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EVALUATION OF CUSTOMERS' PROFITABILITY IN THE ACCOUNTING PRACTICE OF TUZLA CANTON COMPANIES

ABSTRACT

The aim of the paper is to clarify and systematize the methods of evaluating customers' profitability on a scientifically based methodology. It also aims at investigating the relationship between business results achieved by individual sectors in the companies from the Tuzla Canton (TC) and the applied method of profitability management, in the function of generating such results. The analysis was conducted on the appropriateness of the current approach to profitability management according to information resources which served as the basis of the approach. Certain limitations were identified, which in practice lead to an inaccurate evaluation of customers' profitability. The transitional economy, characterized by macroeconomic instability and a low competitiveness factor in general, along with other numerous external limitations, requires that companies effectively rearrange their value chain, in the function of finding internal resources, in order to achieve long-term profitability of the customer portfolio management. The origin of modern trends in creation and maintenance of comparative advantages of the company lies in adoption of the "Customer Relationship Management" (CRM) business philosophy. The research results indicate insufficient knowledge of the management about the key "drivers" of success in achieving comparative advantages and point to inadequate organization of the accounting function which is not able to support a modern approach to business performance management.

Keywords: Profitability management, customers' profitability evaluation methods, sectorial analysis of business indicators, transition economy, Tuzla Canton

1. Preliminary discussion

The dynamic economic environment and trend of integration of the world economy sets new demands on the management of Bosnian-Herzegovinian (B&H) companies, particularly in terms of finding a more contemporary way of business management which will ensure survival on the market. The increased number of foreign competitors along with numerous unfavorable external variables of the business environment (such as macroeconomic instability, high fiscal and parafiscal charges, insufficiently developed financial market, inefficiency of the state administration and the judiciary), impose the need for an effective approach to the management of organizational resources. External variables of the business environment are determinants which cannot be managed, which is why companies need to find a way to effectively and efficiently recruit internal resources in the function of harmonization with the given constraints. The traditional approach to the company's business management through the management of products, goods and services profitability is not appropriate to the existing changed economic conditions. Contemporary trends of keeping the company's comparative advantages have their origin in meeting customers' needs. Companies are focused on meeting the growing demands of customers, and creating competitive advantages by joining numerous "pre-sale" and "post-sale" services to customers, offering them the so-called "total products", and consequently the "total services". Companies adopted the business philosophy of CRM, which becomes a means of differentiation and a key competitive tool in the brutal market competition" (Muller, Srića, 2005: 8). This shift of focus from products to customers provides an integrated approach to the company's profitability management, which in its theoretical concept already includes and expands the traditional system of profitability management by products. Jonathan Byrnes, a lecturer at MIT (Massachusetts Institute of Technology) and President of Jonathan Byrnes & Co. consulting company, believes that the cause of non-profitability of some companies lies in the fact that "all management information and management processes were developed in a previous business period". Accounting categories in companies do not have the ability to define the profitable customers, which is why it is usually assumed that more revenue results in higher profit. In fact, some revenues

from sales to customers are very profitable, while we also have a surprisingly large part of revenue which generates loss. In most companies there is no person in charge of supervising the interaction of revenue and their related expenditures in the function of profitability management (Byrnes, 2011: 1).

The size and quality of the customer base prove the success of the company's business strategy. They ensure its survival, growth and development on the market. The company's customer portfolio management is the ultimate goal, implemented by taking in consideration all the factors of the external environment, and harmonization of the company's value chain with the given determinants. In other words, the starting point is the market research (customer requirements, willingness to pay for a particular product or service, research of the value of that product/service for a customer, competition research, etc.), which is followed by the harmonization of the value chain in the company in terms of activities and costs generated by these activities. The harmonization of the value chain is directed towards the elimination of activities that do not add value, and cost optimization for the creation of value in all the processes. Additional value created in all business processes ultimately contributes to the growth of the value of the company's customer portfolio.

Adoption of the CRM business philosophy and focus on the company's customer profitability management, as well as the reorganization of the accounting function which needs to be able to support the management approach which is different from the legal and professional guidelines, directly impact the improvement of business performance (Kaplan, Narayanan, 2001: 1-12; Kaplan, Narayanan, 2001: 5-15; Teemu, 2004: 1-17; Muller, Srića, 2005: 8; Domazet, 2007: 2; Cokins, 2014: 16; and numerous other authors).

2. Research objectives

The advantages of a modern approach to profitability management, as opposed to the generally poor condition of the business results of legal entities in the TC, have led us to explore the above mentioned issues. The research objectives can be summarized as follows:

O1: To systemize the methods of customers' accounting profitability evaluation;

O2: To explore the management attitude towards the applied ways of profitability management;

O3: To explore the limitations in implementation of the modern concept of profitability management:

O3.1: To explore the degree of managers' awareness of differences in realized profitability per customer;

O3.2: To explore the development of the accounting function in the field of support in the evaluation of company customers' profitability;

O3.3: To explore the applied evaluation methods of profitability or groups of similar customers.

The realization of the set goals shall enable the conclusions based on scientific arguments.

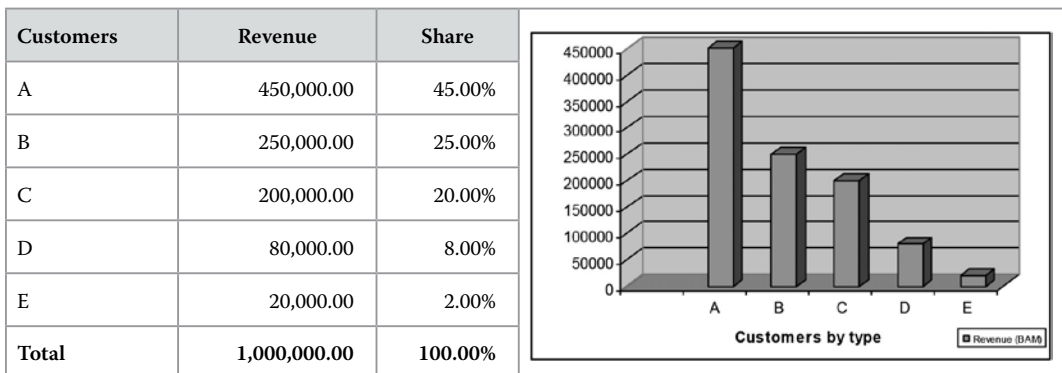
3. Background – accounting methods of customer profitability evaluation

The basis for carrying out the tasks of customer relationship management comprises the information about the "quality" of the customer. The largest part of this information is created in the company's accounting department. It strengthens the link between the organization of the accounting function and activities of CRM. Evaluation of the realized accounting profitability per customer is made by the methods of customer profitability analysis (CP analysis), analysis of the curve of cumulative customer's

profitability, analysis of customer profitability per segments (the so called ABC analysis), analysis of customer profitability ratio to the usage of business capacities (the so called XY analysis) by means of Stobahoff's index and ratio analysis. Reporting on the realized business results should be expanded by the report on the share of individual customers/groups of similar type of customers or market segments, in the company's achieved net profit.

The position of customers in the balance sheet of the legal entity presents the amount of uncollected receivables arising from the sale of products, goods and services. Financial reporting purposes do not require recognition or valuation of the company's client base, which would be entered as a means to the assets of a legal entity, although it can be said that the value of customers represents "invisible" assets. Thus the company may have contracts made with key customers for the annual delivery of products, goods and services at the contracted price, but in accordance with the requirements of financial accounting, the value of these contracts for the company cannot be recorded in business books. Such a reduced information basis of the companies' accounting systems results in wrong business decisions with long-term consequences on financial results in future accounting periods. The accounting systems of most companies efficiently monitor the share of individual customers in the total revenue structure. Hence, they are able to rank customers according to the volume of realized turnover. Let us consider the example of how useful this information can be to the company's management for business decision making (Figure 1).

Figure 1 Ranking customers by share in revenue



Source: Authors' interpretation

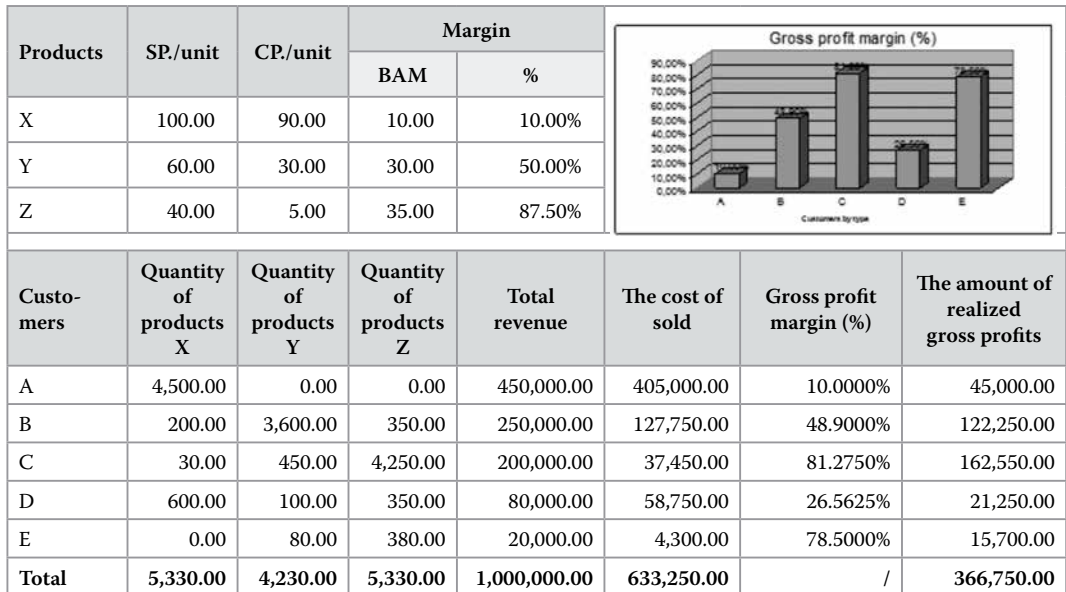
The above table and graphical representation give us the facts about the share of individual customers in the total revenue of the company. However, such an analysis does not show the percentage share of individual customers in the realized profit of the company. The fact that a large volume of turnover was achieved with some customers does not mean that those are the most profitable customers. The company's management can easily fall into a trap on the basis of these indicators. Blinded by a desire for the increase of the company's revenue, they can ignore the fact that an increase in revenue does not necessarily mean the growth of the company's net profit. Striving to increase the volume of business transactions, a company can offer to customer A some quantity discounts, numerous "pre-sale" and "post-sale" services, thus exposing itself to considerable costs to keep the client, without real knowledge about the client's actual contribution to profitability. Considering that the example shows the need for considering the share in the realized gross profit apart from the revenue share, we will expand our analysis in that direction. Depending on the product mix they buy, ranking customers by the level of profitability can be significantly different.

After matching revenue with the costs of goods sold, and determining the rate of gross profit margins, review of profitability per customer is as follows (Figure 2).

An extended analysis provides a new idea about the importance of individual customers in terms of their share in the gross profit of the company. Customer A, who has the largest share of 45% in the company's revenue, is in the last position in terms of the profitability ranking, with a gross profit margin of 10.00%. The most profitable customer is C (81.275%), who participates in company's revenue with only 20%. Thus, one can see that the data on the amount of revenue and the absolute amount of the realized gross profit per individual customer are not a reliable basis for decision making. Management business decisions cannot thus completely rely on such information.

In modern times, spending funds on marketing, sales, distribution and other administrative costs has risen sharply, in an effort to keep pace with different customer requirements. Some customers require modification of standard products, various certificates, special packaging, they carry out small quantity orders, complain about products, insist on specific channels of distribution, require a discount, and delay payment, "post-sale" support.

Figure 2 Ranking customers by the gross profit margin



Source: Authors' interpretation

Table 1 CP analysis of customer profitability

Customers	Total Revenues	The cost of sold	Gross profit margin (%)	The amount of realized gross profits	Customer service costs	Net profit margin (%)	The amount of realized Profit
A	450,000.00	405,000.00	10.0000%	45,000.00	47,000.00	-0.444%	-2,000.00
B	250,000.00	127,750.00	48.9000%	122,250.00	13,000.00	43.700%	109,250.00
C	200,000.00	37,450.00	81.2750%	162,550.00	55,000.00	53.775%	107.550.00
D	80,000.00	58,750.00	26.5625%	21,250.00	21,000.00	0.3125%	250.00
E	20,000.00	4,300.00	78.5000%	15,700.00	4,000.00	58.500%	11,700.00
Total	1,000,000.00	633,250.00	/	366,750.00	140,000.00	/	226,750.00

Source: Authors' interpretation

Therefore, considerable marketing efforts are required for keeping customers loyal. On the other hand, there are customers who order standard versions of the product, with standard terms of packaging and delivery, and have no need for "pre-sale" and "post-sale" support from the company. From this we can conclude, that the service costs, per individual customer, are different (Weinberg, 1999: 28, Kaplan, Cooper, 1998: 181; Kaplan, Narayanan, 2001: 4, etc.). Therefore, some customers are "more expensive" than others. Bearing in mind the fact that the customer is the one who almost completely determines the quantity of needs for organizational activities, we can say that the "spending of organizational resources is much more customer than product driven." Therefore, only CP analysis reveals the real rate of profitability per customer, and that within the sample, customer E is the most profitable with a share of 58.5%, while customer A generates a negative profit margin of 0.44% (Table 1).

The biggest problem of conducting CP analysis is the ability of the accounting function to monitor and allocate the costs incurred in connection with the servicing of individual customers. The methods of monitoring and scheduling operating costs per customer depend on the development of the company's costing system. In other words, the accounting function monitors costs that can be directly linked to individual customers or groups of the same customers, while the layout of overhead varies and depends on whether the company uses traditional methods in allocating costs (layout of indirect costs based on the number of transactions, share in revenue, etc.), layout based on activities (activity-based costing), layout based on time of

performance of certain activities (time-driven activity-based costing), and layout based on consumption of resources (resource consumption accounting). It is important that the appropriate usage of CP analysis is not possible without contemporary systems of cost accounting. Contemporary systems enable the correct settling of resource costs to various hierarchical levels of customer service.

After the conducted CP analysis of the customer profitability or the profitability of groups of the same type of customers, a report is created on the realized profitability of the entire company, and on the share of customers in the result, as shown in Table 2.

After the report is made on customer share in the realized business results, the curve can be created of cumulative profitability of the company's customers (Figure 3). The curve demonstrates the effect of cumulative profitability as a function of net profit margins per individual customer in the total base, ranked by the amount of the profit realized. The vertical axis on the graph represents the cumulative profitability of the customer base. On the other hand, customers are lined up on the x-axis, according to the degree of their profitability, so that the most profitable customers are positioned on the left side. The profitability of each successive customer is added to the profitability of the previous customer so as to form a curve of cumulative profitability of the customer base.

Table 2 Report on share of customers in the company's realized profitability

	[Group of customers No. 1]	[Group of customers No. 2]	[Group of customers No. 3]	[Customer X]	[Customer Y]	Total
Customers' activity						
Number of active customers at the beginning of the period	10	15	20	1	1	47
Number of additional customers	2	4	5			11
Number of lost/defected customers	-1	-2	-7			-10
Number of active customers at the end of the period	11	17	18	1	1	48
Profitability Analysis						
Sales revenue	1,500,000	1,800,000	2,500,000	800,000	790,000	7,390,000
Participation (%)	20.30%	24.36%	33.83%	10.83%	10.69%	100.00%
Number of invoices issued for the period	6000	2100	980	120	210	9410
The average value per invoice	250.00	857.14	2,551.02	6,666.67	3,761.90	785.33
Costs for sold:						
Cost of sold products, goods, services	1,100,000	1,200,000	1,500,000	579,000	646,000	5,025,000
Other direct costs	100,000	2,000	100,000	50,000	46,000	298,000
Total cost of sales	1,200,000	1,202,000	1,600,000	529,000	600,000	5,131,000
gross profit	300,000	598,000	900,000	271,000	190,000	2,259,000
Participation (%)	13.28%	26.47%	39.84%	12.00%	8.41%	100.00%
Layout of operative indirect costs						
Cost of acquisition	90,000	70,000	235,000	59,000	45,000	499,000
Marketing expenses	120,000	110,000	275,000	49,500	52,700	607,200
The cost of defection	5,000	7,000	140,000	0	0	152,000
The costs of receiving and processing customer orders	3,000	3,500	4,000	1,600	2,000	14,100
The costs of loading and delivery	105,000	55,000	37,000	4,000	7,000	208,000
The cost of special requests specified when ordering	3,000	500	0	0	500	4,000
The costs of complaints and return of goods	13,500	14,000	15,800	4,000	3,050	50,350
The financial costs of money transactions, loaning, warnings, lawsuits	24,000	19,000	31,600	16,000	18,000	108,600
Other costs	1,000	0	1,800	900	1,100	4,800
The cost of unused capacity caused by customers	5,000	0	0	0	0	5,000

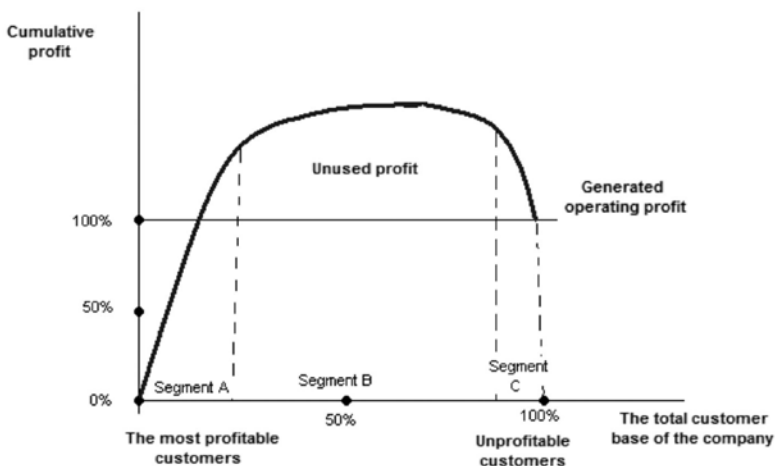
Total indirect costs per customer	369,500	279,000	740,200	135,000	129,350	1,653,050
OPERATING profit (loss)	(69,500)	319,000	159,800	136,000	60,650	605,950
Participation (%)	-11.47%	52.64%	26.37%	22.44%	10.01%	100.00%
General maintenance costs of sales that cannot be arranged individually per customer						50,000
Operating expenses of the company						70,000
The costs of unused capacity						100,000
Net profit (loss) before tax						385,950
Summary indicators						
The average costs of attracting customers	45,000	17,500	47,000	59,000	45,000	
The average costs of customer defection	5,000	3,500	20,000	0	0	
Average net revenue (loss) per customer	(6,318)	18,765	8,878	136,000	60,650	

Source: Authors' interpretation

The position of the customer on the curve of cumulative profitability depends on the revenue, cost of goods sold and assigned operating costs caused by the behavior of the customer in business cooperation. The curve of cumulative profitability can further be subjected to the ABC analysis.

When applying this analysis, customers will be divided into three groups: customers in segment A are highly profitable customers (who probably belong to the group of customers with low cost servicing) and are on the left side of the curve of cumulative profitability; customers in segment B, whose rate of profitability varies around break-even costs, and customers in segment C (probably belonging to the group of customers with high costs of servicing)

Figure 3 The curve of cumulative profitability

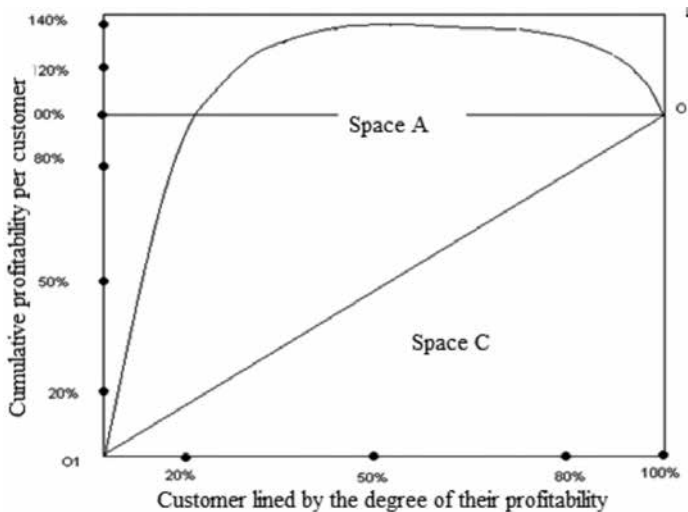


Source: Authors' interpretation

who are extremely unprofitable, and by generating losses reduce the function of cumulative profitability at 100%. The ABC analysis usually reveals that 20% of the most profitable customers generate between 150% and 300% of the total profit. 70% of the customers positioned in the central part of the curve are somewhere near break-even costs, while the remaining 10% of the customers generate a loss of 50% to 200% of the total profit (Kaplan, Narayanan, 2001: 4). The given indicators vary for different authors, but they all support the Pareto 80/20 Rule. Namely, some 80% of the customers make over 100% of the organization profit, while the remaining 20% reduce the company's profit to 100%, thus generating a loss. In addition, the Pareto 80/20 Rule suggests that most companies make 80% of their profit from 20% of their biggest customers.

The curve of cumulative profitability can be analyzed by means of the Stobachoff index. This indicator can be used for the evaluation/assessment of a customer portfolio, based on the shape of the curve of cumulative profitability. Assuming that every customer is equally profitable and that all customers are profitable, the curve of customer cumulative profitability would not be the curve but rather the linear function that passes through the points O1 and O2 (Figure 4).

Figure 4 The curve of cumulative profitability



The curve shape correlates with profitability distribution which depends on the ration of profitable and unprofitable customers. Based on this, the Stobachoff index of profitability was developed (Shajahan, 2004: 155):

$$S = A / T$$

S – the Stobachoff index,

A - surface bounded by the curve and the linear function (O1, O2)

T – surface A + surface C.

The Stobachoff index is the measure of deviation compared to the ideal customer base. When the value of the Stobachoff index is zero, the profitability is equally distributed to all customers, whereby they are all profitable. The theoretical maximum value of the index is one, reached only if the customer base structure includes one customer with infinite profitability, a large number of customers with zero profitability, and one unprofitable customer with infinite negative profitability.

The Stobachoff index, when combined with the share of profitable customers, can be used in several ways. It can be applied in an effort to create a satisfactory customer base, for the comparison of the value of different customer bases among companies, etc.

Source: Shajahan, S. (2004). *Relationship marketing: Text and Cases*. New Delhi: Tata McGraw Hill, p. 154.

Table 3 Customers' profitability indicators

Performance measure	Computing formula	Comment
Gross profit margin per individual customer (%)	(Gross profit made per individual customer / net sales per individual customer)*100	It shows the value of gross profit per each BAM 100 of the realized revenue per customer
Net profit margin per individual customer (%)	(Net profit made per individual customer / net sales per individual customer)*100	It shows the value of net profit per each BAM 100 of the realized revenue per customer
The average gross profit per order (in BAM)	(Gross profit made per individual customer / number of invoices issued per customer)	It shows average amount of generated gross profit per order
The average gross profit per item order (in BAM)	(Gross profit made per individual customer / number of items on invoices issued to some customers)	It shows the average amount of gross profit per one item order
The average gross profit per delivery (in BAM)	(Gross profit made per individual customer / number of deliveries per individual customer)	It shows the average amount of generated gross profit per delivery
The average gross profit per unit (in BAM)	(Gross profit made per individual customer / number of units sold per individual customer)	It shows the average value of gross profit per each unit sold (e.g. a box, pallet, ton, container, etc.)

Authors' adaptation of the source: Credit Research Foundation, 1999. Available at: <https://www.crfonline.org/orc/cro/cro-16.html>

The index gives information on the sensitivity of the customer base profitability and the risk involved in the relations with the individual customer segments. The best case would be the situation where the Stobachoff index is zero (0) and the proportion of profitable customers is one (1), which would indicate that all customers are profitable.

A high value of the Stobachoff index, combined with a large share of profitable customers, indicates that the customer base includes a rather low number of unprofitable customers that significantly erode the company's profit. In such a situation, a company may radically improve their profitability by identifying unprofitable customers and modifying or suspending its business relations with such customers.

A small share of profitable customers, combined with the low Stobachoff index, indicated that the customer base does not include extremely unprofitable customers and that slight corrections are needed in business relations with the customers whose profitability is negative, zero or close to zero.

The curve of cumulative profitability which indicates a high Stobachoff index, combined with a small proportion/share of profitable customers is the company's worst case scenario. In such a situation, a company depends on several key customers and it is exposed to the risk of competitive activities which may result in profitable customers leaving the company. On the other hand, negotiating the power of such customers is strong enough for them to require such conditions that may ultimately lead to their unprofitability. Faced with this, the company needs to apply the strategy of customer differentiation. Unprofitable customers need to be replaced by other customers whose market segmentation is made based on the characteristics of the existing profitable customers.

Prior to the management's decision on dropping certain customers, XY analysis needs to be conducted on the customers' portfolio. The XY analysis establishes the relation between the net profit margin per customer and the degree of the company's capacity utilization. Provided that the practical capacity of the company is 500,000 tons annually, while the actual capacity is 420,000 t, it means that the utilization of production capacity is 84%, which satisfies customer demand. The remaining 16% of the costs of unused capacity represents expenses for the period.

Table 4 Quality indicators of receivables from customers

Performance measure	Computing formula	Comment
Average time for collection of receivables from a customer	$(360 \times \text{The average customer receivables} / \text{net sale revenues from sales to the customer})$	It shows average time of collection of receivables from customers (in days)
Average receivables from customers per invoice	$(\text{The value of receivables per individual customer} / \text{number of issued invoices per individual customer})$	The amount of average receivables per issued invoice, which gives an insight into the size of individual purchases of customers

Source: Authors' interpretation

It is important for a company to investigate the percentage of customers that buy the largest amount of the company's products. The customer that generates a negative net profit margin, and buys a large volume (e.g. 25%) of annual production, is of great importance for the company. Such a customer allows the company to cover a part of the costs that would otherwise (as unused capacity costs) fall at the expense of the company. The company's largest customers are often either the most or least profitable ones.

The last method for the purpose of evaluating the quality of buyers is ratio analysis. Ratio analysis of business relationships with customers provides us with three types of information. Those are information about customer profitability (Table 3), information about the quality of receivables from customers (Table 4) and information about the change in the volume of business relationships with customers (Table 5). For the purpose of ratio analysis, all the necessary data are provided by the company's accounting function.

Table 5 Indicators of changes in business relationships with customers

Performance measure	Computing formula	Comment
The percentage of change in sales revenue (%)	$(\text{Net sales revenue [t]} - \text{Net sales revenue [t-1]} / \text{Net sales revenue [t-1]})$	Represents a measure of the percent trend changes in sales per individual customer
The percentage of change in gross profit (%)	$(\text{Gross profit [t]} - \text{Gross profit [t-1]} / \text{Gross profit [t-1]})$	Represents a measure of the percent change in gross profit per individual customer
The percentage of change in net profit (%)	$(\text{Net profit [t]} - \text{Net profit [t-1]} / \text{Net profit [t-1]})$	Represents a measure of percent change of the net profit per individual customer

Authors' adaptation of the source: Credit Research Foundation, 1999. Available at: <https://www.crfonline.org/orc/cro/cro-16.html>

The abovementioned measures of the evaluation of the company's customer quality are the basic tools in the application of modern management of the company's business performance. Bigger information potential and numerous proved advantages of the modern concept of profitability management induced us to conduct the research into the practice of profitability management in the companies in the TC. The research also included the level of management's awareness of customer structure and their profitability level, and indications on the relationship between business results per legal entity sectors and the applied method of profitability management.

4. Research sample and methods

For the purpose of the research, the population was defined, made up of all the companies registered on the territory of the TC, followed by the analysis of the structure of legal entities by the type of their activities (standard Nace Rev.1). The sample was then made, which represents the population structure.

Table 6 Population and sample

No.	Activity	Population		Sample	
		Number of companies	%	Surveyed	%
1	A-Agriculture, hunting and forestry	88	0.02	3	0.02
2	B-Fishing trade	1	0.00	0	0.00
3	C-Mining and quarrying	26	0.01	1	0.01
4	D-Manufacturing industry	748	0.21	27	0.21
5	E-production and supply of electric power, gas, and water	34	0.01	1	0.01
6	F-Civil engineering	278	0.08	10	0.08
7	G-Wholesale and retail sale, repairs of motor vehicles, motorcycles, and personal use and household appliances	1316	0.37	48	0.37
8	H-Catering	79	0.02	3	0.02
9	I-Transport, storage and communication	418	0.12	15	0.12
10	J-Financial services	4	0.00	0	0.00
11	K-Real estate business, rentals, business activities	414	0.12	15	0.12
12	M-Education	30	0.01	1	0.01
13	N-Healthcare and social work	53	0.01	2	0.02
14	O-Other public utility, social and personal services	82	0.02	3	0.02
15	TOTAL	3571	1.00	129	1.00

Source: Author's interpretation

The data necessary for determining the population structure was taken from the State agency for financial, IT and intermediary services (AFIP). The data for the sample was taken from the Office for Statistics of the TC. The research was conducted by survey of the management of the selected legal entities. A total of 146 questionnaires were collected. However, due to an unequal rate of response from the companies in different segments, the final sample included 129 questionnaires. The survey was carried out in the period from November 2014 to January 2015. The structure of the population and the number of questionnaires collected are given in Table 6.

Research into the relationship between the applied method of profitability management and realized business results for manufacture, service and trade activities would not be possible without the comparative analysis of their profitability.

The sector analysis of profitability indicators was made based on the AFIP data. For the purpose of analysis, the collective profit-and-loss statements of the companies from the TC were taken, per individual sectors, for the period 2010-2013. Based on the data, the analysis was made into the level of coverage of expenses with revenue from business activities (Table 7).

Based on the conducted analysis we can conclude that the profitable sectors of the TC include the following business activities: F-Civil engineering, G-Trade, K-Real estate operations, I-Sector of transport and communications, M-Education and J-Financial services. Although these sectors are all profitable, the most profitable among them are M-Education and J-Financial services, considering that they generate the above-average rate of return. On the other hand, the non-profitable sectors in the TC, which generate the largest losses in business

Table 7 Dynamic sector analysis of profitability

Coverage of expenses with revenue from business activities (%)	Year						
		A	B	C	D	E	F
	2010	0.967	/	0.920	1.015	0.970	1.035
	2011	0.971	/	0.950	0.997	0.969	1.030
	2012	0.994	0.259	0.943	1.000	0.985	1.051
	2013	1.009	1.051	0.903	1.002	1.001	1.057

Source: Processed AFIP data

activities are C-Mining and quarrying, H-Catering and N-Health institutions and social work, respectively.

Although, at the level of all companies from the TC, total operating revenue covers total operating expenses and the realized net profit exceeds the loss, performance indicators are poor and far below the EU average. A closer analysis shows that the manufacturing sector has the biggest problem with profitability. Namely, out of all manufacturing companies, non-profitable sectors are C-Mining and quarrying, E-Energetics, A-Agriculture, hunting and forestry, while sector D-Manufacturing industry, only occasionally generates losses. The only profitable business activity in the manufacturing sector is F-Civil engineering. On the other hand, the sectors of trade and services achieve better business results. The question is why the sector which should be the bearer of economic development of the country, and the main indicator of the GDP, has the biggest problems in business?

Table 8 Attitudes of the respondents toward the applied profitability management system

Applied method of profitability management	A	C	D	E	F	G	H	I	K	M	N	O	Σ	Share
By products	3	1	22	1	8	46	2	11	14	0	2	3	113	87.60%
By customers	0	0	2	0	1	1	1	3	0	1	0	0	9	6.98%
Unknown	0	0	1	0	1	1	0	1	1	0	0	0	5	3.88%
Other	0	0	2	0	0	0	0	0	0	0	0	0	2	1.55%
Total	3	1	27	1	10	48	3	15	15	1	2	3	129	100.00%

Source: Author's interpretation

One gets the impression that the manufacturing sectors are more oriented to the internal factors of business, without paying much respect to external business requirements and conditions, imposed by customers, competitors and the state. The paper investigated the relationship between the ways of profitability management in individual sectors and the realized business results.

The methods used for conducting the research and making conclusions are given as follows: ratio analysis, descriptive statistical processing, comparison, induction, deduction, analysis, and synthesis.

5. Research results

By observing management activity in domestic business practice, one gets the impression of their commitment to the aim of short-term increase of return on equity, rather than "profitability management". Their short-term orientation is divergent to the modern approach to business performance management in the function of creating competitive advantages. Therefore, we investigated the relationship of management in local business practices, towards the application of a modern concept of profitability management.

Type of activity (Nace. Rev.1)							
G	H	I	J	K	M	N	O
1.033	1.003	1.017	1.765	1.038	1.027	0.954	1.012
1.033	0.929	1.047	1.256	1.049	1.077	0.965	0.983
1.032	0.937	1.058	1.855	1.058	1.060	0.989	0.977
1.034	0.934	1.044	1.073	1.015	1.111	0.977	1.000

We have reached the conclusion of the research based on the responses given by managers to three key questions:

1. *Which of the following approaches do you use for managing profitability?*

The results indicate that a traditional approach to profitability management by products, goods, and services is present in the business practice of companies in the TC. Such an approach leads managers to think about profitability only in terms of the level of margin and turnover. Such a short-term focus of management on the realization of profitable business is wrong and it often directs managers and staff in trade toward the activities that result in losing a customer. They neglect the perspective of long-term management of business relations with customers, aimed at long-term realization of profitable business cooperation. Such a management system does not support the idea that that each unit of the generated revenue does not participate equally in the creation of the company's net profit.

Managers do not support the CRM business philosophy.

2. *Are the efforts of management primarily focused on selling large quantities of products, goods, and services with given market prices?*

The focus of management on increased sale speaks in favor of the fact that managers are focused on "making profit" instead on "profitability management". The term "making profit" denotes the focus of management on finding and contracting new business, determining the profitability of individual products (goods and services), organizational units, market segments, and finding internal reserves for rationalization of operating costs. Managers usually achieve operationalization of these activities by increasing the sales volume. However, that intuitive tendency of managers to increase revenue, may lead to short-term successful decisions, which in the long run can have negative effects on the business result. The increase in sales volume does not necessarily lead to increased profitability. Turnover growth may lead the company into the situation that long-term growth of costs is higher than the rate of revenue growth. This brings us to the third question, which is related to the testing of the degree of awareness of price elasticity.

Table 9 Attitudes of the respondents toward the focus of management on increased sales revenue

Focus of management on selling large quantities with market prices given	A	C	D	E	F	G	H	I	K	M	N	O	Σ	Share
Yes	3	1	24	1	10	47	2	13	14	0	1	3	119	92.25%
No	0	0	2	0	0	0	1	2	1	1	1	0	8	6.20%
Unknown	0	0	1	0	0	1	0	0	0	0	0	0	2	1.55%
Total	3	1	27	1	10	48	3	15	15	1	2	3	129	100.00%

Source: Author's interpretation

Table 10 Attitudes of the respondents toward the increase of net profit by increasing the sales revenue

The primary goal of increased revenue is to affect the growth on net profit	A	C	D	E	F	G	H	I	K	M	N	O	Σ	Share
Yes	3	0	24	1	8	48	2	15	15	1	1	1	119	92.25%
No	0	1	1	0	2	0	0	0	0	0	0	0	4	3.10%
Unknown	0	0	2	0	0	0	1	0	0	0	1	2	6	4.65%
Total	3	1	27	1	10	48	3	15	15	1	2	3	129	100.00%

Source: Author's interpretation

3. *Do you primarily use increase in revenue to affect the growth of company's net profit?*

The research results indicate that most of the respondents believe that the growth of revenue would necessarily lead to the growth of the company's business result. The respondents were not aware that sales volume growth often requires hiring additional personnel, purchasing additional transport means for delivery purposes, and other fixed assets for fulfillment of these activities, opening of additional business units, higher costs of administration, marketing and the like. The growth rate of these relatively fixed costs may thus be even higher than the growth rate of revenue. This implies that managers see the company's business activities through the prism of the results for the given fiscal year and the realization of the budget-defined net profit specified by the owner.

Based on the above, we can draw a conclusion about the relationship of management in local business practices, toward the applied ways of profitability management. The research results suggest that the management of domestic companies is focused on the traditional way of profitability management by products, goods and services. Their focus is on a short-term goal of "making profit", rather than on the long-term goal on "managing the company's profitability", as a factor of ensuring current and future profitability. Less than 7% of the respondents were oriented towards the modern system of profitability by the company's customers, while less than 3% of the respondents were aware that the company's realized profitability depends on the realized net profit margin of the customer portfolio.

When the company's structure is observed compared to the sector activity, it is evident that manufacturing companies, rather than trade and services sectors, are focused on the traditional approach to profitability management. Similar research results about profitability management within the industrial sector are obtained in developed market oriented economies: "The survey, which was conducted in over 150 leading industrial companies, indicates that industrial companies are focused on the value of the share capital, rather than the value of customers. Although 65% of the surveyed companies claimed to have been focused on customers, the study concluded that only 10% of them actually practiced that approach" (Allen, 2015: 1). This brings us to the next research goal - establishing restrictions on the acceptance of the modern concept of profitability management.

We will investigate whether the management's insufficient knowledge of the fact that different customers bear different costs for the company is the reason for such a small percentage of application of modern concepts of business management. Our conclusion will be made based on four questions:

1. *Do you think there is a difference in realized profitability by different customers?*

The results show that most managers are aware of the difference in the realized net profit margin per customer. However, this is not in line with the research results on the methods of profitability management. It is expected that the traditional approach to profitability management is the result of the lack of the managers' knowledge. Therefore, a more thorough analysis was made in order to make the final conclusion on the level of the managers' awareness of success drivers.

Table 11 Attitudes of the respondents toward differences in customer profitability

There is a difference in realized profitability by different customers	A	C	D	E	F	G	H	I	K	M	N	O	Σ	Share
Yes	2	0	22	1	7	42	2	12	13	0	1	1	103	79.84%
No	1	1	4	0	3	5	0	1	1	0	0	1	17	13.18%
Unknown	0	0	1	0	0	1	1	2	1	1	1	1	9	6.98%
Total	3	1	27	1	10	48	3	15	15	1	2	3	129	100.00%

Source: Author's interpretation

2. *In your opinion, what are the causes of differences in the realized rate of profitability by customers?*

It can be said that most of the respondents are aware of the fact that there are costs related to customer requirements. However, after the question about the causes of difference in the customer profitability, we realize that a large percentage of reported management knowledge on a given variability is not realistic. In other words, a large percentage of the managers do not know the real causes which lead to fluctuations in the generated net profit margin. Most of the 103 respondents surveyed, who claim to be aware of the variability in achieved profitability per customer, see that difference in realized turnover volume.

It is a fact that a company generates the most revenue from the top 10 customers, but that does not mean that these customers generate an equally high share in the company's net profit. The second most important cause in the realized variability is seen in a different mix of required products, goods and services. It is true that companies have a different rate of price difference for a variety of products, goods and services, however, the mix of products that customers buy affects the absolute amount of the realized gross profit per customer, but it still is not an indicator of their share in generating the company's net profit. Managers see the third most important cause of the realized variability in the method of customer payments, i.e. whether to close a claim by compensation, payment overdue, paying in installments and the like. This is one of the common causes which generate costs that should be attributed to customers, especially in conditions of chronic lack of liquidity. This problem in particular is faced by almost all the companies in the TC, regardless of their sectors.

Table 12 Attitudes of respondents toward the causes of differences in the realized profitability by customer

Causes of differences in customer profitability	A	C	D	E	F	G	H	I	K	M	N	O	Σ	Share
Unknown	1	1	4	0	3	4	0	0	1	0	0	0	14	10.85%
Differences in retail prices	1	1	0	0	6	13	2	2	9	1	0	0	35	27.13%
Differences in volume of sales/services	2	0	12	1	1	8	3	8	7	0	2	3	47	36.43%
Differences in types of products/goods/services	2	0	12	0	1	9	1	4	5	0	2	3	39	30.23%
Differences in delivery types	2	0	2	0	0	3	0	3	6	0	1	0	17	13.18%
Differences in payment types	1	0	9	1	7	8	0	5	4	0	0	2	37	28.68%
Other	0	0	1	0	0	1	0	3	1	0	0	1	7	5.43%

Source: Author's interpretation

Table 13 Attitudes of respondents toward the knowledge of the company's most profitable customers

Do you identify your most profitable customers	A	C	D	E	F	G	H	I	K	M	N	O	Σ	Share
Yes	2	0	20	1	6	39	2	12	13	0	1	1	97	75.19%
No	1	0	1	0	1	2	0	1	0	0	0	0	6	4.65%
We have never analyzed customer profitability	0	1	6	0	3	7	1	2	2	1	1	2	26	20.16%
Total	3	1	27	1	10	48	3	15	15	1	2	3	129	100.00%

Source: Author's interpretation

3. Do you know which customers generate the highest profitability rate for the company?

The answers to the question which customers generate the highest rate of profitability for the company imply that some 25% of the respondents did not know which customers have the highest share in the company's realized net profit. This questions the rationality of the managers' business decisions. If business decisions are not based on knowledge, than in the process of business decisions managers rely on intuition and past experience. On the other hand, 75% of the respondents believe that they know the company's most profitable customers. However, the question is what criteria serve as the basis for the identification of profitable customers and whether such criteria are appropriate for the analysis or not.

Table 14 Attitudes of respondents toward the criteria necessary for determining the most profitable customers

Criteria for determining customer profitability	A	C	D	E	F	G	H	I	K	M	N	O	Σ	Share
Based on sales revenue share	2	0	9	1	6	14	1	9	8	0	1	1	52	40.31%
Based on realized gross profit share	0	0	7	0	0	8	0	1	1	0	1	1	19	14.73%
Based on net profit share	0	0	8	0	1	9	1	1	2	0	0	0	22	17.05%
Knowledge through experience	0	0	7	1	2	10	0	2	1	0	0	1	24	18.60%
Unknown	1	1	3	0	2	6	1	2	2	1	0	1	20	15.50%

Source: Author's interpretation

4. Based on which criteria did you specify customers with the highest rate of achieved profitability?

The research results show that most respondents determine their most profitable customers by their share in the company's total sales revenue, followed by knowledge through experience, while only 17% of the respondents state that they apply the correct criterion "realized net profit". This indicates that a relatively high percentage of the respondents who believe to know their most profitable customers are not realistic. It is evident that managers lack the understanding of the structure of costs related to customer service.

Finally, we can make a conclusion about the managers' awareness of the realized customer profitability. It is evident that most respondents, who believe that there is a difference in the rate of customer profitability, have no proper understanding of the cause of existing differences. On the other hand, most respondents who understand the causes of the customer profitability volatility do not use the correct criterion for determining the most profitable customers.

Table 15 Attitudes of respondents toward the appropriateness of the accounting function organization

Organization of the accounting system supports the evaluation and management of profitability per customer	A	C	D	E	F	G	H	I	K	M	N	O	Σ	Share
Yes	0	0	15	0	5	29	1	4	7	0	0	0	61	47.29%
No	2	0	7	1	2	8	2	5	3	1	1	1	33	25.58%
Unknown	1	1	5	0	3	11	0	6	5	0	1	2	35	27.13%
Total	3	1	27	1	10	48	3	15	15	1	2	3	129	100.00%

Source: Author's interpretation

We can conclude that there is insufficient knowledge of the management about the causes of the difference in realized rate of profit per customer, which is one of the reasons for the poor application of the modern business philosophy of CRM and customer profitability management. When the sector structure is observed, it is evident that trade company managers show a somewhat higher degree of awareness of customer variability causes and the correct criteria for their analysis, when compared to the managers of the companies in other sectors.

The company's information systems are practically reduced only to the accounting information system which serves as the backup to business decisions. This is why it is important to explore whether the inadequate organization of accounting information system is one of the reasons for practicing the traditional approach to business management. Basically, the traditional analysis of making profit is subject to organizational legal regulations and financial accounting management. Such an organization of financial accounting supports the monitoring of the realized sales revenue per customer. Assisted by advanced software solutions, it provides an insight into realized gross profit margins (for the purchased product mix with different margin), but not into the layout of operating costs per customer. Within the accounting function it is necessary to monitor revenue and expenses generated per individual customers, and allocate operational (administrative) costs in the function of obtaining indicators of the net profit margins. This brings us to the next research goal - appropriateness of the accounting function organization in the practice of companies in the TC. The conclusions will be made based on the following three questions:

1. Do you think the organization of the accounting information system in your company supports the ability to evaluate customers and profitability management per customer?

The research results show that less than 50% of the managers believe that their accounting function supports the evaluation and management of customer profitability.

This is not in line with the usage of such information in business decisions. Therefore, a more detailed research was conducted in terms of management knowledge on the organization of the accounting system in their companies.

2. Do you have a developed accounting model layout of operating costs (expenditures) per customer?

The results indicate the fact that a significant number of managers do not have sufficient knowledge on the organization of the accounting system in the function of support to profitability management per customer. This is clear from the structure of answers in tables 12 and 14. Although more than 75% of the respondents claim to perform customer profitability, there is significant variation in terms of the correct methodology for their calculations. The percentages of the variation show the degree of accounting function development, in terms of support to customer profitability management. Only 17% of the companies in the observed sample allocate the operating costs per customer.

Table 16 Attitudes of respondents toward the appropriateness of the accounting function organization

Developed model layout of operating costs (expenditures) per customer	A	C	D	E	F	G	H	I	K	M	N	O	Σ	Share
Yes	0	0	11	0	3	24	1	2	3	0	1	0	45	34.88%
No	2	1	12	1	6	17	2	7	8	1	1	2	60	46.51%
Unknown	1	0	4	0	1	7	0	6	4	0	0	1	24	18.60%
Total	3	1	27	1	10	48	3	15	15	1	2	3	129	100.00%

Source: Author's interpretation

However, this still does not mean that the accounting systems of these companies use the appropriate basis for the allocation of operating costs.

3. *What is the basis for the allocation of operating costs (expenditures) in order to calculate the net profit margin per customer?*

The allocation of operating costs per customer is mainly performed arbitrarily.

The realized revenue is most often used as the basis for the allocation of operating costs. Since the amount of the realized revenue does not correlate with the costs of customer service, it is an inappropriate basis for allocation. This implies that there are a very small number of companies with a developed system of allocation. The application of modern methods of cost layout per customer (ABC, TDABC, etc.) is present in less than 15% of the companies. Besides, the results indicate that even in most companies with an advanced accounting system (as a part of the accounting management function), management does not implement the concept of management of the company's customer portfolio profitability.

Table 17 Attitudes of respondents toward the appropriateness of the accounting function organization

What is the basis for the allocation of operational costs (expenses) for the purpose of calculating net profit margin per customer?	A	C	D	E	F	G	H	I	K	M	N	O	Σ	Share
We do not perform allocation	1	1	9	0	4	9	1	3	2	1	1	2	34	26.36%
Basis for the layout consists of activities that are performed	0	0	5	0	0	7	0	1	1	0	0	0	14	10.85%
Basis for the layout consists of realized revenue	1	0	8	0	5	12	1	6	5	0	0	1	39	30.23%
Basis for layout comprises time spent on organizational resources	0	0	2	0	1	2	0	0	0	0	0	0	5	3.88%
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00%
Not known	1	0	3	1	0	18	1	5	7	0	1	0	37	28.68%
Total	3	1	27	1	10	48	3	15	15	1	2	3	129	100.00%

Source: Author's interpretation

Finally, it can be concluded that inappropriate organization of the accounting function is one of the factors of the traditional approach to profitability management in the companies in the TC. However, the issue of development of the company's accounting system directly reflects the managerial awareness of its advantages. Managers are those who impose the structure of informational needs and the dynamics of information. Observing the practice of the TC companies, one may conclude that managers are passive users of accounting information. The information they receive are the results of the records of the financial accountancy. The structure of such information directs them to profitability management per product with a short-term focus. The management accounting function is insufficiently developed (Puškarević, Gadžo, 2014: 409-424). This is particularly evident in the segment of the applied systems of cost layout. It is interesting that trade companies have relatively better accounting systems than manufacturing and service companies (from the point of the information potential they produce). This is also reflected through the indicators of business success. Business indicators for more than a half of the sector activities are insufficient. They generate losses or vary around the point of break-even costs. This is accompanied by managers' inappropriate approach to management, which, along with poor macroeconomic indicators, produces such conditions.

6. Final considerations

The conducted analysis suggests that the management of legal entities of the Tuzla Canton does not have enough knowledge to focus on the modern approach to profitability management of the company's customer portfolio. Insufficient knowledge and ability to focus on key "drivers" of success, and a poor business environment is reflected through achieved performance indicators. Only 9 out of 129 respondents applied the modern concept of profitability management, and have developed an accounting function, which supports that approach. This implies that the management of other legal entities does not have the correct data on the company's most profitable customers or if their customer portfolio includes those that generate a negative rate of return. The causes of such conditions are the insufficient awareness of managers on key "drivers" of success and an insufficiently developed accounting information system which would be able to support a more modern approach to management. It is therefore important to mention that this is a cause-effect relationship, since the accounting information system is organized in such a way so as to satisfy managers' requests for information.

The authors of the paper aimed at investigating if certain sectors are more oriented toward the modern approach to business management and whether they can be linked to better business indicators. The conducted research did not prove the relationship among these three variables. The insufficient sample and a small number of managers who practice profitability management by customer portfolio did not provide the information required. This is a recommendation for further research that may be focused on establishing the existence and significance of relationships of these variables under the conditions of the transitional economy such as the one in Bosnia and Herzegovina.

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EVALUACIJA PROFITABILNOSTI KUPACA U RAČUNOVODSTVENOJ PRAKSI PODUZEĆA TUZLANSKOGA KANTONA

SAŽETAK

Cilj je rada pojasniti i sistematizirati načine evaluacije računovodstvene profitabilnosti kupaca na znanstveno utemeljenoj metodologiji te istražiti kakav je odnos između ostvarenih poslovnih rezultata po pojedinim sektorima djelatnosti poduzeća s područja Tuzlanskoga kantona i primijenjenoga načina upravljanja profitabilnošću, u funkciji stvaranja rezultata. Analizirana je primjerenost postojećega pristupa upravljanja profitabilnošću u odnosu na informacijski potencijal na kojemu je pristup temeljen. Utvrđena su ograničenja, koja u praksi dovode do netočne evaluacije profitabilnosti kupaca. Tranzicijska ekonomija, koja se odlikuje makroekonomskom nestabilnošću, te općenito niskim čimbenikom konkurentnosti, uz brojna druga izvanjska ograničenja, zahtjeva od poduzeća učinkovitu reorganizaciju lanca vrijednosti, u funkciji pronalaženja unutarnjega kapitala, s ciljem dugoročnoga upravljanja profitabilnošću portfoliom kupaca kompanije. Suvremeni trend u kreiranju i održavanju komparativnih prednosti poduzeća ima ishodište u usvajanju poslovne filozofije „upravljanja odnosima s kupcima (eng. Customer Relationship Management-CRM)“. Rezultati istraživanja upućuju na nedovoljno poznavanje menadžmenta o ključnim elementima uspjeha u postizanju komparativnih prednosti, te neprimjerenosti organizaciji računovodstvene funkcije, koja nije u mogućnosti podržati suvremeni pristup upravljanja poslovnim performansama.

Ključne riječi: upravljanje profitabilnošću, metode evaluacije profitabilnosti kupaca, sektorska analiza pokazatelja poslovanja, tranzicijska ekonomija, Tuzlanski kanton