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Amira Pobrić
University of East Sarajevo
Faculty of Economics
Brčko

MEASURING CUSTOMER PROFITABILITY: THE APPLICABILITY OF DIFFERENT CONCEPTS IN PRACTICE

Merenje profitabilnosti kupaca: primenljivost različitih koncepata u praksi

Abstract

Measuring customer profitability implies the quantification of the contribution of customers or customer groups to the company's financial performance, regardless of whether profit or net cash flow is used as financial output. The need for measuring customer profitability stems from the fact that each customer does not equally contribute to the profitability of the company. Customer profitability can be measured at the level of individual customers or groups of customers. Companies can calculate the contribution of customers to their current profitability or evaluate customers' ability to generate profits in the future by means of projecting revenues and costs (cash flow) that will be caused by customers in the forthcoming years of cooperation.

Bearing in mind that management accounting theory is predominantly focused on the development of new methods and techniques as well as on the improvement of already existing ones, and being aware that there is a frequent absence of consideration of the extent to which these methods have been accepted in practice, this paper will attempt to identify the level of acceptance of the methods for measuring customer profitability in business practice, to determine contingent factors that influence the companies' need for the application of these methods and to acknowledge the difficulties that companies experience in the process of their implementation and application.

Key words: *value creation, customer accounting, customer profitability, customer valuation, life cycle, contingent factors*

Sažetak

Merenje profitabilnosti kupaca podrazumeva kvantifikaciju doprinosa kupaca ili grupa kupaca finansijskim performansama preduzeća, bez obzira na to da li se kao finansijski autput koristi profit ili neto novčani tok. Potreba za merenjem profitabilnosti kupaca proizilazi iz činjenice da svaki kupac ne doprinosi podjednako profitabilnosti preduzeća. Profitabilnost kupaca se može meriti na nivou pojedinačnih kupaca ili na nivou grupa kupaca, pri čemu preduzeća mogu sagledati doprinos kupaca ostvarenju tekuće profitabilnosti preduzeća ili oceniti sposobnost kupaca da u budućnosti generišu profit kroz projektovanje prihoda i rashoda, tj. novčanog toka koje će kupci izazvati u toku narednih godina saradnje.

Imajući u vidu da je teorija upravljačkog računovodstva dominantno usmerena na razvijanje novih i unapređivanje postojećih metoda i tehnika i da često izostaje razmatranje u kojoj meri su ta teorijska dostignuća prihvaćena u praksi, u ovom radu nastojimo da utvrdimo kolika je zastupljenost metoda merenja profitabilnosti kupaca u poslovnoj praksi, šta određuje potrebu preduzeća za primenom ovih metoda i sa kojim poteškoćama se preduzeća suočavaju u procesu njihovog uvođenja i primene.

Ključne reči: *kreiranje vrednosti, računovodstvo kupaca, profitabilnost kupaca, vrednovanje kupaca, životni ciklus, situacioni faktori*

Introduction

Nowadays, most companies operate in a highly competitive business environment. This means that, on the supply side, there are a great number of providers that offer the same or similar products at the same or similar prices. On the demand side, there are well informed and demanding customers, characterized by a lack of commitment to any company or brand. Such characteristics of customers come from the fact that all of them have the opportunity to choose and, being well aware of it, they use this opportunity wholeheartedly. In these circumstances, the major challenge that companies face reflects in the problem of how to make themselves and their products/services different in the eyes of customers and other stakeholders. Only a distinctive difference that cannot be easily and quickly imitated by the competition can be a source of sustainable competitive advantage.

The possibilities of differentiation and achievement of competitive advantage solely through products have been pushed to their limits. Modern innovations in the field of products have been limited to finding different, better ways to meet specific needs. It is necessary to keep in mind that the time that elapses from the moment of product innovation to the moment of product imitation and introduction of improved versions, has been significantly shortened. Therefore, services offered alongside with products become an important weapon for fighting competition. If certain companies can meet customer needs better than competitors by adapting products and services to the customer-specific requirements, they will be able to achieve and sustain competitive advantage.

Taking into account that different customers have to be treated in a different way, careful customer management becomes imperative for contemporary businesses. Many companies have decided to develop long-term relationships with their customers by continuously creating and delivering customer value [16]. Creating value for customers means ensuring that the overall benefits customers receive by purchasing the product exceed the total costs incurred in the process of evaluating, acquiring and using of the product.

During the process of customer value creation, it is essential to be very careful in order to prevent that value creation costs exceed the company's benefits created by its customers. In this regard, customer value creation should be in function of creating shareholder value – that is, it should ensure that long-term relationships with customers are profitable for the company. Managing customer profitability allows simultaneous respect for the interests of both customers and shareholders, since it is not possible to achieve customer profitability if value for customers is not previously created as well as it is not possible to create shareholder value if customers did not previously create profit for the company. Understanding customer behavior and profitability, and the use of this information in order to effectively manage relationships with customers represent a key to competitive advantage.

The necessity of measuring customer financial performance

The company's commitment regarding the delivery of products and services aimed to fully meet customer needs, desires and demands is absolutely essential in order to create satisfied and loyal customers. We can say that the achievement of customer satisfaction and its increase has become one of the key strategic objectives of market-oriented enterprises. Although customers do not directly participate in the formulation of company's strategies, their expectations in the domain of product and services quality and reasonable prices, significantly affect the company's choice of strategic orientation. During the decision-making process, management considers the impact of the defined alternatives upon customer satisfaction, i.e. their decisions are influenced by the appropriate indicators of customer satisfaction and customer loyalty.

As the importance of customer satisfaction was increasing, the importance of meeting the shareholders' interests came into focus. On the global market, companies struggle not only to attract customers but to attract investors as well. This means that the company has to create value for the customers and the shareholders simultaneously. There is an opinion that the interests of customers and shareholders can be reconciled by creating satisfied customers, i.e. that the growth in customer satisfaction and loyalty lead to an increase in the company's profitability, which is an essential prerequisite for the satisfaction of the shareholders' interests. Such beliefs are based on the premise that a high degree of customer satisfaction correlates with customer retention rates and customer loyalty. Customer loyalty consequently leads to the repetition of purchases and growth in revenues. Furthermore, it lowers customer's sensitivity to price elasticity and reduces marketing costs (costs of attracting new customers) through positive word-of-mouth advertising [13, pp. 2-3].

A connection between customer satisfaction and the profitability of a company has been attracting the attention of experts for quite some time. So far, numerous studies have been conducted with aim to empirically verify claims regarding causality of these two variables. The results of these studies proved to be contradictory. In a survey that covered 77 Swedish companies, *Anderson*, *Fornell* and *Lehmann* [1] discovered that customer satisfaction is positively associated with contemporaneous accounting return on investment. *Smith* and *Wright* [24] came up with the same result while they were studying companies operating in the field of personal computer industry. *Ittner* and *Larcker* [13] found not only that there was a relationship between customer satisfaction and profitability but that this relationship was relatively stable at different levels of customer satisfaction though it tended to diminish at high levels of customer satisfaction. *Banker*, *Potter* and *Srinivasan* [3], as well as *Foster* and *Gupta* [8], found that the correlation between customer satisfaction and enterprise profitability may be positive, negative and insignificant, depending on the approach used for measuring customer satisfaction. On the other hand, a study conducted by the auditing firm Arthur Andersen & Co. [2] in the field of food, toys/games, airlines, and automotive industry did not found correlation between customer satisfaction and company's profitability, while *Tornow* and *Wiley* [26] found that the increase of customer satisfaction reduces the profitability of a company.

All previous research, regardless of the conclusions derived on the connection between customer satisfaction and the profitability of a company, confirmed that the improvement in customer satisfaction increases sales volume and company's revenue. This means that the inconsistencies in the research results should be sought in the relation between customer satisfaction and company's costs. Specifically, increasing customer satisfaction and customer loyalty requires investments in relationships with customers by improving products and services, which significantly increase company's costs. It must be added that, in many industries, services offered in addition to product become the main weapon in the battle for customers. This is why companies offer customers a wide range of services which often cause high costs. This increase in costs often exceeds the effects of the aforementioned reductions of certain components of marketing expenses resulting from the increase in the level of customer loyalty. From this we can conclude that achieving customer satisfaction is a necessary condition for the profitability of enterprises because the absence of customer satisfaction can and would result in decrease in volume of sales and revenue. However, this is not a sufficient condition, since there is a risk that the costs of building customer satisfaction can exceed revenues that are generated by satisfied customers. Therefore, it is necessary to provide customer satisfaction, but in the profitable way.

In many companies, especially those that seek to achieve competitive advantage by satisfying specific customer needs, costs of serving individual customers can significantly vary because customers differ in terms of behavior and requests. These differences lead to disproportions in the field of revenues and expenses resulting from the cooperation with certain customers and, therefore, each customer does not equally contribute to the company's profitability [22, pp. 64-65]. Whether (and to what extent) will a customer contribute to creation of company profit depends on the type and quantity of the product that customers are buying, selling prices and the amount of the discount granted, on types of additional services customers use and the frequency of their use, on demands in terms of products customization, on mode, rate and quantity of delivery, speed of claims payment, etc.

Some people are inclined to believe that 20% of customers generate 80% of company's profits, while the remaining 80% of customers generate only 20% of profits. Examples of business practices show that this disproportion might be much bigger and that some customers create huge losses for the company. In case of Swedish company *Kanthal*, *Kaplan* and *Cooper* [14, p. 185] found that 20% of the company's most profitable customers create 225% of profit, that 10% of customers create 125% of loss, and that the other 70% of customers do not deviate significantly from the break-even point.

In view of all the foregoing, it can be concluded that for a quality decision-making that will result in value creation for the most important stakeholders – customers and shareholder – the information on non-financial performance of customers are not sufficient enough. Management must have the information on whether a particular customer or group of customers created profit or loss for their company and in what amount. Such information enables management to allocate company's resources to those customers who can create the most value for the organization. By differentiating customers according to their contribution to the overall profit, companies have the opportunity to build long-term relationships with the customers that are profitable or have the potential to become profitable and leave unprofitable customers to their competitors.

Information regarding customer profitability can and need to be provided by management accounting because management accounting, through information support it offers, should function as a means for achieving the strategic goals of the company and we have already identified customer value creation as one of those goals. This means that customers must be subject to management accounting analysis. In addition to determining the profitability of product, product groups and business segments, management accounting should allow assigning revenues, expenses and results to the customers who are actually causing them.

Methods of measuring customer profitability

The concept of customer profitability is equally relevant to the theory and practice of management accounting and marketing, but this problem is much more present in the marketing literature [19]. A great interest of marketing theorists regarding measuring customer profitability can be explained by the fact that the profitability of customers demonstrates financial consequences of marketing activities. The ability to predict and measure the impact of marketing activities upon cash flow and shareholder value increases the importance and credibility of marketing department [12, p. 387]. Regardless of the attention focused on the concept of customer profitability, great confusions and contradictions in the field of marketing are present in case of customer profitability measurement. The root cause of confusion and contradiction lies in the field of defining methods for measuring customer profitability [9, pp. 827-829]. In response to these concerns, *Lisa McManus* and *Chris Guilding* [10, p. 46] offered an adequate systematization of customer profitability measuring methods. This systematization is especially accepted in management accounting literature and it encompasses:

- Customer Profitability Analysis,
- Customer Segment Profitability Analysis,
- Lifetime Customer Profitability Analysis and
- Valuation of Customers as Assets.

The methods of measuring customer profitability are the means of quantifying the contribution of an individual customer or a group of customers' to the financial performance of a company, regardless of whether profit or net cash flow is used as a financial output [12, p. 389]. The thing that all the aforementioned methods have in common is their purpose – identifying customers that create or destroy company's profits, but they differ in the object of measurement (individual customers or groups of customers) and in the time horizon (the previous or future periods).

Customer Profitability Analysis (CPA) determines the contribution of individual customers to company's profitability. CPA measures customer contribution to the firm's profits as the difference between revenues and costs (accrual based) that can be traced to a specific customer during a given period of time (e.g. annual basis or a quarter of a year). The specific thing about this method is the fact that is relatively easy to determine the revenue generated by a particular customer and the fact that problems arise in the field of determination of customer cost, due to the fact that only a small part of the costs in question can be directly assigned to a customer. This analysis can be more or less sophisticated, depending on the types of costs and the way they are assigned to customers. Although based on the actual revenues and costs, the reliability of customer profitability established in this way depends on the characteristics of the applied costing system and its ability to assign the costs to customers who actually caused them.

The most reliable information about customer profitability is derived by using Activity Based Costing. This system has proved to be highly successful for allocating overhead costs to the customers who have actually caused them. This can be done by means of identifying the activities executed as a consequence of doing business with certain customers and recognizing resources consumed in the process of performing these activities. Traditional costing systems are not focused on collecting customer specific data. They are primarily designed to measure costs of products, product line, organizational parts and business functions. The fact that they do not recognize customers as a target to which the costs of enterprises should be traced, the traditional costing systems fail to capture a significant amount of costs incurred in, so called, downstream value chain activities, such as marketing, distribution and customer servicing [21, p. 238].

Customer Segment Profitability Analysis (CSPA) is similar to Customer Profitability Analysis. These two methods differ in the field of the object of an analysis. In the first case, the analysis is focused on customer segments while the second focuses on individual customers. The application of CSPA requires establishing customer segments. In case of final customers, customer segmentation is based on geographic, demographic, psychographic and behavioral variables while customer segmentation in business markets is based on general characteristics of organizational customers, nature of product application, key criteria for purchasing decision-making, procurement strategy, significance of purchases, etc. [27, p. 154]. Revenues and costs are assigned to the segments formed in this way. A substantial part of the costs assigned to the segments is direct in its character. The circle of direct costs is wider observed from the aspect of customer segments rather than from the aspect of individual customers [21, p. 240]. This is the reason why the application of this method reduces the time and resources required to conduct such an analysis.

CPA and CSPA provide historical data regarding the contribution of customers to achieving company profitability. These data may be useful for making business decisions only if they can be used to predict the future. Current i.e. historical customer profitability does not say much about customers' potential to generate future profits for a company. In order to manage customer relationships, it is necessary to project future financial benefits that customers will create for the company. To this end, Lifetime Customer Profitability Analysis (LCPA) and Valuation of Customers as Assets (VCA) have been developed.

Lifetime Customer Profitability Analysis is a method of measuring customer profitability where customer profitability is calculated in the way that revenues and expenses, i.e. cash flow that will be generated by customer during the years of cooperation, is projected for the individual customer. The next step requires discounting of profit or net cash flow to the current period. This method is applied for customers with whom companies intend to build long-term relationships. The name of this method is somewhat imprecise and over-ambitious, because projections of income and expenses (cash flow) cannot be performed for the entire period of the forthcoming cooperation with the customer. Specifically, it is extremely difficult to determine the length of customer life cycle and project income and expenses for a great number of years in advance because customer behavior is often subject to change. For this reason, the process of projecting individual customer profitability is carried out for the period in which it is possible to predict the future behavior of customers and the length of this period does not need to be the same for all customers.

The application of the method of Valuation of Customer as Assets rests on the belief that the investment in relationships with customers should not be seen only as a cost but as an investment as well, and that customers are the most valuable company's assets that should bring income, both in the present and in future periods. This method is largely based on LCPA. The financial value of an individual customer is determined by LCPA, while VCA determines the appropriate financial value of customer segments or entire customer portfolio, as a sum of values of individual customers that make up customer segments or portfolio. Given the fact that LCPA can be based on cash or accrual basis, the value of customer as assets may be determined by projecting revenues and expenses or cash flow [9, p. 840], where the value of a customer as an asset represents present value of total profit or net cash flow that will be induced by customers which make given segment or portfolio.

The application of method of measuring customer profitability in business practices

The literature [18] highlights a number of advantages of measuring customer profitability. Possession of information about the profitability of customers represents a main prerequisite for improvement in quality in the field of management decisions-making. The information on whether a particular customer or group of customers in the current period generates a gain or loss for a particular company as well as the information on whether or not they have the potential to generate profits in the future, enables separating those customers that should be kept and with whom the company should build long-term relationships from the customers that should be gradually eliminated. The realization that all customers are not worthy of investment improves the quality of the organization's resource allocation. The decision on which customers should be kept in an existing form of cooperation and which relationships should be redefined in order to generate profits in the future can be based on the analysis of customer profitability. Information about customer profitability improve the quality of the decisions regarding selling prices, discount policies and service provisions, but they can also improve the bargaining position of a company in relation to its customers because they allow the management to convincingly defend offered prices and mix of services that create value for customers and do not threaten the profitability of the company.

Considering the benefits of the application of customer profitability measurements, the question that arises is whether these benefits are being recognized in business practice, i.e. to what extent are methods of measuring customer profitability applied in business practices. Before we try to answer this question, it should be noted that one of the main causes of the gap between theory and practice in management accounting, which is the field that is responsible for measuring customer profitability, is that the management accounting theoreticians do not deal enough with the existing situation in practice. They are primarily focused on the development of new and the improvement of already existing management accounting methods and techniques, and they often fail to consider the extent to which these theoretical developments are accepted in practice. The lack of consideration of the application of certain concepts and methods of management accounting in business practice may be associated with the difficulties that arise in the implementation of such research. These difficulties stem from the lack of interest or unwillingness of managers and management accountants to share their experiences in the field of application in practice or from their unreadiness to present to the researchers the reasons for the absence of particular concepts application in practice. Keeping all this in mind, it is not an unusual thing that, to this date, there have been relatively few studies aimed at analyzing the application and the experience in the application of the methods of measuring customer profitability. The obtained results are shown in Table 1.

In a survey that was conducted on a sample of major Australian companies in 2002 [10], it was found that the prevalence of methods of measuring customer profitability was much higher than the literature suggested. Specifically, measured on a scale from 1 (not used at all) to 7 (used largely), the average applicability of CPA and CSPA is above the mean on the used measurement scale, while the application of LCPA and VCA is below the mean. Five years later, the same methodology was applied to a sample of companies from New Zealand [15] and it was concluded that there was under-representation of all the methods compared to the results obtained on a sample of companies from Australia. During the new study in 2011 in New Zealand [25] almost identical results were obtained in the application of all four tested methods for measuring customer profitability as in the research from 2002 in Australia. These three studies are focused solely on the observation of methods for measuring customer

Table 1: Summary of the representation of method for measuring customer profitability in business practices

Authors	Year	Country	Scale Measurement	The representation of methods for measuring customer profitability			
				CPA	CSPA	LCPA	VCA
Guilding, C., McManus. L.	(2002)	Australia	Likert scale (from 1 to 7)*	4.03	4.12	2.64	2.58
Drury, C., Tayles, M.	(2003)	Great Britain	Dichotomous scale (yes or no)	76%			
Lord, B. R., Shanahan, Y. P., Nolan, B. M.	(2007)	New Zealand	Likert scale (from 1 to 7)*	3.98	3.70	2.37	2.58
Cadez, S., Guilding, C.	(2007)	Slovenia	Likert scale (from 1 to 7)*	4.00	-	2.72	1.97
Cinquini, L., Tenucci, A.	(2007)	Italy	Likert scale (from 1 to 5)**	3.57			
CIMA	(2008)	More countries***	Dichotomous scale (yes or no)	49%	49%	22%	-
Tanima, F., Bates, K.	(2011)	New Zealand	Likert scale (from 1 to 7)*	4.30	4.55	2.65	2.05
Holm, M.	(2012)	Denmark and Sweden	Dichotomous scale (yes or no)	38%			

* 1 – not used at all, 7 – used largely
** 1 – never used, 5 – always used
*** The survey includes the following countries: United Kingdom (41%), Ireland (17%), Malaysia (7%), South Africa (6%), Sri Lanka (6%), Australia (6%), U.S. (4%), Canada (4%), New Zealand (2%), Hong Kong (2 %), France (1%), Netherlands (1%) and other countries (2%).

profitability, while in other studies, whose results we will analyze, the application of the method for measuring customer profitability is investigated together with the application of other concepts of management accounting.

When it comes to the analysis of the representation of 16 methods and concepts of strategic management accounting among large Slovenian companies [4], it was found that CPA was in eighth place, behind Competitor Performance Appraisal, Competitive Position Monitoring, Strategic Pricing, Quality Costing, Benchmarking, Strategic Cost Management and Integrated Performance Measurement. LCPA is in the penultimate and VCA in the last place. Greater application from these methods in the Slovenian business practice has the Value Chain Costing, Target Costing, Attribute Costing, Brand Valuation, Competitor Cost Assessment and Life-Cycle Costing. The average use of the investigated methods for measuring customer profitability, measured by a scale from 1 to 7, approximately corresponds to that determined in a sample of Australian companies.

A similar research has been done on a sample of Italian companies [6]. The presence of almost the same methods and concepts of strategic management accounting was investigated as mentioned in the previous survey. The differences are reflected in the fact that, in comparison to the survey conducted in Slovenia, the representation of Brand Valuation was not studied, but the concept of Activity Based Costing/Management was involved. This study showed that Customer Accounting, which includes all methods and techniques to determine customer profitability, is the second most abundant concept of strategic management accounting among companies in Italy, after Attribute Costing. The average application of Customer Accounting is around mean value of used measurement scale (from 1 – never used, to 5 – always used).

In 2003, generally dealing with profitability analysis among the companies in the UK, *Drury* and *Tayles* [7] found that 76% of companies conduct some form of customer profitability analysis of which almost 50% does analysis on a monthly basis. It is interesting to mention the survey which Chartered Institute of Management Accountants (CIMA) was conducted among its members in 2008 [5]. Although the members of the Institute are spread across the world, about 60% of the respondents were from companies that are located in the UK and Ireland. The survey showed that nearly 50% of companies, that made sample in this way, apply CPA and CSPA and only 22% assess LCPA.

Finally, let just add that *Holm* [11], in a survey aimed at identifying the factors that influence the sophistication of customer profitability analysis, found that 38% of large Danish and Swedish companies, measured in revenues, were conducting customer profitability analysis.

Skimming the data presented on the distribution of methods for measuring customer profitability allows us to see that the historically oriented methods have satisfactory application, but the methods that involve projections of future customer profitability are neglected in practice. Unfortunately, this may mean that management accounting is still primarily historically oriented, although 15 years ago, *Kaplan* and *Cooper* [14, p. vii] pointed out that management accounting must change their orientation from being the passive reporter of the past to a proactive influencer of the future.

Although research suggests that methods that offer historical data on customer profitability have been used in large enterprises substantially, which are often the subject of such research, it does not say anything about the sophistication of the used methods. The sophistication of these methods and the quality of the information they provide are determined by the types of expenses that are allocated to customers and the way this costs allocation is performed. Customer profitability can be determined throughout the allocation of only direct cost to customers. This mode of determining customer profitability is acceptable only if the direct costs have a dominant participation in the total costs which customers cause with their requirements and behavior, and that is rare. Another option is the one where the revenues that come from customer are confronted with direct and overhead costs. The overhead costs are often allocated to customers by means of only one cost driver and that cost driver is usually sales volume. This way established profitability often gives a wrong picture of the contribution of individual customers or groups of customers to the profitability of a corporation because most of the costs are allocated to customers who absorb the largest volume of sales, although they do not necessarily cause the greatest extent of the cost. It is necessary to allocate overhead costs to customers by applying numerous cost drivers. This mode of allocating costs and determining customer profitability is possible with the use of Activity Based Costing. It is interesting that studies, in which in the addition to the methods for measuring customer profitability, the use of other methods and techniques of management accounting was determined, show that Activity Based Costing is less present in practice than historically oriented methods of measuring customer profitability. From this we can conclude that, within the management accounting systems of large enterprises, customers are identified as carriers not only of income but of costs and profits as well, but it remains unclear whether management accountants are able to offer quality, although only historic information on customer profitability to the management.

Taking everything the aforementioned into account, the question inevitably arises as to whether management accountants in our companies provide management with adequate information regarding customer profitability, or the relationships with customers are managed without the informational support that management accounting can offer. The research on the implementation of customer profitability measuring methods among our enterprises has not been conducted so far. It would be interesting to examine whether marketing managers and sales managers in our companies have a need for information about the customer profitability and how management accountants see their role in the creation of these information.

In our country (and in some other countries as well), management accounting is still mostly in the shadow of financial accounting. For this reason, it is expected that the potentials of management accounting in terms of providing information support regarding business decisions-making (including the decisions regarding customer management) are not being fully used in our enterprises. On the other hand, it is encouraging that the representation of methods for measuring customer profitability in Slovenia, as one of the former Yugoslav republics, does not deviate significantly from Australia, a country with developed accounting practices. We should bear in mind that, although the Slovenian economy as well as the economy of the other republics of former Yugoslavia, was state-planned 20 years ago, today, Slovenia has reached a higher level of development of market economy and corporate governance compared to other republics.

The influence of situational factors on the application of the methods for measuring customer profitability

The application of any concept or method of management accounting, including methods of measuring customer profitability, should not be seen outside the context in which the given concept or method is used, because there is no such management accounting system design which is applicable in all companies and in all conditions. In fact, the design of management accounting system – in terms of the selection of concepts, methods and techniques to be used – should be a reflection of the management information needs and those needs are the consequences of the conditions under which the management makes its decisions. This means that the characteristics of management accounting system depend on the situation a company is confronted to and that different concepts are not equally necessary for all companies. The circumstances that create requirements and assumptions for the application of some management accounting methods are called contingent factors, which, by their nature, can be internal or external.

When it comes to the concept of customer profitability, not only do contingent factors affect the decision on applying this concept, but they also determine the choice of method regarding measuring customer profitability and the degree of sophistication of selected methods. Contingent factors that are considered to be the most influential when it comes to making decisions concerning applying and the way of applying the concept of customer profitability are: size of the organization, degree of competition in the market, market orientation, number of customers which the company operates with and differences between customers in terms of income and costs they cause [18].

The size of an organization is a contingent factor that is often considered in the application of management accounting concepts. Numerous studies confirm that larger organizations apply more sophisticated methods of management accounting compared to smaller organizations [11, pp. 11-15]. *Nielsen*, *Bukh* and *Mols* [23, p. 276] confirmed on the example of Danish companies engaged in financial services, that the organization size affects the application of methods of measuring customer profitability and that, contrary to large companies, smaller companies rarely consider the possibility of applying these methods. The authors note that smaller companies do not have the need for more sophisticated management accounting methods as big companies do. Regardless of the fact that methods of measuring customer profitability are more commonly used among larger companies, it should not infer that the aforementioned methods are not useful in case of smaller companies. Smaller companies also have a need for information on the contribution of individual customers or groups of customers to overall profitability of the company but they usually lack the knowledge needed to determine the profitability of customers as well as the knowledge needed for using this information in making business decisions. For smaller companies, benefits from applying sophisticated management accounting concepts often cannot exceed the costs of their implementation, which is why the lack of their application occurs.

The next contingent factor that determines the application of methods for measuring customer profitability is the level of competition in the market on which the company operates. Under conditions of low competition (conditions of monopoly and state market regulation), there is no need to measure profitability at the level of customers because customers have limited possibilities for changing suppliers and also, fixed selling price and standardized offer significantly reduce the differences in the level of customer profitability. With the increase of competition, the need for differentiating products and services, compared to what competitors offer, also increases. The need to be different usually leads to an increase in number of products and services in the field of selling assortment and customer segmentation. The customization of products and services to specific customer requirements increases costs and the need for keeping track of expenses at the level of individual customers or groups of customers. Also, in the conditions of the strict competitiveness, enterprises make less profit and it is necessary to carefully identify and manage sources of profitability. Although empirical studies offer conflicting conclusions about the connection between the market competitiveness and the application of methods of measuring customer profitability [18, pp. 19-20], the previous explanation and the proven fact that the market competitiveness affects the sophistication and external orientation of management accounting system [11, pp. 11-12], lead us to believe that an increase in the market competitiveness encourages the application of customer profitability concept.

Market-oriented companies are companies that are primarily focused on their customers. They base their competitive advantage on their efforts to meet customer needs better than their competitors. In order to achieve their defined goals they require external information and, primarily, information regarding customers. Conventional management accounting system is predominantly internally oriented. Such an orientation of management accounting can be a serious problem in companies that are highly market-oriented, but it can also create the need for redesigning management accounting system and introducing the concept of customer profitability. This means that it is expected the existence of a relationship between market orientation of the company and the application of customer profitability concept. Such a correlation is confirmed by the results of empirical studies [10], [15], [17] and [25] and thereby, not only do they confirm the impact of market orientation on the decision about the application of the customer profitability concept, but they also confirm that market orientation influences the choice of methods of measuring customer profitability and the level of sophistication of these methods as well. The companies that are market-oriented usually are committed to building long-term relationships with customers so that they are not satisfied only with information about the current profitability of customers, but they also need information about the future profitability in order to be able to allocate their resources. Also, investing in relationships with customers leads to higher discretionary marketing expenses, which usually cannot be detected by conventional costing systems. This situation requires that the measurements of customer profitability are based on sophisticated methods of calculating costs.

The number of customers that the company serves is, also, a factor that affects the application of the customer profitability concept. This situational factor determines the aggregational degree of customer profitability measures, i.e. it influences the decision on whether the profitability will be measured at the level of individual customer or at the level of group of customers. Although it would be good to know the current and the future profitability of each customer, in some situations it is not possible and necessary to measure the profitability of each and every one of them. Measuring profitability at the level of groups of customers should be applied in cases when the company does not have adequate information about individual customers and when marketing efforts are directed towards groups of customers, not towards individual customers. The need for greater aggregation of customer profitability measurements is particularly evident in terms of business with a large number of customers. The greater number of customers is, the more difficult it is to determine the profitability of individual customers and the costs of such an analysis substantially exceed the benefits.

The last of the considered situational factors that affects the application of methods of measuring customer profitability is the existence of differences in levels of income and costs between individual customers. It seems that the differences in the amount of costs, above all, represent a major reason for the application of these methods [18, p. 16]. The differences in the amount of costs are caused by the differences in behavior and requirements of individual customers. Customers use different services in addition to basic product and to different extent; they have different requirements regarding the customization and delivery of products, methods and speed of payment etc., which lead them to unevenly consume company's resources. On the other hand, differences in income are influenced by the type and quantity of products that customers buy, the amount of the selling prices and the amount of the discounts. Companies with no significant differences in the amounts of income and expenses that would lead to differences in the amount of profit generated by individual customers or the groups of customers do not need to apply the concept of customer profitability.

The obstacles in the process of application of methods of measuring customer profitability

When we talk about the application of methods of measuring customer profitability, in addition to the benefits that they bring and the conditions that create the need for their use, we should highlight the difficulties that companies confront in the process of their implementation. Usually, there is great time distance between the decision to use the concept of customer profitability and the moment of manifestation of the benefits of measuring customer profitability and there is a number of requirements that must be met in order to successfully apply methods of measuring customer profitability.

The implementation of methods of measuring customer profitability undergoes several stages. The first step refers to getting the support of top management as well as marketing and sales managers for the application of customer profitability concept and providing financial and human resources required for its implementation. After that follows the determination of the way in which customer profitability will be measured. The next step is the collection of data regarding customers, especially information regarding revenues and costs that customers cause and information regarding all customers' characteristics, requirements and behavior that cause revenues and costs. This is followed by the transformation of collected data to timely and, for decision-makers, comprehensive information on the current or the future customer profitability. Then, in order to insure meaningfulness of the application of methods of measuring customer profitability, it is necessary to ensure the use of the information obtained about the customer profitability in making business decisions, i.e. managing relationships with customers. The last step (which at the same time represents the test of effectiveness of methods of measuring customer profitability) is the assessment of contribution of the application of these methods to the improvement of, primarily, financial performances of companies.

Enumerated phases of the implementation process are so intertwined that the failures in any phase can affect the overall effectiveness of the application of method of measuring customer profitability. For this reason, it is necessary to identify the obstacles that may arise during the implementation of the aforementioned methods. The most common obstacles are the lack of top management support, resistance to change, lack of knowledge and skills, problems in collection of the necessary data and the conflict between organizational units affected by the introduction of a new concept. These barriers arise in the implementation of almost all sophisticated concepts of management accounting, including the concept of customer profitability [20], [23].

The support of top management is crucial for the implementation of the concept of customer profitability. The lack of support, especially in the early stages, may threaten the continuation of implementation process. The absence of support may be caused by management conclusions that it is not the best moment to introduce the method in question because the organization has other priorities or that the organization already has the necessary information for appropriate customer relationship management. The fear of change often hides behind these attitudes. This fear is especially emphasized in organizations that operate well. In organizations where the satisfaction with the results is present, it is difficult to convince management and employees that a new way of measuring the performance of customers should be introduced, which, at the same time, requires a lot of time and resources. In such organizations, the usual attitude is presented in opinion that there is no need to change anything until the organization operates well. The fear of change may be present in companies that generate poor results, but in such organizations it is obvious that something needs to change if they want to improve the results.

A problem that may also occur during the introduction and application of methods of measuring customer profitability is the lack of knowledge needed to determine the profitability of customers. This problem often leads to resistance of employees towards introduction of a new way of measuring customer performances. The problem created by a lack of knowledge and skills is especially evident in the process of implementation of Lifetime Customer Profitability Analyses and Valuation of Customers as Assets. The lack of knowledge can be one of the main causes of inadequate implementation of these methods in practice. If there is a commitment of top management in terms of implementation of method of measuring customer profitability, this obstacle can be eliminated through education of employees who will work on the calculation of customer profitability, but also those who are supposed to, when making business decisions, use information about customer profitability.

Getting reliable information about customer profitability requires the precise allocation of revenues and costs to customers who actually cause them. For such allocation, it is necessary to possess variety of information about customers and, above all, about their requirements, behavior and characteristics that determine cost drivers. The collection of this data is often a problem in the process of application of methods of measuring customer profitability. The required data are collected in different parts of the organization. Every organization unit has its own information system, i.e. system for collecting and processing data and generating information. Those information systems are usually not integrated. Therefore, management accountants often find it difficult to get the necessary data that are collected in other parts of the organization. For the successful application of methods of measuring customer profitability, it is necessary to create an integrated information system within the entire organization with a single database accessible to employees at all organizational units.

Most of the data needed for the determination of cost drivers and the projection of customer profitability are collected within the departments of marketing and sales. Problems arising from the nonexistence of integration of the information systems of these functional areas and the accounting information system can be easily overcome if marketing and sales managers wholeheartedly support the use of methods of measuring customer profitability. Unfortunately, the use of the customer profitability concept often creates a conflict between marketing and sales departments, on one hand, and the accounting department on the other. This conflict usually occurs when marketing managers and sales managers are not involved in the design of the system of measuring customer profitability and when there is a fear that the customer profitability measurements will be used to assess performances and reward employees within these functional areas. Then, there is usually a certain amount of resistance regarding the usage of customer profitability measurements for making decisions.

Cooperating with marketing and sales managers in the process of designing the system of measuring customer profitability results in their commitment to the concept of customer profitability and, therefore, removes one of the obstacles in the process of its implementation. It also improves the quality of customer profitability measurements because these measurements should be adjusted to marketing and sales managers' information needs and that is the reason why their suggestions are extremely useful in the design phase. To prevent a possible conflict between these functional areas, when applying the concept of customer profitability, it is necessary to clarify the purposes for which the measurements of customer profitability will be used. Using customer profitability measurements for the purposes of assessing the performances and rewarding employees in marketing and sales departments is not justified. All employees in the organization must contribute to creating values for customers and shareholders, which reflects through customer profitability, so that the employees in the marketing and sales departments cannot be the only people responsible for meeting these objectives.

The aforementioned obstacles that may arise during the implementation of the concept of customer profitability are usually not present at all stages of the implementation. In the initial stages, the biggest problem is the lack of support of top management, marketing managers and sales managers. In the later stages, the issues related to the collection of data needed for measuring or projecting customer profitability come to the fore. The experiences of those who apply some of the methods for measuring customer profitability show that the obstacles that organizations encounter in the process of their implementation do not lead to the abandonment of the concept, but significantly reduce the use of customer profitability measures in the process of decision-making [23].

Conclusion

In order to successfully manage relationships with customers, it is not sufficient that the company's management possesses only non-financial customer performance information. Satisfaction and loyalty of customers indicate that the company creates value for customers but they say nothing about whether or not customers create value for the company. With the increase of customer satisfaction, company's sales volume and revenues increase as well, but because of the possible increase in the cost of serving customers, i.e. the costs resulting from creating their satisfaction, the increased customer satisfaction does not necessarily lead to improved financial performance of companies. In order for the company to achieve and maintain mutually beneficial relationships with customers, it is necessary to measure customer contribution to the company's profitability.

The concept of customer profitability is the subject of interest of both management accounting and marketing. Although these problems are less prevalent in the literature on management accounting, it is expected that management accounting contributes to the development of the methodology of measuring customer profitability. Four methods for measuring customer profitability have been developed so far. They differ by the object of measurement (individual customers or groups of customers) and the time horizon (historically oriented or future-oriented).

Historically oriented methods of measuring customer profitability are more represented in business practices compared to the methods that involve projections of future customer profitability. This fact confirms that the management accounting remained primarily oriented towards the past. Unfortunately, most companies ignore the fact that current customer profitability usually does not say much about the potentiality of customers to generate profits for the company in the future. Although the methods used to measure the contribution of costumers to the profit of enterprise in the previous accounting period have satisfactory application, it is unclear to what extent management accountants in these companies supply management with adequate information on customer profitability, bearing in mind the complexity of the allocation of costs to customers who cause them.

When we consider the use of the concept of customer profitability, we must bear in mind that all companies do not have an equal need for information. The need to apply the methods of measuring customer profitability and the choice of methods, as well as the degree of sophistication of selected methods, are primarily determined by the size of the organization, the degree of market competition, market orientation of companies, number of customers which the company operates with and the differences between customers in terms of the amount of revenues and costs they cause.

The benefits of methods of measuring customer profitability are reflected in the quality of management decisions which are related to the customers who represent the main source of profitability of the company and its most valuable asset. Besides the benefits, during the usage of costumer profitability concept, companies are confronted to certain difficulties with regard to the lack of top management support, the resistance to change, the lack of knowledge and skills, the problems in collecting the necessary data and the presence of conflict between the accounting department and departments of marketing and sales. These barriers usually do not lead to the abandonment of the concept, but significantly reduce the use of customer profitability measurements in the process of business decision-making.

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Amira Pobrić

graduated in 2005 at the Faculty of Economics, University of East Sarajevo. She got master's degree in Financial Accounting Analysis in 2009 from the Faculty of Economics, University of Belgrade. Currently, she is a doctoral student at the Faculty of Economics, University of Belgrade and a Teaching Assistant at the Faculty of Economics, University of East Sarajevo.