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CUSTOMER LIFETIME VALUE AS A MEASURE OF CUSTOMER PROFITABILITY: MANAGEMENT ACCOUNTING PERSPECTIVES

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Abstract: *Customers are the focal point of modern day business apparatuses and this has been evidenced in the business strategies for attracting and retaining customers. But, the question remains whether these activities are worthwhile for the business firms in terms of customer's value creation and the resultant contribution to profitability. In marketing research, it has been observed the ongoing discussion around Customer Lifetime Value (CLV) as an important indicator of identifying and measuring valuable customers–either at individual or business firm level. The study considers this notion of CLV has particular significance in management accounting. Thus the aim of this paper is to analyse some important models of CLV and explained its relevance in customer profitability measurements. The paper has two most important implications: one, it will inform the business executives about the CLV and help them in identifying the valuable customers by applying it in their internal decision makings; and second, it will expose to both accounting and marketing academics a new avenue for undertaking interdisciplinary managerial research.*

Keywords: *Customer Lifetime Value, Customer Profitability, Literature, Management Accounting.*

INTRODUCTION

In conventional understanding, management accounting is concerned with providing managers information for better planning, organizing, staffing, directing, motivating, leading and controlling. The objective of such management accounting is the effective and efficient utilization of resources. This view has long been embraced by the organizations and is compatible with the mass production environment– mass markets, mass consumption norms, social infrastructure and protected national markets (Wickramasinghe and Alawattage, 2007). With the strategic turn of business organizations, a transition from production concept to marketing concept has been taken place (Kotler, 2003).

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The attributes of such transition are manifold– increasing emphasis on strategic goals, such as vision, mission, corporate philosophies and corporate objectives; pluralistic way of communications as evident in the strategic importance of balancing the conflicting needs of different stakeholders, including ecological sustainability; shifting operation emphasis from comparative advantage to competitive advantage where marketing functions are prominent; replacing economies of scale by economies of scope; leading role of organizational learning, change and flexibility; and the integration of financial and non-financial performance measures (Wickramasinghe and Alawattage, 2007).

The orthodox view of management accounting has failed to capture this strategic turn of business environment and as a consequence we have seen the emergence of strategic management accounting which deals with more contemporary issues and highlights on strategic intents introduced by prolific marketing academics. Michael Porter is one of the most vociferous among them. His ideas on competitive advantage, competitive structure, generic strategies, competitive positioning and value chain are highly acclaimed among management accounting literatures, especially through the works of Harvard Business School professors. Some of the wonderful innovations to this end are Activity Based Costing/Management (ABC/ABM), Balanced Score Card (BSC), Value Chain Analysis (VCA) etc. The objective of introducing and implementing such tools and techniques is to place management accounting in the competitive strategy formulation for a firm. Increasingly, accounting academics started exploring the issues of customer relationship, satisfaction, value addition and their link with profitability. Johnson (1992) has explained this new role of (management) accounting–

“In a globally competitive organization, everyone understands that long-term profitability is achieved by improving customer satisfaction, not by trying to sell the largest possible quantities of what the accounting system says are the highest margin products. They understand both the quality imperatives of TQMand the operational imperatives of JIT. Information about customer satisfaction and about variation in processes can move companies continuously closer to achieving the imperatives of competitive excellence (p.xi).

Despite this change in management accounting ideas and practice, there is a little evidence of examining intriguing strategic concepts in accounting literature, particularly in Bangladesh. The existing Bangladesh literature is primarily concerned with the functional significance of various management accounting tools and techniques. Few papers have discussed the contemporary management accounting issues, for example balanced score card (Bhuiyan and Masum, 2010; Uddin and Rahman, 2010; Ahmed, 2014) and activity based cost management (Hasan and Akter, 2010; Rahman and Hosen, 2010; Ahmed, 2013). This paper aims to contribute in the strategic intent of management accounting by focusing on customer profitability. Drawing from literature, this paper particularly intends to highlight the CLV as a measure of customer profitability and its application in managerial decision making.

The paper is organised as follows: in the second and third section, objectives and methodology of the study are illustrated respectively. In fourth section, the different aspects of customer profitability are discussed while shedding light on the link between CLV and customer profitability. The concepts and different models of CLV are reviewed in the fifth section. The last section explains the implications of CLV in management accounting and finally a conclusion is drawn.

OBJECTIVES

The main objective of this study is to analyse the customer life time value as a measure of customer profitability and its application in managerial decision making. To achieve the main objectives, the specific objectives are largely threefold:

1. To illustrate customer profitability and illuminate on CLV"s relevance in it;
2. To demonstrate various models of CLV and presumptions under which certain model is applicable;
3. To evaluate the rationale of CLV in management accounting practice, e.g., through segment reporting and customer evaluation.

METHODOLOGY

The present study is an exploratory in nature and based on secondary information. Information used in this study has been collected from various national and international publications. Professional journals, international research publications, books, internet based resources etc. were also reviewed to make the study meaningful and presentable.

CUSTOMER PROFITABILITY– BACKGROUND AND LINK WITH CLV

Customer profitability has become an integral part in the development of marketing strategies as marketing activities become more consumer oriented through direct and indirect forms of communication (Mulhern, 1999). In marketing literature, customer profitability is referred to as different terms, including customer valuation (Wyner, 1996), customer lifetime valuation (Dwyer, 1989), customer relationship value (Wayland and Cole, 1997), customer equity (Blattberg and Deighton, 1996), lifetime value (Keane and Wang, 1995) and customer lifetime value (Berger and Nasr, 1998). As explained by Wyner (1996), customer profitability reconstructs traditional marketing practice by treating the customer as an asset akin to other economic units. In this context, marketing decisions are corresponding to investment decisions in that expenditures are evaluated in terms of expected returns.

From that perspective, customer profitability has become a core principle of customer relationship marketing (Morgan and Hunt, 1994; Storbacka et al., 1994). Awareness of customer profitability can assist in making various marketing related decisions that include product and service development, pricing, and all forms of marketing communications including promotion and personal selling. An overall understanding of customer profitability provides metric for the allocation of marketing resources to consumers and market segments and as an obvious consequence marketing efforts are best directed at the most profitable consumers. To this end, Rust and Zahorik (1993) has examined the chain impact of service quality on satisfaction and satisfaction on customer retention (customer loyalty), and further customer retention on profitability. They argue that there might have some scepticism among managers about the profitability of service improvement. Storbacka et al. (1994) have extended the analysis by linking together the concepts of service quality, customer satisfaction, relationship strength, relationship longevity, and relationship profitability. For them, this dynamic nature of customer relationship is crucial for a firm in order to capitalize on available customer relationship economics opportunities and manage its customer relationships profitably. Empirical results also support the increasing economic benefits derived from well managed customer relations (Anderson et al., 1994).

Despite this prominent position of customer profitability, it is always challenging to measure as many things need to be considered and specified beforehand. The specifications of a profitability analysis have important implications for marketing decisions based on profitability measures. Accordingly, it is important to consider many specification issues that pertain to a profitability analysis– for example, specifications for customers, products/services etc. (Mulhern, 1999). The appropriate specification of a profitability analysis should be made in the context of strategic situation, and will vary for different applications. For example, a profitability analysis conducted for the purpose of allocating a sales force might use corporate customer locations as the customer unit whereas individuals are used as customer unit for an analysis of direct marketing. Thus, profitability is an obvious outcome of prices, unit costs, unit volume, purchase frequency, and variable costs. However, other non-economic factors are also important for measuring profitability. Reichheld (1996), for example, has argued that the profitability of a customer increases over the duration of a customer relationship because variable costs decline and purchases may become more concentrated with a single seller. Similarly, customer satisfaction is also related to customer profitability. In their study on Sweden, Anderson et al. (1994) has found a positive impact of quality on customer satisfaction, and, in turn, profitability. This positive relationship between satisfaction and profitability exist, because more satisfied customers may be less price sensitive and less prone to purchase from competitors.

CLV has gained importance primarily in the discussion of direct marketing and then in the general marketing literature as an important tool of customer profitability with an exception of Pfeifer et al. (2005). For Pfeifer et al. (2005), there are confusions around the term "value" and "profitability" and they suggest a definition for each of the concept which is "concise, acceptable, inclusive and consistent" as per their understanding. They define customer profitability as "the difference between the revenues earned from and the costs associated with the customer relationship during a specified period" and CLV as "the present value of the future cash flows attributed to the customer relationship". Here, we are not dissecting the pros and cons of those definitions. Rather, consistent with Muller (1999), we consider CLV as one of the many terms that have been used for understanding customer profitability.

CUSTOMER LIFETIME VALUE (CLV): CONCEPT AND MODELS

In generic understanding, marketing is the art of attracting and retaining profitable customers and a profitable customer is an individual or other unit whose revenues over time exceed, by an acceptable amount, the attracting, selling and servicing costs (Kotler and Armstrong, 2010). This excess is called customer lifetime value, CLV (Berger and Nasr, 1998).CLV is an important element for designing and budgeting a number of marketing decisions, including customer acquisition programs (Dwyer, 1989). In order to determine this CLV, we have to project the net cash flows the firm expects to receive from the customer over time and then calculate the present value of that stream of cash flows. Relying on this basic concept of Berger and Nasr (1998), Libai et al. (2002) has drawn a fundamental model of CLV. The model suggests that if a firm's average retention rate is r, the average profit from a customer per period is p, and the discount rate is d, the CLV over n years is:

$$CLV = \sum_{t=0}^{n} \frac{p.r^t}{(1+d)^t}$$

If the cash flows are modelled as a perpetuity (i.e., customers are expected to continue their purchase and t approaches to infinity), the CLV then becomes:

$$CLV = \frac{p}{1+d-r}$$

Berger and Nasr (1998) has extended and refined the above basic model under changing marketing related assumptions. We summarise their models in the following table. We keep the original notations used by them.

Table 1: CLV Models

Notations	*GC=Revenues minus Cost of Sales (Expected Yearly Gross Contribution Margin)* *GC"=Expected Gross Contribution Margin per customer per sales cycle* *M=Relevant promotion costs per customer per year* *M"=Promotion costs per customer per sales cycle* *n= length of period used for cash flow projections* *r=retention rate per year* *r"=retention rate per sales cycle* *d=discount rate* *p=number of transaction cycle in a period (i.e. in a year)* *q=length of transaction cycle (i.e. more than a year)* *π(t) = customer"s profit function over time* *g=growth rate of customer"s profit* *v=low level profit per customer*	
Case-1	*Assumptions:* Sales take place once a year; Both yearly spending to retain customers and the customer retention rate remain constant over time; and Revenues achieved per customer per year remain the same.	$CLV = \{GC * \sum_{i=0}^{n}[r^i / (1+d)^i]\} -$ $\{M * \sum_{i=1}^{n}[r^{i-1} / (1+d)^{i-0.5}]\}$ *Note:* The 0.5 reflects the approximation of the promotion expenses to all occur at the middle of each purchase cycle
Case-2	*Assumptions:* Same as case-1 except sales occur more frequently than before	$CLV = \{GC' * \sum_{i=0}^{pn}[(r')^i / (1+d)^{i/p}]\} -$ $\{M' * \sum_{i=1}^{pn}[(r')^{i-1} / (1+d)^{(i-0.5)/p}]\}$
	Assumptions: Same as case-1 except sales occur less frequently than before	$CLV = \{GC' * \sum_{i=0}^{n/q}[(r')^i / (1+d)^{iq}]\} -$ $\{M' * \sum_{i=1}^{n}[(r')^{(i-1)/q} / (1+d)^{(i-0.5)}]\}$
Case-3	*Assumptions:* Same as case-1 except GC and M is non-constant over time	$CLV = \sum_{t=0}^{g}\{[ht^2+v] * [r^t/(1+d)^t]\} + \sum_{t=g+1}^{n}\{[[hg^2+v] + [N(1-e^{-t+g})]] * [r^t/(1+d)^t]$ *Where,* *h, g, v, and N all are positive constants.*

Case-4	*Assumptions:* Same as case-3 except cash flows are continuous rather than constant	$CLV = v + \int_0^g (ht^2 + v) * [r/(1+d)]^t d(t) + \int_g^n [(hg^2 + v) + [N(1 - e^{-t+g})]] * [r/(1+d)]^t d(t)$
Case-5	*Assumptions* Instead of shrinking customer base over time, here they consider purchase history to predict repeat purchase behaviour; others are similar to case-1	$CLV = \{(GC) * \{C_0 + [\sum_{i=1}^{n}[\sum_{j=1}^{i} C_{i-j} * P_{t-j} * \prod_{k=1}^{j}(1 - P_{t-j+k})]]/(1+d)^i$ $-$ $\{M*[[$ $\frac{C_0}{(1+d)^{0.5}}] + [\sum_{i=1}^{n}\sum_{j=1}^{i} C_{i-j} * P_{t-j} * \prod_{k=1}^{j}(1 - P_{t-j+k})]]/(1+d)^{i+0.5}\}\}$ Where, C_0 is the initial customer base; C_i is the no. of customers in a year; P_{t-j} is the probability of purchase in a year; and P_t =0.

Source: Adopted and Summarised from Berger and Nasr (1998).

These models are important in estimating the economic benefits of customers and important for managers for determining customer equity and devising marketing strategy. Also, CLV related understandings will enable the firm in identifying the chain effects of CLV on shareholder value (Berger et al., 2006). However, these models have some limitations. Wang and Hong (2006) have identified three major limitations of current CLV models. Firstly, customer behaviour is not only dependent on past consumer pattern as most of the models suppose, rather it depends on various other factors including the level of marketing activity, the competitive environment, brand perception, the influence of new technologies, and individual needs. Second limitation arises due to the static estimation of customer valuation for a given future period to segment customers into several levels of a firm"s customer pyramid– profitable, less profitable and unprofitable (van Raaij et al, 2003). Thirdly, there is lack of practical discussion regarding the incorporation of customer profitability measures into market planning. On last point, Jain and Singh (2002) reject the Berger and Nasr"s conception of CLV and argue that acquisition costs should be included in CLV. Wang and Hong suggest for data mining technique as a potential technique for overcoming the limitations of extant CLV models.

MANAGEMENT ACCOUNTING PERSPECTIVES

Although CLV and other customer profitability models and their ramifications are extensively discussed in the mainstream marketing literature, very few scholars have identified their relevance in managerial accounting (for exceptions, Jacobs et al.2001; van Raaij et al., 2003; Helgesen, 2006). Perhaps most of the literature considers management accounting as a number crunching inward looking activities which have no connection with strategy setting and implementation. We consider this from an exact opposite direction and view management accounting with a wider lens. We believe that customer profitability analysis (CPA) attempts to bring together marketing and accounting professionals to analyse, manage and improve customer profitability (also Epstein, 2000). This section elaborates this by focusing on extant evidence, empirical results and future directions.

CPA in Management Accounting: Traditional to Strategic Approach

Traditional accounting procedures have been developed for the operations of a product driven business model (Salomaa, n.d). In the conventional economic performance measurements which are still used by many companies, customer is mostly considered as an outsider and external factor for the business firms. Customers represent the major source of revenues that are accounted for the products. Thus, ultimate costing objects are company's products and/or product lines and total costs of a company are finally cascaded down to the products. Total costs are classified into variable and fixed costs. Variable costs are assigned to products based on their usage and fixed costs are allocated using some common allocation base, such as product material usage or hours worked. Process costing and job-order costing are the two dominant conventional management accounting tools suitable for product driven business model. Process costing is used for the homogenous mass production where a number of processes are involved in producing a certain product. On the other hand, job-order costing has been used for customized customer specific product. Yet, both of these approaches fail to capture the importance of customer due to their inherent product costing orientation.

Critics of conventional managerial approaches have argued that when these accounting were invented, there was less automation, less capital investment, more manual labour, lower marketing and promotional costs, less research and development costs, and lower taxes. Thus, with traditional methods few companies have management information that provides executives with a clear understanding of which customers and markets are profitable. Apart from limitations of tools, organizational structures also place obstacles as most of the companies are intended to measure profit centre performance. Also, customers are not seen as a possible cost objects. All of these weaknesses are manifested in the famous thesis of Johnson and Kaplan– "Relevance Lost– Rise and Fall of Management Accounting" (1987). Their call for more strategic orientation and forward looking management accounting has come a long way since then and we have observed the development of Activity Based Costing (ABC) by the middle of 1990s. The philosophy of ABC has been utilised to further develop Activity Based Management (ABM), and to Activity Based Budgeting (ABB). It has also given a starting point to new approaches in business management, such as balanced scorecard (BSC) where for the first time three non-financial measures are proposed along with financial measures for evaluating and rewarding managers. Customer satisfaction is portrayed there as an important dimension of measuring performance.

Despite this development, there is little evidence in extant management accounting literature and textbook that illustrate on various aspects of CPA. The standard textbooks of managerial accounting are not treating CPA and other market-related financial topics or are only touching on them (for example, Atkinson et al., 2004; Garrison et al., 2003; Horngren et al., 2006). In most of these text books, CPA is mentioned as a representation of segment based performance monitoring. In that approach, customer would be used as a segment and the managers need to identify customer segment specific costs and revenues. When ABC philosophies have become popular, organizations started evaluating customers based on customer margin. The advocates of ABC have argued that customer profitability is more easily determined through the use of ABC as the costs can be driven directly to individual customers (Epstein, 2000).

Application of CPA: Empirical Results

Discussion in earlier section has made it clear that contemporary management accounting literature considers ABC based CPA as the strategic CPA. It has also come to focus because of the size and the composition of the indirect costs.

The basic ABC model assumes that activities cause costs and that product, services and customers are the reasons for the activities. The model is implemented in five consequential stages– identify activities; identify resource measures (inputs) from the consumption of resources by the activities; identify activity measures (outputs) by which the costs of a process vary most directly; calculate the driver rate; and trace activity costs to costs objects such as products, processes and customers based on the usage of activities. Therefore, the key philosophies behind ABC are: to give up on classification of costs to fixed and variable, to accept anything as a cost object, and recognizing the fact that the majority of traditional fixed costs such as sales, general and administrative (SG&A) are not driven by the volume (Howell and Soucy, 1990).

In their study on an industrial cleaning firm, van Raaij et al. (2003) have illuminated on the ABC based CPA implementation process. The firm has identified four main goals of CPA– better understanding of the firm"s sources of profitability; better understanding of the relationship between customers and cots; better understanding of the relationship between the behaviours of employees and costs; and better decisions about the allocation of resources to customers and market sectors. In their analysis, van Raaij et al. (2003) have shown that similar to ABC ideas the firm has followed few steps for implementing CPA: selection of active customers, design of customer profitability model, customer profitability calculation, results interpretation, adjust strategies and program and establish infrastructure. In designing the model, they need to identify appropriate cost pools and cost drivers (Table 2). Through their analysis, they argue that this exercise of CPA needs to be conducted in regular interval for attaining accurate valuations of customer relationships.

Table 2: Cost Pools and Cost Drivers Identified for Implementing ABC Based CPA

Cost Pool	Cost Driver
Direct Costs	
Logistics	Costs charged by logistic partner
Order processing	Number of orders placed by customer
Technical service	Service hours spent by mechanics at customer
Customer consultants	Consultant hours spent at customer
Equipment	Cost of equipment placed at customer
Indirect costs (sector specific)	
Sales	Sales volume
Marketing	Sales volume
Product Development	Sales volume
Business Development	Sales volume

Source**:** van Raaij et al. (2003, p.576)

Similarly, based on ABC ideas Helgesen (2007) has conducted CPA in the context of a business-to-business order handling industry. In total four exporting companies and 176 of their customers in 36 various markets have been studied. He has conducted the analysis at three different levels: order level, customer level and market level. For each account level, a separate statement is prepared to understand the actual contribution towards firm’s profitability. The study has summarised their statement in the following single table.

Table 3: Profitability of Order Account, Customer and Market Account

Particulars	Amount	Percentage
Order Account		
Order revenue		
(-) Order revenue reductions		
= Net order revenue		
(-) Direct order product costs		
=Order product margin		
(-) Direct order-related marketing costs		
=Order operating margin		
(-)Direct order-related capital costs		
=Order margin		
(-) Indirect order-related costs		
=Order result		
Customer Account		
Customer revenue		
(-)Customer revenue reductions		
= Net customer revenue		
(-) Direct customer product costs		
= Customer product margin		
(-) Direct order-related marketing costs		
(-) Direct customer-related marketing costs		
= Customer operating margin		
(-)Direct customer-related capital costs		
= Customer margin		
(-) Indirect order-related costs		
(-) Indirect customer-related costs		
= Customer result		
Market Account		
Market revenue		
(-) Market revenue reductions		
= Net Market revenue		
(-) Direct market product costs		
=Order product margin		
(-) Direct order-related marketing costs		
(-) Direct customer-related marketing costs		
(-) Direct market-related capital costs		
=Market operating margin		
(-)Direct market-related capital costs		
=Market margin		
(-) Indirect order-related costs		
(-) Indirect customer-related costs		
(-) Indirect market-related costs		
=Market result		

Source: Modified from Helgesen (2007)

The empirical findings suggest that with the application of ABC based CPA, firms now understand that a great proportion of the customers is only marginally profitable. This will also enable businesses to strengthen customer relationships particularly towards more profitable one and reducing the unnecessary costs. Yet, ABC based CPA is not always free from limitations, especially the two examples highlighted here. In both the cases, we see the retrospective emphasis has been given on customer related information. As we are arguing for more strategic and sustainable CPA model, CLV would be an ideal approach.

A Forward Looking Approach: Application of CLV as an Approach of CPA

The retrospective ABC based CPA plays a vital role in determining the extent to which marketing strategies are being accomplished as planned; whether relationships have existed between customer-related costs and profitability and the extent to which increases in customer profitability have led to increased shareholder value. However, it has some inherent limitations due to over reliance on absolute historical data. This absolute historical data may be reliable and objective in accounting sense, but there is a danger of not incorporating relevant future data for making strategic decision. With this imperative, CLV is the most appropriate customer profitability measure because of its prospective nature (Jacobs et al., 2001).

The analogy of customers as important intangible assets implies that customers can have future value in the form of likely margins to be earned. Anderson et al. (1994) suggest that profitability is a function of customer satisfaction and that customer satisfaction is a function of current actual quality and price as well as prior period expectations. Hence, future revenues from current customers stem from the linkage between customer satisfaction and profitability. Also, the direct influence of customer retention, driven by customer loyalty, on profitability derives not only from future revenues and future revenue increases, but also from decreases in future costs. All of these aspects are well captured in the CLV models enumerated in earlier section. Therefore, we believe that application of CLV as a CPA tool will make an addition to existing CPA, especially by incorporating future costs and revenues related information. Prospective CPA i.e., CLV calculates the net present value of future expected costs and revenues associated with serving a customer over his entire future life. The study has discussed various models of CLV and which model is suitable for a specific business firm will depend on the nature of its customer base, purchase behaviour, retention rate etc.

CONCLUSION

With the strategic turn of business environment, companies identify that although "exceeding customer expectations" is a worthy goal, surpassing those expectations profitably is necessary for long-term corporate sustainability. Hence, an understanding of corporate profitability necessarily relies on an understanding of what drives share-holder value in organizations. Gradually, companies are concentrating on the connections between employee satisfaction, customer satisfaction, and corporate profitability. They are focusing on the drivers of corporate profitability and this requires an understanding of how to increase customer revenues and how to decrease customer costs. This paper has explained various aspects of customer focused profitability measurements and to examine their uses and relevance in management accounting.

However, the paper has identified some important aspects of CPA. Firstly, evidence show that overall corporate profitability is related to customer satisfactions, customer relations, customer loyalty etc.; Secondly, in the contemporary business environment CPA is an essential activity for attaining competitive advantage over rivals and maintaining corporate sustainability; Thirdly, various models have been used and proposed for conducting CPA– some of which utilize historical data whereas some other models depend on future data; Fourthly, application of models depend on various firm and customer related specifications; Fifthly, there is a limited discussion of CPA in existing management accounting literature and the extant discussions mostly floated around segment reporting and historical cost based reporting; Sixthly, ABC philosophies are widely embraced in CPA despite their over reliance on absolute historical data; Finally, we suggest that future customer revenues and customer costs should be taken into considerations. We believe CLV would be an ideal prospective CPA tool which incorporates future costs and revenues information. A business firm can equally prepare ABC based customer report to understand the present performance and employ CLV models to understand the long term viability of such profitability.

The paper has important implications as it has addressed various interdisciplinary perspectives of CPA. Thus, it is expected that this will motivate both marketing and management accounting academics to undertake interdisciplinary research. Moreover, this will enable business executives in considering various approaches of CPA in making strategic decisions. Future empirical research may help us in understanding the implementation problems of CLV or other CPA programs.

REFERENCES

Ahmed, A. S. N. (2013). "Activity Based Costing System in Financial Service Sector: A Strategic Approach for Better Decision", *The Cost and Management*, Vol. 41, No. 6, p.49-55.

Ahmed, A. S. N. (2014). "Performance Measurement in Management Accounting: Role of Balanced Scorecard", *The Cost and Management,* Vol. 42, No. 5, pp.49-54.

Anderson, E. W., Fornell, C. and Lehmann, D. R. (1994). "Customer Satisfaction, Market Share, and Profitability: Findings from Sweden", *Journal of Marketing*, pp.53-66.

Atkinson, A. A., Kaplan, R. S. and Young, S. M. (2004). *"Management Accounting",* International Edition, New Jersey: Pearson Education Inc.

Berger, P. D. and Nasr, N. I. (1998). “Customer Lifetime Value: Marketing Models and Applications”, *Journal of Interactive Marketing*, Vol. 12, No. 1, pp.17-30.

Berger, P. D., Eechambadi, N., George, M., Lehmann, D. R., Rizley, R. and Venkatesan, R. (2006). “From Customer Lifetime Value to Shareholder Value”, *Journal of Service Research*, Vol. 9, No. 2, pp.156-167.

Bhuiyan, M. N. U. and Masum, M. H. (2010). “Balanced Scorecard: A Multi-stream Performance Measurement Tool for Public Sector Corporations in Bangladesh”, *The Cost and Management,* 38, No. 5, pp.19-25.

Blattberg, R. A. and Deighton, J. (1996). “Manage Marketing by the Customer Equity Test”, *Harvard Business Review* (July-August), pp.136-144.

Dwyer, F. R. (1989). “Customer Lifetime Profitability to Support Marketing Decision Making”, *Journal of Direct Marketing*, Vol. 3, No. 4, pp.8-15.

Epstein, M. J. (2000). *“Management Accounting Guideline: Customer Profitability Analysis”*, CMA Canada, AICPA, CIMA.

Garrison, R. H., Noreen, E. W. and Seal, W. (2003). *“Management Accounting*’, International Edition, Berkshire: McGraw-Hill Educations.

Hasan, M. T. and Akter, S. (2010). “Organizational Views to Implement ABC System in Bangladesh”, *The Cost and Management*, Vol. 38, No. 2, pp.25-30.

Helgesen, Ø. (2007). “Customer Accounting and Customer Profitability Analysis for the Order Handling Industry - A Managerial Accounting Approach”. *Industrial Marketing Management*, Vol. 36, pp.757-769.

Horngren, C. T., Datar, S. M. and Foster, G. (2006). *“Cost Accounting: A Managerial Emphasis”*, New Jersey: Pearson Education Inc.

Howell, R. and Soucy, S. (1990). “Customer Profitability as Critical as Product Profitability”, *Management Accounting*, Vol. 72, No. 4, pp.43-47.

Jacobs, F. A., Johnston, W. and Kotchetova, N. (2001). “Customer Profitability: Prospective vs. Retrospective Approaches in a Business-to-Business Setting”, *Industrial Marketing Management*, Vol. 30, pp.353-363.

Jain, D., and Singh, S. S. (2002). “Customer Lifetime Value Research in Marketing: A Review and Future Directions”, *Journal of Interactive Marketing*, Vol. 16, No. 2, pp.17-29.

Johnson, H. T. (1992). *“Relevance Regained: from Top-down Control to Bottom-up Empowerment”*, Free Press, New York.

Johnson, M. and Kaplan, R. (1987). *“Relevance Lost: The Rise and Fall of Management Accounting”*, 1st Edition, Cambridge, MA, Harvard Business School Press.

Keane, T. J. and Wang, P. (1995). “Applications for the Lifetime Value Model in Modern Newspaper Publishing”, *Journal of Direct Marketing*, Vol. 9, No. 2, pp.59-66.

Kotler, P. (2003). *‘Marketing Management”*, Englewood Cliffs-NJ, Prentice-Hall.

Kotler, P. and Armstrong, G. (2010), *“Principles of Marketing”*, 13th Edition, London, Pearson.

Libai, B., Narayandas, D. and Humby, C. (2002). “Toward an Individual Customer Profitability Model: A Segment-Based Approach”, *Journal of Service Research,* Vol. 5, No. 1, pp.69-76.

Morgan, R. M. and Hunt, S. D. (1994). “The Commitment Trust Theory of Relationship Marketing”, *Journal of Marketing*, Vol. 58(July), pp.30-37.

Mulhern, F. J. (1999). “Customer Profitability Analysis: Measurement, Concentration, and Research Directions”, *Journal of Interactive Marketing*, Vol. 13, No. 1, pp.25-40.

Pfeifer, P. E., Haskins, M. E. and Conroy, R. M. (2005). “Customer Lifetime Value, Customer Profitability, and the Treatment of Acquisition Spending”, *Journal of Managerial Issues*, Vol. 17, No. 1, pp.11-25.

Rahman, M. T. and Hosen, M. Z. (2010). “The Product Profitability Measurement of Companies Engaged in E-commerce: An Application of Activity Based Costing”, *The Cost and Management*, Vol. 38, No. 3, pp.34-38.

Reichheld, F. (1996). *“The Loyalty Effect”,* Boston: Harvard Business School Press.

Rust, R. T. and Zahorik, A. J. (1993). “Customer Satisfaction, Customer Retention, and Market Share”, *Journal of Retailing*, Vol. 69, No. 2, pp.193-215.

Salomaa, J. (nd). “Customer Analysis as a Foundation of Company Profitability”, Working Paper, *Seminar in Business Strategy and International Business*. (Available at: http://www.ibrarian.net/navon/paper/Customer_Analysis_as_a_Foundation_of_Comp any_Prof.pdf?paperid=302073, Accessed as on July 20, 2015).

Storbacka, K, Strandvik, T. and Gronroos, C. (1994). “Managing Customer Relationships for Profit: The Dynamics of Relationship Quality”, *International Journal of Service Industry Management*, Vol. 5, No. 5, pp.21-38.

Uddin, M. S. and Rahman, M. T. (2010). “The Balanced Scorecard: A Renewable Methodology and Framework of Action towards Success for Air Line”, *The Cost and Management*, Vol. 38, No. 5, pp.5-10.

vanRaaij, E. M., Vernooij, M. J .A. and Van Triest, S. (2003). “The Implementation of Customer Profitability Analysis: A Case Study”, *Industrial Marketing Management*, Vol. 32, pp.573-583.

Wang, H. and Hong, W. (2006). “Managing Customer Profitability in a Competitive Market by Continuous Data Mining”, *Industrial Marketing Management*, Vol. 35, pp.715-723.

Wayland, R. E. and Cole, P. M. (1997). *“Customer Connections: New Strategies for Growth*’, Boston, Harvard Business School Press.

Wickramasinghe, D. and Alawattage, C. (2007). “*Management Accounting Change: Approaches and Perspectives*, London and New York, Taylor & Francis.

Wyner, G. A. (1996). “Customer Profitability: Linking Behaviour to Economics”, *Marketing Research*, Vol. 8, No. 2, pp.36-38.