CUSTOMER ANALYSIS WITHIN BALANCED SCORECARD

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ABSTRACT. *The paper considers theoretical aspects of the applied strategic customer analysis based on the on the balanced scorecard customer element developed by the author to be applied in the research process of the strategic organization distribution activity aspects and its sales management. The methodology of the research is the Balanced Scorecard concept (BSC) as well as the author's applied strategic analysis concept. The applied strategic customer analysis is assumed to encompass comparative assessment, variances diagnostics and indicators forecast of the BSC customer element within the strategic customer goals. The author draws a conclusion that the applied strategic customer analysis is a new and sufficiently effective instrument to research strategic aspects of the organization distribution activity and to form an analytical support of the strategic sales management in the present-day environment.*

KEYWORDS: Applied Strategic Analysis, Balanced Scorecard, Management, Sales, Organization.

JEL CODES: L19, M19, M41, O12.

INTRODUCTION

In present-day economic environment a long-term sustained development of an organization (enterprise, firm, company, business entity) ensuring its utmost market value assumes satisfying the requirements of stakeholders, customers being the most important of them. The customers expect their organization to meet their ultimate demands. They anticipate the organization performance to reach a certain acceptable level corresponding to the image, products quality, delivery dates and price-to-quality ratio.

A need for taking account of the customers' expectations mentioned in the strategic organization distribution activity, *i.e.* sales, transforms them into the appropriate strategic customer element goal of the balanced scorecard (BSC) setting, firstly, a direction for the organization activity and enabling it to understand market research structure, customers research process, products planning, their promotion and distribution, and pricing planning as well. Secondly, it ensures that each organization subdivision seeks to reach well-defined objectives interrelated with the overall organization goals. Thirdly, it encourages coordination of various functional directions efforts. Fourthly, the BSC customer element causes the organization to assess its strengths and weakness from their rivals' standpoint, opportunities and threats within the environments. Fifthly, this BSC element specifies alternative actions or

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combinations to be undertaken by the organization. Sixthly, it sets the base for the resources allocation. Seventhly, it demonstrates the importance of the performance assessment procedure applied.

However, it is worthwhile as to assess a degree of certain strategic decisions accomplishments in the field of the sales management as to find out the cause of the variance (if any) and to forecast the situation development, the whole and the parts facilitates the development and improvement of the appropriate analytical tools. In view of the mentioned above, the author of the paper seeks to consider his applied strategic analysis to be employed in the process of the analytical support development for the strategic sales management.

METHODOLOGICAL UNDERPINNING

The methodological underpinning of the research, the results being presented in the paper, is based on the following concepts:

1. The Balanced Scorecard concept (BSC);

2. The Applied Strategic Analysis concept (ASA).

The Balanced Scorecard concept as an analytical instrument applied in the field of strategic management was developed by American scientists Robert Kaplan and David Norton at the beginning of the 90s of the XX century (1992). It evolved further by both in their works (Kaplan & Norton, 1996, 2001, 2003, 2004, 2005, 2006, 2008), and those of other scientists studying economics (Brown, 2007; Friedag & Schmidt, 2002; Horvath & Partners, 2004; Maisel, 1992; Norreklit, 2000; Olve, Roy & Wetter, 2000; Rampersad, 2003), and was multiply tested. Today BSC is considered to be one of the essential and sufficiently effective facilities ensuring strategic organization management.

It should be noted, that the main reason to develop BSC was a contradiction between contingencies aimed at setting up wider competitive opportunities and immobile accounting (financial accounting) system.

The Balanced Scorecard as a whole is understood as an aggregate of parameters featuring an overall organization performance in present-date market economy. It reflects a balance to be brought about between short-term and long-term goals, financial and non-financial indicators, basic and auxiliary parameters, as well as internal and external factors of the organization economic activity.

The scores of the balanced scorecard system are specially formed depending on the outlook and strategic goals of any particular organization. They represent a balance between external accounting data for the owners (shareholders), and customers, and internal characteristics of the most significant business processes, innovations, training, and growth. That is the balance between the results of the organization performance and future growth. The system comprises a combination of objective quantitatively estimated data and subjective somewhat arbitrary parameters of future growth.

The main goal of the Balanced Scorecard is to transform a company strategy into specific tangible objectives, indicators and end up with events.

The BSC scores are selected so that the organization managers and employees focus on the factors to enhance the organization competitiveness. The BSC should be accessible in terms of information for the employees of all levels. The 'front-end' employees are to be well aware of the financial consequences of their decisions and actions. Meanwhile, the top managers must be committed to the long-term financial success.

The Balanced Scorecard is founded on the cause and effect links, results attain factors and their interrelation with financial data.

The Balanced Scorecard encompasses four basic interrelated elements: finance, a customer, internal business processes ones as well as training and personnel development element considered through the prism of key problems, strategic goals, indicators and their target values and strategic events as well.

The BSC scores enable to characterize comprehensively a performance of both commercial and government, and non-for-profit organizations, the scores being relatively few (about 25 scores in average, as a rule).

The development of the strategic applied analysis concept was caused by the need to enhance strategic management efficiency in difficult conditions of the present-day market economy, to improve its information-analytical support, thereby stipulating an expediency of further evolution of theory, methodology and methods of the overall strategic organization performance aspects to the level of the financial analysis at least being a sufficiently effective research instrument of the financial aspects of the organization economic activity based on the financial indicators.

ASA, as a strategic management function, assumes an overall research of the strategic organization performance aspects based on the BSC (Krylov, 2010, 2013, 2014).

Basing on the balanced scorecard system special for any particular organization the Applied Strategic Analysis lacks any standard methods. The ASA methods are special as well for any particular organization.

The goal of the applied strategic analysis implementation is to form analytical support for making strategic management decisions.

The essential ASA objectives are the following:

1. Comparative assessment of the BSC scores assumes comparison of their outcome and target figures, determination of the balanced scorecard real and target figures variance and qualitative evaluation of the variances.

2. Diagnostics of the BSC indicators variances enables to find out the results attaining factors having impact on the general or outcome BSC indicators and determine the variance value by means of the appropriate methods of the factoring analysis.

3. Balanced Scorecard forecast of the purposeful nature implies a primordial determination and/or correction of the target BSC scores values and either determination of the specific ways of their attainment or the development of the events aimed at the elimination of the variance emerged between outcome and target BSC scores values in the future.

All the objectives are interrelated as each consecutive objective follows from the previous one: the diagnostics is exercised by the results of the BSC elements comparative assessment while their forecast takes into account the diagnostics results.

Three interrelated and agreed Applied Strategic Analysis aspects stand out:

1) A strategic aspect proper, within the aspect evaluated, diagnosed and forecast are final BSC indicators values for the time period of the developed strategy in effect, i.e. their strategic values.

2) A tactical aspect, within the aspect evaluated, diagnosed and forecast are interim BSC indicators values by the end of the year, i.e. their tactical values.

3) An operational aspect, within the aspect evaluated, diagnosed and forecast are interim BCS indicators values by the end of each month, i.e. their operational values.

The results of the analysis of the operational BSC indicators values impact on their tactical values and the results of the tactical value analysis influence the strategic ones.

The basic ASA technique comprises methods of absolute, relative and average values, comparison, grouping, graphical and table methods, correlation and regression analysis, factoring analysis, cluster analysis, , as well as expert evaluation method.

The applied strategic analysis is accomplished by deduction that presumes, firstly, an investigation of the general BSC indicators, then specific ones, and defines general sequence of the ASA analysis according to the following leads: financial indicators analysis, customer indicators analysis, internal business-processes indicators analysis, training and personnel development indicators analysis.

In addition, each of the basic ASA leads, financial, customers, internal business-processes as well as training and personnel development is represented through the prism of its basic objectives: evaluation, diagnostics and forecast. Following the approach, the ASA commences from the comparative evaluation of the financial indicators and is completed by the forecast of training and personnel development.

The basic leads of applied strategic analysis mentioned above can be transformed into separate groups:

1. Applied strategic financial analysis.

2. Applied strategic customer analysis.

3. Applied strategic analysis of internal business-processes (comprising applied strategic analysis of after-sales service, applied strategic performance (operational) analysis and applied strategic innovative analysis).

4. Applied strategic analysis of training and personnel development.

When describing the ASA contents as a complex category of economics in his previous works the author has assumed the Applied Strategic Analysis (ASA) to be a kind of the applied strategic analysis presuming overall complex research of the strategic aspects of the organization innovative activity based on the innovative balanced scorecard element (Krylov, 2014) and the applied strategic financial analysis (ASFA) implying overall complex research of the organization financial activity by the financial element of its balanced scorecard (Krylov. 2015). In the present paper the author considers the following kind of ASA – an applied strategic customer analysis..

RESULTS
Concept and Essence of the Applied Strategic Customer Analysis

An applied strategic customer analysis (ASCA), a kind of the applied strategic analysis, assumes a complex, comprehensive research of the strategic organization distribution activity aspects basing on the customer element of its balanced scorecard. It can also be taken as a facilitating function of the strategic sales management.

The ASCA subject is the customer BSC element indicators (customer indicators) and the factors specifying them and the object is strategic organization distribution activity aspects.

The goal of the applied strategic financial analysis is to form an analytical support of making strategic decisions in the field of sales performance management.

To attain the ASCA goal mentioned its most important objectives (analogous to the BSC ones) are to be reached, such as comparative assessment, diagnostics variances, and forecast of the balanced scorecard customer element.

All the objectives of the applied strategic customer analysis are closely interrelated since each subsequent objective follows from the previous one: the diagnostics of the customer BSC element indicators variances is exercised by the results of their comparative assessment and the indicators forecast are derived from their diagnostics variances results.

Comparative assessment of the balanced scorecard customer element implies a comparison of their real and target figures, finding corresponding variances and their qualitative characteristics (Table 1). The qualitative characteristics of the BSC customer element real and target figures variance depend largely on their value (Table 2).

Table 1. A Form of Analytical Table to Exercise Comparative Assessment of the BSC Customer

        Element

Name of the BSC customer element indicator	Target figure of the BSC customer element indicator	Real figure of the BSC customer element indicator	Variance of the BSC customer element indicator real figure from the target one		Qualitative variance characteristic of the BSC customer element indicator
			absolute	%	

Table 2. Exemplary Qualitative Estimation of the Variance Characteristics of the BSC Customer

        Element's Real and Target Figures

Real figure variances values of the BSC customer element from the target ones, %	Qualitative estimation of the BSC customer element real figure from their target ones
Up to 1	Fairly small
From 1 to 5	Essential
From 5 to 10	Significant
From 10 to 20	Large
20 and higher	Very large

The diagnostics of the Balanced Scorecard customer element indicators variance is based on the cause and effect links combining BSC values, the customer element included, into the balanced complex of general indicators and their specifying factors (results attaining factors).

While diagnosing the BSC customer element indicators variance found are the results attaining factors, which are mostly impacting on the general or outcome indicators of the Balanced Scorecard customer element, and determined is its value.

It should be noted that the outcome customer indicators of more specific BSC elements (internal business-processes, personnel training and development) could be considered as factors determining factoring indicators variances of more general customer element. So, a factoring model of the balance scorecard customer element indicators, a block-scheme of the generalized factoring model presented in Fig. 1 comprises the outcome BSC customer element indicators as final (the most general) ones and five levels of the defining factors:

- 1-st level factors: factoring BSC customer element indicator;

- 2-nd level factors: some outcome indicators of the BSC internal business processes, personnel development and training;

- 3-rd level factors: some factoring indicators of the BSC internal business processes, personnel training and development;

- 4-th level factors: some outcome indicators of the BSC personnel training and development;

- 5-th level factors: some factoring indicators of the BSC personnel training and development.
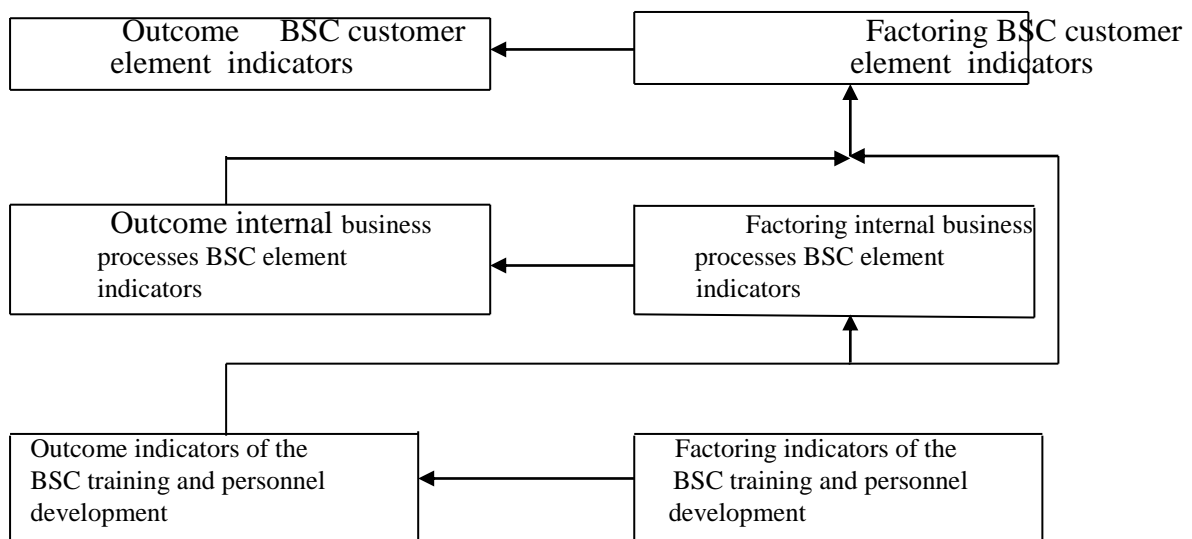

Figure 1. A block-scheme of the factoring model of the customer BSC indicators in terms of its separate elements

The computation results of the factoring indicators impact on the outcome BSC customer elements indicators defined are presented in the form of a table (Table 3).

Table 3. A Form of Analytical Table to Show Computation Results of the Factors Impact on the

Outcome BSC Customer Element Indicators Variance

Outcome BSC customer element indicator	Absolute variance value of the outcome BSC customer element indicator	Factoring indicators impact								
		1st level			…			5th level		
		…	…	…	…	…	…	…	…	…

The corresponding deductions are drawn from the computation results and imply either primordial establishment or adjustment of the target BSC customer indicators values (in case of the objective conditions) and determination of the specific methods of their attainment or the development of the events aimed at the elimination of the variance emerged between outcome and target values of the BSC customer element indicators in the future. In addition, the forecast commences with the general (outcome) indicators, the factoring ones being derived from them.

The results of the forecast of the BSC customer element indicators values are presented in the form of a table (Table 4).

Table 4. A Form of an Analytical Table to Present the Results of the BSC Customer Element

Indicators Values Forecast

Name of the BSC customer element indicator	Absolute real value of the BSC customer element indicator	Target value of the BSC customer element indicator	Target value variance from the real value of the BSC customer element indicator		Comments
			absolute	%	

To the aspects of the ASCA as a kind of ASA referred are a strategic aspect proper, tactical aspect and operational aspect.

Within the scope of the strategic aspect of the applied strategic customer analysis estimated, diagnosed and forecast are final BSC customer element indicators for the time-period of the developed customer (distribution) strategy functioning, *i.e.,* their strategic values.

Within the frame of the tactical aspect of the applied strategic customer analysis estimated, diagnosed and forecast are interim BSC customer element indicators by the each year end, *i.e.,* their tactical values.

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Within the scope of the operational aspect applied strategic customer analysis estimated, diagnosed and forecast are interim BSC customer element indicators by the end of each month, *i.e.,* their operational values.

It should be noted, that all the ASCA aspects mentioned are interrelated and agreed: the results of the operational BSC customer element indicators values analysis make an impact on their tactical values and the results of the tactical values analysis – on the strategic ones.

The ASCA methodology instruments comprise an aggregate of techniques (ways, methods) to facilitate handling the essential problems of the analysis accomplished and, respectively, its goal reached. The basic methods of the applied strategic customer analysis include techniques of absolute, relative and average values, comparison, grouping, graphic and table methods, correlation-regression analysis, factoring analysis, cluster analysis, and expert evaluation methods.

Information Base of the Applied Strategic Customer Analysis

The information ASCA base is the customer element of BSC being formed in five steps:

Definition of the strategic customer goals of the organization performance

The formation of the BSC customer element indicators commences from the definition of the strategic customer goal by the customer managers and more specific individual strategic customer aims adding it up. It is based on the customer key problem agreed with the strategy adopted and implies the following: which goals, in terms of the structure and customer demands, should be put in order to reach financial   targets?

Obviously, should a company be set a long-term goal of reaching outstanding financial results it is to manufacture goods and services to be appreciated by its customers.

It should be noted, that a process of balanced scorecard customer element development clarifies strategic customer goals and defines critical parameters of their attainment. Meanwhile, strategic aims included into the BSC customer element are special and separate for each organization within specific conditions of time and location and unable to be replaced. They allow transferring the customer element of the overall strategy, i.e., customer strategy, into a set of specific target definitions referred to the BSC customer element.

In addition, the strategic customer goals and measurements of their indicators, on the one hand, specify financial goals and measurement of their indicator, on the other, they are basic to define goals and indicators of the two other BSC elements: internal business-processes and personnel training and development ones.

Market segmentation is essential while defining strategic customer goals although some managers object to the market segmentation concept, as they recognize all the customers and they are prepared to meet the demands of each. However, there is a threat that each demand is being satisfied equally in a bad way. The essence of the customer strategy implies a stipulation both what should be done and what should not.

It is obvious, that a composition of customers available and prospects is heterogeneous. Each group possesses its own preferences appraising differently quality of goods and services offered. Hence, defining customer strategy on the basis of in-deep market survey we are to consider different customer groups and market segments as well as their preferences through a prism of such factors as price, application, reputation, image, interrelationship, and servicing. The strategy is determined by the market segment and customer group selected as the target

one. The BSC customer element describing customer strategy specifies consumers or customer targets in each market segment selected the key customer problem to be solved by the target achievement.

In spite of the strategic customer goals being special and separate for each organization within specific conditions of time and location we consider a number of strategic customer goals universal for any type of organization, as an example:

1. Ensuring customer demands satisfied;

2. Retaining existing customer base;

3. Building up customer base;

4. Capturing of certain market segment;

5. Ensuring maximum customer profitability.

Satisfying customer demands refers to their expectations for the organization to achieve a certain acceptable level corresponding to the image, product quality, delivery dates, and price-quality ratio. To succeed in attaining the customer satisfaction effect the customer must be retained and encouraged sp that he resumes business relationship with the organization in the future. Notice that both the customer base retaining and expansion are feasible on the condition that the customer demands are satisfied.

Retaining existing customer base is treated as the most effective method to preserve and expand the market share. The organization being well aware of their customers is able to assess their customer base state. A share of loyal customers displays the organization image and reputation, products quality and customer service. In addition their loyalty may serve as an early indicator when measuring actual customers' aptitude of making new goods sale.

Building up customer base is an essential factor of sales growth in case of new customers to be pleased with the products consumption qualities and retained as permanent customers due to the irreproachable products quality. Generally the organizations seeking to expand their business set the goal of building up their customer base within the market segment selected.

Capturing a certain market share results from the existing customer base retained and expanded. The assessment of the market share is simplified if the target consumer group and market segment have been defined.

Ensuring maximum customer profitability depends to a great extent upon the success of the first four goals reached and is defined by the organization's aspiration to retain key accounts within the target market segment, on the one hand, and to end cooperation with the non-lucrative ones within the non-target market segment, on the other. The cooperation with loss-making customers within the target market segment has to be also ended when all the measures of turning them into lucrative ones have been exhausted (as a rule, a certain time-period is dedicated for that). The lucrative customers within the non-target market segment might be retained but kept constantly under permanent control to avoid their fall into the non-lucrative category. It should be noted that customer profitability indicator related to the market segment reflects organization customer strategy efficiency by the market segmentation.

Thus, the attainment of each previous strategic customer goal facilitates further goals to be reached. So the fifth strategic customer goal – ensuring maximum customer profitability – must be treated as the basic strategic customer goal while the four ones are considered as rather specific ones.

Construction of the strategic customer map

The strategic customer goals are not independent and isolated from each other, visa versa, as it has been mentioned above; they are interrelated having a strong interactive impact. To define and record the cause and effect links between separate strategic customer goals is one of the basic tasks of the balanced scorecard customer element. The cause and effect links defined reflect an availability of the dependence between the separate strategic customer goals. During the process an intuitive customer managers insight on the cause and effect availability between separate strategic customer goals are transformed into actual ones and reflected (documented) in the strategic customer map.

The strategic customer map is presented as a graph-like document reflecting the cause and effect links between separate strategic customer goals of the organization performance. It is viewed as a block-scheme, where the strategic goals are presented as separate blocks and the cause and effect links between them as arrows. The strategic customer map is one of the components of the strategic map.

As an example provided is a strategic customer map reflecting an interrelation of the predetermined strategic customer goals being mostly universal for all types of the organizations (Fig. 2).
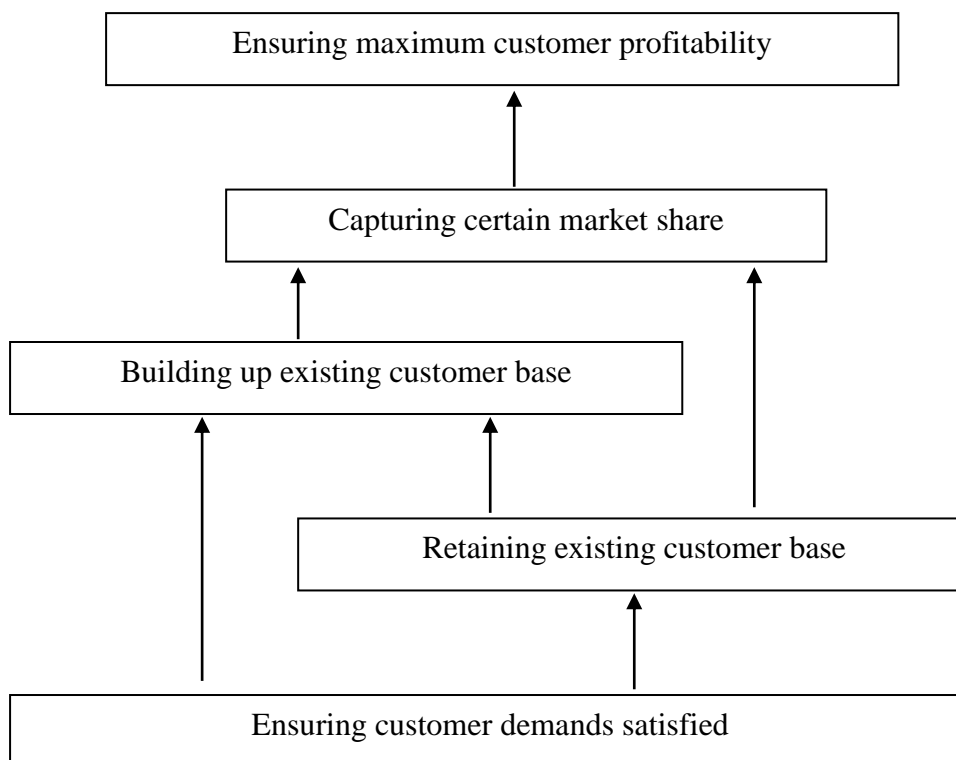

Figure 2. An example of the strategic customer map

The construction of the strategic customer maps to form the BSC customer element is essential as they:

- reflect interrelated and interactive character between separate strategic customer goals of the organization;

- explain reciprocal effects emerging from the strategic customer goals accomplished;

- form executives' awareness of the interaction and importance of separate strategic customer goals;

- facilitate a unified understanding of the organization customer strategy;

- explain the value of the managerial customer indicators;

- encourage deeper understanding and better links of the strategic customer goals of the organization performance;

- assist in building cooperation between the heads of various customer divisions of the organization;

- create a model explaining the ways to reach a customer success of the organization performance.

Selection of the customer indicators

The construction of the strategic customer map having been completed enables to select indicators of balanced scorecard customer element. The customer indicators are needed to express precisely and unambiguously the content of the strategic customer goals and the level of their achievement. Measuring strategic customer goals facilitates the development of the object managed in the selected customer direction. To ensure the unified understanding of the set strategic customer goals to be achieved each of them should include as many as two (rarely – three and/or four exclusively) indicators.

The consideration of a large number of the preliminary customer indicators enables to understand at an early stage which indicators the BSC customer element should encompass. To employ certain customer indicators within a sales management system their description (in terms of definition, formulae and parameters) is to be available. The existing customer indicators would have to be assessed from the point of their usefulness (e.g., data sources, indicators measurement frequency, target values availability, etc.) As for unavailable customer indicators an accounting procedure of their values should be worked out in advance.

Consider, as an example, certain general customer indicators measuring their five strategic customer goals mentioned above (ensuring customer demands satisfied; retaining existing customer base; building up existing customer base; capturing certain market share; ensuring maximum customer profitability) and bring them together into Table 5.

Table 5. Certain General Indicators of the BSC Customer Element Indicators

Strategic customer goal	Measuring indicators
Ensuring customer demands satisfied	Suppliers rating defined by customer
	Customer questioning results
	Number of repeat transactions with the same customers
Retaining existing	Number of permanent customers and/or their share in the

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customer base	overall figure
	Number of transactions with permanent customers and/or their share in the total deals.
	Sales volume to permanent customers and/or their share in the overall sales.
Building up customer base	Customer number growth on absolute and/or per-unit basis.
	Transactions number growth on absolute and/or per-unit basis.
	Sales volume growth on absolute and/or per-unit basis.
	Actual new customer's ratio to number of prospects found during the questioning run after advertising campaign.
Capturing certain market share	Market share of the company
	Shares of separate consumers.
Ensuring maximum customer profitability	Overall net sales to sales revenue ratio
	Net sales to sales revenue ration to separate consumers.

Definition of target customer indicators values

As soon as the selection of the BSC customer indicators has been completed their target values are to be defined. It should be noted that when the target value of every customer indicator is stated one and another of its strategic goals are considered to be completely described. The target values of the customer indicators must be rigorous but fully achievable.

The target values of the customer indicators in terms of methods are determined by means of preliminary development further disputed and agreed at the meetings and combined with building of the business-plan model.

However the following principle has to be obeyed: a balance of the strategic customer goals is to be reflected by the balance of the target values describing them.

Development of strategic customer events

Having completed the BCS customer element relevant strategic customer events may be developed. The strategic customer events are assumed as the events relevant to the strategic customer goals determined for the balanced scorecard customer element.

The strategic customer events enable to specify the strategic customer goals and link the customer strategy with customer managers' operational objectives. Thereby the key idea of the balanced scorecard customer element is realized, i.e. a transfer of the customer strategy into specific customer management actions since the BSC customer element commences its performance as soon as the strategic customer events are implemented.

As regards the strategic customer events such operations may encounter as entering new distribution markets or other events irrelevant to the customer operational activity demanding substantial resources. Other events, such as long-term promotion campaign or investment in attractiveness of trade mark can be attributed to the group.

The strategic customer events result in the base for the allocation of resources within the customer strategy accomplishment. In other words, a definition of the strategic customer events implies a comparison of the anticipated strategic customer goals and feasible ones, and the resources available. Thereby the organization is being tested for the strategic customer goals feasibility. The work may entail a revision of the strategic customer goal defined before the development of the strategic customer events.

As a rule, neither organization owns sufficient resources and opportunities to implement all the strategic customer events considered resulting in setting up priorities. In this case a compliance of the customer events with the strategic system of the customer goals enables to assess their contribution in the implementation of the customer strategy developed. The work facilitates to reach a consensus concerning a sequence of the strategic customer events implementation in terms of the resources and opportunities available, i.e. which are to be firstly implemented and which ones should be postponed.

It should be noted, that strategic customer budgets (sales budgets) are drawn up basing on the developed strategic customer events. Thereby the strategic customer planning is linked with the operational planning (first and foremost with budgeting).

The developed balanced scorecard customer element is presented by a table (Table 6).

Table 6. Balanced Scorecard Customer Element of the Organization Development

Key problem of the balanced scorecard customer element	Strategic customer goal	Customer element indicator	Target value	Strategic customer event
What goals concerning structure and customer demands do they have to set to attain financial goals?				

Components and Sequence of the Applied Strategic Customer Analysis Execution

The applied strategic customer analysis as a kind of the applied strategic analysis is carried out in compliance with the principle of deduction encompassing research firstly, general indicators of the BSC customer element then specific ones.

The basic components of the ASCA are the following:

1. Analysis of customer profitability level.
2. Analysis of products distribution market share.
3. Analysis of customer base volume, composition, and structure.
4. Analysis of customer demands satisfaction degree.

The overall sequence of the applied strategic customer analysis is built on the principle of the analysis mentioned above and its basic elements and specified as a block scheme (Figure 3).

According to Figure 3 the procedure of the applied strategic customer analysis execution commences from the analysis of customer profitability level. It is followed by the analysis of products distribution market share, captured by the organization. Later the analysis of customer

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base volume, composition, structure is carried out. Finally, analyzed is a degree of customer demands satisfaction.

A more detailed process of the ASCA analysis execution can be presented through the prism of its main objectives i.e. comparative assessment, diagnostics of the variance and the forecast of the BSC customer element (Fig. 4).
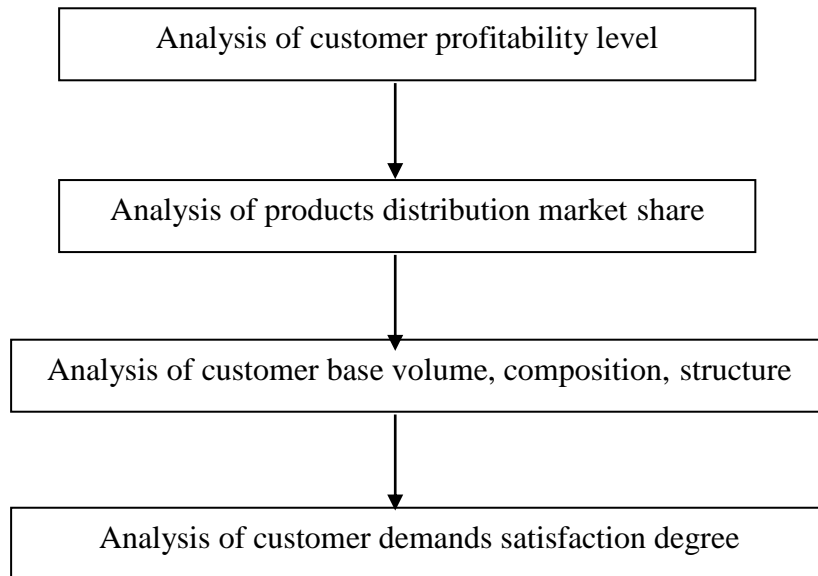
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│       Analysis of customer profitability level    │
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│    Analysis of products distribution market share │
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│ Analysis of customer base volume, composition, structure │
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│  Analysis of customer demands satisfaction degree  │
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Figure 3. Sequence of the applied strategic customer analysis execution
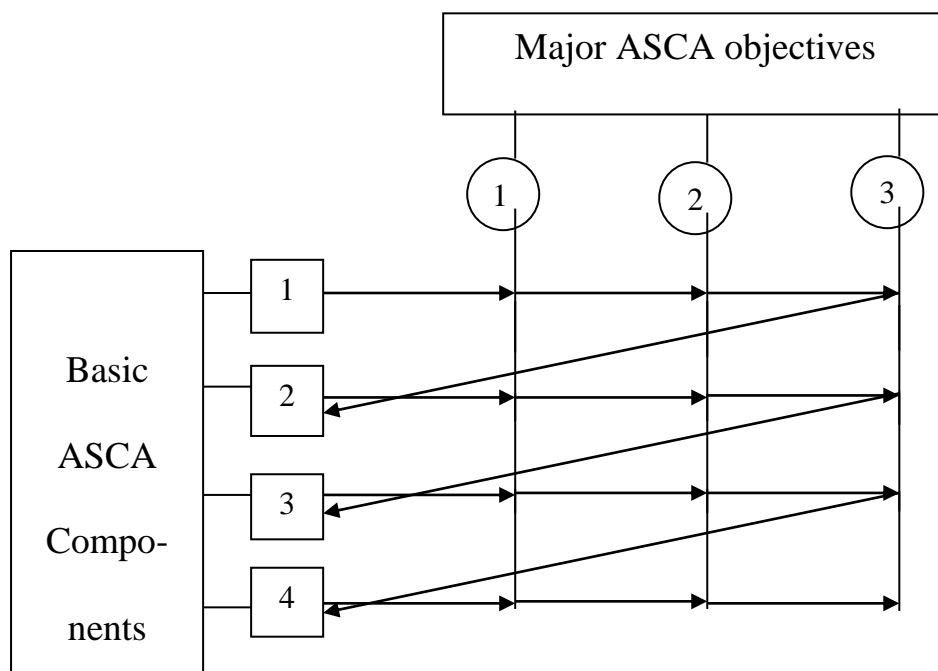
Figure 4. A block-scheme of applied strategic customer analysis execution

The figure 4 shows that considering the customer element indicators to be grouped into the outcome and factoring ones the applied strategic customer analysis starts with the comparative assessment of the outcome indicators characterizing a level of customer profitability and is completed with the forecast of the factoring indicators of a degree of customer demands satisfaction.

In addition, assuming "intersection points" of the analyzed BSC customer element indicators and the most important objectives of the applied strategic customer analysis being defined as some kind of the ASCA components we are able to build a matrix (Table 7).

Table 7. Matrix of the ASCA Components

Basic ASCA components (i)	Major ASCA objectives (j)		
	Comparative assessment of BSC scores (1)	Diagnostics of BSC scores variances (2)	Forecast of BSC scores (3)
Analysis of customer profitability level (1)	Comparative assessment of customer profitability level.	Diagnostics of customer profitability level variances	Forecast of customer profitability level.
Analysis of products distribution market share (2)	Comparative assessment of products distribution market share.	Diagnostics of products distribution market share variances	Forecast of products distribution market share
Analysis of customer base volume, composition, and structure (3)	Comparative assessment of customer base volume, composition, and structure.	Diagnostics of customer base volume, composition, and structure variances.	Forecast of customer base volume, composition, and structure
Analysis of customer demands satisfaction degree (4)	Comparative assessment of customer demands satisfaction degree.	Diagnostics of customer demands satisfaction degree variances.	Forecast of customer demands satisfaction degree

Denoting elements of the matrix as c_{ij} (i = 1, 2, 3, 4; j = 1, 2, 3), enables mathematically describe the ASCA content by means of the formulae:

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$$C = \sum_{i=1}^{4} \sum_{j=1}^{3} c_{ij}$$

(1)

where C is an amount of the ASCA elements;

i is an index of the ASCA elements: 1 is the analysis of customer profitability level; 2 is the analysis of products distribution market share; 3 is the analysis of customer base volume, composition, and structure; 4 is the analysis of customer demands satisfaction degree.

j is an index of major ASCA objectives;: 1 is the comparative assessment of the BSC customer element; 2 is diagnostics of the BSC customer element variances; 3 is the forecast of the BSC customer element.

The author of the paper considers the matrix (Table 7) and the formulae (1) as a matrix and mathematical model of ASCA, respectively, visualizing their composition and economic contents. Examples of the outcome and factoring indicators analyzed per every complex ASCA element are presented in Table 8.

Table 8. Examples of Analyzed Outcome and Factoring Indicators per Each ASCA Component

Basic ASCA component	Indicators analyzed	
	Outcome	Factoring
1. Analysis of customer profitability level	Net sales to sales revenue ratio (overall).	Separate consumers net sales to sales revenue ratio
		Separate items net sales to sales revenue ratio.
		New goods net sales to sales revenue ratio.
		Each item net sales to sales revenue ratio.
2. Analysis of products distribution market share	Organization market share.	Market shares of separate customers.
		Market shares of separate products manufactured.
		New products market share.

3. Analysis of customer base volume, composition, and structure	Permanent customers' share within total number of customers.	Total number of customers.
	New customers' share within total number of customers.	Number of permanent customers.
	Permanent customers' transactions within overall transactions.	Number of new customers.
	New customers' transactions within overall transactions.	Number of prospects.
	Sales share to permanent customers within overall sales volume.	Total number of transactions.
	Sales share to new customers within overall sales volume.	Number of transactions with permanent customers.
	Growth of total number, number of permanent and new customers on absolute and per unit basis.	Number of transactions with new customers.
	Growth of total transactions, transactions with permanent and new customers on absolute and per unit basis.	Overall sales volume.
	Growth of overall sales volume, sales volume to permanent and new customers on absolute and per unit basis.	Sales volume to permanent customers.
	New customers to prospects ratio.	Sales volume to new customers.
4. Analysis of customer demands satisfaction degree	Rating of customer demands satisfaction degree.	Customers questioning results.
		Number of repeat transactions with the same customers.

DISCUSSION

The author insists the results of the research, undertaken to develop the applied strategic analysis concept as the research instrument of the strategic organization distribution activity aspects and sales management, based on the balanced scorecard customer element, to carry no analogy and to be considered as new and unique ones.

Meanwhile, we have to take into account the researches having been done by some well-known scientists and specialists in the field in terms of the BSC analysis application as a whole, the customer element being non-emphasized.

So, R.S. Kaplan and D.P. Norton, the balanced scorecard concept co-founders, treat such factors, facilitating the strategy review and discussion, as correlations and causations analysis, organizational learning at the executive level followed by the scenario analysis, reported examples, strategic initiatives analysis and independent expert assessments (Kaplan & Norton, 1996). They believe a contradiction between the planned and the actual encourages executives to think of a strategy adequacy. Should new consumer value offering introduced into targeted market segment result in higher customer and financial element indicators? Are processes of new products and services development and promotion appreciated by customers fast enough? In addition, R.S. Kaplan and D.P. Norton state that balanced scorecard forms "theory of enterprise" differing favorably from other efficiency evaluation systems. The well-worked integrated scores system at the managers' disposal enables them to check their business strategy if non-statistically but formally.

The researchers from Hovarth & Partners believe the BSC analysis to provide answers for the following main questions (Hovarth & Partners, 2004): How successful is strategic goals accomplishment (basing on real indicators values)? What are reasons of real indicators values variances from targeted ones? How are strategic events being implemented? Which events are we able to implement? Which company divisions have demonstrated substantial variances from targeted ones? How do developing trends influence strategy translation success? Who analyzes a state of strategy translation: a division manager or a team of experts?

M.G. Brown thinks an analysis to compute and further research of so called analytical BSC scores values (Brown, 2007). He assumes analytical indicators as sensors on organization management board informing executives about their efforts efficiency. However these numbers, statistical values or estimates, are different from those of most corporations indicators system. The analytical indicators are oriented on a certain efficiency component added from sub-indicators (lower level indicators being different variables and frequently measured in different units) reflecting a separate direction of your activity. Each sub-indicator included in the analytical indicator is weighed depending on its importance for assessment of efficiency, reliability and probability. According to M.G. Brown the system based on the analytical indicators provides more complete performance efficiency estimation than system based on separate individually measured indicators. The analytical indicators are generally measured by 100-score scale, 100 being the largest figure. In the course of analysis basing on the results of the analytical indicators computations they state a cause of the level or a trend of efficiency. The main reason having caused problems or efficiency decline is to be included. The arguments and reasons of higher efficiency or trends for enhancement should be documented. The analysis is to result in a plan of actions for the development of measures needed to raise efficiency or to support it at the level reached. The plan of actions generally comprises objectives, list of personalities responsible for their attainments and schedules. It should be noted that the plan takes account of the analytical information. The plan of actions is commonly developed by the manager responsible for the indicator deteriorated.

Under H.K. Rampersad, the analysis is to be targeted at stating the organization successes and failures as well as finding out an extent of the set targets reached (H.K. Rampersad, 2003). Depending on the extent of the set targets correspondence to the results achieved balanced scorecard translation and formulation could be corrected. The analysis is to be aimed at

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permanent BSC agreement with changing environment. The latter creates an effect of learning that facilitates a better understanding for an organization its own processes. H.K. Rampersad thinks, that a likely analysis at the level of organization and individual employees will foster a process of learning as a whole.

H.R. Friedag and W. Schmidt consider BSC analysis is to deal with indicators deviating from the planned ones and seek answers for the following: Are there contingencies, do your employees cope with, is your plan proper? A process of strategy translation must be discussed at the enterprise every month (H.R. Friedag and W. Schmidt).

N.G. Olve, J. Roy and V. Wetter point out that regular BSC indicators measurements and analysis need not to be arranged; an ideal management control implies a mere checking procedure or generalizing index dynamics control (N.G. Olve, J. Roy and V. Wetter,2000).

Generalizing succinctly the statements of the leading scholars in the field of balanced scorecard mentioned above it is worth isolating a number of key moments concerning an essence of the analysis based on it.:

- Goals of BSC based analysis imply successfulness assessment of organization strategy translation and continued BSC agreement with changing environment;

- Analysis presumes determination of real BSC indicators values variances from targeted (planned) ones, bring their causes out and find out organization divisions with substantial variances;

- Analysis enables learning of so called analytical (generalizing) indicators of organization performance efficiency calculated at weighted average basing on specific BSC indicators estimated by 100-score scale;

- Analysis results assume a plan of actions to develop measures for raising organization performance efficiency or supporting it at the level achieved and continued learning effect facilitating a better understanding for an organization its own processes.

Thus, the statements of some well-known scientists dealing with the balanced scorecard problem mentioned above carry evidence that they lack a clear well-defined BSC analysis exercise concept including its separate elements the customer one as well. Presented are some general desires concerning the contents and analysis execution. The author of the paper proposes a clear, well-defined conceptual approach for carrying out an applied strategic customer analysis as a kind of the applied strategic analysis having been developed by the author (Krylov, 2010, 2013, 2014) enabling to enhance a strategic management efficiency of the organization distribution activity.

Unlike other researchers mentioned above the author has worked out the methodical aspects of the applied strategic customer analysis (analytical tables forms, recommendations to evaluate a degree of the factoring BSC customer indicators variances from the targeted ones, a factorial analysis graph model of the variances arisen, constituting a block-scheme as well) and provides the examples of the outcome and factoring BSC customer indicators analyzed.

The author considers the building of so called analytical indicators basing on the BSC scores to be inexpedient as a technique of their computations at the weighted average is of subjective nature and deteriorates the analysis results accuracy rather than improves it.

Thus the author's vision and solution of the problem treated in the paper is more detailed, well-thought and visualized compared with other researchers mentioned above (R.S. Kaplan and

D.P. Norton; specialists from Hovarth & Partners; M.G. Brown; H.K. Rampersad; H.R. Friedag and W. Schmidt; N.G. Olve, J. Roy and V. Wetter).

CONCLUSIONS

Completing a consideration of the applied strategic customer analysis a number of conclusions are drawn:

- Applied strategic customer analysis is new and sufficiently efficient instrument to research strategic aspects of the organization distribution activity forming analytical support of the strategic sales management;

- Its methodology constitutes concepts of the balanced scorecard and applied strategic analysis;

- ASCA presumes comparative assessment, variances diagnostics and forecast of the BSC customer element indicators of the organization within its strategic customer goals;

- ASCA comprises the analysis of customer profitability level, analysis of products distribution market share, analysis of customer base volume, composition and structure, and analysis of customer demands satisfaction degree;

- ASCA commences from comparative assessment of outcome indicators, characterizing customer profitability level and is completed by factoring indicators forecast of customer demands satisfaction degree;

- Results of applied strategic customer analysis may be applied for the development and implementation decisions of long-term, medium-term and short-term character in the field of sales management.

DIRECTIONS OF FUTURE RESEARCH

The conceptual base of the applied strategic customer analysis, as new instrument to research comprehensively strategic aspects of the organization distribution activity and sales management, through the balanced scorecard customer element, discussed above define some general contours of new research and performance leads, providing a theoretical basis for further ASCA development in terms of its practical application aspect.

New leads of further development of the applied strategic customer analysis are as follows:

- Detailed and specific ASCA methodology development in terms of the indicators of separate stages and strategic distribution activity goals;

- Development of the ASCA techniques for individual companies in different industries;

- ASCA expansion to the on-going distribution activity indicators being a derivative of the BSC customer element indicator;

- Development of economic-mathematical models and computer programs enabling to apply ASCA for the sales management process.

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