



WHAT MAKES A SUCCESSFUL PROJECT? – THE ROLE OF PROJECT PARTICIPANTS ACCORDING TO THE OPINION OF THE HUNGARIAN COMPANIES

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Abstract: The investments, embodied in projects are crucial in national economies tool. Investments are one of the main components of the gross domestic product, so they are the promoters of the growth. Unfortunately several projects have already failed at the beginning, while others have failed during the construction period. The success of the project contributed by many factors, among which are supporting and hindering ones. Based on a classical project triangle the key factors are needed to a successful project are time, cost and effectiveness. Among these factors the project participants are not shown, but they are there in all three dimensions. The Hungarian surveys show that nearly three-quarters of the projects fail, in which the planning, financing and management also play a role. The aim of this study is to measure the latter factor, depending on the role of project participants, without whom the success of a project cannot be carried out, and who functions as a key player in the light of the results of a quantitative research.

Keywords: project participants, investments, primary research, project success

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Literature review

Projects as investment actions are essential for the economy of a certain country and a region too. Investments, as the classic macroeconomic income formula² shows, are capable of substantially influencing the GDP rate both in a negative or a positive way. Enterprises are special factors of the economic growth, which they are able to affect significantly through their financing and investment activities. This is why it is imperative to discuss the financing and investment decisions of the enterprises together and consistently. As the previously mentioned income formula indicated, in addition to consumption, governmental purchases and income deriving from external relations, investments are also needed for the growth of the economy.

Prior to the crisis we had consumed on credit and we had invested in nearly every region of the world with the aid of credit, since the resources had been available without a limit and at a low price. Before the economic crisis erupted in 2008 the countries had tried to push the rate of their economic growth up, which

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² $Y = C + I + G + (Ex - Im)$

they had accomplished via the cheap loans accessible in masses (Csiszárík-Kocsir, Szilágyi 2016). Due to the credit-funded early consumption and investments the investment ratio in the countries of the European Union had been over 22%, which shrank strongly below 21% and then later below 20% as the result of the crisis. The downturn was detectable in every sector of the economy, as the diagram below shows.

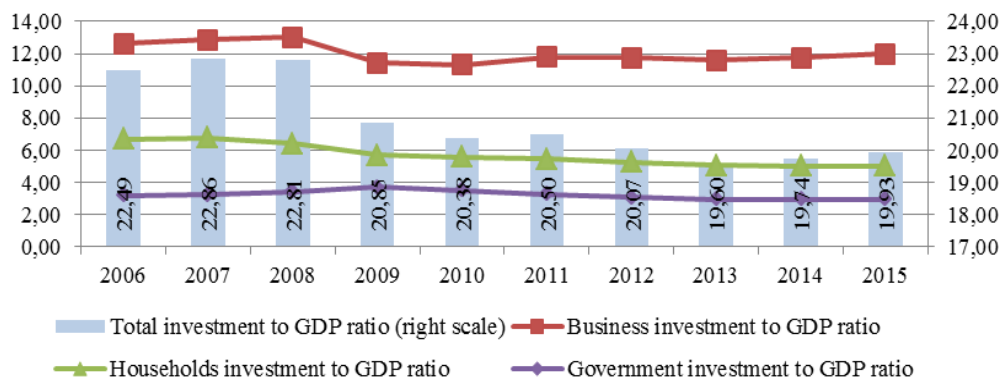


Figure 1. Investments in the countries of the European Union before and after the crisis

Source: Own compilation based on Eurostat, European Commission 2017

In order to increase the investment ratio we need projects, which are specific forms of investment actions. The projects always have a well-defined start date and end date, and they are always carried out to achieve some specific and usually unique goal. Consequently, a project differs from the normal corporate activities, because in this case we always have to face some new and unknown series of actions. However, this process is full of risks and uncertainties (Chapman 1998). These two concepts are often treated as synonyms, although they have different meanings, as it was expressed mathematically by Knight (Knight 1921) as well. In his opinion, we talk about risks when we know the probability of occurrence of a certain event, whereas it is an uncertainty if we don't know this probability.

Nevertheless, it has to be noted that it is almost completely impossible these days to make such a distinction, as the probabilities are hard to foresee, which is why these notions are used as synonyms after all. The main point of the risks can best be set out as factors that threaten the achievement of the goal or divert the desired outcome. According to Renn (Renn 1992), uncertainty is a condition for the risks, because the future is always unpredictable. Hillson (Hillson 2002) agreed that the risk is a presumption of an uncertain event, which can have a negative or a positive impact too. Bernstein (Bernstein 1998) also explained risks with the existence of uncertainty, which is down to the lack of and inaccuracy of information.

Numerous articles, studies and books deal with the risks of the projects. The risk of a project is basically the probability of some kind of danger materializing,

which will have a rather negative than positive effect on the goals of the project or on the organization as a whole. In accordance with the opinion of the PMI (PMI 2013), the organizations and stakeholders always sense and assess the risks that occur during a project. The attitude towards the risks is determined by the organization's risk appetite, tolerance and the size of its risk threshold that the organization still considers bearable. Many studies have tried to analyse and examine the risk predisposition and risk detection as well.

The Big Five Personality Model (extraversion, agreeableness, conscientiousness, neuroticism, openness to experience) – introduced by Zhao and Seibert (Zhao, Seibert 2006) – needs to be highlighted, on the basis of which Wang and his co-authors (Yan et al. 2016) wished to look into the relationships with the project risks. Certain factors are able to influence the attitude towards risks both in a positive and negative direction, as Ulbert and Csanaky (Ulbert, Csanaky 2004) noted too in connection with the positive illusions, which are usually related to the judgement of the abilities and skills of the individuals. These are relevant from the aspect of the project managers.

Based on some surveys, 70% of the projects fail due to inadequate planning. The most common mistakes are the underestimation of the budget and the insufficient management of risks. The failed projects will not be able to contribute to the increase of the investment ratio and to the promotion of the economic growth. Hence the failed projects will always appear as a loss or damage, for which the organization wasted the resources in vain (needlessly). These effects also show up at the level of the national economy as a loss in the form of lost growth.

Part of the risks derives from the complexity of the projects. With regard to the complexity of the projects, Geraldi, Maylor and Williams (Geraldi, Maylor, Williams 2001) named the following five dimensions: structural complexity, uncertainty, dynamic, pace – speed, and socio-political dimensions. Every one of them is a risk-generating factor that needs to be evaluated in the course of an exploratory analysis.

The risks are meant to be handled by the risk management of the project (PRM³), which is more and more considered to be a factor increasing the probability of the project's success (Olechowski et al. 2016), yet the usage of these techniques and tools are still rather occasional to the project managers (Raz, Michael 2002). Several techniques exist for the management of risks. Some of them can be eliminated by insurance, while others can be minimized or shared (Lewicki, McAllister, Bies 1998) by an appropriate calculation, like for example by NPV calculation (Paquin, Gauthier, Morin 2016) or by contracts (Adler, Pittz, Meredith 2016), but still there are factors that remain unmanageable. Fekete (Fekete 2009) mentions two levels of risk management:

- risk controlling, as a cause-specific measure (reducing the probability of occurrence, reducing the effect), and
- risk financing, as an effect-specific measure (insurances, contracts).

³ PRM = Project Risk Management

The companies have to create their action plan to manage risks in light of the above.

The risks can be very diverse, and there are several forms of their categorization. Renn (Renn 1998) claimed that there are technological risks created by the social environment, high-volume risks that cannot be controlled by individuals, monetary risks and risks voluntarily taken by individuals. Coenen (Coenen 2004) named five groups of risks: market risks (competition), operational risks (operation), financial risks (equity transactions, exchange rates, interest rates), environmental risks (legislation, business), and other risks (organizational structure, natural environment).

Material and method

The basis of the study is the primary research conducted in 2016, which has been carried out through a pre-tested and standardized questionnaire⁴ in Hungary. The research is still ongoing and the introduced results are only partial results, reflecting the opinion of 592 enterprises that have answered the questionnaire form. The questionnaire assessed the enterprises' point of view in three aspects: their financing, investment activity and project management. This essay is dealing with the evaluation of the results of the project part. The finalization of the questionnaire had been preceded by in-depth interviews, and then the questionnaire form was created by using the outcome of the qualitative research. The questionnaire contained only closed questions for the sake of the better assessment of the sample and the answers. There was an earlier round of the examination between 2013 and 2015, prior to the present form of the questionnaire, where the issue was assessed in the same thematic areas but with fewer questions. The sample chiefly consists of SMEs because of their weight and economic dominance. The questionnaire was filled by the enterprises completely anonymously, and their identity has not been identified in any way. Due to the segmentation of the sample, the research required only the company form, the scope of activities, the domestic property rates, and the main balance sheet and income data (net sales revenues, earnings after taxes, balance sheet total). The results are not considered representative, but they provide for the possibility of conducting and establishing a representative research at a later time as well. The sample introduced above was assessed with the help of the SPSS 19.0 and MS Excel 2010 programmes.

In the present study we examined the sample by number of employees and the sector. The composition of the sample is shown in the following table:

⁴ Hereby I would like to thank for the assistance of the students of Óbuda University, who contributed to the dissemination and filling of the questionnaires.

Table 1. The composition of the sample

Number of employees			Sector		
	db	%		db	%
below 50	478	80,7	primary	59	10,0
between 50-25	60	10,1	secondary	139	23,5
above 250	54	9,1	tertiary	394	66,6

Source: Own research, 2016, N = 592

Results

According to numerous experts, the success of a project depends on how well risks are managed. Besides financial resources, one of the greatest risk factors is represented by human resources. Although many emphasize the role of project leaders (Cassar, Martin 2016; Marnewick, Erasmus, Joseph 2016; etc.), yet we should not forget about the role of the project team and sponsors as well (Olsson, Berg-Johansen 2016; Zdonek, Podgórska, Hysa 2017; etc.).

Throughout the research I have been seeking for perceptions about the role of each specific player within a project (sponsor, creditor, project manager, project team, contractor, supplier, operator, adviser, controller and user). I have asked respondents who filled out the questionnaire to rate the players of projects on a Likert-scale from one to four based on their importance considering the success of the project, where one means the lowest level of significance, while four means the greatest level of importance. The below graph demonstrates the results:

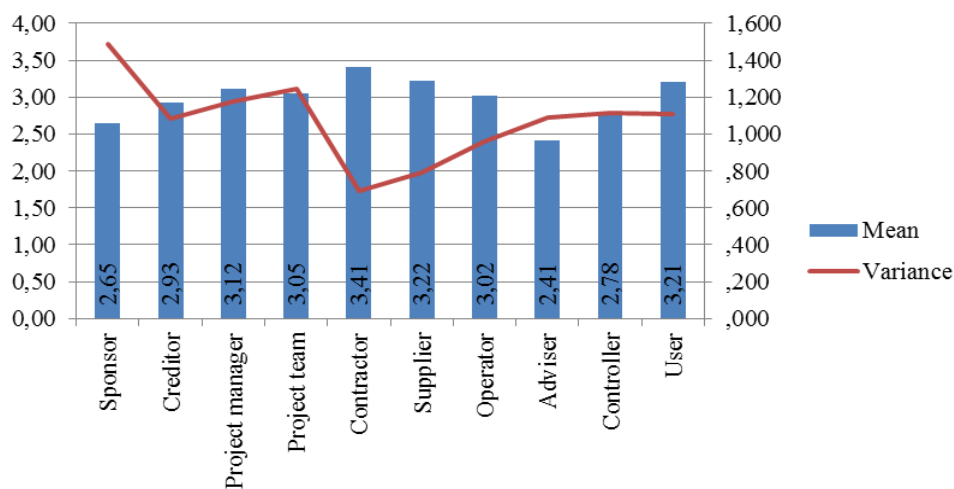


Figure 2. Appreciation of project participants in the sight of the success of a project

Source: Own research, 2016, N = 592

As it is revealed by the graph, respondents attributed the greatest role from the aspect of the project's success to the contractor, with a mean value of 3,41. It was followed by the role of suppliers, and users. As a surprise, project managers and the project team – the players considered to be the most important ones by professional literature – were only ranked the fourth and fifth places by respondents. They assigned the last but one position to the sponsor, with supervisors and controllers being one place ahead, and advisors to be the least important. It is interesting from the point of view of the project's success, because without the money of the sponsor, there would be no project, and without the help of the project manager and the project team, it would be impossible to realize the project. From the aspect of a project's success, contractors and suppliers only come next, though considering long-term success, they are of the utmost significance.

Now I shall present the results based on the segmentation criteria of the respondent enterprises, as demonstrated on the graphs.

Table 2. The opinions (means) according to the number of employees

	Under 50	Between 50-250	Above 250
Sponsor	2,59	2,70	3,20
Creditor	2,83	3,22	3,44
Project manager	3,05	3,52	3,28
Project team	2,96	3,45	3,41
Contractor	3,39	3,47	3,48
Supplier	3,24	3,20	3,07
Operator	3,03	3,08	2,85
Adviser	2,37	2,57	2,63
Controller	2,74	3,15	2,74
User	3,26	3,27	2,70

Source: Own research, 2016, N = 592

The table reveals that according to enterprises with less than 50 employees, the three most important players of a project from the aspect of the project's success, are in order the contractor, the user and the supplier. The perception of middle sized enterprises is completely different. They believe that the project manager is the most important one, followed by the contractor, and then the project team in the order of importance. It means that the importance of the project team and the project manager becomes relevant for middle sized enterprises. As to the largest businesses who have more than 250 employees, they rank the contractor to be the most important one, followed by the creditor and the project team. The project manager is not assigned a special significance here, however the creditor, as the organization necessary for the financing of the project appears here. The largest enterprises are able to realize greater investments on account of their size, which

require external sources besides their capital. If the bank does not grant the credit required for the desired project, it is already doomed.

Small sized enterprises ranked the role of advisors, sponsors and controllers to the end of the list. Medium sized businesses included operators here as well, though they believe controllers to be more important than the other three players. According to the largest enterprises, the least important players from the aspect of a project's success are advisors, controllers, and users. Which means that the largest companies fail to acknowledge users as important players of the project, since on account of the size of their projects, they regard the opinion of users to be negligible.

Afterwards, I was interested in whether I can find any kind of relation between the evaluation of players and the segmentation criteria of respondents, which is the size of the enterprise. For this purpose I have used Pearson's test, which only reveals correlations under the value of 0,05. The results are presented in the below table.

Table 3. The *Pearsons* values according to the number of employees

	Chi-square values
Sponsor	0,0093
Creditor	0,0021
Project manager	0,1021
Project team	0,0098
Contractor	0,1732
Supplier	0,0063
Operator	0,0007
Adviser	0,2364
Controller	0,0029
User	0,0000

Source: Own research, 2016, N = 592

Based on the Pearson's test, there are a number of cases which show a correlation between the size of the enterprise and the evaluation of players. From the aspect of a project's success, the perception of sponsors, creditors, the team, suppliers, operators, controllers and users are influenced by the size of the enterprise, which is clearly confirmed by the mean values presented above.

Now I shall present the opinion of enterprises based on the sector which they belong to according to the type of their activities. The results are demonstrated in the table.

Table 4. The opinions (means) according to the sector

	Primary	Secondary	Tertiary
Sponsor	2,49	2,68	2,67
Creditor	2,75	2,89	2,97
Project manager	2,78	3,06	3,19
Project team	2,90	2,92	3,12
Contractor	3,37	3,45	3,40
Supplier	3,37	3,30	3,17
Operator	3,07	3,09	2,99
Adviser	2,31	2,32	2,46
Controller	2,78	2,67	2,82
User	3,15	3,25	3,20

Source: Own research, 2016, N = 592

In line with the opinions of enterprises of the primary sector, contractors and suppliers were selected as the most important players from the aspect of success. They both have a mean value of 3.37. They are followed by the user, and the operator. In case of enterprises in the secondary sector, again the contractor is ranked the highest, then comes the supplier and the user. The players at the first three places are almost the same as in the previous case. However, tertiary enterprises believe that the role of project managers are also important, though only at the third place. It is remarkable that enterprises from the secondary and tertiary sector consider supervisors, controllers, sponsors and advisors to be the least important, yet without sponsors, the project cannot even be launched, while controllers contribute to the fact that the project is completed in the quality and condition required for its milestones. In case of primary enterprises, creditors are ranked lower than sponsors, which means that for companies operating in the primary sector, financing is less important, since they mainly complete their projects financed from their own resources.

Afterwards I have again analysed the statistical correlation between the players of a project and the sector with the help of the Pearson's test, which is presented in the table below.

Table 5. The Pearson's values according to the sector

	Chi-square values
Sponsor	0,0050
Creditor	0,5230
Project manager	0,0011
Project team	0,1332
Contractor	0,0494
Supplier	0,0640
Operator	0,1062
Adviser	0,7469
Controller	0,6815
User	0,9413

Source: Own research, 2016, N = 592

The table shows that in this case, the number of actual correlations regarding the perception of players are much lower compared to the previous case, which means that the criteria of belonging to a sector does not influence the evaluation of players.

Conclusions

Overall, based on the results of the research it is obvious that despite the general assumption, the project manager and the project team are not as important as they claim to be by professional literature. It is also interesting to see that the greatest risk factor, which is financing is also considered to be unimportant according to respondents, meaning that the success of a project is not defined by the financing provided by the sponsor or creditor. On the contrary, the emphasis is placed on the actual implementation, the contractor and the supplier. It can be explained by the fact that the technical failures caused by the negligence of contractors make the physical use and long-term viability of a project more difficult or even inhibit it. A poorly executed project consumes a great amount of resources, which is not provisioned for by the players of the project when it is launched. By examining the results of the research it becomes apparent that the careful selection of the contractor and the supplier vouches for the efficiency of a project. A reliable contractor paired with a reliable supplier are able to determine the success of a project. A good project manager and the related project team can only further guarantee this success. However, we should not forget about those who provide the necessary financial background as well, which means that the desire of creditors and sponsors should also be taken into account. The fact that controllers are not regarded to be significant for the success of a project might be problematic. Whereas, controllers are the actors who – in possession of all the necessary

information – are able to make alerts about potential errors, delays, which can be revised, corrected in due course, before the delivery of the project. The results of the research reveal that a slight change should be applied in the basic way of project thinking. The general criticism which claims that one third of projects are not implemented in time, within the previously specified budget with the desired level of efficiency, which means that they are not able to meet the three classic requirements of a project, is entirely confirmed by the research. In the future it is worth placing a greater focus on players who are neglected in the replies of respondents. Therefore besides financing, controlling and feedback are also important, in order to be able to learn from these in the future, and to avoid making the mistakes which already foredoom a project to failure.

Literature

1. Adler T.R., Pittz T.G., Meredith J. (2016), *An Analysis of Risk Sharing in Strategic R&D and New Product Development Projects*, "International Journal of Project Management", Vol. 34, No. 6, p. 914-922.
2. Bernstein P.L. (1998), *Szembezállni az istennel – A kockázatvállalás különös története*, Panem, Budapest.
3. Cassar R., Martin H. (2016), *How to Choose a Project Manager under Uncertainty*, [in:] Chan P.W., Neilson C.J. (eds.), *Proceedings of the 32nd Annual ARCOM Conference, 5-7 September 2016*, Vol. 2, Association of Researchers in Construction Management, Manchester, p. 619-628.
4. Chapman R.J. (1998), *The Effectiveness of Working Group Risk Identification and Assessment Techniques*, "International Journal of Project Management", Vol. 16, No. 6, p. 333-343.
5. Coenen M. (2004), *Risikomanagement und Risiko Controlling im RWE-Konzern*, "Controlling", Vol. 16, No. 2, p. 97-102.
6. Csiszárík-Kocsir Á., Szilágyi T.P. (2016), *A beruházás gazdaságossági számítások elterjedtsége a hazai kkv-k körében*, Vállalkozásfejlesztés a XXI. században VI. – Tanulmánykötet, Óbudai Egyetem, Keleti Károly Gazdasági Kar, p. 39-52.
7. Fekete I. (2009), *Folyamat alapú működési kockázatelemzés – kockázatelemzés alapú belső ellenőrzés*, "Egészségügyi Gazdasági Szemle", évf. 6, p. 5-10.
8. Geraldi J., Maylor H., Williams T. (2011), *Now, Let's Make It Really Complex (Complicated)*, "International Journal of Operations & Production Management", Vol. 31, No. 9, p. 966-990.
9. Hillson D. (2002), *Extending the Risk Process to Manage the Opportunities*, "International Journal of Project Management", Vol. 20, No. 3, p. 235-240.
10. Knight F.H. (1921), *Risk, Uncertainty and Profit*, Hart, Shaffner & Marx, Houghton Mifflin Company, Boston.
11. Lewicki R., McAllister D., Bies R. (1998), *Trust and Distrust: New Relationships and Realities*, "Academy of Management Review", Vol. 23, No. 3, p. 438-458.
12. Marnewick C., Erasmus W., Joseph N. (2016), *Information Technology Project Managers' Competencies: An Analysis of Performance and Personal Competencies*, AOSIS, Cape Town.
13. Olechowski A., Oehmen J., Seering W., Ben-Daya M. (2016), *The Professionalization of Risk Management: What Role Can the ISO 31000 Risk Management Principles Play?*, "International Journal of Project Management", Vol. 34, No. 8, p. 1568-1578.
14. Olsson N.O.E., Berg-Johansen G. (2016), *Aspects of Project Ownership in Theory and Practice*, "Procedia Computer Science", Vol. 100, p. 790-795.

15. Paquin J.P., Gauthier C., Morin P.P. (2016), *The Downside Risk of Project Portfolios: The Impact of Capital Investment Projects and the Value of Project Efficiency and Project Risk Management Programmes*, "International Journal of Project Management", Vol. 34, No. 8, p. 1460-1470.
16. PMI (2013), *A Guide to the Project Management Body of Knowledge*, Project Management Institute, Pennsylvania.
17. Raz T., Michael E. (2001), *Use and Benefits of Tools for Project Risk Management*, "International Journal of Project Management", Vol. 19, No. 1, p. 9-17.
18. Renn O. (1992), *Concept of Risk: A Classification*, [in:] Krimsky S., Golding D. (eds.), *Social Theories of Risk*, Praeger, Westport, p. 53-79.
19. Renn O. (1998), *Three Decades of Risk Research: Accomplishments and New Challenges*, "Journal of Risk Research", Vol. 1, No. 1, p. 49-71.
20. Ulbert J., Csanaky A. (2004), *Kockázateészlelés és kockázati magatartás*, "Közgazdasági Szemle", évf. 51, sz. 3, p. 235-258.
21. Zdonek I., Podgórska M., Hysa B. (2017), *The Competence for Project Team Members in the Conditions of Remote Working*, "Foundations of Management", Vol. 9, p. 213-224.
22. Zhao H., Seibert S.E. (2006), *The Big Five Personality Dimensions And Entrepreneurial Status: A Meta-Analytical Review*, "Journal of Applied Psychology", Vol. 91, No. 2, p. 259-271.
23. Yan F., Härdle W., Wang W., Zhu L.X. (2016), *Composite Quantile Regression for the Single-Index Model*, "Journal of Business Economics and Statistics", Vol. 57, Issue 1, p. 185-203.

CO DECYDUJE O SUKCESIE PROJEKTU? – ROLA UCZESTNIKÓW PROJEKTÓW WEDŁUG OPINII WĘGIERSKICH SPÓLEK

Streszczenie: Inwestycje są jednym z głównych elementów wzrostu gospodarczego państwa i jednocześnie decydującym czynnikiem jego rozwoju. Wiele przedsięwzięć jest przerywanych już na samym wstępie procesu planowania inwestycji. Metodologia przedstawiona w artykule pokazuje strategię efektywnego wspomagania przebiegu projektu, związanego z inwestycją, tj. jego realizację w założonym czasie i przy planowanych kosztach. Głównym celem artykułu jest zatem określenie uwarunkowań decydujących o powodzeniu w realizacji zamierzeń inwestycyjnych.

Słowa kluczowe: inwestycje, sprawność inwestycyjna