

## **Balanced Scorecard As An Advanced Management Concept Within The Integrated Quality Management Model**

**Stevan Zivojinovic,  
Tamara Petrovic,  
Andrej Stanimirovic**

*JP Elektroprivreda Srbije,  
Serbia*

**Abstract:** *The significance of »Integrated quality management« (IQM) model, originating from St.Gallen-model, is reflected in the need for synergic application of new and advanced concepts of management theory and practise. Balanced scorecard (BSC) within IQM model becomes a catalyst of business success for a modern organization by focusing on organizational variables – business strategy, organization structure and corporate culture. BSC is the leading system of performance tracking and strategy implementation, consistent with other management concepts and methods for managing process improvement. Through BSC, IQM processes' activities correlate with organisation business results. BSC management processes enable integration of all decision-making levels, from institutional via strategic to operative, in the process starting from planing, i.e. formulating and implementation of strategy, to feedback by performance measurement and control.*

**Keywords:** *strategy, management, integration, concept, quality*

### **1. INTRODUCTION**

As a consequence of social development dynamics, technological progress and especially information-technology expansion, intensification of market development and ever-increasing customer requirements, growing competitive pressure and changing values in organisations and their environment, changes in management paradigm have arisen. It establishes new principles of management practise, which have to be the basis of organisational management and decision-making processes, in order to ensure maximum effectiveness and efficiency of its activities and processes, as a necessity when facing survival and success.

The new paradigm states that the only survivors will be the organizations that continuously strive for business practice improvement, which are characterized by flexibility in the sense of quick adjustment to changes in the environment, buyers and

competition, or from within the organization itself. Numerous organizations still struggle to accommodate new requirements and one of significant hurdles to attaining success is harmonization of its strategy, structure and culture with business performance, the question at the integrated management attention focus – St. Gallen concept.

In this context, it is certainly of interest to grasp the role of Balanced Scorecard – BSC, an advanced managerial concept, popular system of performance measurement and control, within the model of integrated quality management (IQM).

It is useful to consider BSC concept, developed and perfected as a strategic management system, based on philosophy and principles of quality management, which will facilitate harmonization of business strategies, organization structure and culture within IQM framework, en route to business success.

## 2. INTEGRATED QUALITY MANAGEMENT AND BSC CONCEPT

In response to escalating competition in altered business conditions, managers have at their disposal various alternative initiatives and organisational change (strategy, structure, work practices, etc.). These changes are necessary and organisation's top management must constantly search for ways to improve business process flexibility reaction-time to varying requirements of customers and other stakeholders.

This has brought about the aspect of integration of numerous concepts, approaches

and developed management systems, which improve organisation competitiveness and its success in modern market. Which management philosophies, strategies, approaches, concepts, programs, methods and tools to utilize, becomes the paramount question for survival and further development of the organization.

Numerous advanced management concepts and methods which are used in the developed world (see Figure 1) have their origin in the new paradigm. They complement each other in synergy and provide a basis for constructing integrated quality management model.

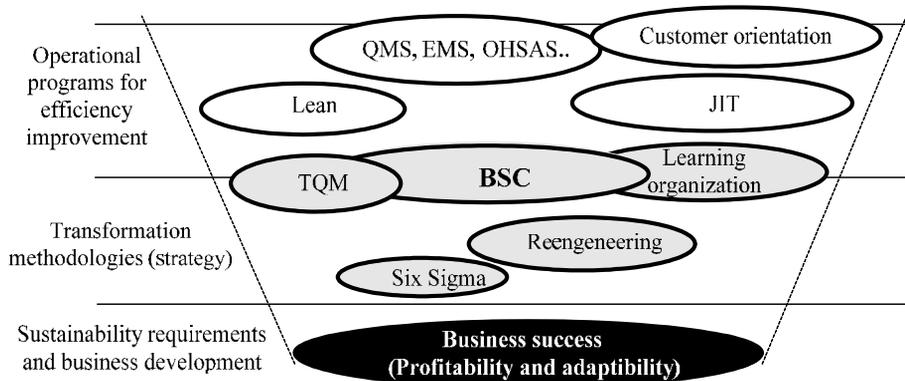


Figure 1. Roadmap for advanced management concept integration (adapted from [1 and 2]).

IQM model [3] has its foundations in St. Gallen integrated management concept developed at St. Gallen University in Switzerland. Its essence is reflected in harmonizing strategic programs – business strategies (generally: managerial activities), organizational structure and corporate culture (generally: organizational behavior) [4].

Process-oriented IQM is, in a way, modern concept of business result management. It incorporates various managerial approaches – good practices, under the “conceptual umbrella of quality management”, which in a suitable way establishes connections and relations between the organizational and customers, environment, employees and other stakeholders [2 and 5].

IQM is founded on dynamic management principles and it presupposes continuous business improvement on the one hand, and

respect for management hierarchy on the other.

BSC, as one of the concepts in IQM model, represents a leading system of performance measurement which relates to redefining strategy and managing improvement toward improving organization's competitive power and its chances for success in contemporary market. This concept stands apart from other concepts in that it facilitates the appraisal of the impact of various factors from the past to present results, long-term monitoring of results and continuous harmonization of organization performance to its strategy. Instead of just one, financial perspective, BSC offers performance appraisal in several balanced perspectives, related to consideration of long-term and short-term objectives, financial and non-financial measures, external and internal performance perspectives, prospective and retrospective indicators

(attained results), quantity and quality, past and future, etc.

BSC can motivate and initiate considerable improvements in critical business areas, such as product, process, consumer and market development. It is focused on business components critical to strategy and objective realization. In this manner, performance measurement system preerasta its role and actually becomes strategy implementation system, in other words an indispensable component of strategic management system.

BSC evolves from its initial purpose into a

### 3. BSC IN HARMONIZATION OF STRATEGY, STRUCTURE AND CULTURE

Placing BSC concept in the center of IQM

bedrock of strategic management system. The following organization principles are key to successful strategy implementation [6]:

1. Strategy formulation and implementation as a continuous process;
2. Translation of strategy into operative programs;
3. Steering the organization toward strategy defined;
4. Strategy implementation as an everyday job of all employees;
5. Encouraging change from the top.

model, i.e. its introduction into „magic triangle“ strategy – structure - culture, enables BSC to become business performance „catalyst“ (Figure2). Relations and influence of BSC on organization variables mentioned above can be stated in the following way [6, 7 and 8]:

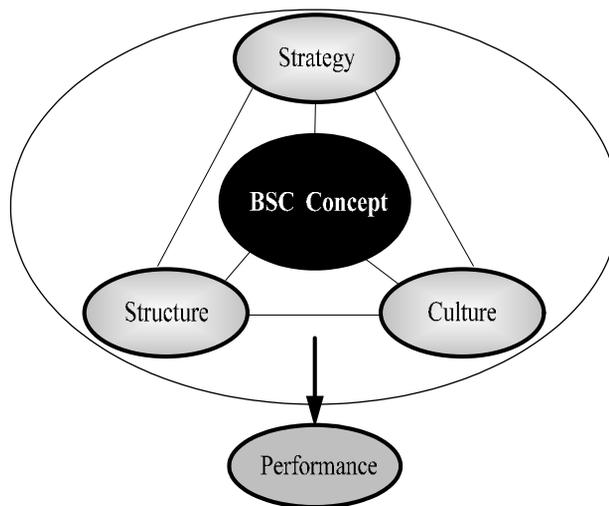


Figure 2. BSC at the center of organizational variables

**BSC and strategy** (or managerial activities in general) - Point of origin for BSC is organizational vision and mission. They ensure the orientation of numerous activities and effort toward unique objective, thus

maximizing the probability of success. Strategy has to show how organization management plans to realize vision and mission.

Strategy should be focused on three areas: selection of business field where the organization conducts its business, ways of

overcoming competition in selected business fields and resource allocation criteria. Like vision and mission, strategy should be clear, formalized and familiar to majority of employees. BSC provides the means to make strategy clear to all employees.

Subsequently to identification of vision, mission and strategy, organizational objectives are defined. In this phase, BSC requires that vision and mission be translated into objectives in several perspectives concurrently. BSC presupposes vision and strategy concretization

not only in financial terms, but also in relation to consumers, internal process efficiency as well as innovation and development (four perspectives).

Relating organizational strategic planning at corporate level to performance measurement is necessary for such a system to adequately function in the process of strategy realization control. The function of strategy planning is to define relations between the organization and its stakeholders through appropriate strategy. Varying market conditions, different product strategies and competitive environment demand that every organization create its BSC, i.e. to make a selection, adequate measurement and monitoring of key quantitative and qualitative performance indicators. This is so due to the fact that relative importance of particular indicators differs in different organizations. It is determined by the nature of organizational activities and activities of hierarchical levels of management.

As a performance measurement system, BSC facilitates monitoring and control of strategy implementation at particular time as well as formulating and re-formulating strategies. Relating BSC as a measurement system to the strategy follows from the method of developing and revising balance scorecard, where vision and mission translate into five objectives, on the basis of which the key success factors are identified and then translated into a series of key performance indicators of strategic success.

**BSC and organizational structure** - In large decentralized corporations, BSC is deployed at three levels: corporate, decentralized business units (divisions, strategic business units or profit centers) and business functions (commerce, finance, development, etc.). Every organizational level has its own BSC and there is no addition of BSC at the level of entire organization, as each division identifies objectives, strategic activities and indicators according to its position in the environment.

Corporate BSC provides that everybody starts from the same vision, mission and strategy and that strategic initiative for their realization be followed throughout the organization. Unique organizational BSC ensures that all organizational parts work

toward the same objectives. In this manner, organizational BSC is cascaded downwards toward so-called accountability centers within the organization, thus ensuring that all its parts work in unison toward organizational objectives. Beside this "top-down" method, there is an approach combined with "bottom-up" planning, i.e. at first divisional managers build their own BSC based on that of the organization and then in a comparative analysis (benchmarking) top management modifies it, authorizes it and / or redirects the strategy of a complex enterprise.

BSC is still considered exceptional means for business unit (division) level, unlike departments and functional units (development, marketing, production and the like) where building BSC appears to be much harder because they seldom have their own business strategy. As they have no direct contact with the market, business functions aim at building BSC based on their contribution to strategy realization and improving competitive advantage of the enterprise as a whole.

**BSC and corporate culture** (or *organizational behavior in general*) - When applied, BSC effectively translates organizational vision, mission and strategies into a transparent system of performance measurement. That way employee can easily grasp their own and organizational objectives, as the expectations for their everyday work become apparent. The concept facilitates fuller strategy implementation, by increasing raising employee awareness and responsibility, thus obviating the need for directions and control by their superiors for adjusting their behavior to altering circumstances. Employees can more easily grasp the strategy and their own role in the organization, which affect behavior change toward increased accountability. They understand what they need to do, what results to attain and how to affect organizational business at present and in the future.

Thanks to precise indicators, efficiency of their work can be determined (as a percent of realized relative to planned results) and related to the compensation system (compensation and bonuses), which motivates employees to be more dedicated and productive. Still, creation of an effective compensation system related to financial and non-financial balance-card performance indicators is not trivial.

As the employees represent the basis of strategic success, culture of a learning organization (approach which is implied by BSC through emphasis on one of its perspectives) encourages employees to review current organizational status and suggest improvements. Employees are the source of new ideas vital to the future of the organization – because they come from people who are involved in internal business processes everyday and understand them fully. By measuring learning and growth, BSC enables leaders of the organization to recognize potential for future success, as improved business processes effect improved products and services which are appreciated by customers and which in turn, via customer satisfaction and loyalty, affects financial indicators and business success.

To sum up the value of BSC from the point of strategy, structure and culture, one can say the following [9]:

- it models organizational vision and facilitates its wide recognition,
- it clarifies and updates (redefines) strategy,
- it relates strategic organizational objectives,

#### 4. BSC IN ATTAINING SUCCESSFUL BUSINESS RESULTS

IQM model (Figure 3) gives an opportunity to put effects of BSC application in modern organization into perspective. In this model, 4 perspectives interact with activities regarding strategy, organizational structure (and business processes), organizational behavior (with its main component – culture) with business results (success, development and stakeholder satisfaction). All of these connections and relations incorporate appropriate elements of quality management.

Connections and relations (of basic IQM model elements) can be characterized using cause-and-effect relations between strategic initiatives (managerial activities), functional areas of the organization (organizational structure) and intangible activities of organizational culture, employees' knowledge, and other factors (human dimension of organizati-

- it aligns the needs of customers to business objectives,
- financial and physical resources are aligned with strategy,
- it functions as a holistic model of strategies, which enables employees', teams' and organizational units' perception of opportunities for contributing to organizational success,
- it contributes to alignment of objectives of individuals and organizational units to the strategy of the organization,
- it focuses efforts to changes, by identifying opportunities and improvement initiatives,
- it receives feedback on strategy development and implementation, to monitor progress and facilitate strategic perspective, and
- it builds the system of rewards and punishments.

onal behavior). When constructing causal connections along the value-chain, as viewed from abovementioned perspectives, one can appreciate the interdependence of activities, objectives, indicators and results [10]:

a.) Primary financial objective is ensuring long-term value for stockholders. This can be accomplished if there is a sound productivity strategy (securing relatively low expenses – by improving cost structure and increasing efficiency) and income growth strategy (harnessing the potential of existing market and searching for new income sources). Long-term income sources will be realized if customer loyalty and retention are secured as well as new customer attraction. To ensure customer loyalty, one has to explore their expectations, requirements and needs.

b.) Customer loyalty and satisfaction depend on the degree of fulfilling expectations and organization's positioning (reputation) as perceived by the customer. Customer expectations mainly relate to quality,

functionality, price of the product, availability and the like. Reputation is related to current image of the organization and the relationship created with customers in the past. Ability to meet customer expectations is always stipulated by the internal business characteristics, which have overarching influence on the ability to earn profit and on productivity.

c.) Efficiency of operative processes (those in which products and services are produced and delivered to customers) directly affects business expenses and productivity and indirectly affects product price and quality, which in turn affect customer satisfaction and income. Presence of innovative processes (those in which new products and services are developed or existing ones are improved) directly affects product functionality and

quality that, via customer satisfaction affect the income. Establishing relations with the customer (all activities that establish contact with customers and improves value for them) affect organizational positioning and perception by the customer, and in long-term affects income. Conducting a social policy affects the image and reputation of the organization.

d.) Knowledge, skills and values of employees enable, through learning and growth perspective, successful carrying of internal processes out. Guided by strategy, the processes result in satisfying customer expectations and added-value creation. Similarly, organizational culture, climate, leadership style support activities and add value for the customer.

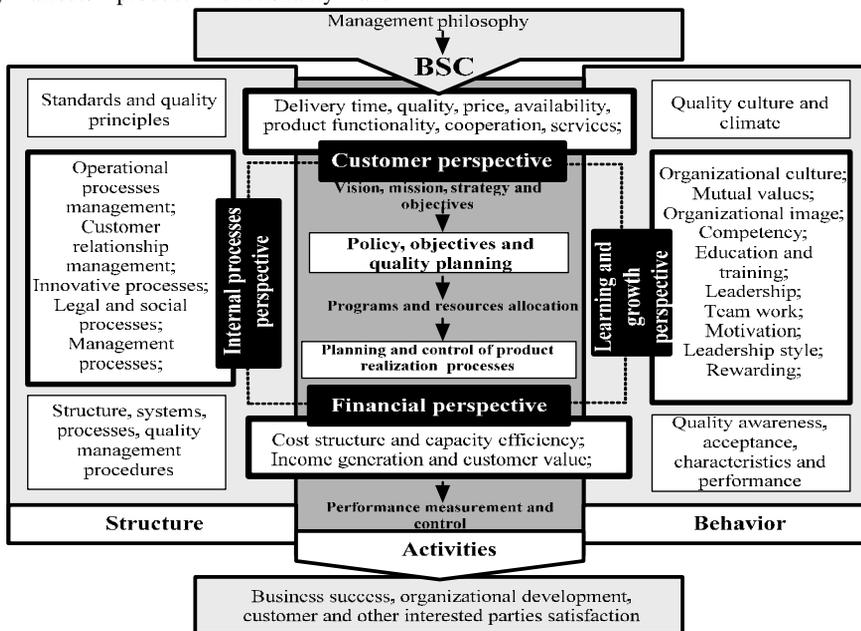


Figure 3. Advanced managerial concept BSC in IQM model

Comparison of BSC as a system of strategic management with a defined management process with the IQM process and basic elements of quality management, one can see a full correspondence (Figure 4) that creates conditions for synergy.

The importance of concluding phase of BSC process should be emphasized. Subsequent to translating the vision,

communicating, relating and business planning, this phase relates to feedback and learning. BSC focuses management attention to management by results starting from employee learning. Internal process improvement initiatives can come from the employees or from customers. Just-in-time learning and customer focus can improve organizational flexibility in modifying its strategy in response to changing environmental conditions.

BSC, through its processes, enables integration of all organizational decision-making levels, from planning i.e. formulating process and strategy implementation to feedback and performance measurement and control.

Through BSC and IQM process activities, a correlative relationship is established to organisational business results.

PDCA cycles: Plan		Do		Check & Act
<b>Integrated (Strategic) Quality Management - IQM process phases</b>				
1. Environment monitoring and analysis, strategic opportunity identification based on external and internal factors;	2. Vision, mission, basic objectives, strategy and policy definition;	3. Development programs, organizational structure and management system determination;	4. Resource provision, planning and control of product realization;	5. Process performance monitoring, measurement, analysis and improvement;
	Policy, quality and culture definition etc.;	Objectives, plans and quality responsibilities determination;	Quality training, process formalization;	Reviews, internal audits, corrective and preventive action;
<b>Balanced scorecard - BSC management process phases</b>				
1. Strategic problem identification and potential solution considerations;	2. Obtaining vision and strategy consensus, critical perspective identification, formulating objective for each perspective	3. Communicating and relating organizational objectives and strategy with objectives and strategies of organizational units	4. Formulating strategic and operational plan (exact definition of objectives, strategic initiative harmonization, resource allocation);	5. Monitoring, reporting (information feedback), performance assessments and rewarding; BSC and strategic plan revision.

Figure 4. Consistency of BSC managerial process and IQM process (adapted from [2])

BSC concept application, as well as application of other appropriate management concepts and methods, provides aid in implementation of quality management principles and facilitates development of consistent and systematic approach to realizing financial and economic gains for the business, including [11]:

- improved profitability and/or improved budget realization,
- improved return on investment (ROI),
- improved competitiveness, higher income and lower cost,
- optimization of available resources, and
- improved customer retention and loyalty

**5. INSTEAD OF CONCLUSION**

From this exposition, we can conclude that a large degree of correspondence exists between quality management philosophy and BSC concept, and that it can be effectively integrated within IQM model. BSC approach is consistent with numerous managerial approaches and initiatives in organizations, such as inter-functional integration, constant process improvement, new partnerships with customers and suppliers, emphasized role of teams, etc.

Comparison of BSC concept and quality programs brings to light similarities based on expectations that employees will be committed to realization of objectives, if they are informed and involved in their establishment. All approaches see human resources, i.e. employees, and technology as the agents of improvement. However, unlike approaches to improvement which see it as a continual and gradual process (for example, TQM), BSC puts an emphasis on abrupt improvements which

can be effected in longer or shorter period of time. The apex of all interests is in quality management, where customers and internal processes represent two perspectives of BSC. Both approaches consider effectiveness and efficiency key to customer satisfaction as well as for business results. BSC implementation can help organizations develop and apply business excellence strategy [9].

BSC technology, related to budgeting, resource allocation, alignment of low-level objectives, reporting, review, etc. relates and corresponds to the principles and requirements of ISO 9001 standard requirements and facilitates attainment of quality policy and objectives.

BSC concept integration in IQM model provides a strategic focus to quality management system. By incorporating financial indicators in quality programs, the management gets a true picture of effectiveness of efforts toward improvement. On the other hand, quality programs can significantly contribute to

BSC application, through key process performance improvement, "good practice" adoption in processes, directing employees to satisfying customers and the like.

BSC concept under IQM model should be learned and understood as one of existing developmental organizational and management models, appreciating the importance of quality management philosophy, principles and culture as well as synergy of BSC and other current managerial concepts and methods as key factors of business success.

In the end, let us point out that contribution to development and application of IQM model is reflected in understanding the harmonization of business strategies (managerial activities) organizational structure (with business processes) and culture (organizational behavior) using an advanced concept of BSC, leading to improved competitiveness and efficiency toward attainment of successful business results.

## REFERENCES

- [1] Rick Dove, "Paradigm Shift Internationale" (1998.), [www.parashift.com/Essays/essay001.htm](http://www.parashift.com/Essays/essay001.htm);
- [2] Živojinović S., Stanimirović A., Petrović T., "Sinergija naprednih upravljačkih koncepta i metoda pod modelom integrisanog menadžmenta kvalitetom", 8th Croatian Quality Conference – Brioni, 2007;
- [3] Seghezzi D. Hans: "Integriertes Qualitätsmanagement - Das St.Galler Konzept", Hanser Wirtschaft, 2003.;
- [4] Bleicher Knut: "Das Konzept Integriertes Management", Campus Verlag, Frankfurt am Main, 2004.;
- [5] Živojinović Stevan: "Integrated Quality Management" – Subject in Higher Education Curriculum", The 1st International Conference ICQME 2006, Budva, Montenegro, 2006.;
- [6] Kaplan R., Norton D.: „The Strategy Focused Organization“, Harvard Business School Press, Boston, Massachusetts., 2000.;
- [7] Kaplan R., Norton D.: „The Balanced Scorecard – Measures that Drive Performance“, Harvard Business Review, January – February, 1992.;
- [8] Kaplan R., Norton D.: „The Putting Balanced Scorecard to Work“, Harvard Business Review, Sept. – October, 1993.;
- [9] Kanji Gopal, Patricia Moure: „Kanji Business Scorecard“, The 6th World Congress for Total Quality Management, Saint Petersburg – Russia, 2001.;
- [10] Kaplan R., Norton D.: „Strategy Maps – Converting Intangible Assets into Tangible Outcomes“, Harvard Business School Press, Boston Massachusetts, 2004.;
- [11] ISO/DIS 10014: „Quality Management Systems - Guidelines for Realizing Financial and Economic Benefit“, 2005.

Received: 21.09.2007

Accepted: 19.12.2007

Open for discussion: 1 Year