

# **EVALUATING THE PERFORMANCE MEASUREMENT SYSTEM (PMS) IN THE FINANCIAL SERVICE INDUSTRY IN A DEVELOPING COUNTRY: THE CASE OF BANGLADESH**

**MAA Mahbubul Islam**

**Noel Yahanpath**

Faculty of Business

Eastern Institute of Technology Napier, New Zealand

## **Abstract**

The aim of the paper is to investigate the application of financial and non-financial performance measures (value drivers) in the financial service industry in Bangladesh and their linkage to future financial outcomes and a firm's strategy. Data was obtained from 73 respondent firms and a descriptive analysis was used. We found that the financial service industry in Bangladesh is still very much reliant on financial performance measures rather than non-financial performance measures. However, the trend of using non-financial performance measures is increasing. We also found that there is a relationship between the use of non-financial performance measures and the resultant future financial outcomes. Moreover, a linkage was found between a firm's use of different performance measures and its strategy.

**Keywords:** Performance measurement system, Financial services industry in Bangladesh, Business strategy.

## **Introduction**

One of the main aims of management accounting is to provide strategic information to evaluate the performance of an organisation from various points of view. Hence, performance management is one of the vital tools of management accounting. In the competitive market place, managing a company's performance is crucial and is related to the company's future

strength and strategy. In their study, Kaplan and Norton (1992) stated that performance measurement is important for keeping a company on track towards achieving its objectives. To judge the performance, there should be some specific objectives against which achievement can be measured. However, the selection of appropriate objectives is an enormous task. According to Fitzgerald et al. (1991), there are no guidelines for selecting the most appropriate performance indicators and not all performance measures can be used for all purposes.

At the beginning of performance measurement system, only financial measures were used to evaluate performance. This is evident from a study by Bruns (1998) in which he mentioned that financial criterias have been predominantly used for the assessment of performance since the Middle Ages. However by the 1980s, the deficiencies of traditional performance measures caught the attention of academics and practitioners (Johnson & Kaplan, 1987). For example, traditional performance measures encourage 'short-termism' (Hayes & Abernathy, 1980), are internally focused with little or no regard to customers (Kaplan & Norton, 1992), and they focus on historical information concerning past actions while failing to pay attention to the future (Neely, 1999).

In response to the above shortcomings and criticisms, many academics, consultants and professionals are of the view that it is important to incorporate non-financial indicators in the performance-measurement system. This led to the development of the modern performance measurement and management system which integrates both financial (lag) and non-financial (leading) indicators. Some examples of this modern performance management system are the performance measurement matrix (Keegan et al., 1989), the performance pyramid (Lynch & Cross, 1991), the balanced scorecard (Kaplan & Norton, 1992), and the performance prism (Neely et al., 2001).

The use of these modern performance management systems in developed countries has been well documented. For example, 50% of organisations in North America and 40% in Europe had significantly changed their performance measurement systems by the end of the 1990s (Frigo & Krumwiede, 1999). A study by McCunn (1998) found that 30% of the top 1000 Australian organisations were adopting contemporary performance measurement systems. However, very little is known about this phenomenon

in developing countries, especially in non-manufacturing settings such as banks and other financial service sectors (Modell 1996, Evans et al., 1997), even though these service sectors are important contributors to the gross domestic product and employment rate in those countries (Fitzerald et al., 1991). Hence, the motivation of this paper is to explore the structure of the performance measurement system used by the financial service industry in Bangladesh, as a developing country.

The remainder of the paper is organised as follows: Section 2 reviews related literature and develops the hypotheses for this study. Section 3 describes the sample selection and measurement methods. The results and testing of the hypotheses of this study are presented in section 4. Section 5 and 6 present the conclusion, implications for the future and limitations of this study.

## **Literature Review and Development of Hypotheses**

The purpose of this section is to review the available studies that explore the performance management systems in different countries, the relationships between financial and non-financial performance measures, and a firm's strategy. Performance management is the current buzzword. It is an indispensable part of current cut-throat business competition and the organisational battle for leadership in the present fiercely competitive corporate, government and non-governmental sectors. Performance management is the process of managing effectively both individuals and teams in order to achieve the best organisational outcome ("Advance Performance Management", 2011, p.34). According to ACCA Factsheet of Performance Management (n.d), performance management can be traced back to the 1940s when it was developed by managers primarily to justify whether the appropriate salary was paid to an individual. Since then, performance management has achieved many miles tones; for example – traditional performance management to modern performance management, to advanced performance management, to strategic performance management.

In the current era of strategic performance management, most organisations use both financial and non-financial performance indicators to evaluate their performance. But different organizations place different weight on different

performance indicators, from very high weight on financial measures and very low weight on non-financial measures, to moderate weight on financial measures and non-financial measures.

In designing a performance measurement system, financial indicators still play the dominant role, which is well documented for both developed and developing countries. With regard to developed countries, a study of the UK manufacturing sector, conducted by CIMA (1993), found that financial performance was the most influential factor in decision-making. In the USA, 98% of companies use financial measures which is a far greater percentage than those using non-financial measures (Lingle&Schiemann, 1996). Another study conducted by Chenhall and Langfield-Smith (1998) on Australian manufacturing firms found that there is a high adoption rate of the use of financial measures (traditional management accounting practice) over non-financial measures.

With regards to developing countries, Salamehet al. (2009) conducted a study on 85 manufacturing firms in Jordan and found that financial performance measures had a higher average use (97.5%) than other non-financial measures. In Burkina Faso, only financial performance measures are widely known and there is a real need to make use of non-financial performance measures (Waal & Augustin, 2005). In Egypt, increasing attention is being given to combine financial and non-financial performance measures in manufacturing organisations, although most of them still rely largely on financial data (Aziz et al., 2005).

It could be argued, therefore, that financial measures are still fundamental to performance measurement in the financial service sector in Bangladesh. Thus this paper sets the following first hypothesis:

***H1:** Financial service organisations in Bangladesh tend to assign more importance to financial measures than to non-financial measures.*

### *Relationship Between Non-Financial Measures and Future Financial Outcomes*

The relationship between non-financial performance measures and future financial outcomes is well documented in developed countries. A joint study by Behn and Riley (1999) in the US Airline Industry was carried out to identify whether non-financial performance information could be used to evaluate and predict financial performance. They found that non-financial performance information was a useful predictor of revenue, expenses and operating income.

Previous literature also suggested that higher customer satisfaction means low marketing costs and higher customer loyalty which, in turn, lead to an improvement in future financial performance (Reichheld & Sasser, 1990). In another study, Ittner and Larcker (1998) found that improvement in some non-financial measures, such as customer satisfaction, innovation and quality, would affect future financial outcomes. Moreover, a study by Anderson et al. (1994) on Swedish organisations found that higher customer satisfaction leads to a higher return on investment. In another study of the US hospitality industry, Banker et al. (2000) found that the measure of customer satisfaction is a significant predictor of future profitability.

With regards to the financial service sector, this area remains largely unexplored especially in the context of developing countries. In a study by Salameh et al. (2009) on 85 manufacturing firms in Jordan, they found that 66% of firms perceived that there is a considerable-to-moderate relationship between non-financial performance measures and future financial performance.

The above studies show that non-financial performance measures can be indicators of future financial performance. Therefore, the second hypothesis of this study is:

*H2: Non-financial performance measures are linked to future financial performance.*

## ***Relationship Between Performance Measures and Business Strategy***

It is well documented in previous literature that a firm's business strategy and its performance measures are linked. Neely et al. (1997) suggested that performance measures should be derived from strategy.

With regard to developed countries, Abernethy and Lillis (1995) conducted a study of manufacturing firms in Australia and found that organisations which implemented manufacturing flexibility strategies used fewer efficiency-based performance measures. Another study by Kaplan and Norton (1996) stated that there was a cause-and-effect relationship among the three non-financial pillars (performance measures) and one financial pillar (performance measure) in the balanced scorecard, which ultimately contributed to the company's vision and strategies. In addition a study by Ittner and Larcker (1997) in the US revealed that regulatory and competitive strategies are positively associated with non-financial measures.

As stated earlier, with regards to the financial sectors especially in developing countries, this field is relatively unexplored. In a study by Salameh et al. (2009) on 85 manufacturing firms in Jordan, they found that around 84% of organisations perceived that performance measures and organisations' strategies were linked to each other from a considerable-to-moderate extent. Considering the above literature, we set the following third hypothesis:

*H3: An organisation's performance measures are linked to its business strategy.*

## **Research Methods and Survey Instrument**

### ***Procedure***

The research was carried out by way of questionnaire preceded by an introductory letter explaining the purposes and objectives of the entire project. The three hypotheses outlined in the previous section were tested using a sample of BD (Bangladeshi) financial services firms. The study was conducted on a single industry – 'financial services' since Ittner, Larcker

and Taylor (2003) explained, financial service firms are actively debating their choice of value drivers and performance measures. However, they also said that it might limit their ability to generalise the results, although they believe that a single industry analysis has substantially higher internal validity than a multi-industry analysis.

Most questions regarding the relative importance of measures were based on the five-point Likert-type scale. According to Hayes (1998), the minimum needed to effectively differentiate between respondents is a five-point scale. Therefore, all the constructs in the questionnaire adopted a five point Likert-type scale starting from 1 (not at all important/used), through 3 (moderately), up to 5 (extensively).

### *Population and Sample*

The 205 firms listed on the website of Bangladesh Bank (Central Bank of Bangladesh)<sup>4</sup> formed the initial sample base. Questionnaires were sent to all 205 firms, requesting their participation in this study. Of the 205 questionnaires sent out, a total of 78 questionnaires were returned during January 2012. Five of these were either completely unanswered or only partly answered. The remaining 73 responses were used in the data analysis for this study, making a usable response rate of 35.6%. The respondents represented a variety of financial service sectors, including regional banks (30.1%), non-bank financial firms (17.8%), insurance companies (23.3%), merchant banks (19.28%), asset management companies (8.2%), and credit rating companies (1.4%).

### *Value Drivers*

For this study, the same 10 value drivers used by Ittner et al. (2003) were used for consistency and better comparability. The 10 value-driver categories are:

1. Short-term financial performance – annual earnings, return on assets, cost reduction
2. Customer relations – market share, customer satisfaction, customer retention

---

4 <http://www.bangladesh-bank.org/fnansys/bankfi.php>

3. Employee relations – employee satisfaction, turnover, workforce capabilities
4. Supplier relations – on-time delivery, input into product/service design
5. Operational performance – productivity, safety, cycle time
6. Product and service quality–defect rates, quality awards
7. Alliances with other organisations – joint marketing or product design, joint ventures
8. Environmental performance – government citations, environmental compliance or certification
9. Product and service innovation – new products or service development success, development cycle time
10. Community – public image, community involvement.

### *Parameters*

For the purpose of this study, the eight different parameters used were drawn from the previous studies by Salameh et al. (2009) and Ittner et al. (2003). These are:

1. Importance of performance measure for “long-term success”
2. The number of “established goals” of performance measures
3. The use of performance measures to “identify the problems and improvement opportunities”
4. The use of performance measures in deciding “capital investment”
5. The use of performance measures in “evaluating managerial performance”



6. The use of performance measures in “external disclosure”
7. The “measurement quality” of performance measures
8. The importance of performance measures in designing a “financial reward system”.

### *Data Analysis*

The data from the survey was analysed using the Statistical Package for Social Sciences programme (SPSS for windows version 12). Descriptive statistics were used to analyse the data. The reliability of the data was also verified by using Cronbach’s Alpha. The Cronbach’s Alpha of ten value drivers for eight parameters is:

**Table 1: Cronbach’s Alpha of Corresponding Value Drivers**

<b>Value drivers</b>	<b>Cronbach’s Alpha</b>
Short-term financial result	0.808
Product and service quality	0.696
Customer relations	0.655
Product and service innovation	0.809
Operational performance	0.696
Employee relations	0.746
Alliance with other organisations	0.712
Supplier relations	0.772
Environmental performance	0.770
Community	0.754

As the value of Cronbach’s Alpha is high in all of the test items, it can be said that there is a high level of internal consistency of the scale used in this study. Therefore the result of the study is reliable.

## Results and Discussion

Respondents were asked about the importance of each value driver in relation to each parameter.

**Table 2: Mean Survey Responses on the Importance of Different Parameters on Each Value Driver**

	Long-term success (Mean)	Strategic goal (Mean)	Identify problems (Mean)	Capital investment (Mean)	Managerial performance (Mean)	External disclosure (Mean)	Measurement quality (Mean)	Financial reward (Mean)	Mean of Means
Short-term financial result	4.57	4.11	4.05	4.49	4.11	3.92	4.37	4.38	4.25
Product and service quality	4.08	3.73	3.82	3.51	3.62	3.62	3.62	3.41	3.68
Customer relations	4.41	3.75	3.64	3.99	3.86	2.85	3.51	3.25	3.66
Product and service innovation	4.19	3.92	3.36	3.74	3.36	3.41	3.49	3.38	3.61
Operational performance	4.00	3.67	3.62	3.52	3.51	3.03	3.52	3.90	3.60
Employee relations	3.84	3.12	2.89	3.45	3.37	2.74	2.77	2.78	3.12
Alliance with other organisations	3.47	3.03	2.85	2.88	2.62	2.66	2.90	2.77	2.90
Supplier relations	3.47	2.56	2.96	2.96	2.86	2.49	2.88	2.75	2.87
Environmental performance	3.53	2.60	2.45	2.84	2.74	2.69	2.66	2.52	2.75
Community	3.29	3.01	2.47	2.59	2.51	2.79	2.64	2.52	2.73

*H1: Financial Service Organisations in Bangladesh Tend to Use Financial Measures Rather than Non-Financial Measures More Frequently. To Test H1, the Financial and Non-Financial Performance Measures are Ranked According to the Mean of the Extent to which Respondents from the Financial Service Industry of Bangladesh Attributed Value to Each Value Driver*

### **Importance placed on long-term success**

The first column of Table 2 shows the mean value of each of the financial and non-financial performance categories, which indicate the importance of each value driver to the achievement of long-term organisational success. It can be seen that the financial value driver (i.e. annual earnings, Return on Asset (ROA), cost reduction) was ranked as the most important performance category with a mean value of 4.57 (out of possible maximum of 5).

However, some non-financial value drivers such as customer relations, product and service innovation, product and service quality and operational performance, have been selected as the most important non-financial measures with mean values greater than or equal to 4. This indicates that, although managers in the financial service industry in Bangladesh perceive financial measures to be the most important value drivers, non-financial value drivers, like the above four, are also considered to be very important for the sustainable long-term success of an organisation. In addition, employee relations, environmental performance, supplier relations, alliances with other organisations and community performance categories have significant importance with a mean value greater than 3.

### ***Setting strategic goals***

The second column of Table 2 indicates that managers in the financial service industry in BD consider the financial value driver to be the most important component when setting strategic goals. This is in line with the findings in 4.1.1 which shows that companies rely more heavily on financial measures than on the others to evaluate long-term success. However, product and service innovation, customer relations, product and service quality, and operational performance are the most important non-financial categories in setting the strategy, with mean values 3.92, 3.75, 3.73 and 3.67 respectively. Since environmental performance and supplier relations have mean values of less than 3, it appears that these two value drivers are considered to have the least impact on setting a strategic goal.

### ***Problem identification***

The third column mean value of 4.05 indicates that the financial value driver category is used most to identify problems and future improvement opportunities, and to develop action plans. In the non-financial performance categories, the results show that product and service quality, customer relations, operational performance, and product and service innovation are used significantly to identify problems and future improvement opportunities and to develop action plans. Supplier relations, employee relations and alliance with other organizations categories are also used to a moderate extent in problem identification. By contrast, community and environmental performance with the lowest mean values of 2.47 and 2.45 respectively, tend to be least used in problem identification and developing action plans.

### ***Capital investment decision***

The fourth column of Table 2 shows that financial performance (with a mean value 4.49) is the most important category for making decisions about capital investment. In non-financial performance categories, the results show that customer relations, product and service innovation, operational performance product and service quality, and employee relations (with mean values of 3.99, 3.74, 3.52, 3.51, and 3.45 respectively) are used significantly to make decisions about capital investment. On the other hand, supplier relations, alliance with other organisations, environmental performance and community value drivers (with means of greater than 2.5 but less than 3) are also used to a moderate extent in making capital investment decisions. These findings confirm that managers are still relying to some extent on non-financial value drivers to make capital investment decisions.

### ***Managerial performance evaluation***

The fifth column of Table 2 states that, when evaluating managerial performance, financial information is still the most widely-used performance category, with a mean value of 4.11. In addition, the respondents indicated that non-financial value drivers relating to customer relations, product and service quality, operational performance, employee relations and product and service innovation (each with a mean value of greater than 3) tend to be used to a significant extent to evaluate managerial performance. By contrast, supplier relations, environmental performance, alliance with other organisations and community performance categories (with mean values of less than 3) tend not to be significantly used for managerial performance evaluation.

### ***External disclosure***

The sixth column of Table 2 shows that the financial service industry in Bangladesh still makes financial disclosure of greatest importance in their corporate reporting as the financial value driver has the highest mean value of 3.92. Among non-financial performance categories, product and service quality, product and service innovation, and operational performance (with mean values of greater than or equal to 3) are used significantly to make external disclosure. By contrast, very little external disclosure is available for customer relations, community, employee relations, environmental performance, alliance with other organisations and supplier relations, all with a mean value of less than 3.

### **Measurement quality**

The seventh column of Table 2 shows that the financial service industry in Bangladesh assigns the measurement of financial performance greater priority than non-financial performance, since the financial value driver has the highest mean value (4.37). Among non-financial value drivers, product and service quality, operational performance, customer relations, and product and service innovation are believed to have relatively high quality measurement parameters, as the mean value is greater than 3. On the other hand, respondents indicated that the quality of information is not sufficient in respect of alliance with other organisations, supplier relations, employee relations, environmental performance and community performance categories, since the mean value of each of these is less than 3.

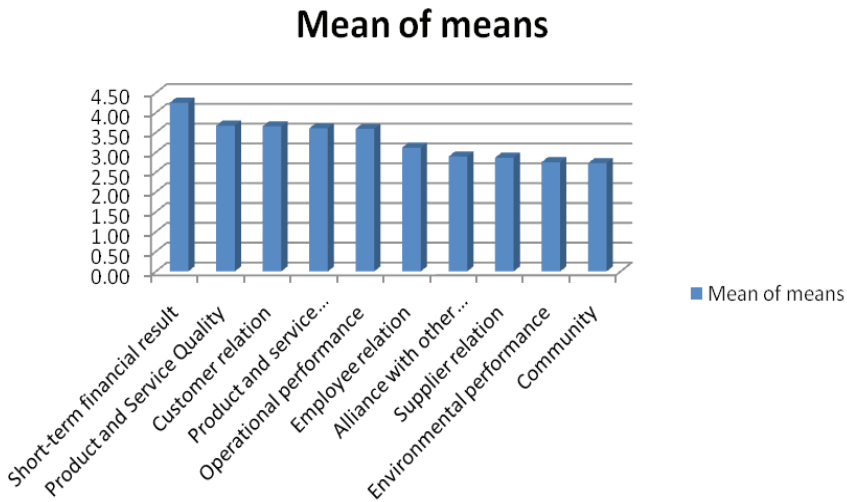
### **Financial reward system**

It can be noted from the eighth column of Table 2 that the financial performance category, with the highest mean value of 4.38, is the most important category used to reward managers. The results show that of the non-financial performance categories operational performance, with a mean value of 3.9, is the only value driver that is used significantly to reward managers, whereas product and service quality, product and service innovation and customer relations (with mean values of 3.41, 3.38 and 3.25 respectively) are used to a moderate extent. The results also show that employee relations, alliance with other organisations, supplier relations, environmental performance and community categories tend to be least linked to the financial rewards system in their companies, as the mean value of each of these is less than 3.

### **Overall performance measurement**

Performance measures used by the responding companies were calculated from the weighted average of the responses; i.e. the mean score for the use of each value driver was calculated from the weighted average of the responses for all uses (managerial performance evaluation, financial reward system and problem identification), long-term success, strategic goal setting, measurement quality, capital investment and external disclosure. A higher mean value for a specific value driver shows that companies use that value driver to a greater extent in designing their PMS, compared with a value driver with a lower mean score. According to Fakhri et al. (2009), if the level of overall mean value (mean of mean) is up to 3 (on a 5-point scale), the

industry concerned uses that value driver to a greater extent; however, if the overall mean value is less than 3, it uses that value driver to a lesser extent



**Figure 1: Column Chart of Mean of Means**

Table 2 and Figure 1 showed that the ‘financial performance’ value driver has the highest aggregate mean score (4.25) which indicates that the financial service industry in Bangladesh uses financial performance measurement as their main value driver. This value driver achieves the highest mean score in all eight areas of performance parameters. Hence, the first hypothesis H1 has been accepted.

This result is consistent with the findings of previous studies. A study in the Thai banking industry found that most companies concentrated on financial measures rather than non-financial measures (Tapanya, 2004); financial indicators are the determining factors in most decision-making in the UK manufacturing sector (CIMA, 1993); 98% of US organisations use financial measures rather than non-financial measures (Lingle & Schiemann, 1996); there is a higher adoption rate of financial measures over non-financial measures in Australia (Chenhall & Langfield-Smith, 1998); 99.8% of companies in the Jordanian manufacturing industry use financial measures to a greater extent (Zuriekat, Salameh, & Alrawashdeh, 2011); and a high reliance on financial measures is evident in the manufacturing industry in

Egypt (Aziz et al., 2005). All but one of these studies were conducted in the manufacturing industry the exception being the one conducted by Tapanya (2004) in the Thai banking industry. Our results on the financial service industry also suggest that financial performance measures are the dominant factors in evaluating organisational performance. Hence, it might be inferred that financial performance measures are still considered to be the major indicator of organisational success, irrespective of industry.

Our study also provides significant scope to compare findings of non-financial performance measures with previous studies. From Table 2 and Figure 1, it can be seen that product and service quality, customer relations, product and service innovation, and operational performance respectively are the most important non-financial indicators, achieving an aggregate mean value ranging from 3.60 to 3.68. This finding is consistent with previous studies. For example, a study conducted by Drury et al. (1993) in UK manufacturing organisations found that customer satisfaction and product quality were the most important non-financial performance indicators. In another study by Booth (1997) in EU and North American companies found that the most used non-financial performance drivers were quality, innovation, customers and employees. On the other hand, Drury et al. (1993) found that supplier relations was one of the most important non-financial indicators, which is contrary to our findings that supplier relations is the least important. This contradiction could be explained by the fact that supplier relations is very important for manufacturing organisations since their success depends on their suppliers' delivery time and the quality of supply, whereas suppliers play a less significant role in the financial service industry (as in our study). In addition, we found that employee relations is another important non-financial performance indicator, achieving an aggregate mean of 3.12, which is contrary to the earlier findings of Strivers et al. (1998) that, among 500 US and 300 Canadian organisations, innovation and employee relations were the least used non-financial indicators. But our finding is consistent with the findings of Booth (1997) where employee relations is one of the top four non-financial indicators. It implies that the financial service industry in Bangladesh values human resources to a great extent and is applying many modern human resources techniques in their organisations. Industry leaders realised that in order to be successful against global competition and to get the best results from their employees, an organisation needs to value employee relations more than ever before.

### *Non-Financial Performance Measures are Linked to Future Financial Performance*

The respondents were asked to indicate the extent to which non-financial performance measures are linked to future financial performance outcomes.

**Table 3: Response in Relation to Linkage Between Non-Financial Value Drivers and Future Financial Outcome**

	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative percent</b>
Not at all linked (score 1 - 2)	22	30.14%	30.14%
Linked to a moderate extent (scores of 3)	24	32.88%	63.02%
Linked to a considerable extent (scores of 4 - 5)	27	36.98%	100%
Total	73	100.00%	

From Table3, it can be seen that approximately 70% of managers in the financial service industry of Bangladesh affirmed that there is a considerable-to-moderate linkage between the non-financial performance measures and future financial outcomes. This implies that non-financial performance measures are very useful indicators of future financial performance. Hence, it supports our second hypothesis H2.

This finding is consistent with the previous studies by Behn and Riley (1999); Reichheld and Sasser (1990); Ittner and Larcker (1998); Anderson et al. (1994); Banker et al. (2000); and Salameh et al. (2009) who all found that certain non-financial performance measures like customer satisfaction, innovation and quality are closely linked to future financial performance and could be used as predictors of future financial outcomes. Almost all of these previous studies were conducted on manufacturing organisations, and our study on the financial service sector conveyed the same result. Hence, it can be inferred that non-financial performance measures are linked to future financial outcomes and can be used as predictors of future financial performance of organisations irrespective of industry.



### **Organisation's Performance Measures are Linked to Its Business Strategy**

The respondents were asked to indicate the extent to which performance measures are linked to their companies' strategies.

**Table 4: Response in Relation to Linkage Between Performance Measures and Strategies**

	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative percent</b>
Not at all linked (score 1 - 2)	3	4.11%	4.11%
Linked to a moderate extent (scores of 3)	28	38.36%	42.47%
Linked to a considerable extent (scores of 4 - 5)	42	57.53%	100%
Total	73	100.00%	

From Table 4, it can be seen that more than half (almost 58%) of the managers of companies confirmed that their value drivers are highly linked to their companies' strategies. Another 39% (approximately) of organisations perceived the link between their performance measures and strategies to be moderate. Hence, it can be argued that approximately 97% of organisations in the financial service sector in Bangladesh consider their performance measures and strategies to be linked to each other, from a considerable-to-moderate extent, a conclusion which supports our third hypothesis H3.

This finding is consistent with previous studies by Abernethy and Lillis (1995); Ittner and Larcker (1997); and Salameh et al. (2009) who found a close linkage between an organisation's selection of performance measures and its strategy. Moreover, a study by Rodney and Brian (2002) on Irish organisations confirmed that there is a very effective linkage between performance measures and business strategy. In addition, our study supports the assertions made by Kaplan and Norton (1996); and Booth (1997) that a performance measurement system should include both financial (lag) indicators and non-financial (leading) indicators which reflect an organisation's strategy.

## **Conclusion and Implication**

This study has been conducted to gain an in-depth understanding of the usage and implication of different performance measures in the financial service industry of Bangladesh. Although many literature suggested that firms should increase the implementation of non-financial measures in their performance measurement systems, the results of this research confirmed that financial measures are still dominant and are used more often than non-financial measures by managers in the financial service industry in Bangladesh.

The result shows that companies use financial performance measures as the most important value drivers with regards to the assessment of all performance parameters, a finding which confirms previous studies by Tapanya (2004), CIMA (1993), Lingle & Schiemann (1996), Chenhall & Langfield-Smith (1998), Zuriekat et al. (2011), and Aziz et al. (2005). Our result confirms that financial performance measures are predominantly used as value drivers in organisations in both developed and developing countries, irrespective of industry.

We also found that products and service quality, customer relations, products and service innovation, operational performance, and employee relations are the most important non-financial indicators, respectively, confirming previous studies by Drury et al. (1993) and Booth (1997). However, our study contradicted the findings of Drury et al. (1993) who found that supplier relations was one of the most important value drivers; this could be because of the difference in the relative bargaining power of suppliers to the manufacturing and service industries. Though consistent with the findings of Booth (1997), our study also contradicted the findings of Strivers et al. (1998) who found employee relations to be the least important value driver; this could be due to the recent focus by organisations worldwide to value their human resources more than ever before, to get the best outcome from them.

Furthermore, the results supported the fact that non-financial value drivers are linked to future financial performance, and that a firm's performance measures are linked to its strategy. However, these two results should be considered with caution because respondents were not asked how their

organisations actually link (i.e. negatively or positively) different value drivers to their companies' strategies and how they establish the connections between financial and non-financial value drivers.

The findings of this study carry a number of practical implications for research and practice in the financial service industry in Bangladesh. Firstly, non-financial performance measures such as customer relations, product and service quality, and product and service innovation are the most widely used drivers for performance measurement and evaluation purposes, along with operational performance and employee relations. It will help the firm's top management to design their performance management systems in the most effective way by considering the current trend. Secondly, in order to increase the satisfaction of different stakeholders, managers need to place more emphasis on the use of other non-financial value drivers which may ultimately lead to sustainable performance. Thirdly, managers need to analyse whether non-financial value drivers are causally linked to future financial performance and to what extent. By finding this relationship, managers can ultimately design their performance management systems more effectively. Finally, managers need to identify to what extent their performance measurement systems are related to their business strategy. By analyzing this chemistry, managers will gain a deeper insight into developing a unique strategy to achieve a competitive edge in this hyper-competitive global market.

### **Limitation of the Study and Future Research Scope**

As in any other studies of this type, the results of this study are subjected to a number of limitations. These are: potential response biases, model specification, and the difficulty of using a survey instrument to obtain factual, detailed information on exactly how firms measure performance. In addition, the result is from a sample of companies in the financial service industry in Bangladesh and should not be generalised to other industries. Further studies can be carried out to identify the exact causal relationship between non-financial value drivers and any future financial outcome. In addition, further investigation can be carried out on the extent the choice of a performance measurement system is related to the organisation's future strategy which will give it a competitive edge over others.

## Acknowledgement

This paper is under the Research Grant-2012 of Eastern Institute of Technology, New Zealand and special thanks are owed to the Head of Business School and EIT Research Grant Panel for providing the necessary financial support to carry out the research. We also gratefully acknowledge the helpful ideas, comments and feedback that we received from the participants at the 8<sup>th</sup> Asia Pacific Management Accounting Conference, China, November 2012, where an earlier draft of this article was presented. In addition, we would like to thank the reviewers of Asia Pacific Management Accounting Journal for their valuable feedback to further improve this paper.

## References

- Abernethy, M. & Lillis, A. (1995). The impact of manufacturing flexibility on management control system design. *Accounting, Organizations and Society*, 20 (4), 241-258.
- ACCA Factsheet of Performance Management. Retrieved from: [http://www2.accaglobal.com/documents/employers\\_perform\\_mgt.pdf](http://www2.accaglobal.com/documents/employers_perform_mgt.pdf).
- Advanced performance management* (2011). A text book for ACCA P5 professional exam. Berkshire: Emile Wolf Publishing Limited.
- Anderson, E.W., Fornell, C. & Lehmann, D.R. (1994). Customer satisfaction, market share, and profitability: Findings from Sweden. *Journal of Marketing*, 58 (3), 53-66.
- Aziz, A., Dixon, R. & Ragheb, M.A. (2005). The contemporary performance measurement techniques in Egypt: a contingency approach. *Paper presented at EDHEC conference, Nice, September*.
- Banker, R.D., Potter, G. & Srinivasan, D. (2000). An empirical investigation of an incentive plan that includes nonfinancial performance measures. *The Accounting Review*, 75 (1), 65-92.

- Behn, B.K., & Riley, R.A. (1999). Using non-financial information to predict financial performance: The case of the U.S. airline industry. *Journal of Accounting, Auditing and Finance*, 14 (1), 29-56.
- Booth, R. (1997). Performance management: Making it happen. *Management Accounting (UK)*, 75 (10), 28-30.
- Bruns, W. (1998). Profit as a performance measure: Powerful concept, insufficient measure. *Performance Measurement – Theory and Practice: the First International Conference on Performance Measurement, Cambridge, July, 14-17*.
- Chenhall, R., &Langfield-Smith, K. (1998). Adoption and benefits of management accounting practices: An Australian study. *Management Accounting Research*, 9 (1), 1-19.
- CIMA. (1993). Performance measurement in the manufacturing sector. *Chartered Institute of Management Accountants*, London.
- Drury, C., Braund, S., Osborne, P. & Tayles, M. (1993). A survey of management accounting practices in UK manufacturing companies. *ACCA Research Occasional Paper*, Association of Chartered Certified Accountants, UK.
- Evans, J.H., Hwang, Y. & Nagarajan, N.J. (1997). Cost reduction and process reengineering in hospitals. *Journal of Cost Management*, 11 (3), 20-27.
- Fakhri, G., Menacere, K., & Pegum, R. (2009). The impact of contingent factors on the use of performance measurement system in the banking industry: The case of Libya. *A paper presented at Salford Postgraduate Annual Research Conference, Salford*.
- Fitzgerald, L., Johnston, R., Brignall, S., Sliveston, R. & Voss, C. (1991). Performance measurement in service business. *The Chartered Institute of Management Accountants (CIMA)*, London.
- Frigo, M.L., & Krumwiede, K.R. (1999). Balanced scorecards: A rising trend in strategic performance measurement. *Journal of Strategic Performance Measurement*, 3(1), 42-44.

- Hayes, B. E. (1998). *Measuring customer satisfaction: Survey design, use, and statistical analysis methods* (Second ed.). Milwaukee, Wisconsin: ASQ Quality Press.
- Hayes, R.H. & Abernathy, W.J. (1980). Managing our way to economic decline. *Harvard Business Review*, July-August, 67-77.
- Ittner, C.D., & Larcker, D.F. (1997). Quality strategy, strategic control systems, and organizational performance. *Accounting, Organization and Society*, 22, 293-314.
- Ittner, C.D. & Larcker, D.F. (1998). Are non-financial measures leading indicators of financial performance? An analysis of customer satisfaction. *Journal of Accounting Research*, 36 (3), 1-35.
- Ittner, C.D. & Larcker, D.F. (2003). Coming up short on nonfinancial performance measurement. *Harvard Business Review*, 81(11), 88-95.
- Ittner, C.D., Larcker, D.F. & Taylor, R. (2003). Performance implications of strategic performance measurement in financial services firms. *Accounting, Organizations and Society*, 28 (7-8), 715-741.
- Johnson, H.T. & Kaplan, R.S. (1987). *Relevance lost: The rise and fall of management accounting*. Boston, MA: Harvard Business School Press.
- Kaplan, R.S. & Norton, D.P. (1992). The balanced scorecard measures that drive performance. *Harvard Business Review*, 70 (1), 71-79.
- Kaplan, R.S. & Norton, D.P. (1996). *The balanced scorecard: Translating strategy into action*. Boston, MA: Harvard Business School Press.
- Kaplan, R.S. & Norton, D.P. (2001). *The strategy focused organization: How the balanced scorecard companies thrive in the new business environment*. Boston, MA: Harvard Business School Press.
- Keating, S. (1995). *Accounting metrics for division manager performance evaluation*. Working paper: University of Rochester.

- Keegan, D.P., Eiler, R.G. & Jones, C.R. (1989). Are your performance measures obsolete? *Management Accounting (UK)*, 71, 45-50.
- Lingle, J. & Schiemann, W. (1996). From balanced scorecard to strategic gauges: Is measurement worth it. *Management Review*, 85 (3), 56-61.
- Lynch, R.L. & Cross, K.F. (1991). Measure up: The essential guide to measuring business performance. London: Mandarin – Blackwell.
- McCunn, P. (1998). The balanced scorecard: The eleventh commandment. *Management Accounting (UK)*, 76 (11), 34 -36.
- Model, S. (1996). Management accounting and control in services: Structural and behavioral perspectives. *International Journal of Service Industry Management*, 7 (2), 57-88.
- Neely, A.D. (1999). The performance measurement revolution: Why now and what next? *International Journal of Operations & Production Management*, 19 (2), 205-228.
- Neely, A.D., Adams, C. & Crowe, P. (2001). The performance prism in practice – Measuring business excellence. *Journal of Cost Management*, 5(2), 6 - 11.
- Neely, A.D., Richards, A.H., Mills, J.F., Platts, K.W. & Bourne, M.C.S. (1997). Designing performance measures: A structured approach. *International Journal of Operations & Production Management*, 17 (11), 1131-53.
- Reichheld, F. & Sasser Jr. W.E. (1990). Zero defections: Quality comes to services. *Harvard Business Review*, 68 (5), 56–69.
- Rodney, M. & Brian, B. (2002). Business performance measures and alignment impact on strategy: The role of business improvement models. *International Journal of Operations and Production Management*, 22(9), 972-996.

- Salameh, S., Serdaneh, A. & Zuriekat, M. (2009). Evaluating the consequences of performance measurements: Theoretical issues and descriptive analysis. *International Bulletin of Business Administration*, 4, 1-16.
- Stivers, B., Covin, T., Hall, N. & Smalt, S. (1998). How non-financial performance measures are used. *Management Accounting (USA)*, 79 (8), 44-49.
- Tapanya, S. (2004). Examining the factors which influence performance measurement and management in the Thai banking industry: An application of the balanced scorecard framework. *A Ph.D. thesis submitted to Murdoch University*.
- Waal, A.A. de & Augustin, B. (2005). Is the Balanced Scorecard Applicable in Burkina Faso's State-Owned Companies? *Paper presented at EDHEC conference, Nice, September*.
- Zuriekat, M., Salameh, R. & Alrawashdeh, S. (2011). Participation in performance measurement systems and level of satisfaction. *International Journal of Business and Social Science*, 2 (8), 1-11.