

SCIENCE BUSINESS SOCIETY

YEAR 4, ISSUE 1/2019
ISSN PRINT 2367-8380
ISSN WEB 2534-8485

PUBLISHERS:

SCIENTIFIC TECHNICAL UNION OF MECHANICAL ENGINEERING "INDUSTRY 4.0"

108 RAKOVSKI STR., SOFIA 1000, BULGARIA
NATIONAL SOCIETY "INDUSTRIAL & NATIONAL SECURITY"



INTERNATIONAL SCIENTIFIC JOURNAL

SCIENCE. BUSINESS. SOCIETY

PUBLISHERS:

SCIENTIFIC TECHNICAL UNION OF MECHANICAL ENGINEERING "INDUSTRY 4.0"

NATIONAL SOCIETY "INDUSTRIAL & NATIONAL SECURITY"

108, Rakovski Str., 1000 Sofia, Bulgaria tel. (+359 2) 987 72 90, tel./fax (+359 2) 986 22 40, office@stumejournals.com www.stumejournals.com

ISSN: PRINT 2367-8380 ISSN WEB 2534-8485 YEAR IV, ISSUE 1 / 2019

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BARRIERS AND CHALLENGES OF TRANSFERRING MODERN PROJECT MANAGEMENT PRINCIPLES IN WESTERN BALKAN REGION

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Abstract: Project management is an effective management approach that has proven to be a great value for development of the Western Balkan region. Successful project identification, preparation and implementation can help developing countries in their progress. This research focuses on Western Balkan countries and the most common project management barriers. They are analysed related to two groups of barriers, one linked to the human resource development, and other related to the government functioning. Later the barriers are connected to challenges identified by the PMBOK project management knowledge areas and how they are influencing the implementations in the analysed region.

Keywords: PROJECT MANAGEMENT, DEVELOPING COUNTRIES, BARRIERS, CHALLENGES, PMBOK KNOWLEDGE AREAS

1. Introduction

Projects are seen as a basic structural element of development of any organisation, no matter if it is a private or state-run organisation. Therefore, without clear project plan and scope, well defined and executed preparation phase and implementation, projects remain just a desire to do something rather than to represent a growth force for developing countries around the world. That is why Project management is so important for country's development. United Nations state that, "Programs and projects are increasingly used in developing countries in the process of economic and social development" [13], that is why they are "privileged particles of the development process". Also, projects are one of the primary tools for getting grants, credits and loans for the developing countries by international organisations, like World Bank, European commission, USAID, European Bank for Reconstruction and Development (EBRD) and others. All of them highlight the importance of well prepared and executed projects, where project will lead into actions that will stimulate social and economic change in the developing countries.

There are numerous cases of project fails where the elementary project management principles and methodologies were not applied properly. Developing countries are specific example where many challenges remain unanswered and represent real menace for implementing project management knowledge for successful project delivering. The developing countries in Western Balkan are faced with fluctuational economic development, dared by modernization and globalization. Here, the need for improvement of project management processes is required in variety of different industries, with deferent complexities and different challenges.

Here, in this research, we will make effort to show the existing barriers and challenges regarding the PMBOK practices in the developing countries in Western Balkans.

2. Western Balkan

Albania, Bosnia and Hercegovina, Kosovo, Macedonia, Montenegro and Serbia are part of the Western Balkans countries (Figure 1), that have strong economic potential, but face a major challenge in comparison to the countries in the European Union. "Encouraging progress has been made in the past two decades in terms of regional cooperation and advances towards eventual EU membership, and these trends are likely to continue, boosting growth and investment" [5].

The latest World Bank's Doing Business reports show that "several east European countries feature prominently in the list of top reformers. The region is now second, only to the developed OECD, according to its average ease of doing business ranking" [15]. But all countries in the Western Balkans suffer from high levels of unemployment, especially among the youth, where constant emigration outflows and brain drain are making the situation hard. All of this is even deteriorated by the ageing

population that represents a major challenge to long-term growth and development of the countries.

Additional problem related to the project management analysis in the region represents the level of education, where in the BEEPS 2013-14 survey, 34 per cent of the firms in the Western Balkans stated that an inadequately educated workforce is an obstacle to current operations, where 1/3 of them consider the problem to be major [3]. Where in different analysis of the situation in the region, related to the employees needed skills, major gaps were found in soft skills, especially communication, teamwork and collaborative problem solving [9], as skills that are key skills for successful project management practice.



Fig. 1 Map of Wester Balkan countries and their EU status

At the same time, the need of manpower with developed project management skills and adapted project management tools represent an important challenge. The need for educated project management professionals is affecting the projects in the competitive market economies in each of the Western Balkans developing countries.

Other barriers are also present in the region and will be deliberated here related to the political and social system, as well as the financial aspect of bringing better project management practices in developing countries.

All of this is mitigated and stimulated for progression by the effective transfer of project management knowledge and expertise from the developed countries of the world that have foreign direct investments (FDI) in the analysed countries.

3. Project management and barriers

Commonly known and accepted definition is the definition by Project Management Body of knowledge, where project is a "temporary endeavour undertaken to create a unique product or service, temporary means that the project has a definite ending point, and unique means that the product or service differs in some distinguishing way from all similar products or services" [1]. Each project has limited activities with time and resources. In the same direction Project management is defined as "application of knowledge, skills, tools, and techniques to project activities to meet project requirements. Project management is accomplished through

the use of the processes such as: initiating, planning, executing, controlling, and closing" [1]. As Mintzberg (1983) and Soderlund (2004) concluded, emerging industries around the world are project intensive and that is why scientific approach is needed so that each project endeavour will meet the defined objectives in defined time and budget [2]

Different kinds of projects are happening in each developing country and they differ in size and complexity, but those projects have potential to move the country from developing to developed country. This is very important for the analysed region of Wester Balkan. The projects can be sponsored by the government or by other external organizations that were mentioned before.

Researchers have done analysis of the common causes for project failures in developing countries. For instance, Frimpong [6] and Long et al. (2004) identified 26 and 64 causes of project failure each in deferent research. Other researchers have defined in the project management literature other common ones as: expertise or knowledge of the human resources [12], economic and funding problems [4], proper project planning [11], resources [12], communication [10], scope change during project [8].

Overall, the defined problems can be divided into two groups, one is linked to the proper human resource development and another to government functioning.

Human recourse barrier

This barrier is related to the knowledge in the area of project management and trained project management professionals. Professional project management trainings will produce properly educated managers for implementation of project management knowledge. There is a need for trained project management professionals since the number of official certified professionals, compared with the EU member countries is far than satisfying. Table 1 shows the number of professionals in each of the analysed countries. The data from Albania and Kosovo are combined due to mixture in data presented by the professionals. The data analysed satisfy the needs since more than 95% of those that have gained certificate are included in the Credential Registry.

Table 1: Trained PM (project management) professionals in Western Balkans.

Country	PM professionals
Albania / Kosovo	42
Bosnia and Hercegovina	49
Macedonia	72
Montenegro	6
Serbia	308

Governmental barriers

From our experience, field observation of selected projects and extensive literature review, we have observed some barriers for project management success in Western Balkan countries. They can be grouped as:

Economical barriers represent barriers related to freedom of the market, centralized government control and transition of the economy. EBRD defined six qualities of a sustainable market economy (competitive, well-governed, green, inclusive, resilient and integrated) and from the analyses of the region it is concluded that the "countries state must play an important growth-enabling role by providing the rule of law, a stable macroeconomic environment and clear rules of the game for businesses" [5].

<u>Systematic barriers</u> are related to the infrastructure, or more specifically this means to have energy, water, road, transportation etc. There are examples where power outages or voltage fluctuation have damaged the equipment, inadequate water affects the product quality, road infrastructure prolongs the project deadlines, etc.

<u>Financial institutions and fiscal responsibility</u> are related to the limited financial institution capacity, feeble accountability processes and procurement systems. Fiscal sustainability continues

to be a priority for the Western Balkans because of the high public debt levels. Macroeconomic environment, particularly the challenging fiscal situation in the region, compared with the EU levels represents a big challenge. All Western Balkans countries have to "improve the quality of their fiscal policy by reallocating spending from a multitude of untargeted social benefits to productivity-enhancing investment. This would support growth and, during difficult times, help safeguard gains already achieved" [14].

Governing is related to lack of sustainable governance and misalignment between the ongoing politics and policies in the country. This can affect the region and bring disturbance in project delivering. Here we can have: justice delays and denials, lack of transparency in the system, lapses in internal security systems, level of public participation in political processes. The World Bank's Worldwide Governance Indicators show distance between the Western Balkans and the EU member countries in the rule of law, or legislative institutions, control of corruption, effectiveness of the government and regulatory quality.

<u>Forms of authority</u> represent the barrier that comes from centralized or decentralized decision making in the country. The strong centralized decision-making systems have traditional functional organizational structures that does not support cross functional project management processes. In addition, the high corruption levels and authority delegation based on political connection complicates the true value of project management.

<u>Infrastructure</u> is related to better Wester region roads connectivity and IT infrastructure. There is a gap between the Western Balkans countries and EU-11 regarding all six sub-indices that The World Bank's Logistic Performance Index ranks [7]. Improvements in this area will help better cross border trade and increase investments.

<u>Informal sector</u> is also part of the barriers affecting the application of modern approaches in project managing. This barrier is related to the limitations that come from the informal competitors. They are a particular burden for smaller businesses where, the smaller the company, the more likely it is to find informal competition to be a major problem [3]. This affects the development and improvement of any processes in the companies and also the plans for development and improvement of project management in the region.

4. Project management knowledge areas

Project Management Body of Knowledge (PMBOK) by Project Management Institute (PMI) compiles guidelines for project management through the introduction of knowledge areas. These groupings of knowledge bring together processes that have characteristics in common. All of the problems and barriers were analysed related to them.

Project Integration Management is knowledge area that is devoted to identifying and defining the work in the project. It ensures that the various elements of the project are properly coordinated. This knowledge area deals also with efficiently integrating changes into the project. Key project managers' activity is to make compromises between project objectives and alternatives during the whole project and this has to be done in the expected scope and in line with the stakeholder needs. Doing this is challenging in developing countries, since the most effective way of working is top-down approach. This leads to the barrier of Forms of authority and the problems that were mentioned there, as not clear authority, responsibility and who is accountable for the activities, results and compromises made. This leads to unproductive project management work with unclear decision making and problem in delivering the projects in Wester Balkan.

Imperative in the region will be to have clear project planning and human resources allocation with transfer of decision making to the project managers since the beginning of the project, with defined activities and expected trade-offs.

Project Scope Management is related to clarifying the project scope and work that will be done during the project, development of work breakdown structure, establishing the scope baselines and managing the scope of the project. This area is dedicated to managing the project between the defined project boundaries.

One of the challenges related to the scope management in Wester Balkan region are related to the human resource barrier mentioned before. There are examples where project managers were the investors and they had no previous or little experience and basically non-project management training. They hardly use any modern project management techniques during their projects and from there they had no basic understanding of the scope management.

Another problem comes from the lack of knowledge of scope management by the stakeholders. This often leaded to disarrangements between the partners when stakeholders are asking for changes or increasing in the scope. In addition, the before mentioned barrier related to bureaucracy brings extra load to any project, especially to engineering projects in the region.

Imperative related to this is to have trainings related to scope planning and control of the process where work breakdown structure will be defined and agreed before each project in the region.

Project Time Management is related to estimation of activities that will help timely to finish the project. The project manager has key part into this where he/she sequences the activities and defines resources needed to achieve the objectives of the project. Also, he/she is responsible for monitoring and adjusting the project plan so that the project is kept on track. This is nowadays eased with many different kinds of software that can be used to manage the project.

The analysis of the region showed that there are projects that have unrealistic activities time defined and unreelable completion dates.

Key answer to this challenge can be related to the previous recommendations for proper training and decentralised managing of the project. This will enable project managers in the region to have clear control over the planning, scheduling, estimating and control over the whole project. An addition to this will be to have stakeholders and clients that understand the planning and scheduling, and how important is the time management for project delivering.

Project Cost Management is dedicated to estimation, budgeting and cost control so that the project can be delivered in the defined budget. This knowledge area is seen as the most important area in the developing countries. This is very much related to the realistic budget and scope approved before the project starts.

There are examples in the region where we have lack of knowledge in the apea of cost management, cost estimating and control in the dynamic economical changes. This challenge is also connected to the systematic and bureaucratic barriers that were mentioned before. They worsen the situation with cost control because of the lack of transparency.

Answer to this challenge in the West Balkan region is connected to the human resource barrier mentioned before, where professional training is needed in the area of project management and with clear learning goals related to cost management.

Project Quality Management, is the knowledge area where the quality requirements for the project results are planned and followed. The quality issues are monitored and fixed in order to provide final results of the project that will meet clients' requirements and expectations.

In the West Balkan region there are examples where quality control is seen as a stakeholders needs analysis done during the scope definition. Beside this there are some unnecessary rigid governmental documents that declare quality management, but are doing the opposite and result in poor quality projects in the end.

The real quality management has to start from the requirements of the client and end with their evaluation of the project results in the end in comparison to the starting requirements. This can be done with proper training that will concentrate on modern methods, tools and techniques of quality management. This will help to give a proper answer to the customer needs and satisfy the defined project expectations.

Project Human Resources Management basically is the HR management of the project. It helps to utilized, develop, acquire and manage project human resources.

West Balkan is still lacking the ability to organize effective, structural project teams to meet the projects objectives. Project managers have very little knowledge of human resources management and lot of constrains in forming the project team. Those constrains come from the before mentioned barriers related to the governmental work. Clear authority, responsibility and accountability in the project organization are often unclear that leads to inefficient implementation of modern project management techniques.

Imperative in the region has to be on the concept of forming functional project teams that will have clear authority, responsibility and accountability will help the development of the region.

Project Communications Management is related to the communications within the project. Here the project manager develops communication plan, ensures the plan is followed and controls information flow within the project.

In the region, the inappropriate procedures for communication, audits, rewires and monitoring of the project contribute to ineffective project communication within the project and with the customers and stakeholders. This is connected to the previous area of unclear authority, responsibility and accountability of the human resources.

Proper knowledge of formal (meetings, reviews, audits) and informal (inter-personal contacts) communication techniques will ease the situation. The information shared throughout project resources should be project related that will help to clear project related unclarities and help projects delivering in the defined scope, cost and time.

Project Risk Management involves identification of risks, planning risk management, conducting risk assessments, and controlling risks. Management of risks is fairly new to the region and before it was mostly related to definition of reasons for technical systems failures and not managerial issues related to project delivering, scope, budget and time.

In the region there are projects that have not included risk defining as part of the project management processes and this has leaded to even bigger project risks and setbacks. Defining and managing risk problems in the region have been neglected because of the high level of corruption and bureaucracy problems. They contribute to have big number of failure projects that are harming the cooperation with donor organisation.

Proper risk management training is needed of the key project management resources and stakeholders that will educate them for proper approaches, methods and tools for risk assessment and management. This will help to understand the importance of timely risk definition and planning of risk assessment.

Project Procurement Management deals with the processes for acquiring the required products or services needed from outside the project team, for the successful completion of the project.

This is connected to the before mentioned barriers of governing and structure in the region. Some examples showed that procurement is done throughout centralised planning processes and with suspicious established channels and partners.

Clear procurement principles are needed that will show that importance of moving the development of the country is greater than the having unclear and shady established project. Rigorous personnel education and training is need to be carried out in the region so that efficient implementation of projects will meet the donors requirements.

5. Conclusion

There have been positive improvements in the economic development in the region, mainly due to economic growth and implementation of some reforms for the economic policies, public institutions services. This is stimulated by the West Balkan countries determination for EU integration. All the countries have started some processes for decentralisation, improvements in public administration work and stimulation for business and cooperation. Also, regional cooperation has been improved and is influencing a lot on the strengths the region. The stability of the region is a mutual goal and will help the development of the West Balkan region.

All of this has to be supported with modern techniques for project management implementation. All international organizations on development as well as donors' organisations highlight the importance of well prepared and executed project as a way of developing the countries. Project management is proven to be an effective and stimulating management method, which can be a great value to all developing countries in Western Balkan. Inability to recognise, formulate, prepare and execute projects is a major obstacle in the moment and is stopping or challenging the inflow of capital into the underdeveloped region of Western Balkan.

This research structured the common project management barriers by nature and challenges were analysed by the knowledge areas defined in the PMBOK. Selected ongoing projects and successfully finished projects and extensive literature reviews was done to do the analysis. The reality check showed that many projects do not start on time or never, are stopped in middle, have problems with quality assurance, are behind with time and are not in the scope.

In detail analysis is needed by country so that more specific barriers and challenges will be answered in way that they will be in relation to the five processes (initiating, planning, executing, controlling and closing) and in line with the knowledge areas defined in PMBOK.

Success in meeting the challenges of implementing modern project management knowledge can only be achieved if the common above-mentioned challenges and barriers can be overcome. The recommendation given for each barrier and challenge represent a good starting point for overcoming the situation and moving the developing countries into the group of developed countries in EU.

References

- [1]. A Guide to the Project Management Body of Knowledge (PMBOK ® Guide), (2000), Project Management Institute. pp.4.
- [2]. A. B. Adams, (2017), Project Management for Developing Countries: Back to Basics, Dama International Journal of Researchers (DIJR), ISSN: 2343-6743, Vol 2, Issue 4, April, , pp.05 – 09.
- [3]. A. Kresic, J. Milatovic and P. Sanfey (2017). Firm performance and obstacles to doing business in the Western Balkans: evidence from the BEEPS, (EBRD Working Paper No. 200). pp.7.
- [4]. Clausen F. & Attaran A., (2011), The Chad-Cameroon Pipeline Project-Assessing the World Bank's Failed Experiment to Direct Oil Revenues towards the Poor The Law and Development Review, De Gruyter, vol. 4(1), pages 32-65, 2011, August.
- [5]. EBRD Transition Report 2017-18, available online at: http://2017.tr-ebrd.com/.
- [6]. Frimpong, Y., Oluwoye J. & Crawford L. (2003). Causes of delay and cost overruns in construction of groundwater projects in developing countries; Ghana as a case study.

- International journal of Project Management, Vol. 21, No. 5; pp.320-322
- [7]. J. Arvis, L. Ojala, C. Wiederer, B. Shepherd, A. Raj, K. Dairabayeva, T. Kiiski, (2018), The Logistics Performance Index and Its Indicators, The International Bank for Reconstruction and Development/The World Bank, [available on worldbank.org]
- [8]. Kaliba, C., Muya, M. & Mumba, K. (2009). Cost escalation and schedule delays in road construction projects in Zambia, International Journal of Project Management, Vol.27, No. 5; pp.520–529
- [9]. M. Arandarenko, and W. Bartlett, (2012), "Labour market and skills in the Western Balkans", FREN Foundation for the Advancement of Economics
- [10]. Ochieg E. & Price A., (2010), Factors Influencing Effective Performance of Multi-Cultural Construction Project Teams. pp. 1165
- [11]. Pourrostam, T., & Ismail, A., (2011), Significant factors causing and effects of delay in Iranian construction projects. Australian Journal of Basic and Applied Sciences, 5(7), 450-456
- [12]. Ruuskaa I. and Teigland R. (2009), Ensuring project success through collective competence and creative conflict in public– private partnerships – A case study of Bygga Villa, a Swedish triple helix e-government initiative, International Journal of Project Management, Volume 27, Issue 4, May 2009, Pages 323-334
- [13]. United Nations, Department of Economic and Social Affairs, Administration of Development Programmes and Projects: Some Major Issues, (New York: United Nations, 1971), p. v.
- [14]. World Bank Group, 2017, Western Balkans Regular Economic Report No. 12, Fall 2017: Job Creation Picks Up. World Bank, Washington, DC. © World Bank. https://openknowledge.worldbank.org/handle/10986/28883 License: CC BY 3.0 IGO."
- [15]. World Bank's Doing Business report 2018, International Bank for Reconstruction and Development / The World Bank [available on www.doingbusiness.org], pp.86.