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## **THE IMPORTANCE AND FULFILLMENT OF THE SUCCESS CRITERIA IN PROJECTS IMPLEMENTED BY SMALL AND MEDIUM-SIZED ENTERPRISES**

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### **Abstract**

*Projects have become key players in national economies today. Projects are concrete manifestations of investments, there are no investments without projects, and without them the economy cannot grow substantially. The investments are so important in national economies as well. Investments are the main components of the gross domestic product, so they are the promoters of growth. However, projects are unsuccessful in many cases, because they aren't prepared in time; don't achieve the required performance they expect from them. A common cause of project failure is a poor planning process, budgetary problems, the missed investment calculations, or the omission of sustainability, relevance, and feasibility. These expectations are expressed in every project management course, all of the literature dealing with the projects, but the project actors don't give the required relevance to them. The success of the project is contributed by many factors, among which are supporting, and hindering ones. Based on a classical project triangle, the key factors lead to the successful project are time, cost and*

*effectiveness, these are the main project baselines. 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 show the Hungarian SME's opinion about the success factors, to pay attention to the critical areas in the project management as well.*

### **Keywords**

Iron Triangle, Investments, Primary Research, Project Success

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## **1. Introduction**

Project are key-players in our everyday life. We can find projects in our private life, in our workplaces, and in the school as well (Lang, 2017). The success of the projects is a complex and complicated concept (Pinto-Slevin, 1989). In many cases, the key to success of the project lies in the combination of organizational, technical, psychological and sociological elements. The support of the project promoter organization, the commitment of the project stakeholders, is able to carry out a project in accordance with the goals set. The project is always a temporary organization, with a number of constraints and heterogeneous members, which is why the organization provides a supportive atmosphere. The success of the projects is still measured with the classic iron triangle, which is the decisive axis of every project (Shenhar et al., 1997), but their importance for each project and organization is different. Shenhar and Dvir (2007) define the success factors of the projects along five key factors:

Projects are always temporary arrangements that are established for pre-set objectives. Project managers and the project team are the responsible groups measuring the success. The success means the eligible deliverable accepted by the stakeholders (Netto – Raju, 2017). Success for a project means achieving the objectives, but the road to success is paved with various risks and difficulties. Therefore in many cases the expected success of a project turns into failure. Several organizations have already tried to estimate the number of unsuccessful projects. An organization called Wellingtone (n.d., a.) defined the project as such a change-inducing endeavour that has to meet three criteria for the sake of success:

- Alignment to the strategy of the project promoter,
- Must have priority over other initiatives, which are in competition with the project for scarce resources,
- Must have a positive impact in the future.

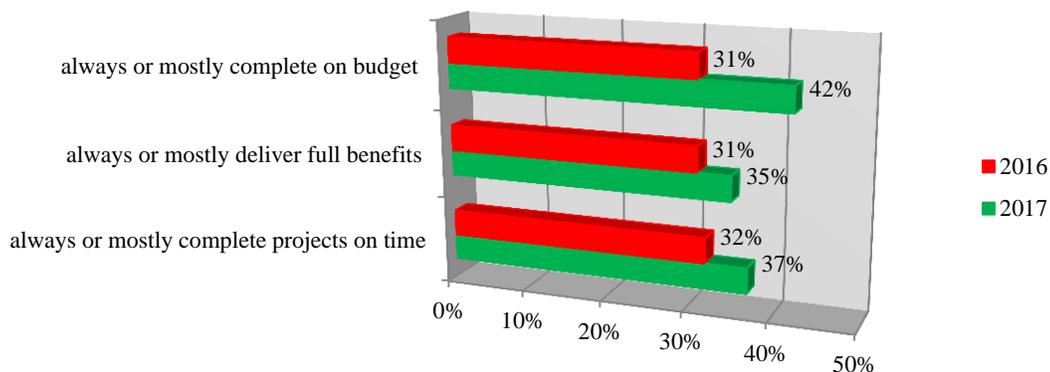
Based on some surveys, 70% of the projects fail due to inadequate planning. The most common mistakes are the underestimation of the budget and the insufficient management of risks. The failed projects will not be able to contribute to the increase of the investment ratio and to the promotion of the economic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

The above cited organization also interpreted success in three dimensions:

- Successful project management that is capable of delivering the predefined result on time and within the budget, in which setting up the correct milestones has a huge role,
- Successful project, which reaches the pre-set business goals,
- Successful enterprise, which is able to approach the strategic goals, meeting the expectations of all actors (owners, managers, employees, other stakeholders).

The organization provided methodological recommendations as well (n.d., b.) for the sake of achieving the project's success. Based on their theory there are six steps leading to the success of the project: preparation, planning, communication, monitoring, controlling and review.

The annual project management survey conducted by the organization examines the key factors along the project characteristics, through which success is measureable and the tendencies can be determined too. The results are summed up in the diagram below.



**Figure 1:** *The performance of the project success criteria (Source: Wellingtone, 2016, 2017)*

As the chart shows, there has been a significant improvement in the success features of projects: while in 2016 only one-third of the projects had been carried out on time and within the budget under the given performance characteristics, a year later this proportion was notably

above 35%. All this was due to the better project management, the more thorough planning and the more conscious application of the project management methodologies.

According to Pinto and Slevin (1988) the success of a project also highly depends on how well it can be implemented into the project promoter organization. This process almost always hinges on the successful implementation of three factors: the technical and organizational validity, and the organizational efficiency. Afterwards they defined the criteria of project success too from the perspective of the project and the client. In order to carry out successful projects, on the project part there are always three factors that need to be carefully and accurately determined: time, cost and efficiency, which became known as the classic project triangle or iron triangle. From the client's point of view usability, efficiency and satisfaction are the success factors.

The success of the projects can only be measured by the clear definition of the success criteria. Görög (2008) defined the success criteria as such benchmarks that give an unequivocal answer to whether the project was successful or not. The success criteria can also be defined by certain indexes that are called key performance indicators (KPI) in the literature. This method is applied in the projects in a way that the indicators and the related minimum acceptable ratings are established at the planning stage (Toor – Ogunlana, 2010), and the success of the projects is measured against their fulfilment. The KPI method can be excellently used in projects where the objectives are quantitative, meaning that they are measurable and analysable. The method is hard to use in the case of outputs that are difficult to measure, due to the lack of measurable performance.

According to De Wit (1988) the success of a project can be measured from two aspects, the success of the classic project triangle or project management, and the success of the project itself. The latter can be best defined by the satisfaction of the users. Baccharini (1999) continued De Wit's theory and said that the success of a project is basically the success of the product and the project management together. Baccharini's theory also referred to the project triangle, and turned to user satisfaction with regard to the product success. Both recently introduced theories are described as two-dimensional. Görög (2007) measured project success in three dimensions. The iron triangle being the starting point, he considered organized satisfaction to be the criterion of success, in addition to the satisfaction of the stakeholders. Bannermann (2008) interpreted project success in several dimensions. The forms of success can be:

- Success of the project management, which can be measured via the implementation of the above mentioned project triangle, and it is the most often used criterion. However, this success factor has many limitations. It is criticized by its opponents mainly for putting the primary focus on the assets of the project, while disregarding the purpose it was created for.
- Success of the product, which includes satisfaction with the end product of the project, usability and quality as well, based on the factors of the iron triangle.
- Business success, which – on top of the success of the project management – also takes into consideration how the project, carried out on the basis of the triangle, will be able to be integrated into the organization and what kind of benefits it will bring to the organization.
- Strategic success, which is integrally linked to the previous criterion and underlines the long-term utility and developmental role of the project in the long term.
- Success of the process, which is the most neglected criterion and describes the success of the path towards the objective. For the sake of the full implementation of this process, the organization needs to make serious efforts so that the project can meet its target.

Fortune and White (2006) also dealt with the identification of success criteria. As a result of their extensive researches they found that there are five crucial areas in the projects that are of particular relevance on the road to success, which are the followings:

- Clear-cut objectives (scope),
- Clear, detailed, up-to-date plans (plan),
- Communication with the stakeholders,
- Support of the management, and
- Involving the client/user from the start.

Shenhar and Dvir (2007) define the project success via five key factors:

- Project efficiency (meeting budget and schedule goal),
- Team satisfaction (moral, skill development, team growing, team retention),
- Customer's impact (meeting with functional requirements, meeting with technical requirements, fulfilling customer's needs, problem solving, satisfaction),
- Business success (commercial, market share increasing),

- Preparing for the future (reaching a new market, creating a new product line, developing a new technology or method).

Serrador (2018) highlighted the importance of project climate for the success of projects. In his model, the elements of the supporting organizational environment include the followings:

- Supporting senior management, who prioritize the project,
- Sufficient resources (budget compliance, appropriate and available staff resources),
- Willingness and ability to adapt novelties and changes.

These factors work together on classical project triangle elements and the success criteria formulated by stakeholders. It can be seen from the above literature that project success can be defined by a lot of factors. However, we mustn't forget the basic principles suggested by the classic iron triangle, namely that a project cannot be successful if it does not meet the characteristics set in the triangle, nor if it overachieves them. These are only supplemented by the other criteria, so that the projects could reach their objective for the sake of the organization and the clients.

## **2. Material and Method**

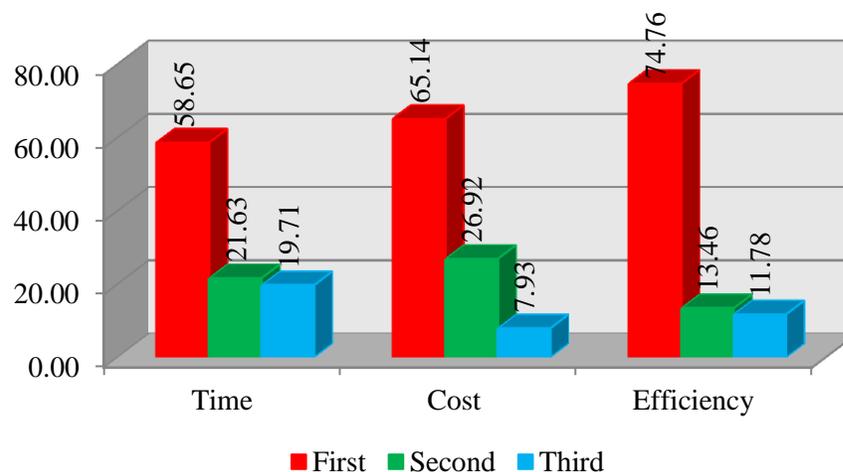
The research results introduced in this study are part of a primary questionnaire research conducted in 2017. The research was carried out in Hungary with the help of a pretested and standardized questionnaire form. The present research was preceded by a previous survey among enterprises, which had been preceded by an in-depth interview analysis. The present questionnaire form was created as a result of these two former rounds, and it was a complex questionnaire, covering the financing and investment activity of the enterprises. The survey paid special attention to the enterprises' project management and project financing practices as well. During the research we received 521 questionnaires, but only 416 of them were assessable enough to be included in the sample. The results of the research are presented in this study based on the employment figures of the responding enterprises. The composition of the sample is illustrated in the below graph.

As it is shown, the majority of the sample, 85%, comprised of smaller enterprises with less than 50 employees, which meant 355 enterprises. The proportion of the medium-sized enterprises was 9% (38 enterprises), while the larger companies had a percentage of 6% (23 enterprises), therefore it can be established that the results presented in this study introduce the

possible ways of the achieving the success criteria mainly from the aspects of the small and medium-sized enterprises.

### 3. Results

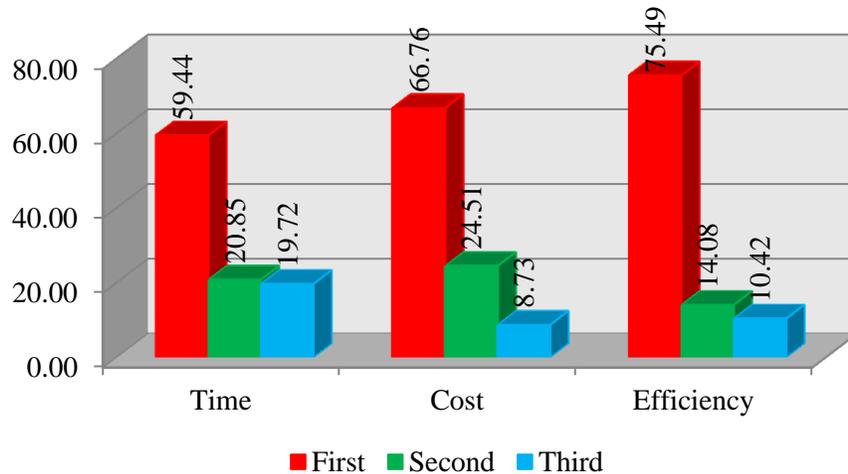
The companies in the sample were asked to rank the classical project triangle elements based on their value judgment. The figure below shows the weight of each of the triangles in the project activity of entrepreneurs. It can be stated that the criterion of efficiency became the strongest, as the respondent enterprises considered this to be the most important (75%). The cost received less support from the point of view of the first place (65%), and surprisingly it was the time that was most divided. Based on the opinion of Hungarian responding companies, it can be said that the two well-planned items are behind the efficiency. It can be said that the output of the project is the focus, as money and time can be pushed and raised.



**Figure 2:** The evaluation of the elements of the project triangle (Source: own research, N = 416)

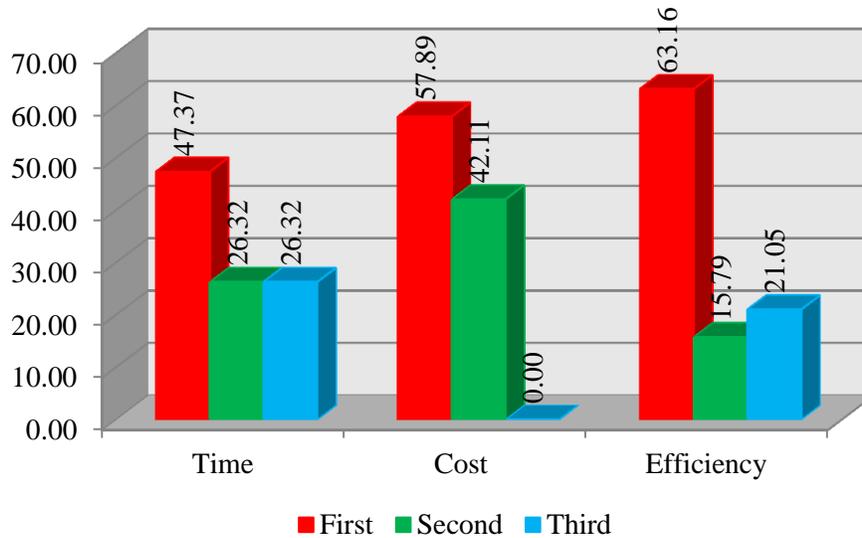
Let's look at how the views of businesses are affected by the size of the cause. Based on the description of the sample, it can be seen that the smallest, under 50 employees companies are those who are overly represented, so their views are very similar to those of the average sample. For the smallest companies, the performance aspect is even more pronounced. The same applies to the other criteria. Cost constraints were ranked in the third lowest position, while the second were ranked in the highest proportion for the three criteria. It can be said that the smallest companies, who are more vulnerable to their capital and market bargaining power, pay close attention to the result that the project creates. Since they don't have a large budgetary

margin, it is also important for them to implement the project within the budget envisaged. They are more flexible over time, they are ranked it second in about 20-20 percent and ranked third as shown in the figure below.



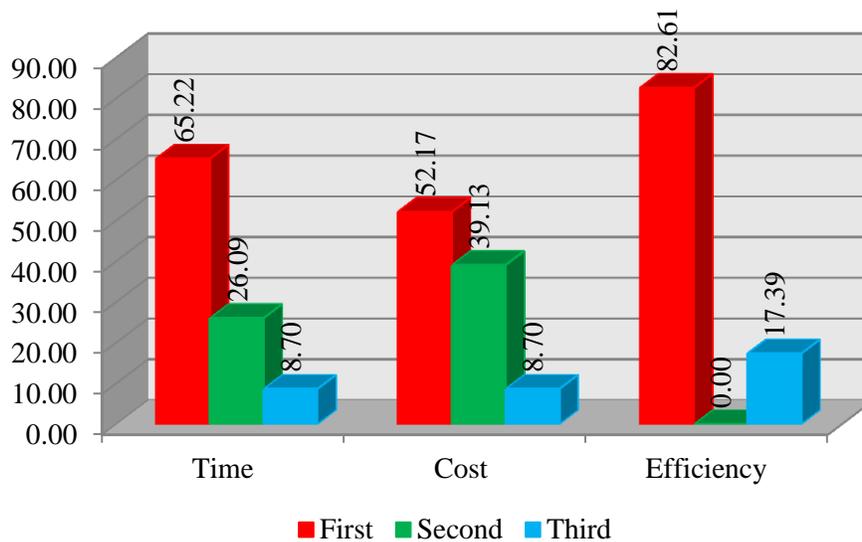
**Figure 3:** The evaluation of the elements of the project triangle by the smallest enterprises  
(Source: own research, N = 416)

Medium-sized companies with a staff of between 50 and 250 show a rather different picture. The three examined criteria shows with much less significance in the first place, and opinions are shared with the second and third places. It can still be stated that success is also the most important in our case, as 63% ranked it in the first place. This shows a 11.6 percentage point deviation from the average sample mean in the negative direction. On the other hand, the second place was ranked 2.33 and the third place by 9.27 percentage points more than the average sample rate. Again, there is a smaller proportion of costs. It was ranked 7.25 percentage points lower for medium-sized businesses, and it was 15.18 percentage points more for the second place, which is the strongest cost factor in second place. On the third place, the cost is not at all in their opinion. On this basis, it can be stated that the costs for medium-sized enterprises are much more pronounced. Again, there are huge differences in the time factor. Firstly, this criterion was ranked at a much lower percentage, 11.29 percentage points less, while the second and third responses were 4.68 and 6.6 percentage points lower than the average sample. It can be stated that medium-sized enterprises may already have bigger projects, with greater resources and more work. They therefore emphasize their cost criteria and efficiency. Time for them is the factor that they can handle more flexibly, they are ranked it back in the ranking of the criteria, as shown in the figure below.



**Figure 4:** *The evaluation of the elements of the project triangle by the medium-sized enterprises*  
(Source: own research, N = 416)

The most varied image is shown by the largest companies. In the opinion of over 250 employees companies, success is the most important, , 83% made it in the first place. In their opinion, this could not be the second place, as no value was added. There is a huge difference in their view of the cost aspect as well. 12.97 percentage points less put the cost of these businesses to the first place but it is 12.21 percentage points higher than the second place. From time point of view, other results have also been shown. Time is ranked first at 65%, which is 6.56 percentage points higher than the average sample. In the third place, the same aspect was marked in the lowest proportion. For the largest companies, the order is reversed, after the success they put the time in the first and the costs to the last place. This is because these businesses are attractive to banks, with wealth, stable income, markets and market power. Credit-friendly targets for the banking segment, but also to the capital market sources are easier to access than the smallest businesses. Therefore, in many cases, the creation of resources is not a problem, so they put this element of the iron triangle into the last place. In general, major projects are carried out, where time slipping can cause significant damage. Costs can be overruns, slips, and penalties, which is why they focus on organizing processes, efficient and effective project management. If the processes in the project slip, the whole project slips, causing consequences. That is why the time is in the second place in their case after success. From this it can be seen that the largest businesses think in a completely different dimension than their smaller counterparts, as shown in the figure below.



**Figure 5:** *The evaluation of the elements of the project triangle by the biggest companies*  
(Source: own research, N = 416)

#### 4. Conclusion and Afterword

The analysis shows that the classical flashback elements are varied in value based on the opinions of the different size companies. It can be stated that the performance-cost-time ranking is general, however, the possibility of access to this resources strongly influences. The easier it is to get the extra source for the business, the more it lays down the importance of the cost element. Compliance with the scope is everywhere important and primal. The adequacy of project results, compliance with market and stakeholder expectations is a paramount importance for all projects. Thus it can be stated that the key to the fall of projects remains in realistic planning, comprehensive search needs, with that can be reduced the proportion of projects that have been dropped or modified.

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