

## PERFORMANCE MEASURES IN CONVENTIONAL AND ISLAMIC BANKING SYSTEMS: A CASE STUDY OF PAKISTANI COMMERCIAL BANKS

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This paper is an attempt to examine the management accounting methods and performance measures employed by the four Pakistani Islamic and conventional banks through interview based case studies. For the purpose of this study, it focuses on four Pakistani Islamic and conventional banks. It also explains the differences, if any, in management accounting methods and performance measures of the two banking systems. The performance measures are derived from the organization's strategies and mission (Kaplan and Norton, 1996). The organization's strategies and objectives are developed by the senior level managers in order to compete in today's complex environment by taking into account different factors such as expectation of shareholders, need of customers, resource implications and employee requirements (Fitzgerlad et al., 1991). Therefore, our sample is based on senior managers of Islamic and conventional banks because they are the people who are involved in developing and implementing the strategies and objectives. So, they have better understanding about performance measures and management accounting methods employed by the bank. The results of four semi-structured interviews from four different banks indicated that the management accounting methods and financial and non-financial performance measures employed by the Islamic and conventional banks are similar. It was found that the Pakistani banks are still relying on traditional ratio analysis technique for evaluation of their financial performance. Moreover, customer survey and mystery shopping are the methods used by the banks for measurement of non-financial performance measures. The methods used for measurement of financial and non-financial performance measures are also same in two banking system. However, it can be concluded from the interviews of senior managers that the mechanism of operations are different in the two banking systems.

**Keywords:** Financial measures; Non-financial measures; Management accounting system; Islamic banks; Conventional banks.

### 1. Introduction

It has been realized many years ago that performance measurement is very essential in 'efficient and effective management' of any organization (Neely and Kennerly, 2002). Neely (1999) argued that performance measurement is important because of the seven key reasons which include 'the changing nature of work; increasing competition; specific innovation initiative; national and international quality awards; changing organizational roles; changing external demands and power of information technology'

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(Neely, 1999). However, initially, performance measurement has been used to accomplish the financial objectives of the organization (Johnson and Kaplan, 1987). But these traditional financial performance measures were criticized by many academics due to not manifesting the complete information about the performance of organization in a rapidly changing competitive environment (Kaplan, 1983; Kaplan, 1984; Johnson and Kaplan, 1987). The shortcomings of the traditional financial measures included lack of strategic emphasis, more focus on financial measures for the assessment of organization's performance, negligence of the qualitative aspects of performance, short-term based and focus on past results instead of future prospects (Johnson and Kaplan, 1987). These deficiencies of traditional management accounting methods/financial measures caused performance measurement revolution (Eccles, 1991). These traditional financial measures were replaced by the new performance measurement (PM) systems which reflected the multi aspects of organizational performance according to its strategies, objectives and environment (Neely and Kennerly; Kaplan and Norton, 1992). ). The new performance measures also included non-financial measures such as quality, flexibility, time and innovation which contributed more towards gaining competitive advantage globally (Pun and White, 2005)

Likewise, the banking industry also transformed through deregulation and privatization during the 1990s in order to cope with highly competitive banking market and ensure economic stability. This caused development of innovative performance measures such as EVA (Fiordelisi, 2002). The banking industry of Pakistan has also been 'transformed through liberalization, the entry of private banks, the privatization of public-sector banks, and the tightening of prudential regulations' from past 15 years and Islamic banks has emerged in the Pakistani banking market during the last 6 years. This triggered the banking industry of Pakistan more competitive and complex (Patti and Hardy, 2005). The new competitive environment of Pakistani banking sector forced both forms of banks (conventional and Islamic) to rethink about their management accounting methods and financial measures. This study is designed to investigate the management accounting methods and performance measures employed by the two banking systems in context of Pakistan. The study aims to examine the

difference (if any) of MAS and performance measures in the two banking systems. The research study also enables us to find out that importance of non-financial measures among Pakistani banks towards achieving their strategies and objective.

In order to achieve our research objectives stated above, we have conducted five semi-structured interviews from senior managers of four different Pakistan banks. Secondary sources of information such as annual reports, brochures etc were also used in this research study.

The next section discusses the literature about performance measurement; performance measures in banks. Then, the researcher talks about research methodology and data analysis of interview transcripts and summary of interpretations of interview transcripts. The final section provides the conclusion of the study and suggestions for future research.

## **2. Literature Review**

The literature critically examines the revolution of performance measurement, performance measurement models that provide balanced view of performance measures and financial and non-financial performance measures in banks.

### ***2.1 Revolution of Performance Measurements Systems***

According to Zairi (1994), the evolution of traditional performance measurement systems had been initiated from the period of nineteenth century. During this era, extensive financial measurement systems were developed to fulfill the needs of entrepreneurs. These financial systems were based on conversion costs, material costs, labor costs and allocation of overheads. In 1920s, the scope of financial measurement systems was expanded by introduction of variance accounting, capital investment appraisal, ROI (Return on Investment), performance measurement and budgeting. In 1930s, integrated cost and management accounting systems were developed. By 1930s, performance measurement systems were based on only financial measures.

Kaplan and Norton (1996) stated that the many of fundamental assumptions of cost and management accounting systems developed from 1850 to 1975 were become outdated in the last decades of twentieth century. Eccles was the one who predicted performance measurement revolution in one of his articles (Eccles, 1991). The company's intangible assets (such as high quality product and services, customer satisfaction, customer loyalty,

flexibility and so on) has become more valuable criteria for competitive success as compared to tangible assets (traditional physical assets) in the last two decades of twentieth century (Kaplan and Norton, 1996). Howell and Soucy (1987) stressed need for a new accounting system that provides information about non-financial measures such as quality, internal process consistencies and so on. The traditional accounting systems have becomes obsolete and therefore unable to provide information about operational measures of new manufacturing methods (McNair et al, 1990). The uncritical utilization of quantitative performance measures at all levels of organization resulted dysfunctional consequences. Therefore, qualitative aspects are necessary to be considered to measure the overall performance (Ridgway, 1956).

According to Eccles, 1991, manufacturers and service providing firms became the part of quality movement during 1980. They have utilized 'quality as a strategic weapon' to operate in a highly competitive environment. These quality measures broadened the boundaries of performance measurement. Another measure i.e. customer satisfaction incorporated the performance measurement systems later in 1990. These measures were also triggered by the strategies of customer service. Competitive benchmarking was the methodology which also contributed to development of performance measurement revolution. Although it can be utilized to any dimension financial or non-financial, but its major focus was on non-financial metrics.

Kaplan and Norton, (1992) found that the traditional financial performance measures do not provide the required skills and competencies to managers to cope with global competitive environment. Moreover, managers were reluctant to rely on these financial measures. They needed a measurement system based on both financial measures and operational measures. Grady also concludes that:

Performance measures need to be balanced. Balance includes internal measures with external benchmarks, cost and non-cost measures, result measures to assess the degree goals are achieved, and process measures to evaluate critical tasks and provide early feedback.

(Grady, 1991; Sinclair and Zairi, 2000)

The authors who stressed on balanced combination of financial and non-financial performance measure include McNair et al. (1990), Howell and Soucy (1987) and Sellenheim (1991).

There are number of performance measurement systems developed by the academics as result of their research work: Fitzgerald et al.'s (1991) "Result and Determinants Model", "SMART pyramid" from Lynch and Cross (1991) and Kaplan and Norton' (1992) "Balance Scorecard" are the performance measurement systems which provide balanced mix of financial and non-financial measures.

## ***2.2 Performance Measures in Banks***

Performance measurement lacks literature about banks. Few authors discussed performance measurement in some of service areas as public sector, finance and research and development (Sinclair and Zair, 2000).

### ***2.2.1 Financial Performance Measures in Banks***

The financial performance of the banks have been measured by using different methodologies such as financial ratio analysis, benchmarking, measuring performance against budget or mix of these methods (Tarawneh, 2006; Avkiran, 1994). Banks have used number of financial performance measures ranging from traditional accounting measures (ROA, ROE, earning per share, Net income) to improved financial measures (EVA, CIFO, TBR, SHV)<sup>1</sup>.

Since 1990s, the practitioners, academics and even regulators are found to be more interested toward shareholder value (SHV). The primary reason of their interest was the evolution of more competitive environment in banking market due to deregulation. This new environment required a new approach which keeps both stakeholders and shareholders satisfied (Fiordelisi, 2002). According to Karr (2005), banks are increasingly using return on equity (ROE) which is a shareholder oriented framework as performance scorecards. He argues that ROE only provide the summary level picture of bank's performance. It does not give information as "hows" and "whys".

Bacidore et al (1997) states that Economic Value Added (EVA) is the financial performance measure which has quite good correlation with the SHV. Stern Stewart Management Services proposed the EVA which is the trademarked variant of residual income. It creatively links the firms accounting data to its stock

market performance. They claimed that EVA is the best periodic performance measures. They also argue that the traditional financial measures such as Return on Assets (ROA), Return on Equity and Earning per Share (EPS) are misleading. (Stewart, 1991). The EVA assesses the firm's performance from the viewpoint of recompensing the firm's financier for the risk to their capital. It provides the missing link to the three corporate returns that are shareholder returns, economic returns and accounting returns (Weaver, 2001). The EVA considers the opportunity cost unlike the traditional measures (Dodd and Jason, 1999). Kimball (1998) examines the performance measurement and incentive system (EVA<sup>SM</sup>) which used the concept of economic value added for measuring the performance of banks. It may be defined as "the excess of adjusted earnings over the opportunity cost of capital involved. This performance measurement system has been widely applied in banks. He concludes that it is reasonably beneficial to incorporate opportunity cost of equity capital into banks performance because it guarantees improved risk management, greater efficiency in the use of capital and quicker and more informed decision making on part of managers.

EVA also has been criticized by the researchers due to its limitations. It has been revealed from the studies that EVA is very dependent on the accounting measures (Damodaran, 1998; Dodd, 1999; Weaver, 2001). There is lack of significant relationship between EVA and shareholder returns. The traditional measures have a better correlation with shareholder returns as compared to EVA (Bidle et al., 1997; Chen and Dodd, 1997; Clinton and Chen, 1998; Kramer and Pushner, 1998). Dodd and Jason (1999) argue that EVA is a financial performance measure and has the similar limitation as ROA, ROE, EPS and other accounting based measures. It is historical in nature and does not supplant the firm's all measures especially the nonfinancial measures. They suggest from their study that "EVA adoption may foster an environment in which pursuit of higher EVAs may overshadow pursuit of quality and fulfillment of customer needs. Bacidore et al (1997) claimed that Refined Economic Value Added (REVA) is more appropriate and theoretically superior performance measure than EVA.

Cash Flow Return on Investment (CFROI) is another economic value measure which has received considerable attention for measuring financial performance of banks. The proponents of

CFROI argue that CFROI is more superior performance measure as compared to traditional financial measures and EVA (Ittner and Larcker, 1998b). CRFOI is employed by organizations to measure shareholder wealth (Ittner and Larcker, 1998b; Meyer, 1996). Some other performance measures which used the concept of economic profit are total business return (TBR) and shareholder value added (SHV) (Kimball, 1998; Meyer, 1996).

Kimball (1998) states that success of banking operations is based on the complex trade-off between return, risk and growth. Banks have increasingly employed the innovative performance measures such as risk-adjusted return on capital (RAROC). Pleogmakers and Schweitzer (2000) report that there are number of risk-adjusted performance measures (such as ROC, RORAC, RAROC, RARORAC)<sup>2</sup> among which RAROC is the most widely used method among the banks. This provides an interface between risk management and performance measurement. They argue that this framework enhance the transparency, increase the efficiency of capital allocation and overall performance of the banks.

Moreover, McNab (2007) analyze flow of funds as a new approach to portfolio analysis for measuring and understanding core deposit retentions. It not only measures the sales and retentions of bank but also provide new insight into the performance of branches, products and customer segments. This retention metric of portfolio performance measurement has the potential of improving transparency and accountability portfolio growth.

### ***2.2.2 Non-financial Measures***

Karr (2005) argues that the financially-oriented performance indicators do not provide the comprehensive information about bank's performance. They are based on historical data, lack important non-financial indicators, and lack future insight. There is need for performance metric which look beyond historical financial indicators and would be mainly concerned with strategic linkage. The next section will discuss the non-financial indicators in banking context.

### ***2.2.3 Marketing Perspective of Performance Measures***

In literature, there are number of factors found as critical determinants of customer satisfaction. Levesque and McDougall (1996) argue that customer satisfaction is critical to retail banking. They identified service quality, service features, service problems, service recovery and products used as major determinants of

customer satisfaction for retail banks. Parasuranam et al. (1988) also highlight the relationship between service quality and customer satisfaction. Cronin and Taylor (1992) suggest that 'service quality is an antecedent of customer satisfaction'. Baumann et al. (2006) found that service quality drives customer satisfaction. Heskett et al. 1994 present theory of Service Profit Chain which is one of the most widely accepted theories of customer satisfaction based on their analysis of successful service providing firms. This theory suggests that there is a positive relationship between service quality, customer satisfaction and employee satisfaction which eventually lead to maximum profitability. Studies based on service providing firms suggest that customer satisfaction is the leading indicators of firm's financial performance (Behn and Riley, 1999).

The service quality and customer satisfaction are also found to be very important measures of bank's financial performance. The findings of Hussain et al. (2002) empirical study shows that customer satisfaction is the most important aspects of non-financial measures for the Finnish banks due to its direct impact on financial performance. The second important aspect is service quality for Finnish banks. The results of another study based on Swedish banks demonstrate that customer satisfaction and service quality are the most important aspects of non-financial measures for banks (Hussain, 2005). A study based on Japanese banks indicates that customer satisfaction is the most important objective of the Japanese banks (Hussain and Gunasekaran, 2002). Ittner and Larcker, (1998a) conduct a study on value relevance of customer satisfaction based on banking sector and found that customer satisfaction is an important indicator of customer purchase behavior, growth in number of customer and more importantly bank's financial performance. Hallowell (1996) concludes from his empirical study that banks need to target customer segments which are more loyal and profitable to banks and make efforts for meeting their preferences and expectations. Only these customer segments may be the drivers for customer satisfaction and ultimately lead to profitability. Krishnan et al. 1999 conduct study on drivers of customer satisfaction for financial services and found few factors like product offering, quality of customer service provided through automated telephone and branch services and quality of financial reporting which perform a major role in



determining the overall satisfaction. It has also been found that the effect of these service delivery factors may vary significantly across the customer segments. Therefore, it is important for retaining profitable customers to continually assess customer segments and identify the drivers of satisfaction. In another study based on banking sector, Mihelis et al. 2001 argue that customer satisfaction is a 'dynamic parameter' for business firms and market changes can affect the expectation and preference of customers. Therefore, it is essential for business firms to install customer satisfaction barometer permanently. This customer satisfaction measurement system is beneficial for the organization in many ways such as it acts as an internal benchmarking system, works as motivation system for employees, and makes the marketing plans effective and so on.

Service loyalty is also an important non-financial performance measure which is one of the main determinants of market share and profitability (Lewis and Soureli, 2006). It has been argued by many researchers that customer loyalty and customer satisfaction are the key indicators of firm's long term financial performance (Kaplan and Norton, 1992; Jones and Sasser 1995; Reichheld, 2001, Heskett et al. 2003; Reichheld, 1993). Smith and Wright (2004) highlight that the customer loyalty plays a key role as non-financial performance measure of business firm's overall performance. Reichheld and Sasser (1990) state that customer loyalty is more influential driver than the market share. Service loyalty is a multifaceted construct, based on different variables therefore; vary among services according to the specific characteristics of particular service industry (Harrison, 2000; Lewis and Soureli, 2006). Lewis and Soureli (2006) examined the service loyalty in retail banking and found that the main antecedents of bank service loyalty are quality service, customer satisfaction, service attributes, image and trust and perceived value.

#### ***2.2.4 Human Resource Management Perspective of Performance Measures***

In general, human resource management is the only disciplines where HRM researchers and management accountants have not strongly focused on development of performance measures to assess the organizational performance. However, HRM concerns with various aspects of managing people have initiated the debate

in accounting about the development of performance measures in order to facilitate the human element of organization. These HRM concerns initiated number of innovations in performance measurement which include development of the Human Capital Index, multi-attribute utility analysis, 360 degree performance ratings, development of quantitative ways of assessing human resource outputs, accounting for human or intellectual assets, balance scorecard and intangible assets (Chenall and Smith, 2007). Human Capital Index was proposed by Watson Wyatt, a consulting firm that computes the correlation between HR practices and shareholder value. This measurement system is based on number of measures that quantify those HR practices and policies which has the highest association with the shareholder value (Wyatt, 2005). Multiple-attribute analysis is another technique that attempts to “build performance measures into assessing how the multiple facets of job performance combine to influence desired outcomes” (Chenall and Smith, 2007). These two techniques provide quantitative ways of assessing HRM and relating them to organizational outcome.

The recent developments indicate that there have been some innovative ways of measuring the workforce introduced that are intangible assets and intellectual capital (Stewart, 2001; Chenall and Smith, 2007). Marr and Adam (2004) described the intangible assets a strategic resource that incorporates human capital, relational capital and organizational or structural capital. Kaplan and Norton (2004) modified the learning and growth perspective of balance scorecard (BSC) due to the very pertinent role of intangible assets. In the latest approach to BSC, the learning and growth perspective include human capital, information and organization capital. Performance measurement systems that not only link different aspects of intellectual capital but also associate these aspects to financial performance are also proposed by the HR researchers (Stewart, 2001; Edvinsson; 1997). Skandia Navigator, a five dimensional performance measurement system can be an example of those systems (Edvinsson, 1997).

#### ***2.2.5 Environmental and Social Responsibility Measures***

Over the last few decades the business organizations have been expanding due to the globalization. This growth not only enhanced the power of business organization but also increased the impact they have on the society and ecological environment. Therefore, it

has become important for organizations to take into account the environmental and corporate social responsibility measures in decision making (Adam and Zutshi, 2004). It is evident from an international survey report that the majority of senior executives associate corporate social responsibility with increased profitability and long-term survival of the organization (Simms, 2002). Sara and Stanwick (1998) developed environmental disclosure index and empirically analyzed the relationship between corporate social responsiveness and organizational characteristics that are firm size, financial performance, capital expenditures and pollution emissions. The results indicate a positive relationship between corporate social responsiveness and financial performance of the firm.

The findings of field studies of performance measurement practices in Swedish banks show that the top management of the banks are also very concerned about the environmental issues. They have restricted the credit policy by incorporating the environmental risk evaluation in loan process. Some banks also signed environmental declaration with UN and agreed to disburse loans only for those projects which are environmental friendly (Hussain, 2005). The results of research study about performance measurement practices in Japanese banks indicate that the Japanese banks do not put much emphasis on environmental issues and well being of community (Hussain and Gunasekaran, 2002).

Although literature does not reveal any evidence about implementation of performance measurement systems especially in service sector of Pakistan. Therefore, this research study will contribute to the literature to greater extent.

### **3. Research Methodology**

The broad aim of this research study is to examine the performance measures (financial and non-financial) and the management accounting methods employed by the Pakistani commercial banks through interview based case studies. The performance measures are derived from the organization's strategies and mission (Kaplan and Norton, 1996). The organization's strategies and objectives are developed by the senior level managers in order to compete in today's complex environment by taking into account different factors such as expectation of shareholders, need of customers, resource implications and employee requirements (Fitzgerlad et al., 1991).

Therefore, our sample is based on senior managers of Islamic and conventional banks because they are the people who are involved in developing and implementing the strategies and objects. So, they have better understanding about performance measures and management accounting methods employed by the bank.

Semi-structured interviews have been selected for this research study due to many reasons. Firstly, it has a more flexible structure as compared to structured interviews and put more stress on “how the interviewee frame and understands issue and events” (Bryman, 2004). Secondly, it also provides the interviewee more freedom and control and enables the interviewee to fully express his / her perspectives (Mason, 2002). Thirdly, it helps the researcher in getting ‘a richer account of the interviewees experience, knowledge, ideas and impressions’ (Alvesson and Deetz, 2000). Finally, it is useful when the topic covered is ‘sensitive’ in nature (Gillham, 2000).

For the thorough understanding of management accounting systems and performance measures employed by the conventional and Islamic banking systems of Pakistani commercial banks and to answer the questions raised in this research study, we have conducted semi-structured interviews from the senior managers of Islamic and Conventional banks. The interviews were conducted at the senior managers’ offices, so that they feel more relaxed and comfortable to discuss the issues related to research topic. Additionally, we have also used secondary sources of information such as annual reports, bank manuals; brochure and other related publications for the comparison of the two banking systems.

The flexible structure and openness of semi-structured interviews made it possible for us to better understand and explain the viewpoints of the senior managers in terms of bank’s strategies and objectives and alignment of these strategies and objectives to the performance measures employed by the bank. This enabled us to explore the difference of management accounting systems and performance measures between two banking forms.

### ***3.1 Data Collection***

We have conducted four interviews from the senior managers of the five banks. Interview guide was used to answer our research questions. It contained the title of the research study, purpose of research study, research questions and breakup of our research questions. Before conducting the interviews, the researcher

scheduled time for interviews with the senior managers. The interview guides were provided to them a week earlier their interviews. There were few problems being faced by the researcher before conducting the interviews. Firstly, due to busy schedule of managers, all of them took considerable amount of time in giving appointment and even two of them reschedule their earlier appointments. Secondly, the researcher also took time to socialize with managers because it is part of Pakistani culture.

All the interviews were conducted in the offices of senior managers. Before starting the interviews, the researcher obtained informed consent from the every interviewee and asked them for permission to record the interviews. Due to ethical concerns, Bank C was not willing to participate in interviews. The bank requested for a formal letter from the researcher's supervisor in order to get permission from the head office for recording of interviews. However, it also granted permission for recording of interviews when provided the required letter. All the interviews were recorded on tape recorder.

### ***3.2 Data Analysis***

In data analysis phase, there are two sections. In first section, we interpret the interview transcripts of senior managers separately. In second section, we summarize the senior managers' comments and relate them to our research questions.

### ***3.3 Interpretation and analysis of Interview transcripts***

#### **Bank A**

Bank A commenced its operations and principally engaged in the business of banking on 1<sup>st</sup> April, 1992. This bank is listed on the Karachi, Lahore and Islamabad Stock Exchanges and has the highly rated shares in the banking sector of Pakistan. The bank's fast growing nationwide network consists of 149 branches, including 14 dedicated Islamic banking branches. The bank has an Off-Shore banking unit in Bahrain.

Bank A's Islamic banking branches are offering wide range of Shariah compliant products such as Ijarah (Leasing), Salam, Diminishing Musharakah and Murabaha. Bank A's standalone Islamic banking branches have 1.48 % share of deposits, 2.30 % share of financing, and 2.21 % share of assets in Islamic banking industry during the year 2007 (IBB, 2007).

The MAS of Bank A plays a fundamental role in strategic planning formation of business strategy, budgeting control, management

information system, tax management and financial and regulatory reporting as said by the Senior VP of Bank A. It provides support in enhancing economic value and realization of corporate objectives of the bank. The performance measurement of various business segments and products, formulation and implementation of effective cost control, timely finalization and dissemination of periodical financial statements are also supported by the MAS.

Ratio analysis technique is used to evaluate the financial performance of the bank. The key financial indicators include ROA, ROE and Earning per Share etc. The Senior VP of bank emphasized on the importance of non-financial indicators. He stated that non-financial indicators are essential for long-term success of any organization. These indicators are important for our bank because these are key components of our mission. Bank A is concentrating on service quality, customer satisfaction and social responsibility. As its social responsibility role, Bank A has sponsored fundraising programs for financial deprived patients and also organized festivals and musical events. For protection of environment, Bank A ran campaigns for planting of trees and also sponsored fundraising program with Islamabad Floral Art Society. However, customer satisfaction surveys, mystery shopping are the techniques used by the bank to measure service quality and customer satisfaction.

Furthermore, Bank A has implemented a new SMART performance management system in January, 2008. This system is based on well-defined goals and responsibilities and also aligns the bank's strategies and objectives with the individual employee's objectives.

### **Bank B**

Bank B is the first full-fledged Islamic commercial bank in banking history of Pakistan and has the highest share of deposits, financing and assets in Islamic banking industry i.e. 37.04 %, 32.36 % and 32.62 % respectively for the year 2007 (IBB, 2007). It is, therefore, considered to be the pioneer of Islamic banking in Pakistan. State Bank of Pakistan (SBP) which is the central bank issued license to Bank B on 31<sup>st</sup> January, 2002 and commenced its banking operations on 20<sup>th</sup> March, 2002. It has clearly positioned itself as the leading Islamic Bank in Pakistan by opening 100 branches in 31 cities till 2007. It is one of the Islamic banks which offer full range of Islamic products.

The Shariah Board monitors all transactions of the bank in terms of Shariah law. It also guides the bank in development of Shariah complaint products and conducts the internal audit of various branches of bank on random basis. The external audit of Islamic banks is carried out by the SBP. During auditing, the incomes of non-Shariah complaint transactions are transferred to charity fund account of the bank as per Shariah guidelines of SBP and AAOIFI. The amount of late payments of debts is also shifted into to charity account. The funds of this charity account is later disbursed to different welfare trusts and hospitals which provide free services to poor and deprived people of the society. The AVP also mentioned that Bank B has an outstanding default ratio (bad debts ratio) for its advances i.e. less than 1 %. The recovery of bank's all financing products is 99 % plus which is certainly an ideal situation for any bank.

The AVP and operation manager of the Bank B both stressed on the importance of MAS for the bank. "IslamicBanker" is the MAS of the Bank B which prepares information for efficient decision making about planning, directing and controlling of banking operations. Furthermore, Bank B evaluates the financial performance of the bank by using ratio analysis technique. The financial indicators used by the Islamic banks are same as used in conventional banking. These indicators include ROA, ROE, and Capital Adequacy Ratio etc. However, SBP is working on to develop Islamic financial accounting and auditing standards for the Islamic banks by taking into consideration AAOIFI's Shariah compliant accounting and auditing standards.

**Table-I**

Banks	Bank A		Bank B		Bank C		Bank D	
	FPM	NFPM	FPM	NFPM	FPM	NFPM	FPM	NFPM
Methods or Techniques in PM								
Ratio Analysis	✓	x	✓	x	✓	x	✓	x
ABC (Activity-Based Costing Mgt.)	x	x	x	x	x	x	x	x
Benchmarking	✓	x	x	x	✓	x	x	x
SMART Performance Pyramid	✓	x	x	x	x	x	x	x
Customer Satisfaction Surveys	x	✓	x	✓	x	✓	x	x
Transaction	x	x	x	✓	x	x	x	x

Turn around Time (TAT)								
Mystery Shopping	x	✓	x	✓	x	✓	x	x
Integrated Performance Measurement System	x	x	x	x	x	x	x	x
Balance Scorecard	x	x	x	x	x	x	x	x

FPM= Financial Performance Measures

NFPM=Non-Financial Performance Measures

The AVP of Bank B also added that today every bank is focusing on to provide full range of financial solutions to their clients. But for us, it is service quality which differentiates our bank from other banks. To provide a superior service quality to our customers is part of our service mission. Bank B organizes regularly 'service huddles' on monthly basis to discuss service issues. Mystery Shopping is also carried out to analyze employee performance and transaction turnaround time (TAT). Transaction turnaround time is provided by management to dispose off the client's cases with that given time period. Transaction turnaround time is monitored by a dedicated staff on daily basis through TAT Monitoring Sheet to ensure efficient service delivery to our clients. As part of its social responsibility, bank is already providing the amount of its charity account to different trusts and hospitals for welfare of society. Moreover, bank is planning to launch Qard-e-Hasanah in coming years. It is an unearned loan (interest free loan) provided by the bank, primarily for welfare of the society.

The AVP and operation manager of Bank B laid their emphasis on development of an integrated performance measurement system. They also mentioned that even though it is a complex system and requires a great deal of time and effort, but could be beneficial for the bank, if developed.

### **Bank C**

Bank C was established in 1962, and is part of Ibrahim Group, one of the largest industrial conglomerates in Pakistan with business in textile, trading, polyester, fibers, energy and financial services sectors. It operates under conventional form of banking and does not have any Islamic banking branch. Bank C is one of the largest banks in Pakistan with a network of 757 branches in over 300 cities and towns offering real-time online banking. In 2007, Bank



C was included in the top 1000 banks of the world by possessing 932<sup>nd</sup> position in the world.

According to the Regional Head of Bank C, it is imperative for the survival of every organization in today's highly competitive global environment to develop effective MAS in order to evaluate the performance of the organization. Bank C has developed MAS which is somewhat different from the methods provided in academic books. However, the key elements of MAS are considered in pricing of our loan products, deposit products, pricing of services and cost allocation. It also explains the profitability of our bank by providing information about breakeven point (BEP) of the bank. The senior executive of Bank C further added that the MAS is quite useful to drive the organization towards its strategies and objectives when it incorporates the non-financial performance measures. But Bank C is not using its MAS for measurement of its non-financial performance measures. It has designed a separate system for measurement of non-financial indicators.

Bank C is practicing ratio analysis technique to gauge the financial performance of the bank. The key financial indicators of the bank are ROA, ROCE, Capital Adequacy Ratio, Efficiency Ratio etc. The bank also uses benchmarking technique to compare the financial performance of the bank with the best practiced bank of the banking sector and take corrective actions in case of flaws. Moreover, the Bank C has launched a separate program i.e. "Service Management Program" (SMP) for measuring the non-financial performance measures. The key non-financial indicators for Bank C include service quality and customer satisfaction. Service Management Department operates the SMP and uses different tools such as customer satisfaction surveys and mystery shopping (See Table I). The SMP of Bank C also includes visits of Service Quality team to gather and compile data about each branch to perform gap analysis. The scores based on gap analysis are circulated to facilitate branches to improve their service standards. The Bank C has isolated systems for measuring financial and non-financial indicators. The bank is facing problems in maintaining two systems because there is no coordination between the controlling departments of these systems, as said by the senior executive of the bank. It would be more effective for the bank to

implement an integrated performance measurement system for measuring financial and non-financial indicators.

#### **Bank D**

Under the new Islamic banking policy of 2003, Bank D is the first bank to receive the Islamic banking license on March 18, 2007. Bank D has a network of 36 branches in 23 across cities of Pakistan. Bank D's share of deposits in Islamic banking industry is 6.74% while its share of assets in Islamic banking industry is 7.02%. It has 3.71% share of financing in Islamic banking industry (IBB, 2007).

The key financial indicators used by the bank to evaluate the financial performance of bank are EPS, Capital Adequacy Ratio, Breakup Value etc. Bank D is not paying any particular attention to non-financial indicators, therefore, has not established any proper system for measuring them. It follows the Shariah guidelines of SBP and AAOIFI and operates "IslamicBanker" as MAS to generate useful information for managers to assist them in planning, decision making and controlling.

According to the senior managers of banks, there is no difference between the management accounting methods and performance measures of Islamic and conventional banking. However, the two banking systems are different in terms of mechanism of operations.

#### **4. Summary and Conclusion**

The broad aim of this research study was to examine the management accounting methods employed by the two banking systems in a Pakistani context. The researcher also intended to explain financial and non-financial measures used by conventional and Islamic banks. Moreover, the research examined the similarities and differences, if any, in the performance measures of the two banking systems.

This study found that the senior managers of all four banks believed that MAS plays a very essential role in the evaluation of the financial performance of the two banking systems. It provides proactive support to business goals by imparting information for efficient decision making (See Table II). Banks' management further added that MAS used by Islamic banks are modified forms of the management accounting methods employed by conventional banks. There is no separate MAS developed for Islamic banks yet. However, the central bank (SBP) is working on to develop a separate system for Islamic banks which can meet its requirements.

**Table-II**

Questions	Bank A		Bank B	Bank C	Bank D
	Conventional Branches	Standalone Islamic Banking Branches	Full-fledged Islamic Bank	Conventional Bank	Full-fledged Islamic Bank
Importance of MAS in measuring performance of banks	Plays a pivotal role in strategic planning formation		Vita for providing information to managers for decision making	Important to grade performance of bank	Important for bank
Which MAS systems are used by the banks	Not answered		IslamicBanker (Not mentioned exact name)	No Satisfactory answer given	IslamicBanker (Not mentioned exact name)
Is there any difference in MAS of two banking systems	Same MA methods are used for both forms of banking		Similar to conventional banks	Same methods are used	Similar to conventional banks
Key financial performance measures used by the two banking systems	ROA, ROE, EPS etc		ROA, ROE, CAR etc	ROA, ROE, Gross spread ratio etc	EPS, CAR, Breakup value etc
Importance of non-financial performance measures (NFPM)	NFPM as part of our mission		Important in achieving our objectives and strategies	NFPMs have become significant from last few years	Not measured
Methods used to measure non-financial performance measures of two banking systems	Customer survey and Mystery shopping are used for both banking systems		Customer survey, Mystery shopping, TAT checklists	Customer survey, Mystery shopping, phone calls from service quality team	
Problems faced in measuring any of performance measures	No problems in measurement of any performance measures		No problems faced in measurement of PMs.	Faces problems in NFPM	No Problems
Is bank satisfied from current methods?	Contented but every system has margin for improvement		Satisfied but always seeking for the best method	Satisfied with current methods	Looking for the best methods
What bank think about an integrated performance measurement system	Useful but time consuming		Is fruitful but complex and time consuming	Good for coordination among departments	Very important

The SBP already developed Shariah and accounting standards for Islamic banks with collaboration with AAOIFI. Moreover, when the managers were asked about explanation of MAS employed by their banks and the strengths and weaknesses of these systems, they did not share information about that. However, the senior manager of Bank B and Bank D provided us with a brief description of “IslamicBanker”, which is the software being used by these two Islamic banks. This system records the accounting entries of all transactions, compiles information about other banking operations and generates reports for managers.

We have found that the both forms of Pakistani banks are still relying on traditional ratio analysis technique for the measurement of financial performance and the key financial indicators used by the Pakistani banks are ROE, ROA, ROCE, and EPS (See Table-II). Although, according to Karr (2005), these measures are based on historical data and did not provide comprehensive information about bank’s performance but the banks’ management found to be satisfied with these traditional financial measures. They were also unaware of the more innovative measures such as RAROC, RORAC and RARORAC; which, according to Kimball (1998), provides trade-off between return, risk and growth and enhance the transparency, increase the efficiency of capital allocation and overall performance of the bank.

Benchmarking technique is only used by the two banks (Bank A and Bank C) for comparing their financial performance with the best practiced bank in the banking sector.

Furthermore, when the bank managers were asked about the importance of non-financial measures, all of them acknowledged the importance of non-financial indicators towards achieving organization’s objectives and strategies (See Table II). We found that all banks are engaged in practice of measuring non-financial measures except Bank D. Bank D’s complete emphasis was on financial indicators despite of the fact that the bank’s management acknowledges the importance of non-financial measures.

Service quality, customer satisfaction and corporate social responsibility are the key non-financial measures for the remaining three banks. The methods used for measurement of non-financial indicators are the same in Islamic and conventional forms of banking. These methods include customer survey, mystery shopping and TAT checklist (See Table I and Table II).

Our research study has also found that measurement of non-financial measures is not a regular practice in Bank A and Bank C, even though their managers emphasized on the importance of non-financial measures. However Bank B which is an “Islamic bank” found to be more dedicated and persistent towards non-financial performance measures. They were found to be giving same degree of importance to both performance measures i.e. financial and non-financial (See Table II).

The management of all banks found to be satisfied with the current methods of performance measurement. However, they believed that the development of an integrated performance measurement system will have positive effects on the overall performance of the bank, even though, it is a more complex system and takes great deal of time and effort in development and implementation.

Finally, the financial and non-financial measures of the two banking systems were found to be similar; we did not find any difference based on the evidence provided by the bank managers.

### **5. Implications for Future Research**

It would be worth considering if this research study is conducted on cross-country level including the countries which have well developed Islamic banking system such as Bahrain, Malaysia, Saudi Arabia and so on. This will be helpful in broadening the understanding of researcher about the management accounting methods and financial measures used by Islamic and conventional banks in different countries.

Moreover, in current research study, we had only interviewed the senior managers from Pakistani Islamic and conventional banks and we found that senior managers did not have comprehensive knowledge about the management accounting methods and also about the accounting and Shariah standards utilized by their banks. It is, therefore, proposed that Divisional Heads (DA) of Treasury or Finance divisions of banks and the religious scholars of Shariah Committee should have also been interviewed. Because DAs of Treasury or Finance division are more well-informed about management accounting methods and financial measures used in conventional banking while religious scholars have comprehensive knowledge about pure Islamic banking. Indeed their comments and insights may have provided useful information.

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## REFERENCES & NOTES

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<sup>1</sup> EVA = Economic value added; CFIO= Cash flow returns on investment; TBR= Total Business returns; SHV= Shareholder value added

<sup>2</sup> ROC= Return on capital; RORAC= Return on risk adjusted capital; RAROC= Risk adjusted return on capital; RARORAC= Risk adjusted return on risk adjusted capital.

*Accounting and Auditing Organization of Islamic Financial Institutions (AAOIFI)*. (2006). [online]. [Accessed 23<sup>th</sup> August, 2008]. Available from World Wide Web: < <http://www.aoifi.com/overview.html>>

Adams, C. and Zutshi, A. (2004) 'Corporate social responsibility: Why business should act responsibly and be accountable', *Australian Accounting Review*, 14(3): 31–39.

Ahmed, E. W. M. (2007) 'A unified voice: The role of Shariah Advisory Board in Islamic Finance', *Business Islamica (Dubai, UAE)*, (Oct).

*AIMS (UK)*. (2005). [online]. [Accessed 15<sup>th</sup> August, 2008]. Available from World Wide Web:<[http://learnislamicfinance.com/Free-Study-Notes/Difference\\_between\\_Islamic\\_and\\_Conventional\\_Banking.pdf](http://learnislamicfinance.com/Free-Study-Notes/Difference_between_Islamic_and_Conventional_Banking.pdf)>

Allied Bank. (Unpublished, 2007). *Annual Report for the year ended December 31, 2007*. Report dated December 2007.

Alvesson, M. and Deetz, S (2000) *Doing Critical Management Research*. London: Sage Publications Ltd.

Arif, M. (1988) 'Islamic Banking', *Asian-Pacific Economic Literature*, 2 (2, September): 48-64.

Arkoush, M.N. (2008) 'Exploring the mediation effect of service quality implementation on the relationship between service quality and performance in the banking industry in Jordan', *Global Business and Economic Review (GBER)*, 10 (1): 98-122.

Askaribank. (Unpublished, 2007). *Annual Report for the year ended December 31, 2007*. Report dated December 2007

Athanassopoulos, A. D. (1995) 'Developing performance improvement decision aid systems in retailing organisations using data envelopment analysis', *Journal of Productivity Analysis*, 6 (2): 153-170.

Athanassopoulos, A.D. (1997) 'Service quality and operating efficiency synergies for management control in the provision of financial services: Evidence from Greek bank branches', *European Journal of Operational Research*, 98: 300-313.

Athanassopoulos, A. D., and Giokas. D. (2000) 'The use of DEA in banking institutions: evidence from the commercial bank of Greece', *Interface*, 30 (2): 81-95.

Avkiran, N.K. (1994) 'Developing an instrument to measure customer service quality in branch banking', *International Journal of Banks Marketing*, 12 (6): 10-18.

Bacidore, J.M., Boquist, J.A, Milbourn,T.T. and Thakor,A.V. (1997) 'The search for the best financial performance measure', *Financial Analysts Journal*, 53 (May/June): 11-20.

- BankIslami. (Unpublished, 2007). 4<sup>th</sup> *Annual Report December 2007*. Report dated December 2007
- Barr, R.D., Seiford, L.M. and Siems, T.F. (1994), 'Forecasting bank failure: a non-parametric frontier estimation approach', *Research Economics*, 60 (4): 417-29.
- Behn, B.K. and Riley, R.A. (1999) 'Using non-financial information to predict financial performance: the case of the US airline industry', *Journal of Accounting, Auditing and Finance*, 14 (1): 29-56.
- Berger, A.N. and Humphrey, D.B. (1997) 'Efficiency of Financial Institutions: International survey and directions for future research', *European Journal of Operational Research*, 98: 175-212.
- Biddle, G.C., Bowen, R.M., and Wallace, J.S. (1997) 'Does EVA beat earnings? Evidence on the association with stock returns and firm values', *Journal of Accounting and Economics*, 24(3): 301-336.
- Bryman, A. (2004). *Social Research Methods*. New York: Oxford University Press.
- Charnes, A., Cooper, W.W., Huang, Z.M. and Sun.D.B. (1990) 'Polyhedral con-ratio DEA models with an illustrative application to large commercial banks', *Journal of Econometrics*, 46: 73-91.
- Chase, R. B. (1981) 'The Customer Contact Approach to Services: Theoretical Bases and Practical Ex tensions', *Operations Research*, 29: 698- 706.
- Chase, R.B. and Tansik. D. A. (1983) 'The Customer Contact Approach to Organization Design', *Management Science*. 29: 1037- 50.
- Chenall, R.H. and Smith, K.L. (2007) 'Multiple perspectives of performance measures', *European Management Journal*. 25 (4): 266-282.
- Chen, S. and Dodd, J.L. (1997) 'Economic Value Added: An empirical examination of a new performance metric', *Journal of Managerial Issues*, 9 (3, Fall): 318-333.
- Clinton, B.G. and Chen, S. (1998) 'Do new performance measures measure up?', *Management Accounting*, 80 (4, Oct): 38-43.
- Cook, W.D. and Hababou, M. (2001) 'Sales performance measurement in bank branches', *International Journal of Management Sciences*, 29: 299-307.
- Cronin, J. Jr and Taylor, S.A. (1992) 'Measuring service quality: a reexamination and extension', *Journal of Marketing*, 56 (3): 55-68.
- Damodaran, A. (1998) 'Value Creation and Enhancement Back to the Future', *Contemporary Finance Digest*, 2 (4, Winter): 1-51.
- Debasish, S.S. (2006) 'Efficiency performance in Indian banking-Use of Data Envelopment Analysis', *Global Business Review*, 7(2): 326-333.
- Dodd, J.L. and Jason, J. (1999) 'EVA Reconsidered', *Business and Economic Review*, (April-June).
- Easterby-Smith, M; Thorpe, R and Lowe, A. (2002) *Management Research: An Introduction*. London: Sage Publications Ltd.
- Eccles, R.G. (1991) 'The performance measurement manifesto', *Harvard Business Review*, (January-February): 131-137.
- Edvinsson, L. (1997) 'Developing intellectual capital at skandia', *Long Range Planning*, 30(3): 320-331.

- Elgari, M. A. (2007). *Muhammad Ali Elgari*. [online]. [Accessed 13<sup>th</sup> August, 2008]. Available from World Wide Web: <http://www.elgari.com/articalse18.htm>
- Fiordelisi, F. (2002) 'Shareholder value and the clash in performance measurement: are banks special?' [online]. [Accessed 28<sup>th</sup> April, 2002]. Available from Worldwide Web: [http://www.economia.uniroma2.it/ceis/conferenze\\_convegna/banking2002/papers/6dic](http://www.economia.uniroma2.it/ceis/conferenze_convegna/banking2002/papers/6dic)
- Fitzgerald, L., Jonston, R., Brignall, S., Silvestro, R. and Voss, C. (1991) *Performance Measurement in Service Businesses*. London: CIMA.
- Frei, X.F. and Harker. P.T. (1999) 'Measuring the efficiency of Service delivery processes: An application to Retail Banking', *Journal of Service Research*, 1 (4): 300-312.
- Frei, X.F., Kalakota. R., Leone. A.J. and Marx, L.M. (1999) 'Process variation as a determinant of Bank performance: Evidence from the retail banking study', *Management Science*, 45 (9): 1210-1220.
- Gillham, B. (2000). *The Research interview*. London: Continuum.
- Golany, B. and Storbeck, J.E. (1999) 'A Data Envelopment Analysis of the operational efficiency of bank branches', *Interfaces*, 29 (3, May/June): 14-26.
- Hallowell, R. (1996) 'The relationship of customer satisfaction, customer loyalty and profitability: an empirical study', *International Journal of Service Industry Management*, 7 (4): 27-42.
- Heskett, J. L., Jones, T.O., Loveman, G.W., Sasser, Jr., W.E. and Schlesinger, L.A. (1994) 'Putting the service-profit chain to work', *Harvard Business Review*, (March/April): 164-174.
- Heskett, J.L., Jones, T.O., Loveman, G.W., Sasser, Jr., W.E. and Schiesinger.L.A. (2003) *The Value Profit Chain*. New York, NY: The Free Press.
- Howell, R.A. and Soucy, S.R. (1987) 'Management reporting in the new manufacturing environment', *Management Accounting (US)*, (February): 22-29.
- Hussain, M.M. (2005) 'Management accounting performance measurement systems in Swedish banks', *European Business Review*, 17 (6): 566-589.
- Hussain, M.M. and Gunasekaran, A. (2002) 'Management accounting and performance measures in Japanese banks', *Managing Service Quality*, 12 (4): 232-245.
- Hussain, M.M., Gunasekaran, A. and Islam, M.M. (2002) 'Implications of non-financial performance measures in Finnish banks', *Managerial Auditing Journal*, 17 (8): 452-463.
- Islamic Financial Services Board (IFSB)*. (2008). [online]. [Accessed 25<sup>th</sup> August 2008]. Available from World Wide Web: <<http://www.ifsb.org/background.php>>
- Iqbal, Z. and Mirakhor, A. (1987) *Islamic Banking*. Washington: IMF.
- Institute of Islamic Banking and Insurance*. (2008). [Online]. [Accessed on 5<sup>th</sup> July 2008]. Available from World Wide Web: [http://www.islamic-banking.com/aom/ibanking/sh\\_siddiqui.php](http://www.islamic-banking.com/aom/ibanking/sh_siddiqui.php)



- Institute of Islamic Banking and Insurance*. (2008). [Online]. [Accessed on 5<sup>th</sup> July 2008]. Available from World Wide Web: < [http://www.islamic-banking.com/aom/ibanking/ia\\_khan.php](http://www.islamic-banking.com/aom/ibanking/ia_khan.php)>
- Islamic Banking Bulletin*. (2007). [online]. [Accessed 11<sup>th</sup> August 2008]. Available from World Wide Web: <http://www.sbp.org.pk/ibd/Bulletin/2007/Sept-Dec-Bulletin.pdf>
- Ittner, G.C. and Larcker, D.F. (1998a) 'Are nonfinancial measures leading indicators of financial performance? An analysis of customer satisfaction', *Journal of Management Accounting Research*, (36): 1-36.
- Ittner, G.C. and Larcker, D.F. (1998b) 'Innovations in Performance Measurement: Trends and Research Implications', *Journal of Management Accounting Research* (10): 205-239.
- Johnson, H.T. and Kaplan, R.S. (1987) *Relevance Cost: The Rise and Fall of Management Accounting*. Boston: Harvard Business School Press.
- Jones, T. O., and Sasser, Jr., W.K. (1995) 'Why satisfied customers defect' *Harvard Business Review*, (November/December): 88-99.
- Kaplan, R. S. and Norton, D.P. (1992) 'The Balanced Scorecard—Measures that drive performance', *Harvard Business Review*, (January-February): 71-79.
- Kaplan, R.S. and Norton, D.P. (1993) 'Putting the balance scorecard to work', *Harvard Business Review*, (September-October): 134-142.
- Kaplan, R.S. and Norton, D.P. (1996) *The Balance Scorecard*. Boston: Harvard Business School Press.
- Kaplan, R.S. and Norton, D.P. (2004) *Strategy Maps-Converting Intangible Assets into Tangible Outcomes*. Boston: Harvard Business School Press.
- Karr, J. (2005) 'Performance Measurement in Banking: Beyond ROE', *Journal of Performance Management*, 18 (2, July): 56-70.
- Khan, B.A. and Prodhan, B. (1992) 'Islamic Banking: A survey', *Management Research Papers*, 6: 1-34.
- Kramer, J.K. and Pushner, G. (1998) 'An empirical analysis of Economic Value Added as a proxy for Market Value Added', *Financial Practice and Education*, 7 (1, Spring/Summer): 41-49.
- Kimball, R.C. (1998) 'Economic Profit and Performance Measurement in Banking', *New England Economic Review*. (June/August): 36-53.
- Krishnan, M.S., Ramaswamy, V., Meyer, M.C. and Damien, P. (1999) 'Customer Satisfaction for Financial Services: The role of products, services and information technology', *Management Science*, 45 (9): 1194-1209.
- Lewis, B.R. and Soureli, M. (2006) 'The antecedents of consumer loyalty in retail banking', *Journal of Consumer Behavior*, 5: 15-31.
- Levesque, T. and McDougall (1996) 'Determinants of customer satisfaction in retail banking', *International Journal of Bank Marketing*, 14 (7): 12-20.
- Lynch, R.L. and Cross, R.F. (1991) *Measuring up: the essential guide to measuring business performance*. London: Mandarin.
- Marr, B. and Adams, C. (2004) 'The balanced scorecard and intangible assets: Similar ideas, unaligned concepts', *Measuring Business Excellence*, 8(3): 18-27.
- Mason, J. (2002) *Qualitative Researching*. London: Sage Publications.

- McNab, D.B. (2007) 'Core Deposit Retention: Transparency and Accountability via Flow of Funds', *Journal of Performance Management*, 20 (2, July): 3-8.
- McNair, C.J., Mosconi, W. and Norris, T.F. (1990) 'Do financial and non-financial performance measures have to agree?' *Management Accounting* (US), (November): 28-31, 34-36.
- Meezan Bank. (Unpublished, 2007). *Annual Report, 2007*. Report dated December 2007
- Mihelis, G., Grigoroudis, E., Siskos, Y., Politis, Y. and Malandrakis, Y. (2001) 'Customer Satisfaction Measurement in the Private Bank Sector', *European Journal of Operational Research*, 130 (2): 347-360.
- Myers, R. (1996) 'The metric wars. CFO', *The Magazine for Chief Financial Officers*, 12 (Oct): 41-50.
- Neely, A. (1999) 'The performance measurement revolution: why now and what next?', *International Journal of Operations and Production Management*, 19: 205-228.
- Patti, E. B. D. and Hardy, D. C. (2005) 'Financial sector liberalization, bank privatization and efficiency: Evidence from Pakistan', *Journal of Banking and Finance*, 29 (8-9/Aug-Sept.): 2381-2406.
- Pleogmakers, H and Schweitzer, M. (2000) 'Risk adjusted performance measurement and capital allocation for trading desks within banks', *Managerial Finance*, 26 (3): 39-50.
- Pomeranz, F. (1997) 'Accounting and Auditing Organization for Islamic Financial Institutions: An important regulatory debut', *Journal of International Accounting, Auditing and Taxation*, 6 (1): 123-130.
- Portela, M.A.S. and Thanassoulis, E. (2007) 'Comparative efficiency analysis of Portuguese bank branches', *European Journal of Operational Research*, 177 (2): 1275-1288.
- Pun, K.F. and White, A.S. (2005) 'A performance measurement paradigm for integrating strategy formulation: A review of systems and frameworks', *International Journal of Management Reviews*, 7 (1): 49-71.
- Rahman, U, H, Z, H, A. (2007). *Ust Hj Zaharuddin Hj Abd Rahman*. [online]. [Accessed 25<sup>th</sup> August, 2008]. Available from World Wide Web: <[http://www.zaharuddin.net/index.php?option=com\\_content&task=view&id=297&Itemid=72](http://www.zaharuddin.net/index.php?option=com_content&task=view&id=297&Itemid=72)>
- Reichheld, F. F. (1993) 'Loyalty-based management', *Harvard Business Review*, (March-April): 64-73.
- Reichheld, F.F. (2001) 'Lead for loyalty', *Harvard Business Review*, (July-August): 76-85.
- Reichheld, F.F. and Sasser Jr., W. E. (1990) 'Zero defections: Quality comes to service', *Harvard Business Review*, 68 (5): 105-111.
- Ridgway, V.F. (1956) 'Dysfunctional consequences of performance measurement', *Administrative Science Quarterly*, (September): 240-247.
- Ritchie, J. and Lewis, J. (2003) *Qualitative Research Practice*. London: Sage Publication Ltd.

- Roth, A. V. and Jackson, W.E. (1995) 'Strategic Determinants of Service Quality and Performance: Evidence from the Banking Industry', *Management Science*, 41: 1720- 33.
- Roth, A.V. and Velde, M.V.D. (1991) 'Operations as Marketing: A Competitive Service Strategy', *Journal of Operations Management*, 10: 303- 28.
- Rust, R.T., Zahorik, A.J. and Keiningham, T.L. (1995) 'Return on Quality (ROQ): Making Service Quality Financially Accountable', *Journal of Marketing*, 59 (2): 58-70.
- Sara, D. and Stanwick, P.A.S. (1998) 'Corporate social responsiveness: An empirical examination using the environmental disclosure index'. *International Journal of Commerce and Management*, 8 (3/4): 26-40.
- Schaffnit, C., D. Rosen, and J. C. Paradi. (1997) 'Best Practice Analysis of Bank Branches: an Application of Data Envelopment Analysis in a Large Canadian Bank', *European Journal of Operational Research*, 98(2).
- Seiford, L.M. and Zhu, J. (1999) 'Profitability and Marketability of the top 55 U.S. commercial Banks', *Management Science*, 45 (9, Sep): 1270-1288.
- Sellenheim, M.R. (1991) 'J.I. Case Company: performance measurement', *Management Accounting (US)*, (September): 50-53.
- Sherman, H.D. and Gold, F. (1985) 'Bank branch operating efficiency: Evaluation with Data Envelopment Analysis', *Journal of Banking and Finance*, 9 (2): 297-315.
- Sherman, H.D. and Ladino, G. (1995) 'Managing Bank Productivity Using Data Envelopment Analysis (DEA)', *Interfaces*, 25 (2, March-April): 60-73.
- Sherman, H.D. and Zhu, J. (2006) 'Benchmarking to Seek Lower-Cost High-Quality Service with Data Envelopment Analysis: Evidence from a U.S. bank application', *Annals of Operations Research*, 145 (1, July): 301-319.
- Shostack, G. L. (1987) 'Service Positioning through Structural Change', *Journal of Marketing*. 51: 34- 43.
- Simms, J. (2002) 'Business: Corporate social responsibility—you know it makes sense', *Accountancy*, 130(1311): 48–50.
- Sinclair, D. and Zairi, M. (2000) 'Performance measurement: a critical analysis of the literature with respect to total quality management', *International Journal of Management Reviews*, 2 (2): 145-168.
- Smith, R.E. and Wright, W.F. (2004) 'Determinants of customer loyalty and financial performance', *Journal of Management Accounting Research*, 16: 183-205.
- Soteriou, A.C. and Stavrinides, Y. (2000) 'An internal customer service quality data envelopment analysis model for bank branches', *International Journal of Bank Marketing*, 18 (5): 246-252.
- Soteriou, A.C. and Zenios, S.A. (1999) 'Operations, Quality and Profitability in the provision of banking service', *Management Science*. 45 (9, Sep): 1221-1238.
- Stewart, G., Bennett UI. (1991) *The Quest for Value*. New York: Harper Business.
- Stewart, T.A. (2001) *The Wealth of Knowledge-Intellectual Capital and the Twenty-First Century Organization*. London: Nicholas Brealey Publishing.

- Tarawneh, Medhat. (2006) 'A Comparison of Financial Performance in the Banking Sector: Some Evidence from Omani Commercial Banks', *International Research Journal of Finance and Economics*, (3): 102-112.
- Thanassoulis, E. (1999) 'Data Envelopment Analysis and its used in Banking', *Interfaces*, 29 (3, May-June): 1-13.
- Tsikriktsis, N. and Heineke, J. (2004) 'The Impact of Process Variation on Customer Dissatisfaction: Evidence from the US Domestic Airline Industry', *Decision Sciences*, 35 (1, Winter): 129-142.
- Usmani, M. I. (2002) *Meezan Bank's Guide to Islamic Banking*. Karachi: Darul Ishaat.
- Usmani, M. T. (2005) *Why Islam has Prohibited Interest and Islamic Alternatives for Financing*. Bolton: 1<sup>st</sup> Ethical.
- Usmani, M. T. (2007) *An Introduction to Islamic Finance*. Karachi: Maktaba Ma'Ariful Quran.
- Vassiloglou, M. and Giokas, D. (1990) 'A study of the relative efficiency of bank branches: An application of data envelopment analysis', *Journal of Operational Research Society*, 41 (7): 591-597.
- Vikas, K., Maddern, H., Muall. R.S. and Smart.P.A. (2007) 'Analyzing the role of BPM in driving customer satisfaction', [online]. [Accessed 9<sup>th</sup> Many, 2008]. Available from World Wide Web: <http://eric.exeter.ac.uk/exeter/handle/10036/13785>
- Waal, A.D. (2007) *Strategic Performance Management: A managerial and behavioral approach*. New York: Palgrave Macmillan.
- Watson Wyatt (2005) 'Research Human Capital Index' [online]. [Accessed 18<sup>th</sup> May, 2008]. Available from the World Wide Web: <<http://www.watsonwyatt.com/research/featured/hci.asp>>
- Weaver, S.C. (2001) 'Measuring Economic Value Added: A Survey of the Practices of EVA Proponents', *Journal of Applied Finance*, 11(1): 11-50.
- Zairi, M. (1994) *Measuring Performance for Business Results*. London: Chapman and Hall.