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Evaluation of quantitative indicators of marketing activities in the banking sector☆

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ABSTRACT

This study assesses the efficiency of marketing activities in a selected enterprise from the banking sector and proposes measurements that contribute to overall organizational performance. The Balanced Scorecard determines the goals for the enterprise's achievement of business strategy in terms of positive future developments and improved realization of individual marketing activities. Several criteria determine the choice of the enterprise: the enterprise must have a functioning marketing department that receives special attention with the company reserving funds for marketing expenditure. Main indexes from indicators serve to measure the efficiency of marketing activities and to benchmark against competition. Findings show the lagging growth rate of loans of the company compared with the overall market growth rate and the negative growth in customer profitability. Individual proposals present a strategic map, focusing on customers' perspective of performance evaluation in the company.

1. Introduction

The global banking industry passed through several significant changes in the last century, beginning with restructuring through the modernization and automation of banking operations, to bank mergers and the creation of large banking holdings with a strong marketing orientation. However, due to different social and political developments, the state of the sector in the Slovak market has stagnated since the 20th century (Korauš, 2011). Arising from these changes, banks are increasingly competing operators who realize the need to differentiate themselves from competition by offering specialized skills and better quality in order to overcome the struggle to attract customers.

The work of banking institutions is diverse. A bank product should primarily meet the needs of its clients. The bank's adopted development strategy with the aim to increase client base, rendering qualitative services, earning profit, cost saving etc. governs its development and implementation (Novenkova, Shakirzyanov, & Gilmanova, 2015).

The fundamental problem of marketing today is low productivity and lack of accountability. Sheth and Sisodia (2002) suggest methods to improve marketing productivity. Hooley, Greenley, Cadogan, and Fahy (2005) explore how marketing resources may contribute to the creation of competitive advantages and subsequently firm performance. Findings of their research indicate that marketing resources affect financial performance indirectly by creating customer satisfaction and loyalty and building superior market performance. Rust, Ambler, Carpenter, Kumar, and Srivastava (2004) indicate how marketing expenditures add to shareholder value.

The main contribution of this study is to highlight the importance of innovation and the adaptation of traditional marketing management approaches to turbulent developments and increasing global competition. This study considers sustainable marketing management across three dimensions — economic, social, and environmental. From the economic perspective the main subject of the study is the pursuit of efficient marketing management with the aim of making the banking institution achieve a stable position in the market.

The research problem of interest concerns the decline in the performance of commercial banks in the Slovak market, where market share in retail banking influences the problem. This study aims to evaluate the efficiency of marketing activities using quantitative indicators to enhance the bank's position in the market and to improve client perception of the bank's value.

The organization of the rest of this contribution is as follows: Section 2 reviews various theoretical frameworks concerning marketing and measuring the efficiency of marketing in the banking sector. Section 3 outlines the data and methodology and lists four main categories of indicators. The findings are in Section 4 followed by a discussion of the study's implications and limitations in Section 5.

2. Literature review

2.1. Present state of problem solving

2.1.1. Marketing in the banking sector

Bank marketing begins with market research on the needs and desires of clients (McIver & Naylor, 1986). Results of market research

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combined with the macro- and micro-environment evaluation of the banks form the basis of evaluating the bank's position in the market and provides evidence of the bank's mission and concrete, operative goals. Consequently, marketers use these results to derive marketing goals and develop marketing strategies resulting in the implementation of marketing tools. A combination of such tools allows marketers to achieve the optimal marketing mix, enabling a synergistic effect for the bank (Saludin et al., 2007). If a financial institution has decided on a strategy of market position, the financial institution can begin outlining the details of the marketing mix, which would enable the institution to achieve a combination of short- and long-term goals. The efficiency of such instruments varies according to the extent and speed of their use; proper timing and balance is important (Kotler & Keller, 2012). Solomon (2009) defines marketing mix as a set of controllable marketing variables that the bank or insurance company combines to a certain unit to produce a desired response in the target market.

Marketing mix includes all activities by which the bank can influence the demand for its products. Greater customer satisfaction and gaining of advantage in a competitive environment is achieved through an appropriate 7Ps marketing mix (Ginevičius, Podvezko, & Givevičius, 2013).

Under the influence of Information Technology development, ever-increasing competition, globalization, and growing interdependence of different parts of the world, the perception of marketing and its activities has also been changing in the banking environment, especially since the beginning of the third millennium. In the 20th century, the marketing managers strove for mass market, constantly trying to expand their markets and their customer base. In the current, highly competitive environment with the different products market, the aim of marketing, especially in banks, is to retain existing customers by satisfying their individual needs (Schiffman & Kanuk, 2004).

Muala, Majali, and Alkhawaldeh (2013) provide additional indexes that influence bank competitiveness. Lymperopoulos, Chaniotakis, and Soureli (2012) also investigate this area and present exploratory research findings as a basis for developing a model of bank marketing. Regarding the quality of banking services, Lumanaj, Guri, Aliu, and Lubonja (2013) observe the existence of multiple levels when banks use aggressive marketing strategies in order to be successful and to remain competitive and highlight that good quality customer service generates better income. Ateba, Maredza, Ohei, Deka, and Schutte (2015) indicate that marketing mix is an essential tool in satisfying and retaining banking customers.

Efficient marketing offers the smooth coordination and effective control of communication in a dynamic business environment (Ivan, 2012). Chahal and Kaur (2014) provide bank managers with a deeper understanding of how to increase marketing efficiency and Shimaj (2015) applies these findings to the banking system of a country.

Investment and reliance on e-banking also affects the efficiency of marketing activities (Lymperopoulos & Chaniotakis, 2005). Yurasova and Ivashko (2014) recommend a digital marketing plan to improve the efficiency of the banking sector. Kalaignanam, Kushwaha, and Varadarajan (2008) highlight opportunities for achieving marketing efficiency in the context of interactivity, personalization, and Internet access.

Ahmed, Rezaul, and Rahman (2010) study the efficiency of marketing activities in terms of quality, examining whether banks have successfully achieved customer satisfaction. In this area, Proença, Silva, and Fernandes (2010) examine the role of Internet banking in strengthening the relationships between banks and their customers with the aim of improving customer satisfaction, building customer trust, and creating loyal customers (Ho & Lin, 2010). Gensler, Leeflang, and Skiera (2013) discuss the effect of Internet banking on product usage and the importance of effective marketing activity controls.

2.1.2. *Measuring the efficiency of marketing activities in the banking sector*

Measuring the efficiency of marketing activities should be a top priority for any society. Sychrová (2013) stresses that besides traditional indicators, other metrics, related to marketing management that are integral to the marketing strategy are importantly tracking.

Marketing efficiency is a very relevant subject in the current highly competitive environment. An improved visibility of marketing efficiency not only helps companies to better prioritize their efforts, but also improves the quality and precision of the marketing resources from the sales force (Milichovský & Šimberová, 2015).

Enterprise marketing is a complex phenomenon with several multi-dimensional aspects that have opposing criteria directions. Adoption of multi-criteria evaluation methods is appropriate for such analysis (Ginevičius et al., 2013). In addition, Chahal and Kaur (2014) find that marketing capabilities are of multi-dimensional scale. Despite the present irreplaceable status of marketing, a number of organizations underestimate this element of management. In other companies, subjective evaluation by individuals, without any data, analysis, or measurable indexes, often govern marketing decisions (Pajtinková-Bartaková & Gubiniová, 2012).

The relationship between marketing strategy and the measurement of marketing efficiency is a substantially under-researched topic (Lamberti & Noci, 2010). Identifying the appropriate key metrics should contribute to the evaluation of marketing efficiency (Milichovský & Šimberová, 2015). Barwise and Farley (2004) find that a majority of firms consistently adopt one or more of six marketing metrics.

As for the marketing activities involving clients, Al-Alak (2014) indicates that bank clients do not feel that establishing a close relationship with the bank will have a positive impact on quality. Padmavathy, Balaji, and Sivakumar (2012) develop measures of the efficiency of customer relationship management for retail banks; banks can improve their efficiency by implementing efficient customer relationship management (Gupta, Singh, & Kainth, 2014).

3. Data and methodology

In this study, marketing mix efficiency research is available from previous authors to the clients of the analyzed bank in 2013. Through online questionnaires, a survey was conducted to investigate the usefulness of the bank's marketing mix among retail banking clients. The most important findings (Antošová, Mihalčová, & Csikósová, 2014; Csikósová & Antošová, 2014; Mihalčová, Csikósová, & Antošová, 2014) are:

- Tatra banka is a retail bank, obtaining new retail banking clients in order to gain access to financial market leaders.
- Tatra banka should create suitable conditions for their clients, for example, by adapting products and services to individual client needs in order to prevent them from turning to the bank's competitors.

Observation as an empirical method aims to obtain relevant data directly through the bank. In order to obtain an adequate overview and to develop concrete ideas, the bank enables several visits due to consultations with the bank's management.

Existing research on efficiency measurement of marketing activities in the Slovakian banking sector identifies the following main groups of indicators (Pajtinková-Bartaková & Gubiniová, 2012):

a. measurement and evaluation of market rate and share from clients' perspective,
b. indexes of clients' profitability,
c. effective management of product portfolio, and
d. efficiency of individual pricing strategy tools.

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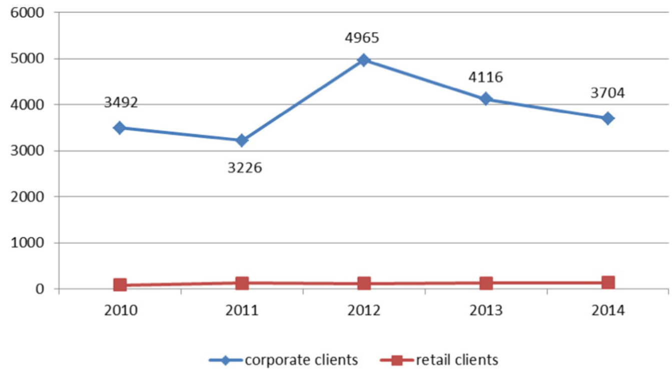

Fig. 1. Profitability per client of corporate and retail segments (in EUR).

3.1. Measurement and evaluation of market rate and share from clients' perspective

Market share is an indicator that reflects the level at which an organization is successful compared to its competitors. Sales provide a means of measuring this index.

$$\begin{aligned}&Market\ \ share\ \ based\ \ on\ \ number\ \ of\ \ performances\\&=\frac{number\ \ of\ \ sales\ \ performances\ \ of\ \ the\ \ company}{total\ \ pnumber\ \ of\ \ sales\ \ performances,\ \ sold\ \ at\ \ the\ \ market}\end{aligned} \quad (1)$$

$$Market\ \ share\ \ based\ \ on\ \ sales=\frac{total\ \ sales\ \ of\ \ the\ \ company}{total\ \ sales\ \ of\ \ the\ \ market}. \quad (2)$$

Business services use share of revenue as an alternative method of market share computation. The market share indicator reflects changes in the competitive market environment, which forms the basis for future strategic and operational decisions. Similarly, this index monitors potential growth or market declines and predicts the impact of a change in customer preferences.

3.2. Indexes of clients' profitability

Indexes represent a group of indicators that evaluate individual customer relationships. Clients' profitability reflects the profit that the company is obtaining by meeting customer needs. Generally, one monitors profitability over a period of one year. Banks may select individual customer relationships based on client profitability.

$$Profitability=incomesarisingfromclientrelationship-costsarisingfromclientrelationship. \quad (3)$$

In managing profitability, the bank must keep in mind that not all customers are equally profitable and an indicator must consider how individual customers affect profitability.

The following index represents customers' lifetime value and expresses the present value of planned cash flows resulting from client relationships.

$$\begin{aligned}&Customer\ \ lifetime\ \ value=profit\ \ margin\\&\quad *\frac{customer\ \ retention\ \ rate}{1+\text{discount}\ \ rate-customer\ \ retention\ \ rate}.\end{aligned} \quad (4)$$

This indicator encourages profits instead of merely developing long-term customer relationships. The indicator reflects the upper bound of the cost that the company is willing to incur to acquire and retain new customers. The indicator presents future oriented and useful marketing decision making.

3.3. Effective management of product portfolio

This category of indicators concerns the ability to recognize and satisfy customer needs. In order to achieve effective marketing management, a company monitors variables including the sales volume of new products, the impact of introducing new products on the sale of existing products, and the development of brand value.

Indicators to evaluate the product portfolio growth of the organization include annual growth and compound annual growth for a period of time that exceeds one year:

$$Annual\ \ growth=\frac{(Value\ \ at\ \ time\ \ t-Value\ \ at\ \ time\ \ t-1)}{Value\ \ at\ \ time\ \ t-1}. \quad (5)$$

Generally, the organization growth indicator is frequently used. Expressing the indicator as a percentage addresses what is the performance of the organization in the current period compared to the previous period. In practice, marketing managers mostly use achieved sales volume to compute annual growth.

3.4. Efficiency of individual pricing strategy tools

Price is a key attribute that plays an important role in purchase decisions. The relevant indicators during pricing are: creation of product price with regard to its value added, the relationship between quantity and price, price elasticity, and price formation under linear and constant elasticity. Relative product price, which compares the price of the product with its competitors, presents the traditional indicator of the efficiency of individual pricing strategy tools:

$$\begin{aligned}&Relative\ \ price=\frac{(Price\ \ of\ \ product\ \ A-Price\ \ of\ \ competing\ \ product)}{Price\ \ of\ \ competing\ \ product}\\&\quad *100.\end{aligned} \quad (6)$$

Monitoring relative prices enables a company to develop its pricing strategy based on the prices of its competitors. This index can indicate a lack of certain products in the market, or, conversely, their abundance. However, except for direct comparisons with selected competitors, average price replaces this index in practice. According to surveys in the UK, the USA, Germany, and Japan, more than half the organizations use only an indicator of relative prices. Other indicators such as value-creating price, price elasticity of demand, own, residual, and cross-price elasticity, and the percentage of positive values can measure the efficiency of the pricing strategy.

3.5. Research subject

The subject of the research is Tatra banka, which operates in the territory of Slovakia with 155 sale posts and more than 700,000 clients,

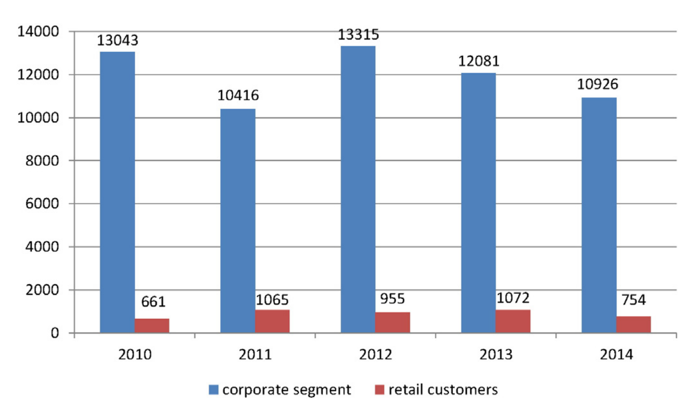

Fig. 2. Customer lifetime value of corporate and retail segments (in EUR).

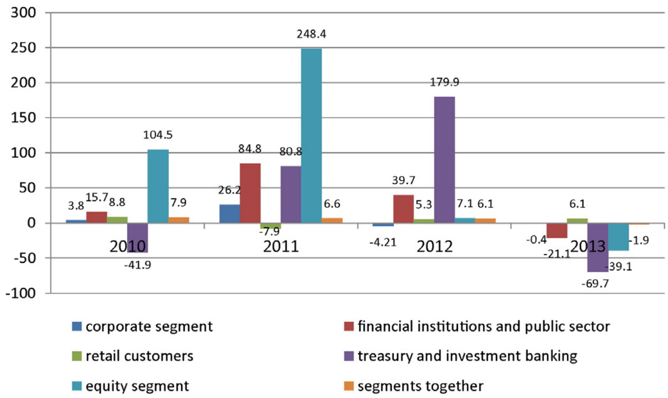

Fig. 3. Annual growth rate of individual segments in Tatra banka (in %).

presenting the third largest bank in the Slovakian market. The bank acts as a modern, global bank that provides not only banking services but also innovative financial investment products. Tatra banka is a subsidiary of the international group, Raiffeisen Bank International AG (RBI), operating in 15 markets of Central and Eastern Europe. The bank represents the banking sector because of the irreplaceable importance ascribing to marketing activities, especially in the context of growing competition in the area. This choice is based on several criteria with the existence of a functional marketing department being the fundamental factor.

Individual indicators of the efficiency of marketing activities are following over time and comparing them across selected competitors. The application of quantitative methods transforms the acquired data on actual marketing processes to information, which enables the analysis of relationships between determined facts. Using the Balanced Scorecard is crucial to help the achievement of the business strategy and to ensure that the organization strives to achieve positive future developments and to improve the implementation of individual marketing activities (Porter, 1990). The main principle of the Balanced Scorecard is to transform strategic goals and visions to quantified indicators.

Four perspectives (financial, customer, process, and learning and growth) form the foundation of the concept of the Balanced Scorecard (Kaplan & Norton, 1996) and aid the evaluation of organizational performance. Every aspect has specific and concrete goals and metrics that lead to goals achievement. The main characteristic of the Balanced Scorecard is to connect financial and non-financial performance metrics since determination of strategy does not depend purely on past financial results.

4. Findings

Given the available data within the group of market share indicators, Tatra banka provides data about loans, received deposits and mortgage bonds. On the other hand the National Bank of Slovakia provides overall market data and corporate data from individual annual reports.

The research follows the market share of Tatra banka in terms of loans, deposits received, and loans and mortgage bonds issued during the period 2010–2014. In terms of loans provided, the market share of Tatra banka is relatively stable at 17% owing to the positive increase in the number of entities operating in the banking sector during the reporting period. Similarly, market share in terms of deposits and loans is relatively stable at 16%. However, in terms of issued mortgage bonds, the market share significantly decreases from 31% to 19% during the study period.

The study analyzes customer profitability for two selected segments of Tatra banka, namely corporate and retail clients. The corporate customer segment represents large enterprises while retail clients include entrepreneurs, micro-enterprises, small businesses, private clients, and individual employees. Revenues from customers include net interest income comprising net income and net revenue from fees and business activities. Operational costs are included in customer-related expenses.

Fig. 1 shows that customer profitability in the retail segment increases slightly throughout except in 2012 where there was a slight decline. On the other hand, the corporate segment increased only in 2012 and declined in recent years. This fact occurs mainly due to the decline in revenues from the corporate segment over the last two years of the study period. In 2012, a change in focus towards corporate clients is occurring, which affects the development of customer profitability in both segments. This change involves the transfer of some retail clients to the corporate segment. Small business clients fall within the retail segment mainly based on the amount of revenues earned. The change in classification from retail to corporate causes a significant increase in the profitability attributable to a single customer in the corporate segment in 2012. In the case of retail clients, the transfer of customers between segments reflects a moderate view of the fact that the number of retail clients is several times higher than the number of corporate clients.

Customer lifetime value presents another indicator of customer profitability. In contrast to profitability, this indicator is future-oriented, reflecting the planned cash flows flowing from a client relationship. Profit margin presents the basis for its calculation, adjusted by the discount rate and the rate of customer retention.

The trend of the customer lifetime value of the corporate segment in Fig. 2 is similar to the corresponding trend of profitability per client (Fig. 1). The customer lifetime value initially declines in 2011 before rising to a level of more than 13 thousand EUR in 2012. Again bank records decline in 2013 and 2014, mostly due to a declining of revenues from interest payments and fees. Fig. 2 also depicts the fluctuating trend of a retail client's customer lifetime value, with the index dropping significantly by almost 300 EUR in 2014. The discount and the customer retention rates contribute to this fluctuation if the profit margin increases during the survey period (except in 2012).

Sales represent one of the most important indicators of customer satisfaction, which marketing managers are using. Fig. 3 shows a rising trend of annual changes in sales, considering five individual customer segments, namely corporate clients, retail clients, financial institutions and public sector, investment banking and treasury, and finally segments of equity. The bank records the highest growth over the period in the equity segment, followed by treasury and investment banking, while the growth in the financial institutions and public sector is also significant.

The revenues of each of the segments remain mostly positive across all years except 2013. Highest overall annual growth level is in 2010 at a

Table 1
Benchmarking tariffs of chosen products against average values.

	Tatra banka	Slovenská sporiteľňa	VÚB	ČSOB	Prima bank
Payment for maintaining personal account	7.00 €	5.90 €	5.50 €	6.00 €	3.90 €
Relative price in %	–	18.64	27.27	16.67	79.49
Type of debit cards	Visa Electron	Visa Electron, Maestro	Visa Electron, Maestro	Visa Electron, CL	Maestro
Annual Fees	12.00 €	10.00 €	8.30 €	7.20 €	7.20 €
Relative price in %	–	20.00	44.58	66.67	66.67
Processing fee for SEPA (Single Euro Payments Area) payment order	1.20 €	1.20 €	1.30 €	1.20 €	1.50 €
Relative price in %	–	0	−7.69	0	- 20.00

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Table 2
Strategic map from the customers' perspective.

Main goal	Individual goals	Benchmark	Target values
Increase in the firm's value to clients	Stabilization of market rate	Sales volume, market rate	• Maintaining credit provision at a market rate of 17% • Annual growth of 6% in credits sale
	Increasing trend of client profitability Growth in corporate segment	Sales volume, number of clients, profitability	• Annual growth of 6% in sales volumes • Annual growth of 4.5% in the number of clients • Annual growth of 4% in profitability
	Growth in treasury and investment banking segment	Revenues from interests and fees, annual growth	• Annual growth of 4% in the treasury and investment banking segment

level of almost 8%. The revenue of the corporate segment records an initial increase in 2010 and 2011, followed by a slight decrease in 2012. Financial institutions and public sector revenues increases across all years except 2013 while the treasury and investment banking segment exhibits a fluctuating revenue trend. The revenue trend of equity is similar to that of financial institutions in all periods except 2013. In 2011, the equity segment records a more than 200% increase in revenues.

The analysis of the compound annual growth follows, which reflects the average annual growth for the period. Equity investments record the highest compound of annual growth rate in the bank at nearly 36%. In contrast, retail customers experience the lowest average growth rate at 2.3% while the treasury and investment banking segment registers a negative value of compound growth at −2.3%.

In order to evaluate pricing strategies, Tatra banka is compared with four other banks (Slovak Savings Bank, VÚB, KBC Bank, and Prima Bank Slovakia) with the analysis of the quantification of relative prices. Their charges serve for evaluation of individual banks by examining selected services. Accordingly, the bank provides data on the tariff of individual banks, based on price.

Regarding the pricing process, the bank uses a combination of various methods but primarily applies the principles of price creation and adaptation to the competition.

Table 1 presents a comparison of individual banks' prices with an average price, which quantifies the prices of individual products. Analysis of the prices from the customers' perspective implies that the lower the price the better. In the case of Tatra banka, the product prices are higher than the average in two cases, namely personal account maintenance fees and debit card fees. At the same time, the price is also the highest for these products compared with the average.

5. Conclusion and recommendation

Identified through the analysis of the efficiency of marketing activities, the areas of weakness in Tatra banka, necessary for resolution, are as follows:

- Stagnant growth trend of credits in Tatra banka lags behind the corresponding growth trend of the overall market.
- Negative growth in client profitability for the corporate segment over the last two years.
- Negative compound of annual growth rates in the treasury and investment banking segment.

The solution is to focus on the customer perspective of the performance assessment of selected banks, since the financial goals of the company significantly influence the quality of goals achieved from the customer perspective. Finally strategic maps present a tool of the Balanced Scorecard approach, to address individual proposals (Kaplan & Norton, 2004).

The strategic map in Table 2 maps the strategic objectives with respect to individual customers and lists the measurements for their control as well as the expected target values for individual instruments and determined goals.

A key implication of the analysis is that despite increasing competition in the industry, Tatra banka maintains a relatively stable market share. In the last year, the growth trend of loans slightly lags behind the overall market. As such, a proposal to carry out measures would increase the volume of loans provided with the aim of matching the market trend. The bank should support credit sales through a marketing campaign to motivate customers, facilitating a targeted increase in demand of around 6% per annum. Considering the market's average growth rate of 5.55% per annum, the bank's market share would be 17.13% in 2015.

Given the observed negative developments in customer profitability, the focus on sales volume by attracting new customers and maintaining individual customer profitability is available. To support this objective, in part, the bank should introduce a new type of credit for corporate clients, namely business loans for start-ups. Assuming that the bank meets the targets set under the strategic map, the expected future profitability in 2016 would amount to 4.2 million EUR.

The bank should support revenue growth in the treasury and investment banking segment, by introducing new products such as deposit bills. The planned income from interest and fees of currently provided products and the expected returns from the proposed new product represent a target of 5.1 million EUR in 2016, as defined by the strategic map. Despite its contributions, this study has several limitations.

Due to the unavailability of data, the research does not evaluate the performance of the distribution system and the efficiency of marketing communications. Medved' (2013) reports that a distribution channel allows the bank to reach out to its customers with deposit products, which is necessary to implement banking transactions. Distribution channels have the potential to distinguish a bank from its competitors. Technological developments in the area of computers and communications systems lead to the rise and rapid development of new distribution channels (Korauš, 2011). The change in distribution systems and clients' profiles can lower bank margins and intensify competition, causing significant changes in the distribution of bank services. Future research could focus on identifying such factors.

As this study develops and tests the quantitative indicators of efficiency of marketing activities in a bank in the context of an individual city within a country (Slovakia), examination is important whether the identified indicators can be applied to different sectors and countries. Future research could focus on identifying various priorities that facilitate the development of marketing efficiency.

After the successful implementation of the proposed measurements, the development of individual indicators is logical to record possible changes towards improved, more efficient, and more effective functioning of individual activities not only in relation to marketing, but also in terms of the bank's overall financial results.

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