DEVELOPING A PROJECT SCORECARD TO MEASURE THE PERFORMANCE OF PROJECT MANAGEMENT IN RELATION TO EFQM EXCELLENCE MODEL

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Abstract
Strategic company plans are more frequently realised in the form of strategic projects. Project portfolio management is new territory for a lot of companies, especially regarding the evaluation of strategic projects and the final financial and social results.
The paper focuses on a pattern methodology for the measurement of project management performance and for projects prioritisation process. For this purpose, we analyse relevant pieces of literature in the field of project management, as well as other connected fields, like maturity and excellence models, balanced and project scorecard and performance measurement.
As research methodology we develop a Project Scorecard that is derived from the Balanced Scorecard and the EFQM model. This is used to connect the strategic decision making process to the operational level of a project in terms of objectives and expectations, by determining a proper set of parameters that can measure each element's impact on the project overall success. Our research focuses on two main parameters, staff and project maturity. Testing this tool is done by reviewing a sum of human resources documents and various employee surveys. The results offer an overall interpretation and key of the Project Scorecard.

Keywords: balance scorecard, project scorecard, excellence models, project management performance, maturity model

JEL Classification: M1, M5, O22

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Introduction

Organizations are competing more and more in a complex environment so that an accurate understanding of their goals and the methods for attaining those goals is vital. The BSC translates an organization's mission and strategy into a set of performance measures that provides the framework for a strategic measurement and management system (Kaplan and Norton, 1996a). Managing strategy involves managing change, a strategy reflecting how an organization can create sustained value for its shareholders, customers and communities (Kaplan and Norton, 2004). As strategic goals are more and more planned and realized within projects and programs and due to their increasing number, the various projects compete for the scarce resources more fiercely, which results in complex interdependencies between them. Thus, the projects selection is a significant strategic resource allocation decision that engage an organization in substantial long-term commitments, and a very complex process because there are different quantitative and qualitative factors to be considered in their evaluation. (Asosheh, Nalchigar and Jamporazmey, 2010). Project portfolio management (PPM) is a new territory for a lot of companies, especially regarding the evaluation of strategic projects and their contribution to the strategic business goals, with their own calculation scheme and organization structure within the company. In order to measure the monetary contribution of input for these projects, a project scorecard is adapted and operationalized for small and middle companies as a controlling approach.

The state of research in the field shows two directions: one based on the maturity of processes, for example Organisational Project Management Maturity Model (OPM3) or Capability Maturity Model Integration (CMMI), and the other focussed on the output calculation in relation to the project inputs. In the presented approach both dimensions will be combined in a smart way.

Therefore, the first step in research is defining the basics of the topic for better understanding. Secondly, key parts of the project scorecard model are described and several methods of project success dimensions are considered and discussed. Thirdly, an interpretation and reflection of the model are done.

1. Review of the scientific literature

In order to conduct these research, specialized literature was reviewed in different area, as project management, balanced scorecard for projects, project management performance, Excellence and Maturity models.

1.1 Project portfolio management

Two different definitions of PPM exist in literature and practice. In this context, definition and distinction of the terms is necessary in order to promote a uniform understanding of the topic. According PMI (2013), PPM refers to the centralized management of one or more project portfolios in order to achieve strategic objectives, focussing on ensuring that projects and programs are analysed and reviewed to prioritize resource allocation, and portfolio management becoming consistent with and aligned to organizational strategies.

Using Multi-Project-Management (MPM), the goal is to achieve trans-sectoral and cross-company management for various concurrent projects of an organisation. Its task is

comprehensive planning, organisation, steering and supervision of the projects and all organisational methods that are essential to MPM. PPM is a very important component of multi project management and, in this sense, forms a subset of multi project management (Dammer et al., 2005). Thus, MPM is the condition for effective PPM. PPM ideally observes all of the company's projects and programs (project landscape or "entire project portfolio") and analyses them as to their strategic contributions towards the current goals (e.g. strategic contribution, profitability and benefit).

On the basis of an empiric study on MPM, Dammer and Gemünden (2005) developed a generic process model on the three levels, project, multi project and portfolio that covers the whole project portfolio cycle, respectively focusing, selection, realization/management, and completion. Project portfolio controlling is an important part of PPM, as it allows linking the business strategy with the progress of the projects over its life cycle (Campana et al., 2005). PPM needs controlling methods and indicators in order to comprehensively plan, steer, supervise, evaluate and control the portfolio.

1.2 Balance Scorecard (BSC)

BSC, originated by Kaplan R. and David Norton is a performance measurement framework that added strategic non-financial performance measures to traditional financial metrics in order to give managers and executives a more balanced view of organizational performance. The model views the organizational performance from four perspectives: customer, financial, internal processes and learning and growth. BSC is more than a tactical or an operational measurement system and innovative companies should apply the scorecard as a strategic management system, to manage their strategy over their long run, using the management focus of the scorecard to achieve important management processes (Kaplan and Norton, 1996a).

BSC has evolved in the last past years, from the performance measurement tool, focussed on pointing out problem areas within organizations and disclosing areas for improvement (Eilat, Golany and Shtub, 2008), to a tool for implementing strategies and a framework for determining the alignment of an organization's human, information and organization capital with its strategy (Kaplan and Norton, 1996b). In a recent study, Kaplan, Norton and Rugelsjoen (2010) proposed a BSC model for cross-entity collaboration that could be used as framework for partners to work collaboratively and productively in order to achieve benefits that neither could accomplish on its own.

1.3 Project Scorecard (PSC)

Stewart (2001) conducted a research in application of BSC to project level and identified relevant KPIs to perform project "health checks" throughout the life cycle. The PSC proposed is based on four pillars that cross through objectives and organization: communication, compliance, continuous improvement, and cooperation. As projects could be seen as "mini-organizations" with all the rules and benchmarks of the organization itself, but more structured and controlled than the organization and with high failure rate in critical success factors, a BSC approach at project level could be designed and implemented in order to better manage the project and the overall organization, from the initiation to the closing project phase (Stewart, 2001).

Also, BSC is an important tool for project managers, that allow them to connect a project to the business side of the organization using a "cause and effect" approach and the positive side effect of using it is the possibilities to measure the strength of relations among the various value drivers (Keyes, 2010). Therefore, is important to design a scorecard that develops into cause-and-effect relationships that includes enough performance drivers with adequate measures. At units' level, departments could develop scorecards linked to the organization's targets, and employees and projects have scorecards linked to their department's targets.

Most of research papers related to PSC focuses on diverse industries and processes. In their research conducted in automotive industry, Niebecker, Eager and Kubitza (2008) identified some typical drivers and KPIs for a collaborative product development project, where the process perspective is considered the most important one with the biggest influence on the project outcomes, based on the measurement of process and collaboration maturity.

Brock et al. (2003) proposed a PSC model for IT projects with two primary sections to project management, the internal and external focus. The internal focus involves people processes and practices that reside within the domain of the project itself, and the external focus involving influencing factors outside of the project itself, but within the domain of the organisation that initiated it. These two sections are divided in four further sub-sections: project, strategic alignment and program management, project processes and the project foundation. As well for the IT&C industry, Barclay (2008) developed a Project Performance Scorecard framework in order to improve the information systems (IS) project performance evaluation, using BSC and IS Success methodologies. The model consists in a six-dimensional multi-linked evaluation approach that includes the entire range of project performance framework, in order to determine why the project is important from the different stakeholders' views, using that as a basis for contribution assessment.

For E-business area, Van Grembergen and Amelinckx (2002) developed a generic BCS as a measuring and management tool, incorporating four perspectives: customer, operational, future and contribution. They suggest that a monitoring tool is essential in designing, implementing and maintaining an E-business system because these projects are often too technically managed and are started without a clear business case.

Frequently, there are developed and researched combined PSC models with different other managerial and/or statistical tools. Eilat, Golany and Shtub (2008) generated a multi-criteria approach for R&D project evaluation based on the integration of two different managerial instruments by combining concepts from data envelopment analysis (DEA) and BSC. Their BSC for R&D projects is built on five perspectives—the four original perspectives of BSC and an uncertainty perspective, which was added to highlight its role in R&D projects. From the viewpoint of DEA, the model generalizes the standard treatment of the data by dividing the inputs and outputs into subsets, and adding constraints in order to emphasize the linkage among them. From the viewpoint of BSC, the model proposes a new approach to evaluate performance through quantitative analysis.

A similar model approach proposed Asosheh, Nalchigar and Jamporazmey (2010) starting from the critical aspect of IT management, respectively the decision whereby the best set of IT projects is selected from many competing proposals. Their model also combines BSC and DEA, as a new approach for IT project selection that uses BSC as an inclusive framework for identifying IT projects evaluation criteria and DEA as a nonparametric technique for hierarchizing IT projects.

Tennant and Langford (2008) designed a PSC model for construction industry derived from BSC and EFQM, based on seven individual KPI's for inclusion within the BSC part of the model, and seven 'leading' as well as 'lagging' KPI's in conjunction with objective and subjective measures of efficiency from EFQM model. The resultant project performance research model integrates seven key performance indicators that produce a customised set of project key performance measures.

Lo, Wong and Cheung (2006) investigated the use of Balanced Scorecard (BSC) approach to measure the partnering project performance, by identifying 36 strategic objectives as the metrics for measuring the partnering project performance, these being further classified into four different perspectives: Benefits, Attitudes of project stakeholders, Attitudes enhancement process and Strategic learning & growth.

1.4 Excellence Models

To remain competitive in the continuous changes environment, any organisation needs to systematic innovate and improve, by understanding, balancing and effectively managing the needs and expectations of their stakeholders. The EFQM Excellence Model is a framework to understand and manage this complexity, in a pragmatic and practical manner (EFQM, 2017). The EFQM Excellence Model allows people to understand the cause and effect relationships between what their organisation does and the Results it achieves. The Model comprises of a set of three integrated components: fundamental concepts of excellence, criteria and RADAR, a tool for driving systematic improvement in all areas of the organisation. (EFQM, 2017:

To asses and establish the excellence of projects, GPM Deutsche Gesellschaft für Projektmanagement developed in 1996 the Project Excellence Model (PEM), by inspiring from EFQM-Excellence Model, which determines the quality of the management systems in organisations. PEM consists in nine main criteria and two assessment areas: Enablement Criteria for the Project Management and Results Criteria for the project results. (GPM, 2017). International Project Management Association (IPMA) completed and adapted the GDP PEM, this becoming IPMA Project Excellence Model (IPMA PEM), the main purpose of it being to provide guidance to organisation in assessing the ability of their projects and programmes to achieve project excellence (IPMA, 2017). The application of the model and the process for project excellence helps project teams to improve their projects and to make them excellent at least in the long run but this excellence can't be reached without taking into account the applicable standards for the basics (Grau, 2013). The structure of IPMA Model enables easy reporting of the outcomes on all management levels by introducing three levels of the model: areas, criteria and examples. (IPMA 2017).

1.5 Project Management (PM) Performance

Previous research has used three ways to measure PM performance: a maturity-based Return on Investment (ROI) metric, a Balance Scorecard-ROI, and a resource-based view. (Phillips et al., 2002). Forms of value can be measured by output data, calculating the standard cost of quality, converting employee time using compensation, using historical costs from records, using input from internal and external experts, or using estimates from team members and management team (Sanjuan and Froese, 2012). Other research on the project management performance has often been limited to a range of ROI approaches;

BSC approaches and organizational competency approaches. The relationship between value and implementation does not exist outside of organisational context, including organisational strategy (Thomas and Mullaly, 2008). Organisations can understand how the different ways in which they design their project management resource assets can add value from simple projects to megaprojects or portfolios, for example, by including complementary practices such as cost reduction, project management training, leadership development, knowledge management and building innovation capacity (Gardiner, 2014).

1.6 Maturity Models

While at the beginning of the development the main goal of maturity models was the optimization and evaluation of the information system engineering and software development, currently, maturity models are being developed increasingly for business engineering. Klutz, et al. (2014) considers Capability Maturity Model (CMM) developed by the Software Engineering Institute (SEI) the most prevalent approach for measuring the maturity level, CMMI models helping in identifying and improving the key capabilities that elevate organization's performance, quality, and profitability (CMMI Institute, 2017). A Capability Maturity Model, including CMMI, is a simplified representation of the world, which contain the essential elements of effective processes, based on the concepts developed by Crosby, Deming, Juran, and Humphrey (SEI, 2010). Project Management Institute (PMI) has also developed a maturity model, OPM3, am approach where the progression toward increased maturity is seen as multi-dimensional, with several ways to look at an organization's maturity. By assessing maturity across multiple dimensions, OPM3 encourages flexibility in applying the model to the unique needs of an organization (PMI, 2013). PM Solutions developed a model that utilizes the PMBOK Guide's ten knowledge areas and is patterned after the CMM of the SEI. The model has five distinct levels of maturity, similar to those in the SEI models, and examines an organization's implementation across the ten project management knowledge areas, respectively (Crawford, 2015).

2. Research methodology

In the previous section, the current status has been described and the perspective possible methods and terms have been introduced. These are supported by comprehensive literature research of known and renowned authors.

To be able to develop a uniform picture of these relationships, and thus a possible model for value contribution of project management, first and foremost, the core criteria that could be considered for selecting and narrowing down a model are presented.

Illustration of the existing process models for the following draft model called Project Scorecard (PSC): The Balanced Scorecard (BSC) and the European Foundation of Quality Management (EFQM) model will be examined and introduced in a condensed form to further establish the planned process model methodically.

3. Results and discussion

In this section, the proposed Project Scorecard (PSC) model will be derived from the Balanced Scorecard (BSC) in relation with EFQM model. The objective of the PSC is to find an approach to illustrate the evaluation of project-spanning influences on the overall result. The PSC serves as a tool to link the strategic project level with the operative level. The parameters differ slightly in comparison to the general BSC and are adapted to project, programme and portfolio management. They are divided into:

- *Classic Parameters,* which describe how performance, costs, time and quality relate to each other.
- *Customer Parameters,* which describe the level of satisfaction of the stakeholders and how the project environment is developing.
- *Process Parameters,* which describe how the project processes advance and how they are upgraded by continuous improvement measures.
- *Staff Parameters,* which describe the level of satisfaction of employees and what they contribute to the project (Möller, 2009).

Why a PSC? The answer can be found in the basic idea of the BSC: "If you can measure it, you can manage it." The PSC is meant to provide an overview that shows a goal-oriented and uniform direction of the project and to allow the measurement of objectives with indexes. The measures of the PSC are not exclusively numeric values. They are partly descriptive information used for project evaluation. Furthermore, the PSC is an important steering tool for the project manager, supporting him in planning, steering and controlling, especially in bigger projects and programmes. The PSC helps especially to:

- reach a consensus among the stakeholders about the project objectives right at the beginning of a project;
- connect strategic projects with the business and department strategy;
- clarify the question of "What is the project (result) meant to accomplish?"

The PSC is meant to provide an overview of what processes directly or indirectly impact the value contribution of project management. A process analysis will be taken as a basis to clarify interdependencies and illustrate impacts on business success (table no. 1).

The perspectives of the PSC are directly linked to each other. Employees and executives are an important factor for success in project management. They directly influence the project and are responsible for success or failure. Financial impacts caused by employees are also closely linked to the project, as are the process and customer parameters. All influencing factors related to the project process are categorised under the process parameters. The customer directly influences the processes through his requests. All influencing factors related to quality and the project environment are categorised under the customer parameters. The classic parameters merely serve as control for the financial situation of the project (table no. 1).

Table no. 1: Return on investment (ROI) of project management with sample figures

Return on Investment					
1. User					
Number of regular users			10		
Number of irregular users			2		
Amount of users			12		
2. Documents/data sources and the expenses for their elaboration (per year)					
Documents / Data source	Number of documents / data sets	Time per documents / dataset in hours	Sum hours	economies in %	Economies in hours
Sum		29.5	4,835		1,442.2
	1,442.2	Hours/year for data processing		0.75	Employee
3. Costs/Savings PM – Process/offers					
Hourly wage rate		50.00 €			
Documentation:		Actual costs (per year)			241,750 €
		Savings (per year)			72,110 €
		Savings (per month)			6,009 €
4. Miscellaneous costs with possible savings					
	Amount hours		Savings in %	Savings in hours	
Sum	1,949				952.9
Savings					47,645 €
Sum savings					119,755 €
5. Costs PM – Software					
Sum					51,000 €
Savings per month		6,009 €			
Costs per month		€			4,250
Difference		€			1,759

3.1 Maturity of Project Management

In our PSC model we used the CMMI model, a path for gradual improvement defined by levels that must be reached in order to move up a level. Only the first level is not associated with requirements, all other levels having specific requirements that must be fulfilled (SEI, 2010 and CMMI, 2017) "To reach the various levels, categories of the respective process areas must have been implemented" (Jenny, 2009, p.848). The CMMI model uses the following five levels: initial, managed, defined, quantitatively managed and optimising. The requirements are distinguished by specific and generic goals. Specific goals only apply for the process area and describe the specific requirements related to the process area. Generic goals are called "generic" because the same goal statement applies to multiple process areas. A generic goal describes the characteristics that must be present to institutionalize processes that implement a process area, being a required model component used in appraisals to determine whether a process area is satisfied (SEI, 2010). Every generic goal is assigned to a capability level: incomplete, performed, managed and defined (SEI, 2010).

Specific and generic goals for project planning and the respective practices are set. The intercept of maturity level and process area is the process relevant for the assessment. According to CMMI, reaching the various maturity levels is a task that organisations should not underestimate and requires good planning. The preparation for the assessment is usually carried out as a project and requires an approach with phases. Firstly, the starting point for the process improvement and the optimisation measures has to be determined. After the initial internal assessment, an official one follows. In each process area that is to be optimised, all strategic plans that are to be achieved must be defined. Approaches and instructions that have to be implemented in all later projects must be derived from these standards. At the conclusion of this assessment, a certified assessor audits the organisation. A detailed determination of the maturity level of project management is a comprehensive undertaking. To simplify things, an assumption as to the maturity level of project management in the sample project is made based on the available data. Then, a short explanation follows as to why the project was assigned this maturity level.

The maturity level was determined to be 3, as the project is managed according to a given scheme. By default, all projects of the organisation are controlled by means of an Earned Value Analysis (EVA). There are documentation requirements and an exact plan for the initiation, as well as project planning and controlling. Project plans have been created and the project managers in charge supervise the project and ensure that the standards and process flows are met. Processes have been defined and are supervised by trained employees.

3.2 Staff Parameter

3.2.1 The Project Team as Central Success Factor

The success of a project depends greatly on the selection and composition of the project team. The support of the top management and cooperation with the project manager are key success factors. If a project is not supported sufficiently by top management, the project may not be carried out successfully and the realisation of the project may be seriously threatened. The consequences are obvious: inefficacy, delays, budget overruns and, last but not least, failure of the project.

The project manager is a key success factor. He is responsible for realising the objectives stated in the project definition: deadline, costs and product quality. The project manager manages and steers the project, organises tasks and work packages, and makes decisions. The fact that, apart from professional qualifications - such as the qualification according to the International Project Management Association (IPMA) - social skills are needed, is also of no small importance. In order to be successful, a project manager must be able to properly assess human behaviour. This is especially important during the selection and composition of the project team. The requirements of the IPMA certification levels are designed for formal skills as well as the complexity of the project.

Team work and team spirit are indispensable for the success of the project. Clear role assignment is crucial for an orderly, structured and systematic project execution. The more efficiently a team works, the faster and more cost efficiently projects are carried out. A good team composition can focus experience, thus creating innovative ideas and solutions that could not have been achieved by a single person. The ability to work in a team requires employees to show that they are willing to cooperate, to be responsible, and that they will not let others do their work.

To find suitable indexes and measurements that attest value contribution, an evaluation is carried out with the help of checklists and indexes. By defining internal benchmarks, in case of variance, a statement can be made as to whether objectives have been reached.

3.2.2 Employee Satisfaction and Development

Employee satisfaction and development only indirectly influences the tangible value contribution of project management. However, there are also many intangible factors that play a crucial role. A happy employee works more efficiently. The impacts can be recognised indirectly in the success of the project. Employee surveys are appropriate to measure this.

3.2.3 Employee Fluctuation

Employee fluctuation is an indicator for unhappy employees. Due to high performance and deadline pressure which leads to stress in project management, employees leave frequently. To avoid this, the company should make sure that employees are always well adjusted and stay healthy. To prevent high employee fluctuation the following factors could be considered:

- employee surveys must be coordinated with all responsible personnel and departments so that the work environment and processes can be taken into account;
- external comparisons and benchmarking with other organisations of the same or a comparable industry should be considered;
- motivate employees with internal benchmarks and create a flexible work environment;
- creating clear perspectives and performance incentives.

3.2.4 PMO

Portfolio management is usually performed by a project management office (PMO). This is the department or group that defines and maintains the standards of process within the organization. The PMO strives to standardize and introduce economies of repetition in the execution of projects (Keyes, 2010). According to a research conducted by PM Solution in 2016, PMOs have become a standard feature of the organizational landscape. The top functions performed by the PMO are implementing governance processes and PM standards and policies, aligning projects with strategic objectives, portfolio tracking, and coaching and mentoring (PM Solution, 2016). Aubry, Hobbs and Thuillier (2007) consider PMO as a part of a network that links strategy, projects and structures, being one of the dynamic structures within organisational project management. On the whole, using a PMO can increase the value contribution of project management, which is ensured by the efficient and effective use of resources by the PMO (Kütz, 2010).

3.3 Results

The exact contribution to success provided by the staff parameters is hard to determine. This is why this research tries to find parameters that can be used as a basis for measurements. Targets or internal benchmarks and measures are defined as criteria for the examination. Target values for the evaluation are estimated and can vary widely between companies depending on the alignment of the company. In the following, we will gather

data to recognise variances between actual and target values. The basis of the gathered data are all the documents from human resources and employee surveys. The example in table no. 2 is based solely on hypotheticals. First, we examine how satisfied the members of the project team are and how qualified the project manager is. In this example, the qualification of the project leader will be determined according to the levels of the IPMA. To determine employee satisfaction, it is suggested to conduct an employee survey and also use indexes from which employee satisfaction can be derived. For instance, if the employees' absence times are especially high and above industry average, it can be derived that they do not feel comfortable in the company or that a bad work environment or working conditions are making employees ill. Employee development is important and provides a positive contribution to the success of the project and the company. This is why an employee survey is used to examine which performance incentives the employees see for themselves in the company and which possibilities for development they recognize. Further education and training sessions also contribute to employee development. Thus, a benchmark describes how many days per year should be invested in employee training.

Employee fluctuation is an indicator for the satisfaction or dissatisfaction of the project employees. If, in relation to the entire company, a larger than average number of project management employees resigns, it is a clear sign for loss of value. The employees must be trained and instructed, activities which incur significant costs. Employees leaving the company earlier than the average means loss of know-how and, of course, human capital. The overtime an employee has to put in can also impact satisfaction and health. Therefore, a maximum limit must be set with the goal of not exceeding it. If this limit is exceeded, measures must be taken immediately to control the additional work that makes overtime necessary.

As described above, the PMO monitors the compliance with set rules and standards. If project managers continuously ignore the rules and standards, this has to be documented, as clear structures prevent mistakes and prevented mistakes mean cost savings. The measuring parameters also include satisfaction with the work of the PMO to determine how satisfied the project leader and employees are with the PMO, because only an effectively and efficiently working PMO provides benefits. One of the most important tasks of the PMO is the central management of resources, as this allows for an ideal use of resources. In this respect, this parameter is measured and evaluated to obtain a point of reference as to whether the PMO works efficiently. The parameters chosen here are examples. It can be assumed, of course, that, in practice, numerous other factors also play an important role (table no. 2).

Once all parameters have been analysed, the PSC is interpreted and summarised in the last step. Each parameter of the PSC has a possible total score of 25. The influencing factors of each parameter have been described in detail in the previous sections. The weighting of the influencing factors differs for the various parameters. Thus, scores are awarded in different ways to take the weighting into consideration. It should be noted that the awarding of scores and the weighting of the influencing factors within the parameters may differ between companies. The reason for this is that the PSC does not serve as a statistical function but rather is a strategic management and controlling instrument. To be able to establish a comparable assessment and obtain a uniform evaluation, a key must be found for each influencing factor (table no. 3).

Table no. 2: Evaluation of the Staff Parameters with samples

Parameters	Base of evaluation	Unit	Evaluation *	Target of the company	weighting in points	Final evaluation
Project team					**9**	**6,25**
job satisfaction inside the team	Staff questionnaire	Assessment scale	0,75	1	2	1,50
Support from the Management	Team questionnaire	Assessment scale	0,5	1	2	1,00
Kompetence of the project leac Qualification	accredited Projektmanager (IPMA)	IPMA Level	0	1	1	0,00
Experience		year	1	1	0,5	0,50
Team stability	Feedback from the team	Assessment scale	0,75	1	1	0,75
group dynamic workshops	grading by the participants	Assessment scale	1	1	1	1,00
Feedback talks per employee	Number of talks per month	Number of talks	1	1	1	1,00
suggestions for improvement	evaluated suggestions	Number of suggestion	1	1	0,5	0,50
Satisfaction/improvement of the Team					**7**	**3,50**
Satisfaction	Questionnaire	Assessment scale	0,5	1	2	1,00
Absence from work per team member	Figures from HR	days	0,25	1	2	0,50
Training and coaching	Planed traing days per year	days	1	1	1	1,00
team spirit	Questionnaire	Assessment scale	0,75	1	1	0,75
Carreer / incentives	Questionnaire	Assessment scale	0,25	1	1	0,25
Staff fluctuation					**5**	**4,25**
Rate of fluctuation	Figures from HR	Employee/year	1	1	2	2,00
Overtime	Overtime of the project members	Hours/year	0,5	1	1	0,50
time in the company	Figures from HR	years	1	1	1	1,00
time spend in projects	Figures from HR	years	0,75	1	1	0,75
PMO					**4**	**2,75**
share of projects, that have not been fulfilled on the base of defined standarts	Analysis from PMO	Number of projects	0,5	1	1	0,50
contentment with the performance of the PMO (Support)	Poll	Assessment scale	0,75	1	2	1,50
level of utilisation of central administrated resou	Lesson learned database, templates, e	%	0,75	1	1	0,75
Sum						16,8

Table no. 3: Interpretation and Key of the Project Scorecard

Parameters	Influencing factors	Target score	Reached score
Classic	Costs, ROI, EVA	9	1
	Project duration	6	4
	Deadline status	7	2
	Risk management	3	2
	Total	25	8
Customer	Quality	9	6
	Goal achievement	5	4
	Stakeholder satisfaction	6	3
	Claim management	5	4
	Total	25	17
Staff	Project team	9	6
	Employee satisfaction/development	7	4
	Employee fluctuation	5	4
	PMO	4	3
	Total	25	17
Process	Process optimisation	9	4
	PM maturity level	5	3
	Initiation, planning, controlling	6	4
	Documentation, reporting	5	4
	Total	25	15
Project Scorecard result		**100**	**57**

As we can see from the table above, the classic parameters should be improved, focusing particularly on the financial evaluation project influencing factors costs, ROI and EVA. The other parameters reached average scores and indicate a solid result and solid project controlling.

Conclusions

Organization tends more and more to develop project management infrastructures methods and tools to be able to implement strategy through projects and, especially, projects portfolios. BSC is one of many management system and managerial tools that could be successfully adapted and used at project, programs and portfolios level. The specialized literature in project management contains a wide range of research conducted in the creating, developing, implementation and improving PSC in different industries, management systems, collaborative networking and in combinations with other well-known managerial/statistical tools, like EFQM, DEA, ISO 9001, TQM. The proposed PSC model combines BSC and EFQM, in terms of using common key indicators, like people, customer, process, business/project results across four perspective: classic, customer, staff, and process. The key of the model is to define proper parameters, their influencing score and importance/weight, methods to measure them, set targets and measure. The results obtained show us which the area for improving are. Clearly, the area "Classic parameters" has some catching up to do, as it was only awarded eight of the twenty-five points possible. These are indicators that improvements in the "Project controlling" area should be implemented. Tools for project controlling must be implemented and applied, and employees should be trained better so that they are able to use these tools professionally. The other parameters reached average scores and indicate a solid result and solid project controlling. However, improvements should also be implemented in these areas to achieve a better result. For each influencing factor a measure catalogue must be compiled, which will result in concrete measures to strive for improvements. For instance, with respect to the factors "Costs" and "Deadlines", production could be accelerated by investing in a new production machine which would eventually lead to cost savings, while factors such as employee satisfaction can only be increased and improved in the long term.

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