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INCREASING THE COMPETITIVENESS OF BUSINESSES BY USING THE BALANCE SCORECARD METHODOLOGY

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Abstract

The performance and stabilization of business processes is currently significantly limited by the thorough implementation and development of management metrics. This moment is decisive in the current competitive environment, which is influenced not only by the effects of the world pandemic crisis, but also by the inflexibility of many companies in the Central European region. So many times, already so called the BSC methodology written off shows us in real businesses that only its understanding and consistent use and continuous evaluation brings significant strengthening of competitiveness to businesses.

The main aim of this paper is to analyse – based on the empirical research among 12 companies in automotive in Visegrad countries (3 companies in each country) – the content and the development of the BSC within three years (the years of 2017 – 2019).

Keywords:

shareholder value, measures, value management, company performance, BSC

JEL: M21, M41

1 Introduction

Changes in business conditions affect companies in all areas. According to (Young & O'Byrne, 2000), it can be seen in:

- globalization and deregulation of capital markets,
- the end of capital control and its movement,
- progress of information technology,
- he existence of multiple liquid capital markets,
- reduction of capital market regulation,
- generational change in attitudes towards savings and investment,
- expansion of institutional investment.

This leads to significant use of many measures of business performance, such as EVA (Economic Value Added), CFROI (Cash Flow Return on Investment), EP (Economic Profit), CVA (Cash Value Added), etc.

However, if we monitor long-term performance, companies place increased emphasis on non-financial indicators. Quality, customer satisfaction, innovation, market share significantly affect business performance, training and workforce development cannot be neglected (Robert S. Kaplan & Norton, 2002a), (Hammer, 2012), (Eccles, 1991). It forms the so-called corporate future (Štefan Kolumber & Briš, 2014). An example of such a concept is the Balanced Scorecard (BSC), which links financial and

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non-financial measures and integrates the performance measurement process into the company's management system.

The BSC is sometimes considered as an old concept. The original BSC (first generation BSC) has been described in 1992 (Robert S. Kaplan & Norton, 1992). On the other hand, BSC developed over the years and since the first generation of BSC, we can distinguish 2nd generation (Robert S. Kaplan & Norton, 2002b), 3rd generation (Lawrie & Cobbold, 2004) and even the 4th (Jones, 2011). BSC is developing for almost 30 years.

Especially in automotive, the BSC is very viable concept and still developing and is still very vivid research topic (Malviya & Kant, 2019), (Petrillo, De Felice, & Zomparelli, 2019) or (Yadav, 2020). Successful companies in automotive industry make full use of the BSC.

The general perspective of this paper is an effort to present the results achieved by the implementation of BSC in companies (Jakubcová, 2002), (Š. Kolumber & Tkačíková, 2020), (Pawliczek, Kološ, & Kolumber, 2020), (Michel, 1997) in Visegrad countries.

That is why the main aim of this paper is to **describe and analyse the usage and dynamics of the BSC in tier 1 automotive companies of Visegrad countries**. The main **research question** is hence formulated as "**How are the Tier 1 automotive companies using the BSC and how this usage has changed during the observed three years 2017, 2018 and 2019."**

1.1 Modern benchmarks of performance

Applying new approaches means competitive advantage in the market for the monitored companies. Successful application of new modern approaches brings value both to the business owner and to all interested parties.

Modern measures not only measure performance but must create the conditions for performance management. Since performance is usually measured over a longer period, e.g. (year, quarter), there must be links to the operational level of management. These sub-elements of the measures create real scope for managing company performance by linking an operational (short-term), tactical, or strategic (long-term) view of the performance. Only such measures can contribute to increasing company performance. Only measures conceived in this way can contribute to the improvement of the company's performance, which is important to emphasize especially in the monitored trend in 2017-2019 in selected V4 companies.

The growth of the company's value is considered to be the basic objective of the business. The company strategy only shows the way to fulfil this fundamental company objective. Performance measures are a means of making this long-term goal easier to achieve.

Appropriate performance measures lead to only those decisions that contribute to improving the performance of the business, in the short or long term, for all entities under review. This means that they contribute to the fulfilment and development of the company's strategy, resp. increase business performance.

1.2 Basic requirements for performance measures

1.2.1 Apply only measures that will enable the company to improve its performance

In order to meet the performance improvement it is not enough only to measure performance, but it is necessary to allow the sub-targets to be converted to an operational level, as new measures cannot be calculated, e.g. for a week, month, quarter, etc., but for a longer period, e.g. a year. Therefore, it is necessary to move from watching the past to influencing the future. However, what is dominant is that companies in their management practice monitor deviations from projected future achievement values and if, for various reasons, this development compared to the planned values is negative, immediate action is taken, which in practice ensures the use of Global 8 – D reports in practice. This management

EMI, Vol. 12, Issue 3, 2020
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tool has a significant application in business practice and usually in today's conditions is part of the IT technology used. Kolumber (Štefan Kolumber & Briš, 2014) states timelessly that we must understand performance measurement as an integral and most important part of management, not just nostalgically monitoring past accounting. This means that it is not enough just to measure the results achieved in past periods, but it is desirable to influence their future development.

1.2.2 Apply only measures of the company performance that meet the strategy of the company

Fulfilling the set performance measures ultimately leads to the fulfilment of the actual company strategy. There must be no contradiction between performance measures and the strategy of the company. Otherwise, there may be conflicting pressures within the company.

1.2.3 The selected measures accept specific company conditions

Each performance measure has its own reason, which then determines its usability in specific business practice.

1.3 CLASSIFICATION OF COMPANY PERFORMANCE MEASURES

At present, the benchmarks applied by the V4 sample under review can be broadly divided into the following groups:

- traditional “standard” financial measures,
- modern financial measures,
- non-financial measures.

Young and O’Byrne (Young & O’Byrne, 2000) **list five basic types of measures:**

1. ***Residual income measures (RI)*** - Economic profit, EVA and CVA (cash value added).
2. ***Residual income components (RIC)*** - EBIT, EBITDA NOPAT and RONA (return on net assets).
3. ***Market-based measures (MB)*** - TSR (total shareholder return), MVA (market value added), excess return, and FCV-future growth value.
4. ***Cash flow measures (CF)*** - CFO (cash flow from operations), free cash flow, and CFROI (cash flow return on investment).
5. ***Traditional income measures (TI)*** - EPS (net income and earnings per share).
   Modern and traditional indicators are used across the whole group of V4 countries in the table No 1.

The table below compares modern and traditional indicators. The top of the table shows the characteristics to be compared, which are highly emphasized. What matters is what type of indicator it is because individual types have their advantages and disadvantages.

EMI, Vol. 12, Issue 3, 2020
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Table No 1: Overview of selected measures

Measure	Measure type	$ or %	Includes cost of loan capital	Includes cost of equity capital	Measurable at divisional level	Ease of calculation	Inflation adjusted	Includes value of future investments
EVA	RI	$	Yes	Yes	Yes	Medium	Possible	No
Economic Profit	RI	$	Yes	Yes	Yes	High	No	No
CVA	RI/CF	$	Yes	Yes	Yes	Medium/high	Usually	No
EBIT	RIC/TI	$	No		Yes	High	No	No
EBIT DA	RIC/CF	$	No	No	Yes	High	No	No
NOPAT	RIC	$	No	No	Yes	High	No	No
RONA	RIC	%	No	No	Yes	High	No	No
T SR	MB	%	*	*	No	High	No	Yes
MVA	MB	$	*	*	No	High	No	Yes
Excess return	MB	$	Yes	Yes	No	Low/medium	No	Yes
FGV	MB	$	*	*	No	High	No	Yes
CFO	CF	$	No	No	Yes	High	No	No
Free cash flow	CF	$	No	No	Yes	High	No	No
CFROI	CF	%	No	No	Yes	Low	Yes	No
Net income	TI	$	Yes	No	Yes	High	No	No
EPS	TI	$	Yes	No	No	High	No	No

Source: (Pavelková, 2004), (Wagner, 2011)

1.3.1 Traditional performance measures

The following table shows the traditional financial indicators that dominate the literature (Bloxham, 2003), (Robert S. Kaplan & Norton, 1992) and others.

Table No. 2: Overview of selected traditional performance measures

Indicator	Abbreviation	Relationship
Net profit	NP	Revenues - expenses
Return on total assets	ROA	Net profit/average value of total assets
Return on equity capital	ROE	Net profit/average value of equity capital
Earnings per share	EPS	Net profit/number of shares issued
Market price of shares/earnings per share ratio	P/E ratio	Market price of shares/earnings per share

Source: (Bloxham, 2003)

Most traditional indicators are based on accounting data and suffers from the following shortcomings in business practice (Štefan Kolumber & Briš, 2014):

- there is a possibility of influencing the amount of reported profits also by means of legal accounting procedures, very significantly, which is a "blind" way in long-term monitoring
- accounting indicators do not take into account the time value of money and, above all, the risk of investors.

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www.emijournal.cz

1.3.2 Modern financial measures

Criticism of classical indicators gives rise to new approaches, some of which are presented in Table No. 1.

- The criteria to be met by the modern indicator (Mařík, 2003), (Wagner, 2009) are:
- to show the closest possible link to the shareholder value. This link should be demonstrable by statistical calculations.
- to make the most of the information and data provided by accounting, including indicators based on accounting data.
- to overcome existing objections to accounting indicators affecting financial efficiency. It should include a risk calculation.
- to enable performance evaluation as well as the valuation of companies.

Modern standards are followed by a modern management concept that deals with value management. Value Based Management is a modern approach based on shareholder value. There are various definitions in the literature that characterize value management in more detail (Niven, 2012).

Maximizing shareholder value means that the management of all monitored companies must strive for the greatest possible benefit for shareholders, both in the form of dividends and, above all, in the form of profits from the rise in share prices. It was this situation that created a practical need for indicators that could be monitored on an ongoing basis and linked to events on the capital markets. (Nenadál et al., 2005)

1.3.3 Non-financial measures

Balanced Scorecard (BSC), which can be defined as a strategic company performance measurement system that combines financial and non-financial performance measures, can be included as the principal representative of non-financial measures. BSC is the transformation of a business unit's strategy into an interconnected set of measures that defines both long-term strategic goals and mechanisms, i.e. strategic actions to achieve them (Š. Kolumber & Tkačíková, 2020).

BSC measures company performance with four balanced perspectives:

- **financial** (shows when the introduction and subsequent implementation of the company strategy lead to significant improvements),
- **customer** (identification of customer and market segments in which managers will conduct business and measures of business unit performance in these target segments),
- **internal company processes** (identifying critical internal processes in which a company must deliver outstanding results).
- **learning to grow** (dealing with the business infrastructure needed to create long-term growth and improvement).

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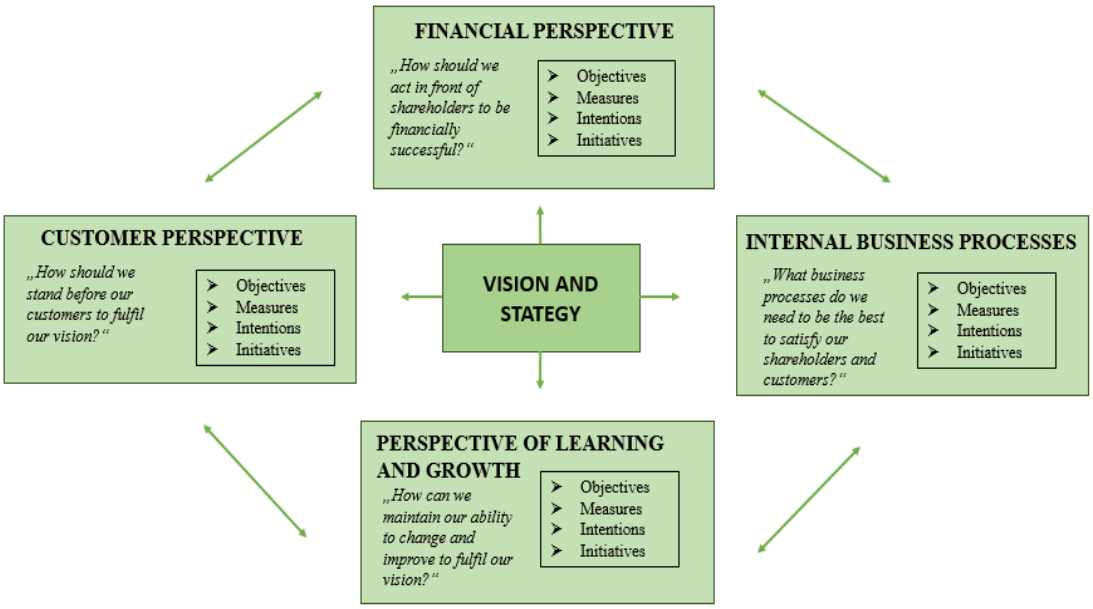
Figure No. 1: Balanced Scorecard



Source: (Robert S. Kaplan & Norton, 1992)

The interconnection of individual perspectives forms the BSC framework or strategic map. The four perspectives make it possible to establish a balance between short-term and long-term objectives, between the desired outcomes and the driving forces of these outcomes, and between hard and soft, more subjective measures.

BSC makes it possible to implement Value-Based Management of the company approach. One possible application is to choose the selected Value-Based Management concept as the dominant measure in the financial perspective.

According to the concept of a single dominant fireplace, the V4 companies have not yet automatically achieved their strategic goals. It is only by a detailed monitoring of the weight of all strategic initiatives that at least one strategic objective is the most important in each perspective, which is a fireplace for all others in the given perspective and has a direct causal relationship with the main fireplace. At the same time, there is no breaking of causal links in the corporate strategic map. It is important to identify these mini foci when creating a strategic map at the enterprise level, as they determine the successful fulfilment of the relevant perspective, both in the short and long term.

This aspect from the audit point of view was monitored every 6 months, but the data is on the annual platform because all the monitored enterprises were set up on the annual platform.

2 Methods

The research question will be answered by the collecting empirical data form 12 companies within the Visegrad countries. In each country – Czechia, Slovakia, Poland, Hungary – three companies are selected for research. Research sample is based upon the long-term cooperation of authors with these companies.

Research period is 2017 – 2019 and thus three years (accounting periods) are covered, as the Tier 1 automotive companies are usually operating in the accounting period starting 1st of September and ending 31st of August next year. Each company has been visited every year (3 times during the research period).

Data have been collected via semi structured research interviews with CEO, CFO and head of controlling as well as through the standard research questionnaire, both research tools were focused on

EMI, Vol. 12, Issue 3, 2020
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www.emijournal.cz

the BSC of second or third generation (Lakshmi Narayanamma, Sudhir Babu, & Jayasankaraprasad, 2016), (Lawrie & Cobbold, 2004), (Jones, 2011) this was derived from the actual situation in certain company.

Collected data are strictly confidential, because automotive companies protect themselves in a competitive environment and publish only mandatory data. Also, the data obtained are restricted for publishing, that is why the data in this paper are used only in anonymous mode and therefore, we will not use specific names of researched companies.

Research sample consisted of 12 companies, all companies have turnover approx. 10 mil EUR, largest company in the sample have 299 employees, smallest 180 employees, however the mean value is approx. 250 employees. All companies are Tier 1 companies for automotive.

The article uses a normative approach, which is applied in examining the use of the BSC concept for performance management in selected V4 companies. Qualitative and quantitative research is used for this paper.

Quantitative research is applied in both certification and recertification audits according to the relevant ISO standards (EN ISO 9001: 2015, EN ISO 14001: 2015, EN ISO 45001: 2018), which are important from the point of view of measuring and monitoring trends in fulfilling strategic tasks in individual companies. Qualitative research methods are applied to understand the problem. The research is based on secondary data such as domestic and foreign professional literature, as well as articles on the web and in professional journals. The aim of the research is to analyse in detail the area of the basic goal of the company, increasing the performance of the company and the Balanced scorecard.

In solving it is necessary to use other methods of scientific work, including:

- **Abstraction – concretization**

Abstraction focuses on the essential characteristics and features that enable to answer the questions. Conversely, a specific occurrence of a particular object from a particular object class is searched for in a specific instance.

- **Analysis - synthesis**

The analysis proceeds from whole to parts, i.e. by dividing the whole into parts so that the properties of all monitored subjects are recognized. Synthesis is the opposite process, from parts to whole and the data on the individual enterprises in the article are appropriately linked.

At the beginning of writing is applied analysis in terms of improving the performance of companies. The analysis identifies the status of measurement and performance management in V4 companies.

- **Induction - deduction**

Induction is a process in which a general conclusion can be drawn on the basis of knowledge of particularities. Deduction is a process whereby it is based on well-known courts and applies to individual unexplored cases. Both of these methods are used during the solution.

- **Causal analysis**

Causal relationships within this article are investigated by causal analysis. The role of this analysis is to discover the cause and also to determine the magnitude or extent of its effect on the resulting phenomenon. Causal relationships in the Balanced Scorecard method are mainly determinant in the creation of a strategic map, where the causal link between strategic objectives is investigated. At the same time, the magnitude of their effect on the top indicator can be quantified.

- **Feedback**

Feedback accompanies the entire process of writing this article. This method is very important in checking the results achieved and achieving the objectives, which in practice is the data from the audit reports.

EMI, Vol. 12, Issue 3, 2020
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3 Results

The general output of conducted research is the fact that all companies have implemented BSC in business practice and that in evaluating the success of the implementation of individual strategic objectives, so-called mini-foci are created in individual perspectives, which have a causal relationship not only to the main focus, but as well as other strategic objectives in the relevant perspective (Briš, Kolářová, & Kolumber, 2017), (Onyusheva, 2017). They are crucial for the success of the relevant perspective and predominantly influence the set financial benchmarks that lead to the fulfilment of the agreed corporate strategy (Štefan Kolumber & Briš, 2014). Our findings are presented within the framework of BSC.

3.1 Basic definition of priority business goals

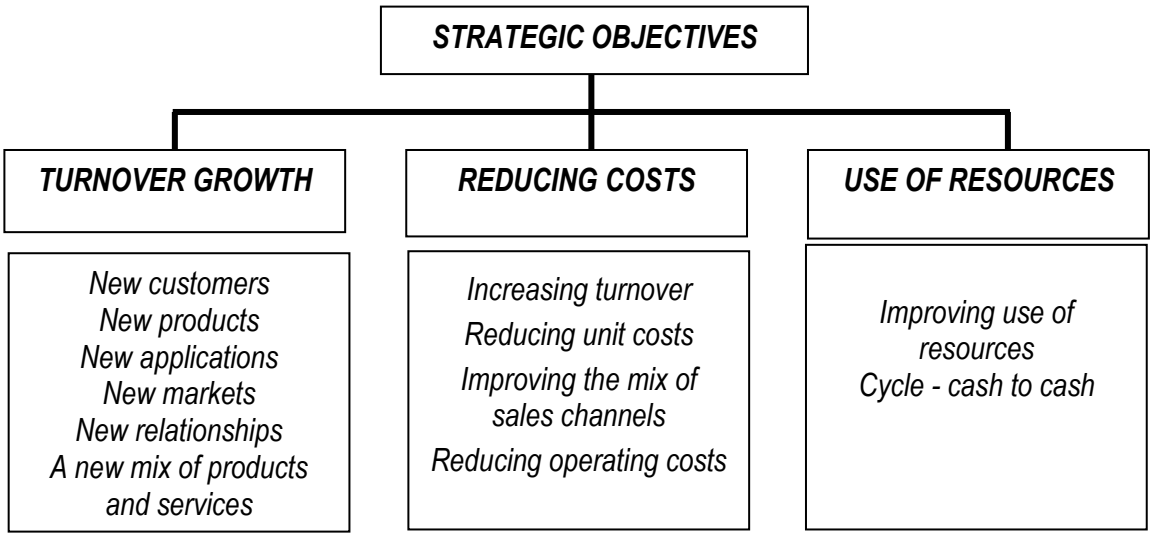
The focus of these companies is in the automotive field, all of them are suppliers from the Tier 1 and are interior components suppliers to the world's largest passenger car manufacturers. The corporate strategy is significantly focused on creating a management model that is strongly focused on:

- increasing the value of the enterprise.
- increasing competitiveness on world markets.
- dynamic pay and overall motivation for all employees.

3.2 Financial perspective

This perspective is an expression of the success of the corporate strategy. Part of the financial perspective – as seen within the research sample - is risk management and monitoring of product life cycle financial goals. Our findings are presented in the Figure No. 2

Figure No. 2: Directions of the financial perspective



Source: Own research

Drivers in the financial perspective of BSC enable management to adapt the business to the preferred competitive environment and company strategy.

3.3 Customer perspective

The fulfilment of this perspective is based on the identification of customer and market segments in which companies want to realize themselves. These segments are both a source of turnover and are

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www.emijournal.cz

important for the satisfaction and loyalty of business partners (R. S. Kaplan & Norton, 1996), (Jones, 2011).

In the customer perspective, the values within the research sample are clearly aimed at dominant customers and segments. All values for enterprises in the V4 segment under review were determined considering the market and enterprise capabilities (see Table No. 3).

Table No. 3: Target data from a customer perspective

Measure for Czech Republic	Number	Unit	2017-18	2018-19	2019-20
Number of dominant customers (DC)	Z1.1	number	6	10	12
New projects for DC	Z1.2	number	8	15	24
Revenues achieved in the case of DC	Z1.3	in thousands of €	6.6	27	32
Revenues from new market segments (excluding DC)	Z2.1	v mil. €	0.35	1.8	4.5
Number of new market segments (excluding DC)	Z2.2	number	2	6	9
Proportion of sales of new products in total sales	Z3.1	%	1.2	14	23
Quantity of new products	Z3.2	number	2	11	23
Satisfaction audit	Z4.1	marks	40	65	95
Total customer complaints	Z4.2	number	10	3	0
Total cost of customer complaints	Z4.3	in thousands of €	1.8	0.39	0
Measure for Slovak Republic	**Number**	**Unit**	**2017-18**	**2018-19**	**2019-20**
Number of dominant customers (DC)	Z1.1	number	6	9	10
New projects for DC	Z1.2	number	6	15	18
Revenues achieved in the case of DC	Z1.3	in thousands of €	4	27	30
Revenues from new market segments (excluding DC)	Z2.1	v mil. €	0.4	4	6
Number of new market segments (excluding DC)	Z2.2	number	2	8	10
Proportion of sales of new products in total sales	Z3.1	%	2	14	20
Quantity of new products	Z3.2	number	2	9	18
Satisfaction audit	Z4.1	marks	55	81	100
Total customer complaints	Z4.2	number	17	5	5
Total cost of customer complaints	Z4.3	in thousands of €	1	0.4	0.3
Measure for Poland	**Number**	**Unit**	**2017-18**	**2018-19**	**2019-20**
Number of dominant customers (DC)	Z1.1	number	12	9	30
New projects for DC	Z1.2	number	12	11	9
Revenues achieved in the case of DC	Z1.3	in thousands of €	6.7	6.9	7.3
Revenues from new market segments (excluding DC)	Z2.1	v mil. €	0.25	1	1.95
Number of new market segments (excluding DC)	Z2.2	number	4	12	14
Proportion of sales of new products in total sales	Z3.1	%	2	17	30
Quantity of new products	Z3.2	number	5	19	27
Satisfaction audit	Z4.1	marks	31	77	90

EMI, Vol. 12, Issue 3, 2020
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www.emijournal.cz

Total customer complaints	Z4.2	number	27	15	6
Total cost of customer complaints	Z4.3	in thousands of €	25.6	9.8	6.3
Measure for Hungary	**Number**	**Unit**	**2017-18**	**2018-19**	**2019-20**
Number of dominant customers (DC)	Z1.1	number	2	4	7
New projects for DC	Z1.2	number	4	10	12
Revenues achieved in the case of DC	Z1.3	in thousands of €	2.9	6.1	7
Revenues from new market segments (excluding DC)	Z2.1	v mil. €	0,7	4	5,1
Number of new market segments (excluding DC)	Z2.2	number	3	7	10
Proportion of sales of new products in total sales	Z3.1	%	2	11	29
Quantity of new products	Z3.2	number	2	9	17
Satisfaction audit	Z4.1	marks	50	78	90
Total customer complaints	Z4.2	number	27	9	4
Total cost of customer complaints	Z4.3	in thousands of €	12.8	3.4	0.25

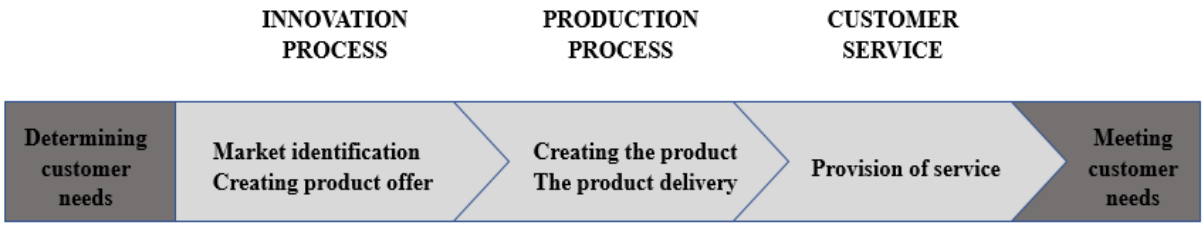
Source: Own research

3.4 The perspective of internal business processes

This perspective encompasses all processes that realize the fulfilment of objectives in the above perspectives. An internal value chain (see Figure 3) containing these core processes can be used to identify the most important business processes (Š. Kolumber & Tkačíková, 2020)(Young & O'Byrne, 2000) and, most importantly, it has a highly sophisticated character with regard to both automotive and ISO standards (EN ISO) 9001: 2015, EN ISO 14001: 2015) (Briš et al., 2017), (Štefan Kolumber & Briš, 2014):

- **Innovation process –** fulfils the needs and wishes of the business partner,
- **Production process –** fulfils the delivery of products and services,
- **Customer service –** represents after-sales service to business partners.

Figure No. 3: Value chain



Source (Robert S. Kaplan & Norton, 2002a)

In this perspective, critical internal processes are defined for which businesses were supposed to perform well, allowing them to do so (Robert S. Kaplan & Norton, 1996), (Nenadál et al., 2005), (Psárska, Hašková, & Machová, 2019):

- provide value benefits that are of interest to customers and help maintain them.
- meet shareholders' financial expectations.
- The determination of target values in this perspective is based on the knowledge potential of the participating workers. Our findings from the research are presented in Table No. 4.

EMI, Vol. 12, Issue 3, 2020
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Table No. 4: Target data in the perspective of internal processes

Measure for Czech Republic	Number	Unit	2017-18	2018-19	2019-20
Number of implemented innovative projects	P1.1	number	6	14	28
Number of used innovative projects	P1.2	number	2	10	21
Standardized time efficiency	P2.1	%	76	88	96
Output per capita	P2.2	thousands of €/per capital	0.4	1	3.5
Use of material	P2.3	%	82	87	99
Inventory turnover	P3.1	days	60	33	7
Non-moving stocks	P3.2	in thousands of €	280	50	8
Non-conforming products and material	P3.3	in thousands of €	2.2	1.2	0.2
Turnover of net operating assets	P4.1	turnover	2	2.2	4.4
Turnover time for net operating assets	P4.2	days	-4.42	10	17
Measure for Slovak Republic	**Number**	**Unit**	**2017-18**	**2018-19**	**2019-20**
Number of implemented innovative projects	P1.1	number	3	14	21
Number of used innovative projects	P1.2	number	1	10	21
Standardized time efficiency	P2.1	%	75	84	95
Output per capita	P2.2	thousands of €/per capital	0.4	1	1.5
Use of material	P2.3	%	70	87	90
Inventory turnover	P3.1	days	60	33	25
Non-moving stocks	P3.2	in thousands of €	280	50	33
Non-conforming products and material	P3.3	in thousands of €	2.2	1.2	0.5
Turnover of net operating assets	P4.1	turnover	2	2.2	2.4
Turnover time for net operating assets	P4.2	days	-4.42	10	15
Measure for Poland	**Number**	**Unit**	**2017-18**	**2018-19**	**2019-20**
Number of implemented innovative projects	P1.1	number	9	22	39
Number of used innovative projects	P1.2	number	1	14	36
Standardized time efficiency	P2.1	%	60	82	92
Output per capita	P2.2	thousands of €/per capital	0.4	1.6	3.9
Use of material	P2.3	%	70	80	91
Inventory turnover	P3.1	days	68	37	20
Non-moving stocks	P3.2	in thousands of €	480	350	133
Non-conforming products and material	P3.3	in thousands of €	12.2	6.2	3.5
Turnover of net operating assets	P4.1	turnover	1,9	2	2.8

EMI, Vol. 12, Issue 3, 2020
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www.emijournal.cz

Turnover time for net operating assets	P4.2	days	-5.43	8	14
Measure for Hungary	**Number**	**Unit**	**2017-18**	**2018-19**	**2019-20**
Number of implemented innovative projects	P1.1	number	2	14	21
Number of used innovative projects	P1.2	number	1	5	17
Standardized time efficiency	P2.1	%	65	84	89
Output per capita	P2.2	thousands of €/per capital	0.7	1	2.5
Use of material	P2.3	%	77	87	90
Inventory turnover	P3.1	days	62	41	16
Non-moving stocks	P3.2	in thousands of €	143	56	23
Non-conforming products and material	P3.3	in thousands of €	16.2	8.2	0.65
Turnover of net operating assets	P4.1	turnover	1	2.2	2.9
Turnover time for net operating assets	P4.2	days	-5.42	7	12

Source: Own research

3.5 Perspective of learning and growth

The objectives set out in this perspective create the infrastructure (employees, knowledge, innovation, innovation, creativity, technology, information and information systems) to realize the objectives in all other perspectives, thereby increasing the adaptability of the enterprise (Š. Kolumber & Tkačíková, 2020), (Štefan Kolumber & Briš, 2014) and driving forces to achieve relevant outputs in the first three perspectives of BSC.

The company must invest in employee retraining, improve information technology and systems, improve the company and routine procedures.

Three basic areas of learning and growth perspectives:

- staff skills.
- information system capabilities.
- motivation, delegation, and engagement.

Setting target values for the specified measures was - according to the researched companies – one of the most complicated activities and appears to be with high uncertainty in business practice (see Table No. 5).

EMI, Vol. 12, Issue 3, 2020
ISSN: 1804-1299 (Print), 1805-353X (Online)
www.emijournal.cz

Table No. 5: Target data in the perspective of learning and growth

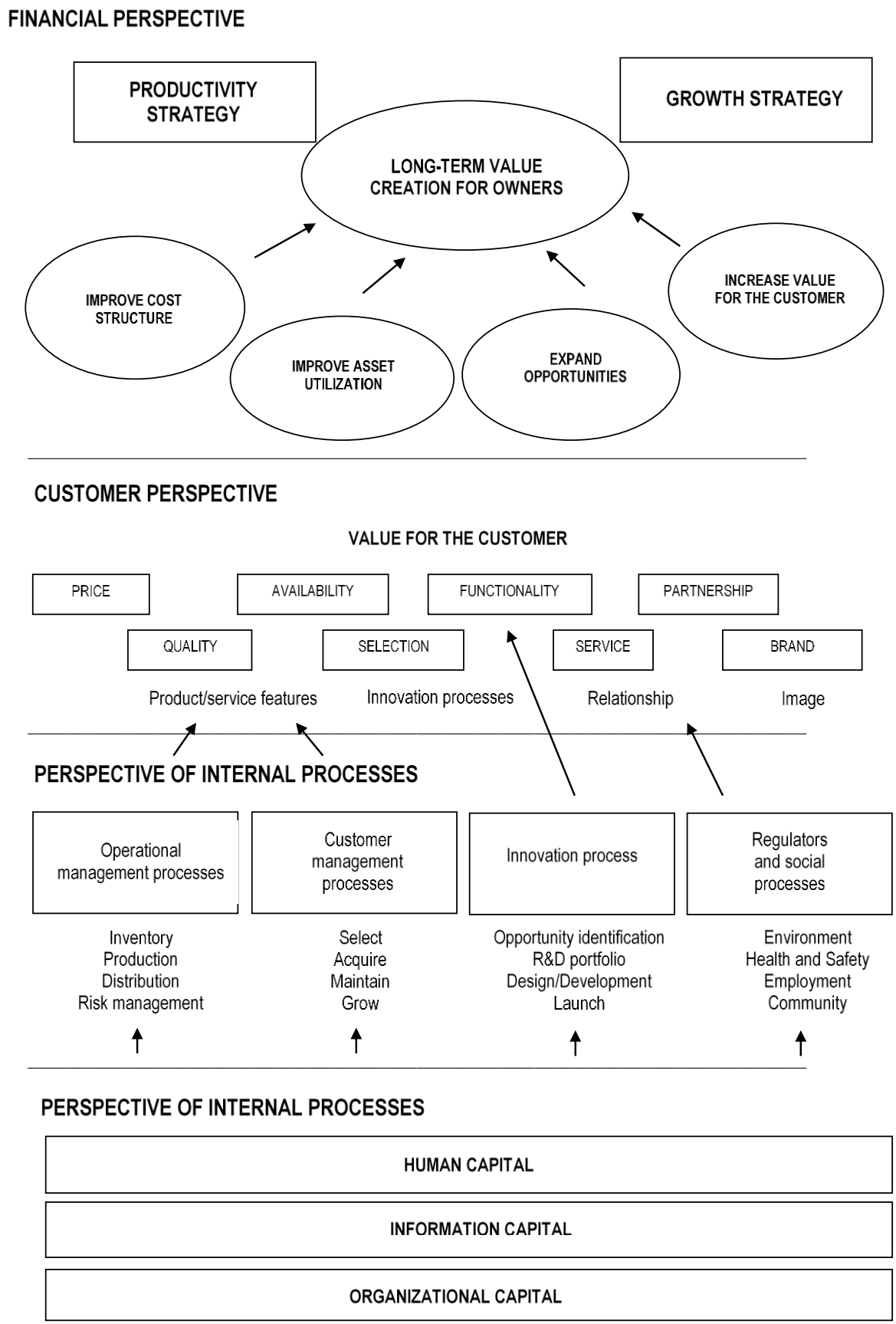
Measure for Czech Republic	Number	Unit	2017-18	2018-19	2019-20
Number of proposed innovative projects	U1.1	number	4	8	20
Share of expenditure on education in total sales	U2.1	%	3	10	7
Effectiveness of educational events	U2.2	marks	50	70	95
Number of completed training	U3.1	number	3	6	12
Use of the ERP system	U3.2	%	55	83	100
Audit of team cooperation evaluation	U4.1	marks	77	85	98
Measure for Slovak Republic	**Number**	**Unit**	**2017-18**	**2018-19**	**2019-20**
Number of proposed innovative projects	U1.1	number	-	8	10
Share of expenditure on education in total sales	U2.1	%	1	10	8
Effectiveness of educational events	U2.2	marks	-	70	95
Number of completed training	U3.1	number	1	6	10
Use of the ERP system	U3.2	%	50	79	100
Audit of team cooperation evaluation	U4.1	marks	-	85	95
Measure for Poland	**Number**	**Unit**	**2017-18**	**2018-19**	**2019-20**
Number of proposed innovative projects	U1.1	number	9	27	42
Share of expenditure on education in total sales	U2.1	%	2.5	9	6
Effectiveness of educational events	U2.2	marks	65	70	95
Number of completed training	U3.1	number	1	6	25
Use of the ERP system	U3.2	%	45	71	96
Audit of team cooperation evaluation	U4.1	marks	54	79	89
Measure for Czech Hungary	**Number**	**Unit**	**2017-18**	**2018-19**	**2019-20**
Number of proposed innovative projects	U1.1	number	-	7	12
Share of expenditure on education in total sales	U2.1	%	1	3	4.4
Effectiveness of educational events	U2.2	marks	-	60	95
Number of completed training	U3.1	number	3	9	19
Use of the ERP system	U3.2	%	58	83	100
Audit of team cooperation evaluation	U4.1	marks	70	88	96

Source: Own research

All strategic goals are part of the causal chain (cause and effect). The individual measures are linked to the outputs. The way to fulfil the strategy is determined by the strategic map, which is an expression of the interconnection of all defined strategic objectives defined in the four basic perspectives and represents a powerful tool that helps to clarify the company strategy and to find the way of fulfilling it. This is in compliance within already conducted research by other researchers (see Figure No. 4).

EMI, Vol. 12, Issue 3, 2020
ISSN: 1804-1299 (Print), 1805-353X (Online)
www.emijournal.cz

Figure No. 4: Strategic map (Horváth, 2002)



Source: Own research

EMI, Vol. 12, Issue 3, 2020
ISSN: 1804-1299 (Print), 1805-353X (Online)
www.emijournal.cz

The aim is well-established and managed communication (including intercultural) and continuous growth of the company, increasing the quality of management, as well as professional and personal growth of employees.

The employee must feel good in the company, with any owner, he must know that he is perceived and respected.

Working with a team of employees in the conditions of monitored V4 companies is systematic and includes:

- assessment of the past state of education and employee motivation.
- design of a comprehensive education system and targeted development.
- comprehensive enterprise education system (language and computer literacy, sales skills, dealing with people, stress management, etc.).
- advanced the level of corporate culture.

Each manager has set quarterly tasks, where there is a reference to his possibilities for improvement and professional growth, and his evaluation is performed on a quarterly basis.

4 Discussion

The authors of this paper aims to emphasize the increasing importance of intangible assets in the application and subsequent evaluation in business practice. This corresponds to the very well researched area of performance measurement (Robert S. Kaplan & Norton, 2002a), (Š. Kolumber & Tkačíková, 2020). These intangible assets include innovative quality products and service; highly skilled workers, transparent internal processes, and highly aware customers as researched before (Robert S Kaplan & Norton, 1993), (Neumaierová & Neumaier, 2002), (Stewart, 2002).

As regarding to the critique of the BSC concept (Awadallah & Allam, 2015), this paper supports the assumption that BSC is more suitable for engineering companies, even though there have been BSC implemented in services and other types of organisations (Wagner, 2011), (Niven Paul R., 2012). According to our experience, BSC works well within the Tier one automotive companies in Visegrad countries.

Also latest research suggests (Rafiq, Zhang, Yuan, Naz, & Maqbool, 2020) that there is still potential for the BSC development, especially in later generations (Lakshmi Narayanamma et al., 2016), (Jones, 2011) which supports the idea why the companies are using BSC in general and confirms our findings, where companies understand BSC as a necessity.

BSC is also inevitable for communicating strategy among the company. This again confirms the very original idea of BSC since it begins (Robert S. Kaplan & Norton, 1992), (Robert S. Kaplan & Norton, 2002b). In general, corporate communication takes place on two levels – inside and outside the company. The level of internal communication is related to the company itself, its communication links, corporate culture, and ethics. External communication is then related to the level of internal communication and aims to draw attention to the market (including all global aspects) and potential customers. Both levels need to be balanced if the internal communication level is poor; this situation is usually reflected in external communication. The quality and speed of the correct transfer and flow of information inside the company is a great competitive advantage, as it enables the company to respond in time to any changes and impulses from outside. This builds the market position, the culture of the company and the resulting perception of the company on the world markets (Briš et al., 2017), (Š. Kolumber & Tkačíková, 2020), (Pawliczek et al., 2020).

As our findings are somewhat original, it is difficult to compare specific results (i.e. numbers) with other studies, that is why the discussion is focused more on general level.

EMI, Vol. 12, Issue 3, 2020
ISSN: 1804-1299 (Print), 1805-353X (Online)
www.emijournal.cz

5 Conclusion

Based upon our findings of conducted research on the Tier 1 automotive companies within Visegrad countries, we would like to conclude following opinions.

When evaluating the presented values for individual strategic objectives within the researched companies, it can be stated that a perfect understanding and practical implementation of BSC in selected V4 companies brought solid results in the monitored years 2017 to 2019. These are mainly reflected in a surge in sales in all V4 countries (see Table No. 3) and higher value-added products (up to 27%).

The following facts also played an important role in assessing the fulfilment of individual strategic objectives (Tables No. 2 and No. 3):

- there was no decrease in the number of dominant customers.
- increasing the volume of own-brand production and expanding market segments.
- reduction of material and energy costs by 20% in year-on-year terms for the monitored V4.
- shortening of material flows.
- increasing the personal involvement of co-workers in the financial results.

The limiting element of all efforts and fulfilment of business goals is man and his involvement in business processes. Therefore, it is important in the preparation and training of input workers (Table No. 4):

- develop a list of identifiable opportunities for improvement.
- create a list of opportunities and projects to prioritize.
- create matrices – the most used procedures for improvement according to the organizational diagram of the company
- create a list of projects selected for implementation, their detailed definitions.

On the output side in the preparation and training of employees in the monitored V4 enterprises are:

- prepared simple and understandable improvement tools suitable for the needs of management members,
- trainings that teach participants to “see waste in processes”,
- demonstrations of pre-prepared practical examples from practice,
- formulated commitments, management responsibilities to official business documents,
- entry lists for individual research teams,
- clear identification of the time required for project solutions beyond normal work responsibilities.

The results of the analyses provide an objective overview of current practice and possible impacts in managing business performance. Thanks to the application of the BSC concept, the surveyed companies are very good at fulfilling the set business strategy and all priority financial as well as non-financial indicators.

That is why it can be stated that even nowadays:

- a sharp increase in sales,
- cost reduction,
- increasing the number of dominant customers,
- the creation of new business territories,
- quality stabilization,
- stabilizing the workforce.

EMI, Vol. 12, Issue 3, 2020
ISSN: 1804-1299 (Print), 1805-353X (Online)
www.emijournal.cz

Fulfilment of these strategic sub-goals, which are mini focuses of partial perspectives, accelerates the fulfilment of the focus of enterprises, thus increasing competitiveness in the monitored enterprises.

Thanks to the systemic approach and the possibility of career growth in people, all prerequisites were created even for an interesting year-on-year increase in wages. Established systems of evaluation of all workers caused a change in the attitude of these people to the company as such.

This created an interesting link between the employee and the company, where both sides are not indifferent to the working partner.

The achieved results cannot be overestimated, but they are a good indicator of positive changes in employment development in the Czech Republic, Slovakia, Poland, and Hungary.

The use of a suitable scale leads to increased performance and thus to the competitiveness of the company since it brings an advantage to both the owner and especially the customer. In addition, by means of this measure, the company strategy can be successfully fulfilled.

Improved business performance leads to an improved competitive position in both the commodity and capital markets, which ultimately creates another competitive advantage.

The benefits to practice arise from the existence and application of appropriate business management tools that enable performance enhancements, thereby contributing to the fulfilment of a long-term business strategy. Business owners gain greater control over business performance by using the appropriate scale. Furthermore, the successful use of modern measures leads to an increase in the competitiveness of the company, both the goods and capital markets, which is necessary for the long-term development of the company.

It is necessary to specify the differences and their impact on the measurement and management of business performance in these countries, mainly due to the level of industrial history and to define the critical steps in the actual implementation.

As stated above, the result of clearly identified company priorities is a man.

This experience involves increasing employee initiative, preference of team solutions and activities, creating and updating the education system, developing a personnel strategy, and improving the corporate culture.

The core of business success in today's global environment is the level of knowledge and skills of people – employees, including the optimum level of their social responsibility and their ethical and moral skills.

An important principle for working with people in the company area is also the awareness that management culture is not universal but must adapt to people of quite different cultures; it places high demands on all workers, implies negotiating and communicating, which is not yet a guarantee of success.

As for research question – we have analysed and described the usage of the Balanced Scorecad among the Tier 1 automotive companies and we presented our findings in the results. Thus we can conclude that - based upon our research – BSC is still vivid area of the business practices (at least within the researched companies). BSC is not obsolete nor declining and this practically oriented research is interesting topic for further research. It also offers wide field for future research, e.g. in the relation between Tier 1 companies and automotive companies and their usage of the BSC.

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