

## IT BALANCED SCORECARD AS A SIGNIFICANT COMPONENT OF COMPETITIVE AND MODERN COMPANY

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### **Abstract:**

The Balanced Scorecard (BSC) originated by Kaplan and Norton is known as a strategy performance management tool. The most significant role of the BSC is ability to translate corporate strategy and mission into measurable and tangible objectives, focusing on the most meaningful measures. It is a popular management system which is used to clarify the organizations' strategy, vision and translate them into action. Therefore it enables executives to accomplish their strategy in effective way. The traditional BSC has evolved since its developing to a full strategic management system. In 1997 is was adopted by Van Grembergen and Van Bruggen for a use by a corporate IT department. They proposed modification of traditional BSC, creating the IT Balanced Scorecard (IT BSC) consisting of four new perspectives: Corporate Contribution, Customer (User) Orientation, Operational Excellence, Future Orientation. The paper will present the idea of IT BSC, its history, the stages of development, current drivers and use of today's IT BSC. The main aim of this article will be the verification of the hypothesis that IT BSC is important component of modern organization. As a result of the analyses of this issue, authors will try to show the meaning of this tool in the nearest future.

*Keywords: balanced scorecard, IT, company*

## INTRODUCTION

Information technology (IT) has become the essential and indispensable part of every company in XXI century. In consequence it is necessary for organizations to pay attention to the IT area.

Growing importance of IT department in today's organizations became one of the most valid indication that there is need to create some tool integrating IT department and company's strategy. IT Balanced Scorecard (IT BSC), a derivative of the traditional Balanced Scorecard developed in 1992 turned out to be very effective.

### 1. TRADITIONAL BALANCED SCORECARD

Organizations in today's highly competitive environment have to devote significant energy, time, financial, human and other resources to measure their progress towards sustainable development. Despite best efforts and significant costs, companies are ultimately dissatisfied. Increasingly, companies are concluding that their systems for monitoring, capturing, sharing performance information are seriously flawed. The Balanced Scorecard has appeared as an adequate and proven tool allowing organizations to implement their individual strategies successfully. Introduced by Kaplan and Norton<sup>1</sup>, this deceptively uncomplicated methodology transforms strategy into performance objectives, targets, measures and initiatives in four perspectives: Customer, Financial, Internal Business Process, Learning and Growth (Niven, 2006, pp. 11-12). The BSC can be successfully used to reach the institution's strategic goals, because apart from financial aspects it also considers non – financial factors (from business process or customer perspectives) (Pham-Gia, 2009, p. 6). Kaplan and Norton says that thanks to BSC organizations can measure the critical parameters that represent their strategy for long – term value creation (Kaplan, Norton, 2004, p.5).

The BSC makes possible to look at the company from four perspectives:

- Learning and Growth – includes employee training and corporate cultural attitudes related to both individual and corporate self – improvement. In a knowledge – worker organization, people – the only repository of knowledge – are the main resource. In the current of rapid technological change, it is becoming necessary for knowledge workers to be in a continuous learning mode. Metrics can be put into place to guide managers in focusing training funds where they can help the most. In any case, learning and growth constitute the essential foundation for success of any knowledge – worker organization.
- Internal Business Process – refers to internal business processes. Metrics based on this perspective allow the managers to know how well their business is running, and whether its products and services conform to customer requirements (the mission). These metrics have to be carefully designed by those who know these processes most intimately; with our unique missions these are not something that can be developed by outside consultants.
- Customer – recent management philosophy has shown an increasing realization of the importance of customer focus and customer satisfaction in any business. These are leading indicators: if customers are not satisfied, they will eventually find other suppliers that will meet their needs. Poor performance from this perspective is thus a leading indicator of future decline, even though the current financial picture may look good. In developing metrics for satisfaction, customers should be analyzed in terms of kinds of customers and the kinds of processes for which we are providing a product or service to those customer groups.
- Financial – Kaplan and Norton do not disregard the traditional need for financial data. Timely and accurate funding data will always be a priority, and managers will do whatever necessary to provide it. In fact, often there is more than enough handling and processing of financial data. With the implementation of a corporate database, it is hoped that more of the processing can be centralized and automated. But the point is that the current emphasis on financial leads to the unbalanced situation with regard to other perspectives. There is perhaps a need to include additional financial – related data, such as risk assessment and cost – benefit data, in this category (Balanced Scorecard Basics, 2014).

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<sup>1</sup> The development of the BSC can be attributed to Kaplan i Norton from Harvard Business School in the early 1990s. They began publishing articles and then later, came up with the book „The Balanced Scorecard” in 1996.

The BSC is more just a simple operational or tactical measurement system. Modern organizations are using the BSC as a strategic management system, allowing them to conduct their strategy in a long term perspective (Kaplan, Norton, 1996, p.10).

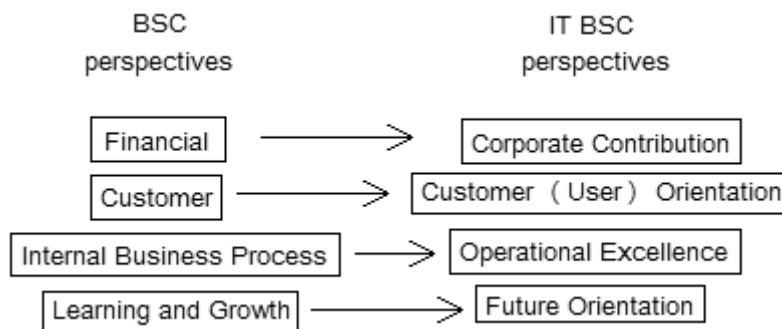
## 2. THE IDEA OF IT BALANCED SCORECARD

The deficiency in measuring IT only thanks to financial measures was expanded by Parker, Benson and Trainor (1988). They try to underline that IT is worth something because companies continue investing money to install computers and create application systems. They should identify relation between the costs of IT and final economic performance. Benefits and profits received from systems, computers and programmers came out to exceed the costs of it. However, technology changes and wide management expectations have created both – benefits and costs not easy to define (Parker, Benson, 1988, p. 1).

Many Chief Information Officers have understood that managing the IT department end of the business is not appropriate. Consequently, it is unavoidable to integrate IT and business strategy. The BSC seems to be the most effective tool for this task (Keyes, 2005, p. 92).

Van Grembergen and Van Bruggen (1997) modified the traditional form of BSC to make it useful for IT department. They observed that since the area of IT plays a role as an internal service provider, BSC's perspectives should be transformed, that shows picture 1 (The IT Balanced Scorecard – A Roadmap..., 2000).

**Picture 1:** Changes from BSC to IT BSC



Source: Own elaboration.

A traditional BSC looks at 4 dimensions of a company: Financial, Customer, Internal Business Process, Learning and Growth. It can be surely used in strategic planning. New IT BSC proposes another 4 perspectives: Corporate Contribution, Customer Orientation, Operational Excellence, Future Orientation.

The first perspective - Corporate Contribution represents the business value constructed thanks to the IT investments. Next - Customer (User) Orientation shows the user evaluation of IT. Another perspective - Operational Excellence shows the IT processes implemented to develop and deliver the applications. The last perspective - Future Orientation demonstrate the technology and human resources indispensable by IT department to deliver services on time (Grembergen, Saull, Haes, 2003, pp. 129-151).

A. Cram identifies three distinct stages of IT BSC advancements:

- Introduction – early development of the IT BSC concept focused on the challenges of IT evaluation techniques and the potential benefits that the new scorecard tool could provide. Introductory publications aligned closely with Kaplan's and Norton's BSC techniques, including the original four perspectives. Due to the lack of practical IT BSC implementation experience during the introduction phase, much of the early research concentrated on the theory and concept of the tool.
- Refinement – As experience with the IT BSC increased, practitioners and academics began to refine the tool based on contemporary ideas relating to IT and business integration, measurement and strategy. During this time, a number of case study results and lessons learned were beginning

to form in industry and government. This knowledge was driving a more sophisticated approach to the IT BSC, including the modification of the traditional perspectives and measures proposed by Kaplan and Norton. Additionally, publications on the IT BSC were becoming increasingly implementation – oriented, including more practical results on the study of the design, operation and management of an IT – specific scorecard.

- Specialization – Most recently, the content of IT BSCs has become increasingly specific, to track individual components of IT management issues. These BSCs cover topics such as IT governance, service level management, enterprise resource planning, knowledge management and IT audit. Additionally, the increasing publication of management – targeted articles began to emerge during this phase, expanding the literature beyond the previously academic – dominated environment (The IT Balanced Scorecard Revisited, 2007).

These three stages of the IT BCS advancement are outlined in picture 2.

**Picture 2:** The evolution of the IT BSC

BSC Introduction ( 1992+) ➡	IT BSC Introduction ( 1994+) ➡	IT BSC Refinement ( 1997+) ➡	IT BSC Specialization ( 2000+)
<p>Development drivers: Lack of a tool to measure financial and nonfinancial metrics.</p> <p>Fundamental changes: Formal BSC structure development, widespread implementation</p>	<p>Development drivers: Application of the BSC tool to IT - specific environment.</p> <p>Fundamental changes: Extension of BSC concept to include IT - related issues, focus on IT evaluation techniques</p>	<p>Development drivers: Rapidly changing IT environment, increasing pressure to demonstrate the value of IT and measure performance.</p> <p>Fundamental changes: Modification of the traditional perspectives and measures, Preliminary development of best practice implementation techniques.</p>	<p>Development drivers: Demonstration of IT value, IT regulatory compliance, cost cutting and efficiency</p> <p>Fundamental changes: Increasing specificity</p>

Source: The IT Balanced Scorecard Revisited, 2007.

Because of decisions to implement the BSC as a strategic management system it seems logical to use the BSC also to refine and control the strategy execution of the IT department. The main reasons to implement an IT BSC in IT department are:

- A consistent view of the IT strategy
- A better strategy communication through the IT department,
- Improvements of the cross – functional understanding within the company’s IT department,
- A better commitment on the clearly defined objectives and introducing strategic learning (Hirschbichler, 2009, p. 5).

### 3. IT BALANCED SCORECARD’S PERSPECTIVES

IT has become more serious and more widespread in current changing and dynamic business conditions. While in the past, corporation could avoid or delegate IT decisions, this is not possible in most areas of current sectors, industries (Grembergen, Haes, Guldentops, 2004, p. 2). Companies should exploit the IT potential for shaping new strategies (not only for supporting existing strategies). IT means that IT should be treated not only as a factor for survival and success, but also as a chance to differentiate and to reach competitive advantage. In this mindset, the IT department turns out to be a strategic partner (not just a commodity service provider)( Grembergen, Haes, 2009, pp. 1-2).

Picture 3 shows a standard IT BSC.

**Picture 3:** Standard IT BSC

<p><b>CUSTOMER ( USER) ORIENTATION</b>                      How to users view the IT department?</p> <p>Mission                      to be the preferred supplier of information systems</p> <p>Strategies</p> <ul style="list-style-type: none"> <li>- preferred supplier of application</li> <li>- preferred supplier of operations</li> <li>- vs. proposer of best solutions, from whatever source</li> <li>- user satisfaction</li> </ul>	<p><b>BUSINESS CONTRIBUTION</b>                      How does management view the IT department?</p> <p>Mission                      to obtain a reasonable business contribution of IT investments</p> <p>Strategies</p> <ul style="list-style-type: none"> <li>- control of IT expanses</li> <li>- business value of IT projects</li> <li>- provide new business capabilities</li> </ul>
<p><b>OPERATIONAL EXCELLENCE</b>                      How effective and efficient are the IT processes?</p> <p>Mission                      to deliver effective and efficient IT applications and services</p> <p>Strategies</p> <ul style="list-style-type: none"> <li>- efficient and effective developments</li> <li>- efficient and effective operations</li> </ul>	<p><b>FUTURE ORIENTATION</b>                      How well is IT positioned to meet future needs?</p> <p>Mission                      to develop opportunities to answer future challenges</p> <p>Strategies</p> <ul style="list-style-type: none"> <li>- training and education of IT staff</li> <li>- expertise of IT staff</li> <li>- research into emerging technologies</li> <li>- age of application portfolio</li> </ul>

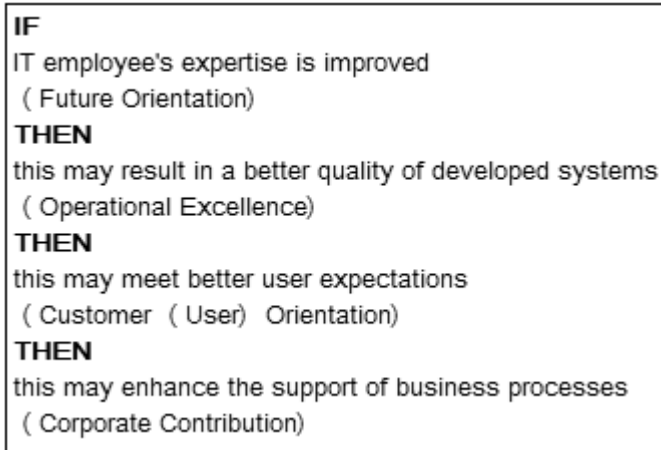
Source: The IT Balanced Scorecard – A Roadmap..., 2000.

The Business Contribution perspective stipulates the performance of IT from the Board of Directors, executive management, the shareholders point of view. An organization can focus on such issues as business value of IT projects, synergy achievement, strategic contribution. The Customer (User) Orientation perspective rates the performance of IT from the standpoint of customers (business users) and, consequently, the customers of the business units. The issues that company can focus on give enough attention are for example IT/business partnership, customer satisfaction, service level performance, application development performance. The Operational Excellence perspective evaluates the performance of IT from the IT management (service delivery managers, process owners), the audit and regulatory bodies point of view. The problems that company can deal with in this area are for example security and safety, process excellence, backlog management and aging, responsiveness. And the last – the Future Orientation perspective defines the IT performance from the standpoint of the IT organization itself: practitioners, process owners and support professionals. A company can concentrate on the issues like service capability improvement, enterprise architecture evolution, staff management effectiveness emerging technologies research (The IT Balanced Scorecard – A Roadmap..., 2000).

Each of four perspectives has to be interpreted into appropriate metrics and measures that sum up the current situation. Each of these assessments have to be carried out systematically and have to be confronted with objectives that have to be set in advance and with benchmarking figures. Extremely important is that within the IT BSC the cause-and-effect correlations are established and the relations between the two types of measures, performance drivers and outcome measures, are defined. Well created IT BSC needs an appropriate mix of these two types of measures. Mentioned outcome measures like programmers' productivity without performance drivers (like IT staff education) do not communicate how the outcomes are to be gained. And also – performance drivers without outcome measures can lead to meaningful investment without a measurement if defined strategy is good and effective. These cause-and-effective relationship have to be described throughout the whole BSC

(picture 4): better and improved education of IT staff (future perspective) enables (performance driver) to create a better quality of made system (operational excellence perspective) that after enables create user satisfaction (user perspective) that in the end must improve the business value of IT (business contribution perspective) (The Balanced Scorecard and IT Governance, 2000).

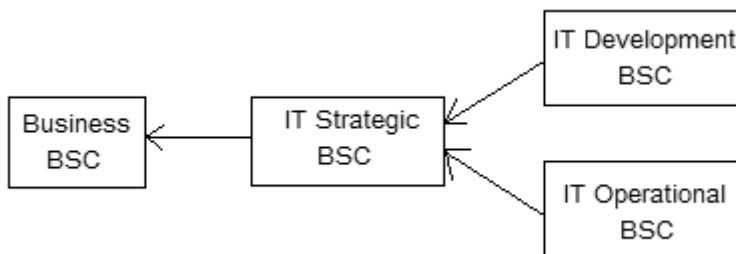
**Picture 4:** Cause – and – effective relationship



Source: The Balanced Scorecard and IT Governance, 2000.

The proposed standard IT BSC connects with business by the business contribution perspective. Noticeable relationship between business and IT can be more directly expressed through a cascade of BSC. Picture 5 illustrates the relationship between IT and business scorecards. Both the IT Development BSC and the IT Operational BSC enables the IT Strategic BSC that in turns enables the Business BSC. Presented cascade of scorecards becomes a set of linked measures that with no doubts will be instrumental in aligning business and IT strategy and be helpful to present the way business value is created through IT (Grembergen, Saull, 2001, p. 201).

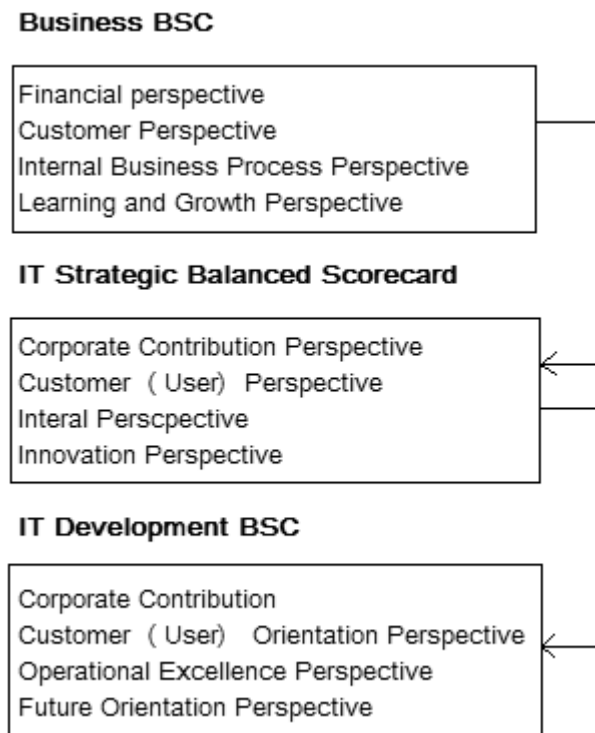
**Picture 5:** Balanced Scorecards cascade



Source: Grembergen, Saull, 2001, p. 201.

The next picture (6) applies the concept of the cascade of scorecards to a generic retail bank. The cascade of the scorecards of the bank example fuses business and IT and in this way supports the IT governance process.

**Picture 6:** Applies the concept of the cascade of scorecards to a bank



Source: Grembergen, Saull, 2001, p. 203.

The scorecards of picture 6 illustrate that IT is completely committed in the new business process of this bank. A marketing strategy of reaching new customers by using alternative distribution channels is shown by the business BSC. The IT governance process and its related IT/business alignment process is shown in the IT Strategic BSC and the IT Development BSC. W. Van Grembergen and R. Saull writes that the different BSCs drive the business and IT strategies on measurement and follow-up. In this way, there is assurance (or no assurance) that the IT organization returns some business value and does not invest in bad projects (Grembergen, Saull, 2001, p. 203).

To summarize, the most advanced IT BSC shares the following six structural attributes:

- Simplicity of presentation – the very best scorecards are limited to a single page of from 10 to 20 metrics written in nontechnical language.
- Explicit links to IT strategy – the scorecard should be tightly coupled to the IT strategic planning process and assist in tracking progress against IT's key goals and objectives.
- Broad executive commitment – both senior IT as well as senior business managers should be involved in the scorecard process – both creation and ongoing.
- Enterprise – standard metrics definitions – consensus should be quickly achieved on metrics definitions. The review meetings should focus on decisions rather than debate over metrics.
- Drill – down capability and available context – the high – level IT scorecard should allow for detailed review of trends or variance by providing more granularity on component elements.
- Individual manager compensation – should be linked to scorecard performance (Keyes, 2005, p. 92).

It is necessary to remember about five phases when building and implementing an IT BSC:

1. Presentation of the concept of the BSC technique to senior management and IT management.
2. Establishing a project team.
3. Data – gathering phase where information is collected regarding the corporate and IT strategy, the business/IT alignment processes, the IT governance processes, the (traditional) IT metrics already in use for performance measurement.
4. Development of the company – specific BSC inspired on a standardized model based on the Kaplan and Norton principles.
5. Implementation of the BSC mechanisms and improving it to an agreed upon maturity level (Grembergen, Saull, 2001, pp. 202-203).

Moreover, there is no doubts that an effective IT BSC will change and increase its organizational importance thanks to three drivers: demonstration of IT value, IT governance and cost cutting and efficiency (The IT Balanced Scorecard Revisited , 2007).

#### 4. SUMMARIZING

IT's use in business environment has experienced a spectacular transformation in the past decade. W. Van Grembergen says the potential long-term impact of IT represents an economic and social transition as fundamental as the shift from rural agriculture to urban industry 200 years ago, during the first Industrial Revolution (Thorp, 2001, p. 25).

The tool as BSC that is a simple and useful measurement tool to track companies's performance (Flores, Al-Ashaab, Magyar, 2009, p. 23) turned out to be effective in the area of IT. Observing the flexibility of the IT BSC, it is likely to be adapted to new practitioner demands in the near future. The main problem is unequivocal pointing if the benefits are greater than IT BSC's costs.

As A. Cram says its resilience in remaining part of present – day control frameworks indicates that the IT BSC is not an outdated management fad, but an important component of modern organizations. Its contribution as an IT management and control tool is clear, and the IT BSC is likely to continue as valued tool in the years to come (The IT Balanced Scorecard Revisited , 2007).

It is certain that experience with the IT BSC will grow and it will bring an expansion of literature, research results and another case study training materials helping to plan the process of implementing this tool. An important conclusion is a reformulation that the IT BSC should be integrated across the company to generate business value.

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