# A MANAGERIAL AND COST ACCOUNTING APPROACH OF CUSTOMER PROFITABILITY ANALYSIS

Pete Stefan

Babes-Bolyai University, Faculty of Economics and Business Administration, Cluj-Napoca

Cardos Ildikó Réka

Babes-Bolyai University, Faculty of Economics and Business Administration, Cluj-Napoca

In the last years many organizations realized that market orientation is essential to their success. Satisfying the needs of customers, offering them products and services which meet their desires and demands, customer loyalty can increase profitability for long term.

After analyzing the existing journal literature in this field we would like to emphasize that managerial accounting, cost calculation methods and techniques, the analysis of costs provides relevant information when analyzing the customer's profitability. We pay special attention on cost systems. An activity based costing approach takes customer profitability to new levels of accuracy and usefulness, provides the basis for creating, communicating and delivering value to the customers.

Keywords: managerial accounting, ABC, customer relationship management, customer profitability analysis, organizational performance

JEL classification: M41- Accounting and Auditing

#### 1. Introduction

The rapid growth of the internet and its associated technologies has greatly increased the opportunities for marketing and has transformed the way relationships between companies and their customers are managed (Bauer et al., 2002). Companies are focusing on delivering the highest value to customers through better communication, faster delivery and personalized products and services.

Many companies are racing to re-establish their connections to new as well as existing customers to boost long-term customer loyalty (Chen&Popovich, 2003). It seems like they realized that they can win the race through the implementation of customer oriented cost systems, relationship marketing principles and technology-based customer relationship management applications.

In a business-to-business environment customer relationship management (CRM) becomes the business process that provides the structure for how relationships with customers are developed and maintained (Lambert, 2010). Management firstly identifies key customers and customer groups to be targeted than the decision regarding who represents key customers includes evaluation of the profitability of each customer. Often it is assumed that the marketing function is responsible for these activities. However, in complex business relationships there is a need for other organizational functions to interact and collaborate. Marketing and sales, human resources, research and development, finance, managerial and cost accounting, IT and IS must join forces in order to create value for both the organization and customers.

# 2. Research methodology

Customer relationship management, customer profitability analysis and their relationship with managerial accounting and cost systems is an attractive area for research especially because of their novelty and exploding growth.

In order to create a good research in the field of managerial accounting and in order to generate good and relevant knowledge researchers must follow a set of qualitative criteria. According to Lukka&Mouritsen (2002), when conducting a research, there is a need for theory, testing and rigour. In this article we are focusing more on theory and rigour and less on testing. Our intention is to lecture in

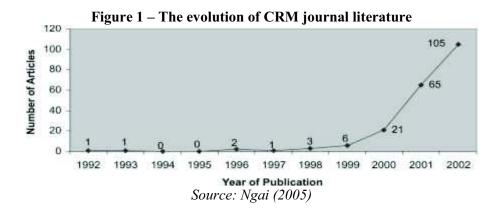
the field of managerial accounting, management and marketing in order to understand the phenomenon of customer relationship management and to analyze the existing connections between managerial accounting, cost management and marketing.

The remainder of this paper is structured as follows. First the background is established by tracing the roots of the interest and researches made in the field of customer relationship management and customer profitability analysis. Second, our intention is to present the conceptual framework of customer relationship management, pointing out that a cross-functional and customer oriented system is needed to increase company profitability. Third, we would like to emphasize that managerial accounting and the cost management plays a vital role in the process of profitability analysis. New and complex cost systems, such as activity based costing (ABC), allow a stronger focus on the customer, investigate the relationship between costs and clients, analyses the way to attribute the relationship costs to customer segments. Finally, advantages and disadvantages of CRM and ABC implementation are discussed in order to establish further research objectives.

### 3. Literature review

Interest on customer relationship management (CRM) began to grow in 1990s (Ling&Yen, 2001; Ngai, 2005) when organizations and businesses realized that an enhanced relationship with their customers can lead to customer loyalty and retention and ultimately to profitability (Ngai, 2005).

Over the last years CRM has attracted the attention and interest of both academics and practitioners. The significantly increasing number of articles, conference papers, doctoral dissertations or unpublished working papers emphasizes this interest.



We can observe that the output of CRM research increased significantly since 1999. If in the early and mid 1990s Ngai (2005) identified only 8 articles related to CRM, after 1999 he identified almost 200 articles. After 2002 the interest and debates of researchers and practitioners becomes more and more intense, especially because the recent changes in the business environment, globalization and the intense competition.

The majority of the published papers and articles are related to: (1) general and managerial aspects and concepts, characteristics about CRM (Leventhal, 2000; Abbott 2001; Chen&Popovich, 2003; Sin et al, 2005; Helgesen, 2007) especially because CRM is a relatively new phenomenon for many organizations; (2) management, strategic cost management, planning, strategy and organizational performance (Seybold, 2001; Crosby,2002; Baker, 2002; Van Raaij E.M., 2005; Cugini et al, 2007). A significant part of the researchers considers that (1) CRM works together with marketing and sales and that (2) CRM needs also service and support activities in order to maintain good relationships with customers (LiBrizzi, 2001; Coner&Gungor, 2002; Anderson, 2002; Seddon, 2000; Bitner et al, 2002; Chen&Popovich, 2003; Ang&Buttle, 2006; Helgesen, 2007). Over the years, the rapid growth of automation, information technology, internet and associated information systems has made that academics and practitioners focus on the analysis and development of these aspects. The relationship between CRM, IT and IS; data, information and

management; data mining; the development of software, tools and systems; internet, e-commerce and e-management are just a few research topics intensely debated by researchers (Ferguson, 2000; Drew et al, 2001; Corner&Hinton, 2002; Shebab et al, 2004; Bih-Ru, 2007; Ngai et al, 2009).

We noticed that there seems to be a need for a market-oriented managerial accounting system whose objective would be to furnish updated and relevant information, reports, graphic representations about customer needs, customer accounts, and customer's profitability. Furthermore, many arguments and opinions consider that activity based costing (ABC) is the solution when establishing profitability figures of customers (van Raaij, 2003; Murphy, 2005; Helgesen, 2007).

# 4. Customer relationship management – the solution which leads to profitability

Customer relationship management (CRM) is a widely recognized business approach but there is no universally accepted definition of this concept. Academics consider that CRM is an enterprise approach to understanding and influencing customer behavior through meaningful communications in order to improve customer acquisition, customer retention, customer loyalty, and customer profitability (Swift, 2001; Ngai, 2005); others consider that CRM is a strategy and process of acquiring, retaining, and partnering with selective customers to create superior value for the company and the customer (Helgesen, 2007) or that when fully and successfully implemented CRM is not only a technology solution but a cross-functional, customer-driven, technology integrated business process management strategy that maximizes relationships and encompasses the entire organization (Chen&Popovich, 2003).

A CRM system can help organizations to answer questions like: What products or services are important to our customers?; How are we perceived by our customers?; How should we communicate with our customers?; How can we maintain good relationships with our customers?. In order to answer to these questions a CRM system and technology must link front office and back office functions.

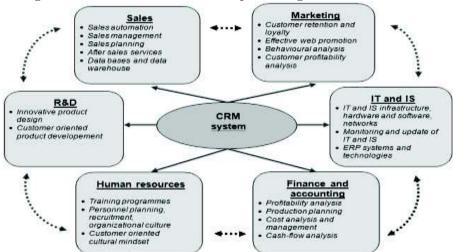


Figure 2 - CRM and its relationship with organizational functions

Being cross-functional, a CRM system involves fundamental changes in the ways companies are organized and business processes are conducted (figure 2). Of the six identified function information technology (IT) and information systems (IS) have the most difficult role. Their job is to establish a connection with the other functions, to create communication channels between them. To achieve this there is a need for IT equipment, hardware's and software's, "information-intensive strategies", computer technologies, computer aided design/manufacturing, flexible manufacturing and cost systems, data warehouse, data mining (Sin et al, 2005). All and all, the effective communication and collaboration between these functions ensure the success and organizational performance.

## 5. Customer profitability analysis by using activity based costing (ABC)

We noticed earlier that CRM is a business approach and a strategy to improve customer satisfaction, customer loyalty and customer profitability. Furthermore, customer satisfaction and customer profitability are considered to be a milestone in the path towards company profitability (Cugini et al, 2007).

Customer cost information is essential for managerial decision making (Dalci et al, 2010). Understanding the true costs of serving specific customers is important for every organization. Those companies who understand which customers are more profitable and which are not are "armed with valuable information needed to make successful managerial decision to improve overall organizational profitability" (van Raaij, 2003; Dalci et al, 2010).

In the changing technological environment, when the internet and e-commerce gains the customers on their side, companies realized that traditional cost accounting systems do not provide accurate cost information, information used in the decision making process. As an answer to these changes, activity based costing (ABC) was designed and, in time, gained popularity, because it focuses on the activities associated with the costs and assigns activity costs to products, services or customers that consume resources. Because of these characteristics ABC (1) becomes a tool for determining true costs of bots sales, marketing activities and customers; (2) will help companies to make better decisions based on accurate costing information (Stapleton et al, 2004; van Raaij, 2005; Cugini et al, 2007; Dalci et al, 2010).

The mechanism of ABC requires going through several stages. First, ABC assumes that products, services or customers generate activities and activities consume resources. Second, product costing involves a two-step allocation process in which costs are first allocated to activities and then the activity costs are allocated to products or customers based on each product or customers demand for, or consumption of the activities (Stapleton et al, 2004).

While traditional cost systems rely on arbitrary allocation of overhead costs, ABC classifies cost pools according to the activities performed within the organization. Moreover, by understanding the hierarchical levels of the costs ABC enables managers to better understand cost causation and make better decision, it help managers to understand which customers are profitable and which ones are not and leads to increased profitability (Dalci et al, 2010).

Many specialists (Kaplan&Atkinson, 1998; Albu&Albu, 2005; Murphy et al, 2005) consider that ABC permits a customer profitability analysis by comparing the revenue streams with the service costs associated with specific customers or customer groups. This activity requires a combination of accounting and marketing skills but the result of this collaboration might be a diagram, useful to managerial decision.

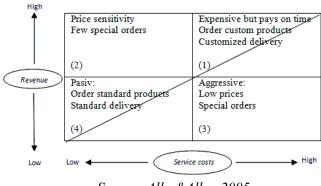


Figure 3 – Customers profitability by using ABC

Source: Albu&Albu, 2005

Figure 3 shows that there are several ways in which companies can have profitable customers. There are customers (category 4) who can easily be served but at low cost and low prices. Instead, expensive customers (category 1) can be profitable if the revenues obtained compensate the customer costs. The most vulnerable customers (category 2) are those who generate high revenues but have low servicing costs. Companies should pay special attention to those; they must give discounts and special services to keep them faithful and loyal. The fourth category (category 3) is represented by those customers who generates low revenues and involves high customer costs. In such cases companies must rethink their internal processes, improve manufacturing processes, and renegotiate with customers the process, the delivery terms and special orders.

As we said earlier, ABC allows managers to identify and separate the profitable customers from the unprofitable ones. Furthermore, it permits managers to identify customer profiles in terms of profitability and loyalty, presented in figure 4.

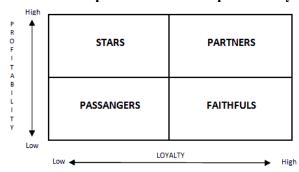


Figure 4 – Customers profiles in terms of profitability and loyalty

Source: Albu&Udroiu, 2009

Analyzing the figure above we can conclude that the PARTNERS are the best customers for every company because they generate high profitability and they are loyal also. Companies must pay special attention to STARS because they generate high profitability but their loyalty level is low. On the other hand, PASSANGERS and FAITHFULS are those customers who are loyal but the level of profitability is low. In such cases companies must reanalyze permanently the costs associated to serve this category. All and all, customer profitability analysis can be a complicated process but can have a massive implication for the profitable growth of any organization. By examining customer needs and behavior, by implementing an ABC cost system, it becomes possible to: (1) establish customer revenues and customer costs; (2) identify customers' profile; and (3) develop a wider and more sustainable understanding of how to grow the business profitability.

## 6. Ending ideas

Usually, market oriented businesses must have to main objectives: (1) to satisfy the needs of customers by offering them products and services which meet their desires and requests, and (2) to satisfy the business unit's needs by implementing customer relationship management systems that will generate, on long term, profitability.

Customer satisfaction is hard to win and easy to lose. To be efficient, CRM must comprise the major functional areas in every organization. Every organization must focus on designing and developing profitable products with an acceptable cost structure. Then marketing and sales function interact directly with customers because of the strategies and techniques developed to achieve goals. By using customer service and support activities organizations can improve and maintain good relationship with customers; they must fulfill the needs of everyone quickly and accurately. In supporting and maintaining these crucial functions information technology (IT) and information systems (IS) plays an important role. Adequate IT and IS can enable the collection of data to determine the economics of

customer acquisitions, retention or to establish their profitability, on one hand. On the other hand IT and IS are necessary to an effective communication and collaboration between the functions mentioned above.

An important part of a CRM system is marketing and sales which leads inevitably to customer profitability analysis. CPA opens a door on a new way of thinking about business; it provides routes to a clear strategy for profitable growth. ABC is a necessary and efficient measurement tool for profitability analysis and this will result in better-informed managerial decision.

All and all, a CRM system, a CPA and an ABC cost system requires changes to organizational culture, more precisely, there is a need for customer oriented cultural mindset. The commitment of both top management and employees is an essential element for bringing value to the company and the customers; it requires full-time attention of the implementation project team with representatives from sales, marketing, and manufacturing and information technology.

Indeed, implementing a CRM system is a resource- and time-consuming activity; a labor-intensive operation; which has to be monitored and maintained permanently. But a system like CRM gives the possibility to increase managerial insights into how products, customers or supply channels works; how profitable they are; allows managers to make decisions with more accurate information and lower chances for error in those decisions.

#### References

- 1. Abbott J. (2001) Data everywhere and not a byte of use?, Qualitative Market Research, 4/3,pp. 182-92;
- 2. Albu N., Udroiu S. (2009) *Managementul performanței. Studiu de caz privind gestiunea relațiilor cu clienții*, Revista CECCAR, Contabilitatea, expertiza și auditul afacerilor, Nr. 7, Iulie/2009;
- 3. Anderson E.T. (2002) *Sharing the wealth: when should firms treat customers as partners?*, Management Science, Vol. 48, No. 8, pp. 955-971;
- 4. Ang L., Buttle F. (2006) *Customer retention management processes. A quantitative study*, European Journal of Marketing, Vol. 40, No. ½, pp. 83 99;
- 5. Baker T. (2002) *Customer-focused organisations: challenges for managers, workers and HR practitioners*, The Journal of Management Development, 21(3/4), pp. 306-14;
- 6. Bih-Ru L. (2007) *Management accounting in ERP interated MRP and TOC environments*, Industrial Management&Data Systems, Vol. 107, No. 8, pp. 1188-1211;
- 7. Bitner M.J., Ostrom A.L., Meuter M.L. (2002) *Implementing successful self-service technologies*, Academy of Management Executive, Vol. 16, No. 4, pp. 96-109;
- 8. Chen I.J., Popovich K. (2003) *Understanding customer relationship management (CRM). People, process and technology*, Business Process Management Journal, Vol. 9, No. 5, pp. 672-688;
- 9. Coner A., Gungor M.O. (2002) Factors affecting customer loyalty in the competitive Turkish metropolitan retail markets, Journal of American Academy of Business, Cambridge, Vol. 2, No. 1, pp. 189-95;
- 10. Corner I., Hinton M. (2002) Customer relationship management systems: implementation risks and relationship dynamics, Qualitative Market Research, Vol. 5, No. 4, pp. 239-51;
- 11. Crosby L.A. (2002) *Exploding some myths about customer relationship management*, Managing Service Quality, Vol. 12, No. 5, pp. 271-7;
- 12. Cugini A., Caru A., Zerbini F. (2007) *The cost of customer satisfaction: a framework for strategic cost management in service industries*, European Accounting Review, Vol. 16, No. 3, pp. 499 530;
- 13. Dalci I., Tanis V., Kosan L. (2009) *Customer profitability analysis with Time-Driven Activity-Based Costing: a case study in a Hotel*, accepted paper Emerald Group Publishing Limited;
- 14. Drew J.H., Mani D.R., Betz A.L., Datta P. (2001) *Targeting customers with statistical and data-mining techniques*, Journal of Service Research, Vol. 3 No. 3, pp. 205-19;
- 15. Helgesen O. (2007) *Customer accounting and customer profitability analysis for the order handling industry A managerial accounting approach*, Industrial Marketing Management, No. 36, pp. 757 769;
- 16. Ferguson M. (2000) *A road map to becoming an intelligent e-business*, Interactive Marketing, 2/2, pp. 103-19;

- 17. Lambert D. (2010) *Customer relationship management as a business process*, Journal of Business&Industrial Marketing, Vol. 25, No. 1, pp. 4-17;
- 18. Leventhal, B. (2000) *Are market research and customer research the same thing? The implications for linking to external data*, Interactive Marketing, Vol. 1, No. 3, pp. 266-76;
- 19. LiBrizzi L. (2001) *Targeting customers based on economic worth*, Journal of Financial Services Marketing, Vol. 5, No. 4, pp. 337-42;
- 20. Ling R., Yen D.C. (2001) *Customer relationship management: an analysis framework and implementation strategies*, Journal of Computer Information Systems, Vol. 41 No. 3, pp. 82-97;
- 21. Lukka K., Mouritsen J. (2002) *Homogeneity or heterogeneity of research in management accounting?*, The European Accounting Review, Vol. 11, No. 4, pp. 805-811;
- 22. Murphy J.J., Burton J., Gleaves R., Kitshoff J. (2005) *Converting Customer Value: From Retention to Profit*, Barnes&Noble:
- 23. Ngai E.W.T. (2005) Customer relationship management research (1992 2002) An academic literature review and classification, Marketing Intelligence&Planning, Vol. 23, No. 6;
- 24. Ngai E.W.T., Xiu L., Chau D.C.K. (2009) *Application of data mining techniques in customer relationship management: a literature review and classification*, Expert Systems with Applications, No. 36, pp. 2592 2602:
- 25. Seddon J. (2000) From 'push' to 'pull' changing the paradigm for customer relationship management, Interactive Marketing, Vol. 2, No. 1, pp. 19-28;
- 26. Seybold P.B. (2001) Get inside the lives of your customers, Harvard Business Review, 79/5, pp. 80-9;
- 27. Shebab E.M., Sharp M.W., Supramanian L., Spedding T.A. (2004) *Enterprise resource planning. An integrative review*, Business Process Management Journal, Vol. 10, No. 4, pp. 359 386;
- 28. Sin L., Tse A., Yim F. (2005) *CRM: conceptualization and scale development*, European Journal of Marketing, Vol. 39, No. 11/12, pp. 1264 1290;
- 29. Stapleton D., Pati S., Beach E., Julmanichoti P. (2004) *Activity based costing for logistics and marketing*, Business Process Management Journal, Vol. 10, No. 5, pp. 584 597;
- 30. Van Raaij E.M. (2005) *The strategic value of customer profitability analysis*, Marketing Intelligence&Planning, Vol. 23, No. 4, pp. 372 381;