks consisting of SBI and its associates (8), 19 nationalized banks, 30 private sector banks consisting of 21 old private sector banks and 9 new private sector banks and also foreign banks in India (33). The ratios used were spread ratio, business per employee, deposits per branch ratio, advances per branch ratio etc. After analyzing, it was found that public sector

\textsuperscript{15} Mathur, K.B.L. (2002). "Public Sector Banks in India. Should they be Privatised?" Economic and Political Weekly, June, pp. 2245-2256.
banks were ranked second after the foreign banks in terms of spread ratio. Looking into the business per employee ratio, it can be inferred that foreign banks were far ahead of public banks. New private sector banks were very comfortably placed when compared with Public Sector Banks and expected no challenge from them in near future.

Mohan Rakesh\textsuperscript{18} evaluated the performance of financial system in banking sector in terms of quantitative aspects. For the purpose, bank group-wise comparison (in percentage) for public sector banks, private sector banks and foreign banks were taken into account. Income, expenditure, total assets, net profits and gross profit for the year 1995-96, 2000-01, 2002-03 were analyzed. Further indicators of progress of commercial banks in India were number of commercial banks, bank offices, population per office, deposits and advances. It was analyzed that banks seemed to have struck a greater balance between investments and loans and advances in recent years. Net profit has declined in both public sector banks and private sector banks from 2000-01 to 2002-03 but increase was shown in foreign banks for the same period.

Mohan Ram TT\textsuperscript{19} evaluated the performance of Public sector banks since deregulation and attempted to understand the factors underlying their improved performance. Comparison was made over a period 1994-1995 to 1999-2000. For the comparison, financial ratios- net profits/ total assets, net interest income/ total assets, intermediation cost/ total assets and non performing assets/ total assets were used. Further, average of each of the ratios was computed and compared using t-tests. Comparing the performance of public sector banks with private sector banks, it was found that the only parameter on which the public sector bank did better was the net interest income/ total assets called spread. The public sector’s performance was also inferior to that of foreign banks.

Pal Karam and Goyal Puja\textsuperscript{20} analyzed the relationship among earnings and productivity of employees by using ratios- Earning per employee, Net profit per employee, Business per employee for public, private and foreign banks using data for five years i.e. the period from 2001-02 to 2005-06. For finding relationship, regression analysis was found. Results show that foreign sector banks were performing better in all the selected parameters during the period of the study. Further results showed that private and foreign banks were showing significant relationship between different parameters.

Ramasastri A.S. and Achamma Samuel\textsuperscript{21} studied the trends for important banking indicators for the period from 1980-2005. For the purpose, all scheduled commercial banks vis-à-vis SBI and its associates, nationalized banks, private sector banks were the part of the study. Credit deposit ratio, per office deposit and credit, bank group-wise deposits, advances were analyzed. Income composition (interest income, other income), expenditure composition (interest expenses, operating expenses), wages as percentage of operating expenses and return on assets were taken into account. It was analyzed that foreign group recorded the highest credit deposit ratio. The share of deposit of State Bank group was more or less constant during the 25 years period. In case of SBI and its associates, interest income declined from 84.5\% in 1980 to 82.3\% in 2005. Wages, as percentage of operating expenses of Public Sector Banks were more than 60\%. Return on Assets of foreign banks group was the highest at 1.8\% in 2005.

Sangmi Mohi-ud-Din\textsuperscript{22} evaluated the financial performance of two major banks operating in northern India by using CAMEL Parameter i.e. capital adequacy, asset quality, management capability and liquidity. Earning per employee, expenditure per employee are measured for analyzing management capability. Return on assets was also calculated. The Punjab


National Bank and Jammu and Kashmir Bank constitute the research study. Both the banks had managed their capital adequacy ratio. It was observed that the Jammu and Kashmir Bank had been more efficient by maintaining the average ratio of net non performing assets to net advances at 1.76%. Further earning per employee and expenditure per employee were more in case of Jammu and Kashmir Bank as compared to Punjab National Bank.

Sathya Milind\(^2\) examined whether the partial privatization of Indian banks helped to improve their performance and efficiency. The data was collected for five years w.e.f. 1998-2002. The financial performance of banks is measured by using the standard financial performance measures like return on assets, spread to working funds ratio, establishment expenses to total expenses ratio, loan out ratio and non performing assets to net advances ratio. Further efficiency of the banks is measured by using accounting ratios such as deposits per employee, advances per employee and net profit per employee. It was analyzed that banks already in private sector do not have significant difference on return on assets as compared to the partially privatized banks. Further it was observed that partially privatized banks had performed better as compared to the fully public sector banks relating to certain financial and efficiency parameters. Overall, partially privatized banks had showed improved performance and efficiency in the years after privatization.

Verghese\(^2\) evaluated the trend in the profits and profitability of Indian commercial banks in India. The analysis was done for the period starting from 1970-1979. Trend of gross profits, net profits and spread were computed. The spread earned by banks increased in 1971, but declined in 1972. There was an increase in the spread in 1974 and 1975, to reach 5.17 percent in the case of all scheduled commercial banks. The conclusion emerged from the analysis showed that commercial banks in India did well during the 1974-1976 period, but since 1977, there had been a significant downward adjustment.

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Yeh\textsuperscript{25} evaluated bank’s performance and applied Data envelopment analysis in conjunction with financial ratios in Taiwan. For the purpose total deposits/ net worth, net income before taxes/ total operating income, total loans/ total deposits, total loans/ total assets were used. The analysis implied that during the 1980s in Taiwan, banks were more concerned about lending rather than saving.

2.2.2 Studies Relating to Customer Perspective

Anderson, Fornell and Lehmann\textsuperscript{26} discussed how expectations, quality and price affect customer satisfaction and customer satisfaction affect profitability. In total, 77 firms were under study including airlines, automobiles, banking, travel and supermarkets etc. Telephone survey was used. The customer satisfaction index was used for the study. The findings supported a positive impact of quality on customer satisfaction, and in turn, profitability. Finally, it was observed that the market expectations of the quality of a firm’s output positively affects customer’s overall satisfaction with the firm and the expectations were highly rational.

Bloemer, Ruyter and Peeters\textsuperscript{27} investigated how image, perceived service quality and customer satisfaction determine loyalty in a retail bank setting. The study was conducted among customers of banks in Netherlands in 1996. 2,500 customers were interviewed with regard to their image of the bank, their quality perception of the bank, their satisfaction with the bank and their loyalty towards the bank. Correlation coefficient and multiple regression analysis techniques were used. It was observed that reliability and efficiency could be viewed as important determinants of loyalty. Further service quality was both directly and indirectly related to bank loyalty through satisfaction. It was made clear that reliability (a quality dimension) and position in the market (an image dimension) are relatively important drivers of bank’s loyalty.

Brady and Cronin\textsuperscript{28} elaborated service quality through reliability, responsiveness and empathy. 391 completed surveys were done and data was collected from restaurants, saloons, automobiles, jewellery, repair shops and photograph developing shops. Chi-square test was used to test the primary dimensions i.e. interaction quality, physical environment quality and outcome quality. These dimensions were divided into sub-dimensions. Further mean and standard deviations were calculated. Findings suggested that reliable, responsive and empathetic service was related to improved service quality perceptions and important to the provisions of superior service quality.

Chen and Chang\textsuperscript{29} elucidated how service quality and perceived risk were related. Quality of service was measured by Servqual scale to fit the current banking environment of Taiwan. It included 40 questions, referring to five dimensions. 29 items from servqual and 11 items related to electronic banking service quality were selected to measure the perception of customers in Taiwan relating to quality of bank’s services. Overall perceived risk was taken into account. Risk component approach and multiplication model were combined to measure consumers’ perception of different dimensions of risks while using banking services. Factor analysis of perceived risks was done. Correlation, regression analysis and Anova results were found. The conclusion was drawn that cues of service quality (including tangibles, responsiveness, reliability and empathy) significantly influenced the perceived risks including financial, psychological, functional and social risks. Further it was observed that perceived risks decline when service quality increases.

Choudhury Koushiki\textsuperscript{30} endeavored to fill a gap in the service quality literature by exploring the dimensions of customers’ perceived service quality in the context of Indian retail banking industry. Attitude, reliability, tangibles were the parameters used for the study. The scope of the study was National

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Bank, The Century Bank, The Millennium Bank and the Prudential Bank of India. Questionnaire followed the basic structure of Servqual Instrument. Reliability (Cronbach's alpha) for the modified servqual scale was tested for the entire sample. Factor analysis was conducted with the servqual scores. The study suggested that attitude and reliability of employees were most important service quality factors. Further the banks were not structured to deliver excellent, individualized service quality. This situation offers prospects for the banks willing to change and adapt.

Cronin and Taylor\textsuperscript{31} measured service quality and relationship between service quality, customer satisfaction and purchase intentions. Servqual scale was used for the study. Items of purchase intentions were constructed. 660 respondents from banking, pest control, dry cleaning and fast food were taken. Majority of respondents (180) were the participants from banking sector. Factors analysis was operated. Chi square test was used. After analysis, it was suggested that satisfaction had a significant effect on purchase intentions, whereas service quality had no significant effect in any of the four industries. Satisfaction had a stronger and more consistent effect on purchase intentions than service quality.

Debashish Swaroop Sathya\textsuperscript{32} made an effort to make a comparative analysis of the degree of service quality across public sector banks, private banks and foreign banks operating in Delhi. Sample consisted of 600 respondents. Interviews from 210 customers from public sector banks, 210 from private and 180 from foreign banks were conducted at their bank premises. Public sector banks include SBI, Punjab National Bank, Corporation Bank and private sector banks include ICICI bank, HDFC bank and Karur Vysa Banks under study. Further foreign Banks included Citibank, HSBC and Bank of America. Study revealed that foreign banks were providing better service quality as compared to public and private banks. Public sector banks had failed to adequately satisfy their customers. There was a close competition between private sector banks and foreign banks as their


cumulative service quality scores were very close i.e. 69.77 and 72.33 respectively.

Fowdar, Fowdar and Beegadhur\textsuperscript{33} analyzed the service quality of banking technologies in Mauritius. The study is related to banking customers, making use of self service technologies (SSTs) and observing whether self service technologies (SSTs) meet quality standards expected by the customers. The differences between perceptions and expectations were calculated. Further mean and standard deviation were found and gap was analyzed. 150 adults were interviewed in banks. For the purpose, dimensions of servqual were used. The study showed that banking customers had adopted these services quite well. ATMs, debit cards and credit cards had attained the well developed status. Internet banking had not been a big success, while phone banking was in its embryonic stage. Customers were found to have high expectations of service for aspects relating to reliability and responsiveness. It was suggested that banks need to raise the security level for internet banking and credit card payment.

Griffin and Hauser\textsuperscript{34} addressed to some key points relating to customers. An effort was made to make decisions which observes and balance the cost of fulfilling a customer’s need. Therefore, 30 potential customers of food carrying and storing devices were interviewed. Customer needs were segmented into primary, secondary and tertiary needs. Customer interests and preferences were compared to measure and estimate importance. Quality Function Deployment (QFD), a process in which “voice of the customer” was deployed throughout the R and D, engineering and manufacturing stages of product development was taken into account. Further beta-binomial model was used to estimate the average number of needs obtained from the customers. A Kolmogorov test for goodness of fit between the actual and the modeled distributions indicated that respondents do not differ at a statistical significant level ‘0.05’. The importance of customers is


identified to have affordable products, easy to operate, easy to clean, quick service response, reliability etc.

Israel, Sudhahar and Selvam\textsuperscript{35} measured the service quality in banking sector. Based on the servqual image for the study, the instrument contained reliability, responsiveness, empathy, tangibility, treatment and other attributes. The study included SBI, Canara Bank, ICICI Bank, HDFC Banks. Chi-square test was used. 400 respondents were contacted i.e. 100 respondents from each of the selected banks. The analysis pointed out that SBI was closely related to security, reliability and credibility; still it was required to improve on aspects such as tangibility, accessibility and courteous behaviour of employees towards the customer. The need of the private sector bank was focusing on reliability and security aspects. ICICI bank was closely attached to courteousness, communication and empathy. Further HDFC bank was dominant for its rating for accessibility, tangibility and responsiveness.

Kaul Subhashini\textsuperscript{36} measured service quality of stores in Bangalore. 180 respondents were taken. Retail Service Quality Scale (RSQS) was used including physical aspects, reliability, personal interaction, problem solving and store policy. Population comprised retail shoppers. Quota was based on income, gender and age including 180 respondents. Correlation analysis was used. There was high degree of collinearity between the items in different dimensions. It was observed that Retail Service Quality Scale (RSQS) was inappropriate in Indian retail as several aspects mentioned by shoppers during interview were not included. However, physical aspects, problem solving and store policy were showing an affect on customer satisfaction.

Kumar, Smart, Maddern and Maul\textsuperscript{37} investigated the linkages between Business Process Management and Customer Satisfaction in UK Bank. Structured Equation Modelling (SQM) tool was used for the purpose. It was

confirmed that process management was a critical driver of customer satisfaction. The findings revealed that performance problems associated with customer dissatisfaction could not be solved by allocating more empathic staff only, other dimensions are also to be considered i.e. promised services are required to review the service delivery system and a system of interconnected process which deliver value to the customer is the need of the hour.

Landrum, Prybutok, Zhang and Peak\textsuperscript{38} investigated the service quality perceptions of professional information system users. Further, the relationship between the relative importances allocated by system's users to different dimensions was analyzed. Dimensions of Servperf instrument were used i.e. service quality, system quality, information quality, user involvement, usefulness, user self sufficiency and user satisfaction. Study was based on library information system. For the purpose, 385 responses were collected from a population of library users at the US Army Corps of Engineering Waterways experiment station in United States. On an average, respondents assigned more points to reliability (32.43), followed by responsiveness (22.09), assurance, empathy and lastly tangibility, which shows that reliability is having dominant position for service quality perception of information system.

Mukherjee, Nath and Pal\textsuperscript{39} measured the resource, service quality and performance triad to measure efficiency of banking services. It was a study of 27 public sector banks and their customers. For measuring efficiency, Data envelope analysis approach was used. Servequal scale was used to measure current services and expectations of customers. It was observed that the banks were delivering better services. Results confirm the linkages between resource, service quality and performance for services.


Parasuraman, Zeithmal and Berry\textsuperscript{40} described the development of a 22-item instrument (called SERVQUAL) for assessing customers’ perceptions of service quality. The objective was to describe the development of a multi-item scale to measure service quality and further discuss the scale’s properties and its potential applications. After analyzing reliability and validity, it was concluded that SERVQUAL was a concise multi-item scale with good reliability and validity that retailers could use to understand the service expectations and perceptions of consumers.

Parasuraman, Berry and Zeithmal\textsuperscript{41} described a multi sector study in which SERVQUAL instrument was re examined and observed the reliability, validity and factor structure. The data was collected from 1936 respondents across the five companies including telephone companies, insurance companies and banking sector. Regression analysis for the five dimensions vis-à-vis tangibles, reliability, responsiveness, assurance and empathy were measured. Factor analysis, reliability and t-test were used. Findings of scale support the internal cohesiveness of the scale items forming each dimension. It was concluded that five distinct facets of service quality are also interrelated.

Parasuraman, Zeithmal and Berry\textsuperscript{42} incorporated the expanded conceptualization of expectations into the alternative scale formats. A sample of 2400 customers of retail chain, auto insurance and life insurance were taken. The survey included 527 customers of computer manufacturers. The demographic variables included age, marital status, gender, income and education. Questionnaires were refined through pretesting. The coefficient alpha values are consistently high across companies. In summary, the results show that service quality scores exhibit good internal consistency reflected by high reliability coefficients.

Ravichandran, Mani, Kumar and Prabhakaran exami
ined the influence of perceived service quality on customer satisfaction. 300 respondents were taken from two private sector banks in Tamil Nadu. Convenience sampling technique was used for data collection. Further Servqual scale was used for data collection through questionnaire. T-test was used, mean and standard deviations were found. Overall service quality was observed, regression equation was developed. Findings showed that only responsiveness dimension was found to be significant in predicting overall satisfaction with the banking services.

Singh and Tripathi highlighted the various quality parameters and tested their relative significance in the customers' and service providers' quality perception. Sample consisted of 30 customers and 30 executives of private sector banks i.e. ICICI, IDBI and Centurian Bank of Punjab of Lukhnow and Delhi. Servqual scale was used including reliability, responsiveness, accessibility, empathy, security and courtesy. The mean values were used to calculate the Kolmogorov-Smirnov two sample test values at 0.05 level of significance. It was observed that gap existed for the dimension security, which was an important parameter in the era of e-commerce and internet banking. Banks needed to put efforts to enhance their security features.

Vanniarajan and Ambazhagan made an attempt to make assessment of Servperf scale in the Indian banking sector. Survey was made among the borrowers of consumer loans in public, private and cooperative banks in Madurai. Consumer loans were chosen due to their growing popularity. Data was collected from 205 customers. Mean scores, overall attitude towards retail banking and factor loading was done. The important discriminant factors among the private and public sector banks were responsiveness and

reliability, whereas among public sector banks and cooperative banks, tangibility and assurance were found. Private and cooperative banks were dominant in reliability and responsiveness. It was suggested that banks must be aware to design appropriate strategy to satisfy their customers.

Zeithmal, Berry and Parasuraman\(^{46}\) linked impact of service quality with particular behaviours that signal whether customers remain with or leave the company. Study includes computer manufacturing, retail chain, automobiles and life insurance companies. A random sample of 2400 customers was selected. Overall, single item rating scale and multiple item rating scales were used. It was observed that in each of the four companies, the mean score for ‘paying more’ intention was considerably low than ‘loyalty’ intention. Multiple regression analysis dimensions were loyalty, switch over and pay more for measuring behavioural intention score and service quality score. It was suggested that companies waiting to improve services, should do so in a cost effective manner.

2.2.3 Studies Relating to Internal Business Process Perspective With Regard to Market Orientation

Days S. George\(^{47}\) made an effort to enhance market sensing and customers’ linking capabilities. The researcher first elaborated that market sensing capability determines how well the organization is equipped to continuously sense changes in the market and further response to market actions. The second was customer linking capability comprising the skills, abilities and processes needed to achieve customer relationships. It was suggested that top-down direction from senior managers was utmost important, who demonstrate a clear continuing commitment to putting customers first.


Gauzente Claire\textsuperscript{48} compared the MKTOR and MARKOR market orientation scales in relation to the theoretical position. The MARKOR and MKTOR scales were collected from published articles. The scale items were merged into corpus. Most frequently used words were identified. Lastly the most significant themes were extracted. It was analyzed that MKTOR scale had three components i.e. customer orientation, competitor orientation and inter-functional orientation. Further there was over representation of customer orientation. It was concluded that MARKOR scale measures the present state of the firm and its capabilities too.

Gudlaugsson and Schalk\textsuperscript{49} studied the effects of market orientation on business performance in commercial banks with the objective of measuring bank’s organizational culture and the level of market orientation. The survey was answered by 249 people. The organizational cultural survey was divided into four dimensions i.e. mission, adaptability, involvement and consistency. The mean score was found and categorized into three intervals. The first interval ranging from 4.20 – 5 indicated the company’s strength in organizational profit. The second interval ranging from 3.70 – 4.10 indicated an acceptable level of organizational culture. The third interval ranging from 1.00 – 3.69 indicated weaknesses in the cultural profile. The adaptability dimensions (the measure of market orientation) scored 3.57 on 5 point scale and had a weak positive relation and moderately strong relation with employee satisfaction.

Harris C. Lloyd\textsuperscript{50} provided a measure and an approach of measuring market orientation encompassing both design and implementation. For the purpose, correlation analysis between market orientation and performance measure was done. Further, overall performance of Intra-firm executives’ gauge of inter-functional coordination, competitor’s views of competitor orientation, customers’ measure of customer orientation, market oriented

measure of overall market orientation were computed by calculating the summated mean of all four performance items. It was concluded that the developed method for measuring market orientation was more complex but was designed to provide more information regarding market orientation.

Heiens A. Richard\textsuperscript{51} combined two important external variables, customers and competitors and framed a Market Orientation Matrix including four elements i.e. customer preoccupied (firms emphasizing customer-focused intelligence gathering activities at the cost of competitor information), Market Warriors (firms with predominant emphasis on competitors), strategically integrated (firms emphasize to the collection, dissemination and use of both customer and competitor intelligence) and strategically incept element (firms concentrate on internal operations and technological advantages). It was suggested that firms should seek to understand both customers and competitors to incorporate knowledge in their strategic planning efforts.

Jaworski and Kohli\textsuperscript{52} tested empirically several hypothesis regarding antecedents and consequences of a market orientation i.e. the greater the top management gives importance to market orientation, the greater the (a) market intelligence generation, (b) intelligence dissemination and (c) responsiveness of the organization. Further the consequences of Market Orientation were observed as - greater the market orientation, higher is the business performance of the organization. Sample consisted of 487 respondents selected randomly from the American Marketing Association membership roster. Market Orientation was measured by items pertaining to market intelligence generation, intelligence dissemination and responsiveness at 113.95. The correlation between the intelligence generation and intelligence dissemination was 0.62, between dissemination and responsiveness was 0.70 and between responsiveness and generation was 0.55. It was suggested that market orientation of a business was an important determinant of its performance.

Jaworski, Macinnis and Kohli\textsuperscript{53} developed an empirically grounded framework that delineated and described aspects of competitive intelligence generation process and identified dimensions of intelligence generation. Sample consists of Fortune 50 Corporations containing a number of business groups engaged in competitive intelligence. It was viewed that if a firm had a formal and stable competitive intelligence organization structure, it would have higher business performance.

Kirka, Jayachandran and Bearden\textsuperscript{54} conducted a meta-analysis that aggregates empirical findings regarding the antecedents and consequences of market orientation. Further, multivariate analysis to identify significant antecedents of market orientation was done. Innovativeness, customer loyalty and quality accounted for a substantial portion of the effect of market orientation on performance. Using regression analysis, it was observed that market orientation – performance relationship was stronger in firms under study.

Kohli, Jaworski and Kumar\textsuperscript{55} developed a measure of market orientation and assessed its psychometric properties. Data was collected from 230 respondents, who were executives. Validity analysis was done. The market orientation measure (MARKOR) assessed the degree to which units engaged in market intelligence generation activities, disseminates this intelligence through formal and informal channels and develops/implements marketing programs on the basis of the intelligence generated.

Lusch, Vargo and Brien\textsuperscript{56} emphasized service dominant logic (S-D logic) and argued that competing through service is more than adding value to products. The rationale of the study was that application of specialized skills and knowledge was the fundamental unit of exchange. The paper included

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the proposition that firms that treat their employees as operant resources will be able to develop more innovative knowledge and skills and gain competitive advantage. Further it was suggested that since competitive advantage comes from the knowledge and skills of the employees, it could be enhanced by effective leadership and continual renewal.

Nayebzadeh, Aldin and Gheisary\textsuperscript{57} explored the relationship between market orientation and business performance. The study included stock exchange companies producing consumer products. Data was taken for the period ranging from 2004 to 2008. The variables were Extended Market Orientation (EMO), Return on Assets (ROA) and Refined Economic Value Added (REVA). A self administered questionnaire was filled by marketing director/ manager of the selected organizations. It was hypothesized that greater the market orientation of the organization, the greater return on assets in terms of financial performance. The results indicated no relationship between market orientation of the organization and [Refined Economic Value Added (REVA)]. Further market orientation had a straight relationship with return on assets only.

Sinkula\textsuperscript{58} made an attempt to provide research proposition that will enhance marketers' understanding of information processing and knowledge creation in the organizations i.e. market information processing is a function of organizational memory. It was concluded that organizations learn about their markets, if potential behaviour is changed by processing market information.

Tuli, Kohli and Bhardwaj\textsuperscript{59} viewed a solution to meet customers' needs by integrating combination of goods and services. For the purpose, data was collected from customer and supplier organizations. Questionnaires for suppliers and customers were prepared. It was concluded that consideration of customers' requirements, integration of goods and services and post


deployment of customers’ support to meet customers’ needs were utmost important. It was observed that suppliers can deliver more effective solutions at profitable prices. The study suggested that effectiveness of a solution depends on supplier variables and customer variables.

Wood, Bhuian and Kiecker\textsuperscript{60} explored market orientation in not-for-profit hospitals. The research study examined the relationship between market orientation and hospital’s performance. The author hypothesized that organizational performance was positively related to market orientation. MARKOR questionnaire was used. Reliability was estimated. Factor analysis was done. Results indicated that market orientation was significantly related to organization performance and explained 10\% of variance. The results indicated that special attention must be committed to the over all professional education opportunities of organizational members, including workshops, conferences and other development programmes.

2.2.4 Studies Relating to Learning and Growth Perspective

Atak Metin\textsuperscript{61} aimed to determine the relationship between learning organization and organizational commitment. The study was conducted on organizations registered to Chamber of Industry in Turkey. Validity and reliability analysis were performed. In factor analysis, 7 factor structure for learning organization was appropriate. Further reliability analysis was examined, alpha coefficients scale was 0.912 and alpha coefficient of organization commitment was 0.689. 41\% value of R\textsuperscript{2} and F-value in regression analysis showed that organizational commitment influenced learning organization. It was concluded that employees having good organizational knowledge but not transforming its knowledge is harmful and cannot become a learning organization. It was suggested that employees’ commitment to the organization was very important.


Bell, Mengue and Widing\textsuperscript{62} examined the relationship between organizational learning and information dissemination efficiency in translating sales person learning to organizational learning. Hypothesis for the research study was that there was a positive relationship between organizational learning and store performance. A sample of 422 respondents from 113 retail stores was taken. Factor analysis provided an acceptable fit to dataset. It was analyzed that salesperson learning was positively and significantly related to organizational learning. It was suggested that motivation and opportunities for individual learning within organization was likely to yield advantage. Selection criteria to measure individual’s learning orientation might be applied during recruitment.

Hongming, Changyong and Chunhui\textsuperscript{63} examined the relationships among market orientation, learning orientation, organizational innovation and organizational performance. The sample of the study involves 143 companies in China. Questionnaire of Market Orientation included customer orientation, competitor orientation, inter-functional coordination and profit emphasis. Learning orientation had 3 dimensions including commitment to learning, shared vision and open- mindedness. The Cronbach’s alpha of every factor and variable was inside the acceptable range. Results showed that market orientation had a direct impact on learning orientation. Further market orientation had a direct impact on organizational innovation by learning orientation, which in turn affects organizational performance.

Jamali, Sidani and Zouein\textsuperscript{64} identified the various measurement instruments in the content of learning organization. The research included banks and IT companies in Labanese Economy. The sample consisted of 227 employees and managers from banks and IT Sector of Lebanon during the period from July 2006 to September 2006. Questionnaire included individual


level, team or group level, organizational level and the global level. The score of each dimension was calculated by taking average of the scores of the statement relating to each dimension. Results showed that total scores of banking sector were ranging between 23.44 and 27.99. Further the ratings of the respective dimensions were above average, with the lowest (3.35) and highest (3.96) score relating to strategic leadership dimensions. Weaknesses were found in banking sector were organizational and group level dimensions.

Johanna and Heijden\textsuperscript{65} determined the nature of knowledge and skills related to professional expertise and further developed means by which such expertise might be individually measured. An instrument was developed to reflect dimensions i.e. knowledge, skills, social, recognition, growth and flexibility. Respondents consisted of 558 individual employees and 554 immediate supervisions. The reliabilities of the developed scales were found high with Cronbach's alpha and ranging from 0.83 to 0.94 for both self rating and supervisor's ratings. It was depicted that scales appeared to be homogeneous for employees' self rating and supervisor's rating both. Correlated aspects were represented for professional expertise dimension. Further, self rating for growth and flexibility scale was positively skewed.

Kontoghiorghes, Awbrey and Feurig\textsuperscript{66} examined the relationship between learning organizational characteristics and change adaptation, innovation and bottom-line organizational performance. The study consisted of service and manufacturing sector including 198 employees of IT Sector, 192 employees from health care insurance organization and 134 and 55 employees of Auto Parts manufacturer A and B respectively. Learning Organization dimensions included factors vis-à-vis open communication and information sharing, Risk taking, support for learning, high performance team environment, rewards for learning and knowledge management. Analysis in conjunction with multiple regression and correlation analysis was done. The


open communication and information sharing factors are more highly correlated with rapid change adaptation \( (t=0.52, p<0.01) \). Likewise high performance team environment was highly correlated with peer work output satisfaction \( (r=0.46, p<0.01) \). It was suggested that system promoting employee empowerment was the need of the hour.

Lopez, Peon and Ordas\(^67\) analyzed how the organizational culture impacts the knowledge management, organizational learning and firm's performance. It was hypothesized that organization learning had a positive effect on organizational performance. The study was carried out in 2001 among Spanish companies on 2,740 firms. Data was collected from 195 employees. Reliability analysis showed acceptable results. Organizational learning contributed towards improving firm's (business) performance. Further culture had a positive effect on learning showing very significant regression coefficient. It was concluded that individuals (employees) were the main subjects of learning process. Further, it was suggested that they must adopt a sharing vision and must commit themselves to meet the aims of the organization.

Maniam, Uli and Sai\(^68\) made an attempt to identify the manager's perception on the overall organization level learning in the organizations, they are working. The research was based on top two industries in manufacturing and service sectors each in Kaula Lampur and Selangor. A sample of 600 managers out of 120 organizations was selected. Cronbach alpha denotes value of 0.9106 which is acceptable for reliability of instrument. The analysis showed overall organizational average rating was 7.26, which implied good overall level of learning. Further t-test was conducted to evaluate the impact of individual and organization level learning. There was significant difference in individual level learning and overall level learning. It was concluded that there was lack of team learning. It was suggested that workshops and more opportunities on regular basis could encourage team learning.

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Moilaven constructed and tested a measuring tool for the diagnosis of learning organization. Data consisting of 691 respondents was gathered from 25 organizations. The data was collected from employees of public sector, information technology, manufacturing, banking and insurance and wholesale/retail organizations. Reliability of the instrument was measured with Cronbach's alpha. The reliability coefficient varied between 0.5241 and 0.8617. The tool developed created a holistic picture for further analysis.

Park Ho Joo applied fifth discipline model of learning organization in school context. The participants were 976 full time academic teachers in industry – technical and business high school in the Seoul megalopolis during the 2005-06 academic year. Learning organization constituted five disciplines/parameters vis-à-vis personal mastery, mental model, shared vision, team learning and systematic thinking. Reliability coefficients ranged from 0.856 to 0.897. It was concluded that theory of organizational learning could be applied to a South Korean school context, reflecting Asian culture.

Senge experienced a life long body of study and practice for individuals and teams in the organizations. The author had presented five disciplines of organizational learning vis-à-vis personal mastery (involves formulating a coherent picture of the results people most desire to gain personal vision), mental models (developing awareness of the attitudes and perceptions that influence thought and interaction), shared vision (establish a focus on mutual purpose), team learning (forms group interaction), systems thinking (involve independence and feedback). Above stated five disciplines help an organization, individual and team to have effective learning.

Song, Joo and Chermack assessed the validity and reliability of measurement scores of the learning organization culture, the Dimension of

Learning Organization Questionnaire (DLOQ) in Korean context. The study included a sample of 1529 cases from 11 firms. Firms included electronics, telecommunication, IT solutions, heavy industry, oil and gas, international trading etc. Confirmatory factor analysis was used to verify the adequacy of items to factor associations. Items' inter correlation and Cronbach's coefficient alpha estimation were done. It was found that the questionnaire relating to learning organization was a valid and reliable measure of perceptions to learning organization culture in Korean organization.

Xiaohui and Baiyin73 examined relationship between the culture of learning organization and financial performance in Chinese firms. 852 respondents/employees working in state owned enterprises and privately owned enterprises of nine companies i.e. 4 state owned and 5 privately owned enterprises. Confirmatory factory analysis and one way analysis of variance was conducted. Further t-test was conduct to identify the differences between Chinese state owned enterprises and privately owned enterprises. Reliability analysis satisfied conservative minimum level. Findings showed that the learning organization culture of firms had strongly positive impact on employees' job satisfaction and perceived organizational performance. Further employees in the middle age and with college education showed the strongest sense of improving the learning culture. It was inferred that privately owned enterprises had a better learning atmosphere and a stronger competitiveness than state-owned enterprises in terms of learning ability and organizational performance.

Yang, Watkins and Marsick74 developed and validated a multi-dimensional measuring of the learning organization including seven dimensions of learning organization i.e. continuous learning, inquiry and dialogue, spirit of collaboration, empowerment, embedded system, system connection and strategic leadership. Each scale originally included 6 items. For field testing, 48 subjects participated in first stage, 71 subjects

participated in 2nd stage and 191 subjects in the 3rd stage. Results indicated that squared multiple correlation for the variable financial performance was 0.66 and 0.74 for knowledge performance. The study shows that pattern of learning and its relationship to organizational outcomes offers practical strategies to create learning organizations.

2.3 GAPS IN LITERATURE

After going through the research offerings, the researcher observed that research for performance measurement was carried out in manufacturing companies, steel industry; securities exchange market, research and development organizations, software companies and insurance firms. But less research was done for performance measurement in banking industry. The literature emphasized cause and effect relationship from learning and growth perspective to internal business process perspective to customer perspective to financial perspective, but no attempt was made to apply the four perspectives to measure employees’ performance for all the four perspectives in a combined form in banking sector. Therefore, it was essential to have research on ‘Application of Balanced scorecard in measuring employees’ performance in banking sector’.