PROFITABILITY OF BANKS' PROFIT CENTERS WITH THE RESPECT TO THE APPLIED ALLOCATION METHODS OF INDIRECT COSTS

PROFITABILNOST BANKOVNIH PROFITNIH CENTARA S ASPEKTOM NA PRIMJENU METODA ALOKACIJE INDIREKTNIH TROŠKOVA

BROZ TOMINAC, Sanja

Abstract: *The main scope of this paper is to define the influence of overhead cost allocation methods on profitability of banks' profit centers. Developed responsibility accounting is a precondition for responsibility center reporting as well as for profitability analysis. The research has been conducted by a questionnaire on the sample of seven banks which represent 68, 23% of total assets of banks in Croatia.This data make this sample relevant. There are numerous advantages of ABC method appliance in comparison with traditional method appliance. That can be an encouragement for the ABC method appliance in banks in which that method is not yet applied. There is a direct connection between ABC method appliance and profit centeers' ROA indicator.*

Key words: *profit centers, indirect cost allocation, traditional method, ABC method, profitability measurement- ROA (return on assets)*

Sažetak: *Svrha je ovog rada utvrditi utjecaj metoda rasporeda indirektnih troškova na rentabilnost profitnih centara banaka. Razvijeno računovodstvo odgovornosti preduvjet je za izvještavanje po centrima odgovornosti kao i za analizu profitabilnosti. Istraživanje je provedeno pomoću ankete na uzorku od sedam banaka koje čine 68,23% ukupne aktive banaka u RH. Taj podatak je relevantan te i ovaj uzorak postaje relevantan. Brojne su prednosti primjene ABC metode u odnosu na tradicionalne metode te to može biti poticaj za primjenu ABC metode u onim bankama u kojima se ta metoda još uvijek ne primjenjuje. Postoji izravna povezanost između primjene ABC metode te izračunanih pokazatelja ROA-e profitnih centara banaka.*

Ključne riječi: *profitni centri, alokacija indirektnih troškova, tradicionalna metoda, ABC metoda, mjerenje profitabilnosti – ROA (povrat na imovinu)*

Authors' data: Sanja **Broz Tominac**, mr.sc., Ekonomski fakultet Zagreb, sbroz@efzg.hr

1. Introduction

Today companies are more interested in measurement and monitoring of created value. That is the reason why for companies and managers maximisation of value for shareholders today is an imperative. Thereby under value is considered the long-term company's value. Value measurement at company level is pretty simple but not for the individual parts of organisation. For the second measurement additional analysing is needed. With additional anlysing it is possible to detect where the value is created and where it isn't. The management wants to know how resoureces like capital, technology, people create value of company.

2. Identification of profit centers

Profit center is separated complete organisational unit in the company. It represents complete separated and relatively independent organisational unit of a company with the high level of authonomy.[1] It is created for a certain business activity and also bear the part of total responsibility for the profit which must be created in that center. Most often the manager leads the profit center.
Profit center is the key organisational unit because it is possible to measure realised profit. Profit centers of one company can act in unrelated activities or in related activities. [2] In case of related activities between profit centers, internal market is created which also means the need of using internal prices. "The goal of every profit center is a profit defined as a difference between revenues and expenses. The achievement of every profit center is measured by that difference." [3] The main task of each profit center is to minimize the expenses and in the same time to maximize the profit. Individual goals of profit centers are more clearer and concrete than the goals of a bank as a whole which enables independent operative decision making according to market business conditions. Furthermore, the manager's success that is profit center succes is assessed by the comparison of created profit of profit center with the average created profit in the same branch of activity or at the same risk level. Dominant organisational unit of providing bank and other financial services are banks' profit centers. That is the reason why management solicitous to monitoring of profit centers' achivements towards monitoring of total banks' achievement.

Basic banks' profit center can be divided into following basic groups: [4]

1. Corporate banking
   The main products are: credits, current account overdrafts, swap, time deposits, a vista deposits, accounts for transfer payment and guarantees.
2. Trade and export finance
   The main products are: trade finance credits, forfaiting, factoring, documantary credits.
3. Consumer banking
   The main products are: credit cards, deposits, current account overdrafts and credits.

4. Treasury
   The main products are:foreign exchange deals, tarding with securities and derivatives.
5. Transaction services
   The main products are: current accounts, float, transfers, cash management, custody business.
   Every of previously mentioned profit centers is in connection with certain bank's products.

3. Criteria of indirect cost allocation and their influence on profit center business result

3.1.The nature of banks' indirect costs

Indirect costs are the costs that aren't in direct connection with the cost carriers. That means that it is imposible to determine direct interdependency between indirect costs emergence and products or services that have caused their emergence. Those costs are costs that emerge in the entire business, belong to all the products or services and are necessary for the normal business progress. It is not possible, therefore, to determine which product or service caused an emergence of certain indirect cost.

Today direct labour and direct material aren't dominant factor but the portion of indirect costs in total costs increases. The reason for that is in business automatisation which effects with cost structure changes. Banks' indirect costs comprise following costs: salaries and personnel wages, business trips, representations, advertisment, depreciation, value adjustment of material and nonmaterial assets.

These indirect costs emerge in profit and cost responsibility centers and must be allocated from the support cost location (support responsibility centers) to main cost location (profit responsibility centers).

3.2.The accounting recognition of revenues and expenses

Banks are specific by comparison with production companies because they don't have stocks which implicate that the expense is equal to the cost. It means that isn't needed time for the realisation of finished goods. It is, actually, about service sector.

The main banks revenue make interest revenues, revenues from charges and dividends and are also a result of regular banks' activities. Other characteristic positions are positive exchange rate differences and gains from securities. [5] IAS 18 – Revenues is relevant for revenue recognition, in accordance with they are recognized in income statement in case when the increase of future economic advantages is int he connection with the increase of assets or decrease of liabilities which can be confidently measured. According to IAS-14 Segment reporting, the revenue is published in company's income statement, which can be directly assigned to the segment. [5]

Interest costs and costs from charges, potential losses from credits and advance payments that is reservation costs, depreciation and indirect costs are the main expenses in banks.

3.3.Calculation characteristics of costs and profitability

Calculation of costs and of profitability are interdependent. They are a part of planning and control systems o they have to be set up according to same model. Calculation of costs provide information that are needed for control of all the segments of banks' business. Structurization of profit center costs is a base for management decision making.

Some of the indicators of success are profitability indicator, capital indicator, market indicator of banks' business activities, but int his paper the accent will be on the first one indicator.

Banks' financial statements are the base for getting different rates which reflect the level of success of the bank on the whole as well as its parts. Business profitability is a result of success realisation of banks' business policy measures. [7]

For quantitative determination of succesful and unsuccesful banks' business are needed and are applied profitability indicators. From past business depends what buseiness result managers will achieve in future periods and what business decisions they will make. Therefore, for past business analysis it is needed to carry out quality analysis of diferent indicators.

Banks' analysts and board of directors use two analyticaly most eventful indicators in order to measure bank's profitability. That are:

- ROA – return on assets and
- ROE – return on equity.

ROA that is return on assets is the best and the most often applied indicator oft he banks' business activities on the whole, i.e. its profitability and risky. So, that is the ratio which reflect the ability of providing income by average banks' assets engagement in concrete period. ROE is ratio which reflect yield to the banks' shareholders.

Return on assets is calculated as a quotient of net income after taxes and average total assets multiplied with 100. ROA demonstrate net income as a percentage from the total average bank's assets. It is, actually, accounting yield rate or rate of return on bank's assets. Under bank's assets is considered the total average assets which are administered by management. ROA shows how much kuna of net income is achieved on one hundered kuna of assets. ROA of 1% divides succesful and non succesful banks. If the ROA is Higher or equal to 1, investing in those bank's shares is considered profitable. [8] "ROA enables the comparison between banks and shows their management success. Although there are uncontrolable variables, ROA is par defined by asset structure and its ability to create income, which is the management responsibility." [9] The bank that has the higher capital ratio in passive, will have the lower price of financing than the bank which places more borrowed sources on which interest has to be paid.

4. Methods of banks' indirect cost allocation

4.1.Traditional method

Traditional method of indirect cost allocation met the needs in periods when the main resource was labour and when technology was cheap and constant. This method consider indirect cost allocation to individual product items or services using bases for the allocation such as direct material or direct labour. This method ensures to managers little information about key succes factors or sources of competitive advantages. So, the core of the traditional approach is identification and monitoring of indirect costs by cost locations and thereafter are allocated by one allocation rate on cost holders.

4.2.ABC (activity-based costing) method

ABC method enables better focusing on indirect costs. Lodestar by this method is that indirect costs that are caused by activities are allocated on products and services on the basis of indirect sources consumption frequency for each product or service. It presumes that the product or services that consumes more activities which includes indirect costs, must bear the higher ratio of indirect costs unlike from products and services that doesn't consume so many activities. An activity is every transaction that is causing a cost. So, it can't manage the costs but activities that are causing those costs. ABC method get off following hypothesis: cost carriers consume activities, and activities, i.e. business processes consume certain resources. [10] According to that thesis, indirect costs have to be identified and monitored by certain activities they have caused them by using resources. After that follows the allocation from the activities on certain cost carriers, products or services, which are consuments or users of certain activity.

ABC method was first applied in production companies in order to enable:

- Control and cost management
- True and correct connecting of costs with products and
- Price setting
- Management and analysis of cost behaviour

An activity is every transaction which is cost causer. That means that the activity is a factor which is causing or driving costs in an organisation. The number of activities depends on the complexity of tasks. The more complex tasks are, the more possible is that there will be more activities. The applying of ABC method is a simple concept which enables a true information that is connected for indirect sources consuming per individual product or service. It get off assumption that the product or service that consumes more activities that include indirect costs should refer the higher part of indirect costs. The opposite will be, of course, with those products and services that don't consume such activities. The main "problem" is that the application of ABC method is expensive because of identifyng activities.

4.3.Traditional versus ABC method

More precise information about costs manager will get by using ABC method because indirect costs are treated as direct costs when they are allocated by nonfinancial variables. Traditional methods have static approach to costs which leads to their limited use by business decision making. Traditional systems of calculation by total costs characterizes the use of indirect cost rate which leads to distorted information about costs. [11]

One oft he main differences between ABC method and traditional method is the use of nonunit cost drivers (for example, series and product maintanance) for association resources costs to products and consumers. [12]

5. The result of studies about application of indirect cost allocation methods in banks in Croatia

The research for this paper was carried out by questionnaire. The questionnaire has 31 question from which 25 questions is in general part and 6 questions is in special part which is about applying of ABC method in banks. The survey sample consists of seven banks and these banks make 68,23% of total banks' assets in Republic of Croatia.
Although the allocation of indirect costs on banks' products isn't the core of this paper but the allocation of indirect costs on responsibility centers, the first mentioned allocation is carried out by unique base for the entire bank in 14% of banks (or in just one bank). The rest of the banks use specific bases (every responsibility center uses the different key).
The equal number of banks use the ABC method shorter than three years and between three and five years. 57% of banks answered that the application of ABC method brings big contribute in information quality for rentability evaluation. The same number of banks answered that ABC method also contributed to more real and objective indirect cost allocation on services. The sam number of banks answered that responsibility centers created higher rentability by using ABC method.
The main problem by implementation of activity-based cost method in bakns there are identification of cost indicators and cost drivers and displeasure of employees.

6. Conclusion

In last twenty years financial, i.e. banking sector experienced numerous changes in structural and in technical field. This effect big changes in offering of banks' products that is services. The changes affect on the development of new management models and banks' organisations in order to folllow the strong competition of banking and nonbanking institutions.
There is expressed need for banks' efficiency which is also the reason for implementing organisation structures by responsibility centers.
In many service comoanies including financial institutions such as banks, some costs arise from products such as checking account, savings, credits and similar.
The appliance of the ABC method is more appropriate than traditional methods of indirect cost allocation because traditional methods are based on arbitral allocation keys while activity-based cost method is based on strictly algoritmic profit center activities.
Also, there is a direct connection between activity-based cost method appliance and profit centeers' ROA indicator because the profit centers' income is more objectively defined by activity-based cost method. The movement of ROA on the basis of

activity-based cost method indirect cost allocation – gives managers more objective and quality information for rentability valuation and also for the profit center development.

7. References

[1] Deželjin, J. et al. (1998). *Troškovno i upravljačko računovodstvo (Izabrane teme*), Hrvatska udruga računovodstvenih eksperata, Zagreb

[2] Belak, V. (2006). *Upravljanje centrima odgovornosti*. Zagreb

[3] Sikavica, P. & Novak, M. (1999). *Poslovna organizacija*. Treće izmijenjeno i dopunjeno izdanje, Informator, ISBN 953-170-074, Zagreb

[4] Brkljačić; O. (2007). *Uloga plana u ocjeni efikasnosti centara odgovornosti banaka*. Magistarski rad. Zagreb: Ekonomski fakultet.; prema Standards for Groups MIS, RZB Group, 2002., prema The Ernst & Young Guide to Performance Measurment for Financial Institutions, Methods for Managing Business Results, 1995., Mc Graw Hill, USA

[5] Barbaroša, N. et.al. (2000). Računovodstvo banaka, *TEB – Poslovno savjetovanje*, ISBN 953-6290-11-1, Zagreb

[6] (2004). *Međunarodni standardi financijskog izvještavanja uključujući Međunarodne računovodstvene standarde*, HZRiFD, Zagreb

[7] Pavković, A. (2004). Instrumenti vrednovanja uspješnosti poslovnih banaka. U: M. Grgić, ur. *Zbornik ekonomskog fakulteta u Zagrebu*, Ekonomski fakultet, Zagreb

[8] Pavković, A. (2004). Instrumenti vrednovanja uspješnosti poslovnih banaka. U: M. Grgić, ur. *Zbornik ekonomskog fakulteta u Zagrebu*, Ekonomski fakultet, Zagreb

[9] Leko, V. (2005). *Upravljanje bankama - Pripreme i zabilješke sa predavanja iz "Poslovne politike banaka" na Ekonomskom fakultetu u Zagrebu (izabrane teme).* Zagreb

[10] Hornegren, Foster, Datar, (2006). *Cost Accounting*, Prentice Hall, ISBN 0-13-149838-0, New Jersey

[11] Peršić, M. & Janković, S. (2006). *Menadžersko računovodstvo hotela*, HZRIFD, 953-6480-84-0, Zagreb

[12] Kaplan, R.S. & Cooper, R. (1998). *Cost and Effect-using integrated cost systems to drive profitability and performance*, President and Fellows of Harward College, ISBN 0-87584-788-9 , Boston

Photo 022. Field in Slavonia/ Polje u Slavoniji