



## **WOMEN IN THE PROJECT MANAGEMENT**

**János Varga Ph.D**, Assistant professor; Óbuda University  
**Ágnes Csiszárík-Kocsir, Ph.D**, Associate professor; Óbuda University



SUPPORTED THROUGH THE NEW NATIONAL EXCELLENCE PROGRAM OF THE MINISTRY OF HUMAN CAPACITIES

### **Abstract**

Project management is very important element of successful companies in the 21th century. We can find different types and methods if we talk about the managing projects by firms. Nowadays managers and many professionals try to define the best solution to manage our projects succesful but it is not always too easy. There are significant differences between the management of the companies because the female leadership is often different than the leadership style of men. The succesful project and efficient project management depend on the quality of leadership, the characters of project manager and the interaction of project manager and his/her team. This study tries to answer one of the most important questions in the context of leading projects. Who is a most suitable person for this position (project manager) and how to characterize the best project manager? Are the women or men leaders better by managing projects? Is there any significant relationship between the management by projects philosophy and the gender roles? In order to prove this the project practices of the companies, the quality of their leadership and the commitment of the employees to participate in the projects have all been analysed based on a questionnaire research in Hungary.

**Key words:** *project management, leadership, questionnaire research*

**JEL code:** L2, M2

### **Introduction**

The inequalities determined the daily life of people already at the dawn of civilization. As time went on, inequalities between people appeared in various forms, since it would have been hard to put the pharaos and the slaves working on the fields, the Roman emperors and the citizens of the empire, or the monarchs and regulary people on equal terms. These were not the only forms of differences, as history provided a great diversity of examples of their presence. Imagine how equal the conquerors and the conquered, the black and white people, or the intellectuals and the workers were, or how the developed and undeveloped countries, the rich and the poor, the locals and the migrants, and last but not least the men and the women can be viewed in the same manner.

There is a constant fight against inequalities. Basically our history and development have been defined by it, and what's more, according to certain experts – like Yuval Noah Harari – the inequalities have even induced development and shaped our history (Harari, 2012). Just think about all the events that occured against the repression, for the sake of acquiring basic human rights or in the hope of a better life, etc. Series of revolutions, wars and new laws indicated that people were fighting to end the inequalities, but on the other hand there were several events that actually enhanced them, like for instance slavery, conquests, colonialism or globalization. The same double standard can be detected these days too, because while people of the modern era try to eliminate the inequalities, numerous economic and cultural factors are still maintaining these differences.

**Varga János, Csiszárík-Kocsir Ágnes**



Are we really equal, or are we only able to talk about this in a restricted sense? In fact, what is equality and can it be well-defined? The subject of this study is not the definition of inequality, and it does not deal with the reasons of its development either. Inequalities take several forms today as well, and they are apparent economically, culturally and socially too. The present study is looking for the answers to whether these differences can also be discovered in the field of project management, whether there is a distinctness between male and female project leaders, and how the participation of women in projects have changed in the past decades. In order to answer these questions, many research materials have been viewed over that can prove the two essential hypotheses of the study right or wrong.

*H<sub>1</sub>: We made the assumption that practically there is no difference between male and female project leaders. The successfulness of a project is not determined solely by whether a man or a woman is responsible for the project management. Women can be just as good project leaders as men. The project success is not subject to the gender of the project leader, but much rather depends on the leader's abilities, expertise and people-centred approach.*

*H<sub>2</sub>: It can be assumed that men still have a dominant role in project management, although in the last decade many efforts have been made to reduce the inequalities between men and women. There is hardly any industry – or none at all – in which the management of the projects is carried out mostly by women. It can be stated that project management is still a masculine profession.*

For the sake of examining these hypotheses, the results of secondary researches dealing with the situation of women or with their role in project management have been reviewed and summed up. In our hope these results will be able to conclude and highlight the accuracy of the above hypotheses. The subject seems to be of a particular relevance because project management and the implementation of successful projects might serve as a serious source of competitiveness for the companies.

### **Research results and discussion**

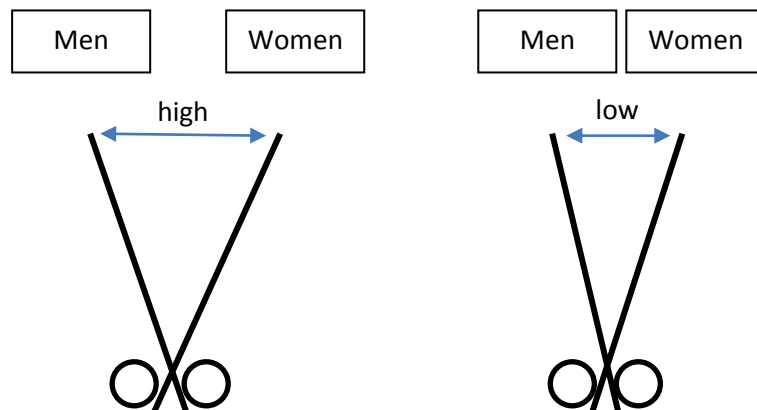
One of the most straightforward manifestations of the inequalities can indeed be detected in the differences between men and women. Albeit we might think that in the 21<sup>st</sup> century there is no substantial disparity between men and women, but the truth is that it can be at present in numerous countries markedly.

Women constitute half of the population, yet gender equality still doesn't apply in reality in many aspects. We can't talk about substantive equality on the labour market either. The position of women in the workplace hierarchy can be described as the lower the level of the occupation is, the more women we find in jobs with lower salaries and lower prestige (this is known as occupational segregation), while the incredibly low percentage of the female executives suggests vertical segregation within the organization (pályázat.gov.hu, 2009).

The World Economic Forum also draws the attention to gender inequality. In its annual publication it ranks the countries on the basis of how successful they can be considered in reducing inequalities between genders. The publication of the WEF – Global Gender Map Report – points up unfortunate facts. Among the examined 144 countries there are several



where even the interpretation of gender inequality is very problematic, since they don't grant basic rights to women with regard to for example political activities or social commitments. In 2016 the Global Gender Map Index set up a ranking of the examined countries through the assessment of four subindexes<sup>27</sup>. The WEF mentions that there are only five countries on the list that have managed to create the tiniest difference between men and women. According to the WEF's report, gender inequality resembles to a pair of scissors. The wider it opens, the bigger the gap is between men and women.



*Source: author's construction*

**Fig. 1. Inequality scissors between men and women**

When the scissors close completely, there is a perfect equality between the genders. In its report the WEF ranks the countries based on ratings from 0 to 1, where one stands for perfect equality (100%) and zero shows inequality. The international organization emphasizes that only five countries were able to provide equality between men and women in a rate higher than 80%, therefore in their case the scissors of equality opens the least. It is quite interesting that many European countries are situated in the middle of the list, which certainly does not indicate that men and women receive equal treatments in these states. It is clearly demonstrated on the following table.

<sup>27</sup> Economic Participation and Opportunity Subindex, Educational Attainment Subindex, Health and Survival Subindex, Political Empowerment Subindex



Table 1

**Ranking of certain countries in 2016 according to the Global Gender Map Index**

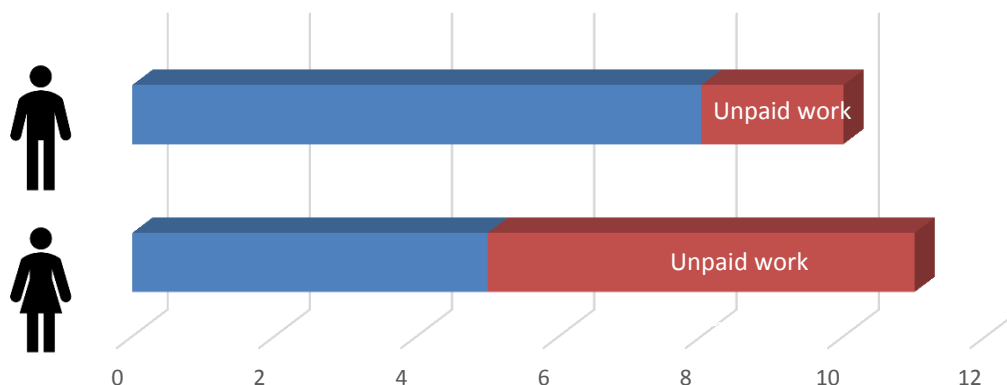
Rank	Economy	Score
1.	Iceland	0,874
2.	Finland	0,845
3.	Norway	0,842
4.	Sweden	0,815
5.	Rwanda	0,800
13.	Germany	0,766
18.	Latvia	0,755
20.	Great-Britain	0,752
45.	USA	0,722
101.	Hungary	0,669

*Source: author's construction based on WEF Global Gender Map Report  
Number of examined countries in the list: 144*

It can be noted about the countries of the European Union that there are differences between the constituent states of the integration regarding not just competitiveness or incomes, but in connection with gender disparities as well. We can see from the numbers of the table that Germany and Great Britain are much higher on the list than the also EU-member Hungary. From the aspect of the future development of the EU, the member states must endeavour to convergency in an economic, social or cultural viewpoint too, hence a great deal of measures would be needed to lessen gender inequality.

The WEF report detects gender inequality not just in relation to the countries. The best proof of this is the statement of the international organization, claiming that women work significantly longer hours during their workday, yet they don't receive the same remuneration for the same work as men (Figure 2.). It is a lot harder for women to get promoted, as the higher we look on the employment hierarchy the fewer women we find in decision-making positions.

Nancy Adler said that women would be just as qualified to be executives of international companies as men. Adler's researches also confirmed that it is a mistaken belief that women do not want to work in international positions. On the contrary. According to Adler, 2/3 of the women with MBA degrees would love to take jobs in another country. It is, however, a completely different story what opportunities can develop for a woman to hold an executive position as the leader of an international organization even. Experience has shown that the majority of these positions are rather filled with men (Adler-Izraeli, 1996).



Source: author's construction based on WEF Global Gender Map Report

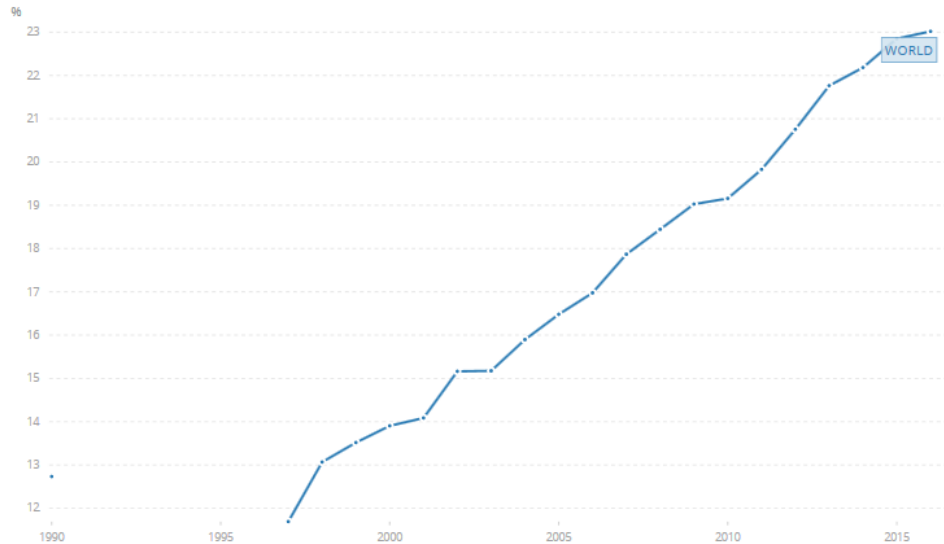
**Fig. 2. Working day for men and women**

We can make a similar point about political participation as well. Based on the database of the World Bank, after the middle of the 90s there has been a tendency towards the enhanced participation of women in political decision making. Nevertheless, not every country contributed to this development equally. In certain countries exponentially more women are holding political positions than ten years ago, but there are countries where the role of women in politics has not changed considerably.

Table 1 illustrates the spots of a few chosen states from the ranking made on the basis of the World Economic Forum Global Gender Map Index. The research analysing 144 countries disclosed that equality can be deemed the highest in Iceland. As reported by the World Bank, in that country women account for nearly 50% of the political decision makers this year. There is also a close correlation between gender equality and participation in politics in the case of countries like for instance Rwanda and Hungary too. In a big surprise, Rwanda occupies the illustrious fifth position according to the Global Gender Map Report. The World Bank puts Rwanda among the countries where the role of women in politics has improved the most. This is readily illustrated on Figure 4, which marks Rwanda with green. The graph shows that in that country the proportion of women in the national Parliament is higher than 60%. Hungary, on the other hand, that is also a member of the European Union, is only 101<sup>st</sup> in the Global Gender Map Report in the opinion of the World Economic Forum, and as Figure 4 demonstrates, the political participation of women is by far the lowest as well among the examined countries. Obviously gender inequality is not solely determined by the political participation, but the connection is clearly detectable.

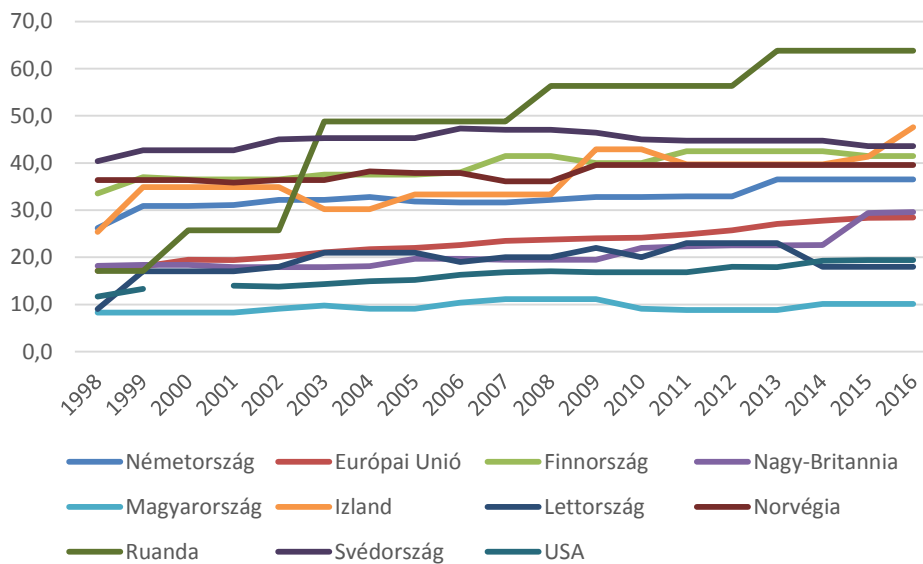
On top of the study of the World Economic Forum<sup>28</sup>, the inequalities between men and women could be explained by other researches and results as well, but it is not the goal of this study to give further proofs to confirm these disparities.

<sup>28</sup> <http://reports.weforum.org/global-gender-gap-report-2016/>



Source: The WorldBank Group database

**Fig. 3. Proportion of seats held by women in national parliaments (%) (all over the world, 1996-2016)**

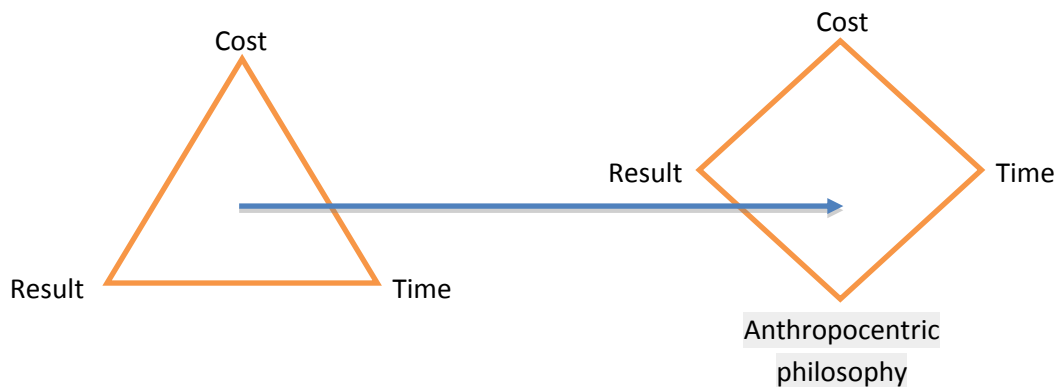


Source: The WorldBank Group database

**Fig. 4. Proportion of seats held by women in national parliaments (%) (country comparison, 1998-2016)**



The question is whether gender inequality is present in the field of project management too, and whether women are better or worse project leaders than men. This is why the below international research results have been reviewed and summarized. In the traditional approach project success means that the execution of certain projects is achieved by the simultaneous fulfillment of the cost-time-result (quality) requirements. These three factors are sometimes referred to as the criteria or golden triangle of a successful project. Today, however, it can be stated that in addition to the above three conditions, being people-oriented is just as important condition of success, since most of the problems might actually occur during the implementation of the project and most of the times they are based on human factors. The modern way of thinking gives way to the supplementation of the golden triangle of success by a fourth dimension, which could not be else than people-orientation.



Source: author's construction

**Fig. 5. Project gold triangle versus Project gold quadrangle**

A project management survey from 2016 reveals how crucial it is for the success of the project to be people-oriented. The survey conducted by Ernst and Young in Hungary<sup>29</sup> names all the factors that can be blamed for the failure of a project in the first place at the examined companies. According to EY the following factors result in the failure of a project:

Table 2

<b>Factors determining the unsuccessfulness of the projects</b>
Change in the project extent („scope“)
Underestimating the costs/deadlines and too optimistic planning
<b><i>Insufficient support from the senior management</i></b>
Misunderstanding about the end product of the project
<b><i>Change in the circumstances</i></b>
<b><i>Insufficient resources/resource-coordination</i></b>
<b><i>Personal resistance, non-acceptance of changes</i></b>

Source: author's construction based on Ernst and Young Report 2006

<sup>29</sup> <http://www.pmi.hu/index.php/publikaciok/felmeresek/89-pm-felmeres-ernst-young>  
**Varga János, Csiszárík-Kocsir Ágnes**



In the above table the factors that should be solved or dealt with by the project managers are in italics. The rest of the factors are considered to be caused by unsatisfactory project planning. It becomes clear that among the factors causing unsuccessfulness there are quite a few that can be put down to inadequate project management or inadequate project environment. A good project manager is incredibly important to achieve success, as it is mentioned by the EY research as well. In its summarizing study the organization highlights the project leadership skills and points out that most of the companies hire full time project managers to lead the projects. The majority of the respondents said that most of the times the project managers have relevant knowledge and experience regarding the subject of the project, but a lot fewer of them think that they possess sufficient project management abilities and experience (EY, 2006).

All in all, the success of the projects highly depends on the supporting corporate culture and on the identity of the project leader too. The project team that carries the project out could face various problems and changes during the implementation process. Managing changes, maintaining motivation, handling conflicts, keeping the deadlines and other similar tasks make the right project manager stand out. A good project manager can do a lot in order to keep the workteam together, make the relationship and activity harmonious of the ones involved in the project, motivate the workers with his/her personal energy and manage the processes of the project through a people-oriented approach in a way that can truly stimulate the relevant people to perform better. Project work is always about the cooperation of individuals, and enhancing the effective cooperation proves to be just as significant success factor as the previously mentioned fulfillment of the cost-time-result requirements. The success of the project demands the effective cooperation of the people involved in the project, and who the project leader is can tremendously contribute to this. The only remaining question is whether male or female project managers are able to keep the team together better and whether the gender of the project leader makes any difference with regard to the efficiency of the project team.

Although the significance of project management has greatly increased after the 1990s in the world, in Hungary such comprehensive researches that would analyse the role of women in project management still have not been conducted. There were smaller initiatives to examine the project management practices of the organizations, like for example by the Hungarian Project Management Association<sup>30</sup>, but notable results have not been published about women taking positions in project management.

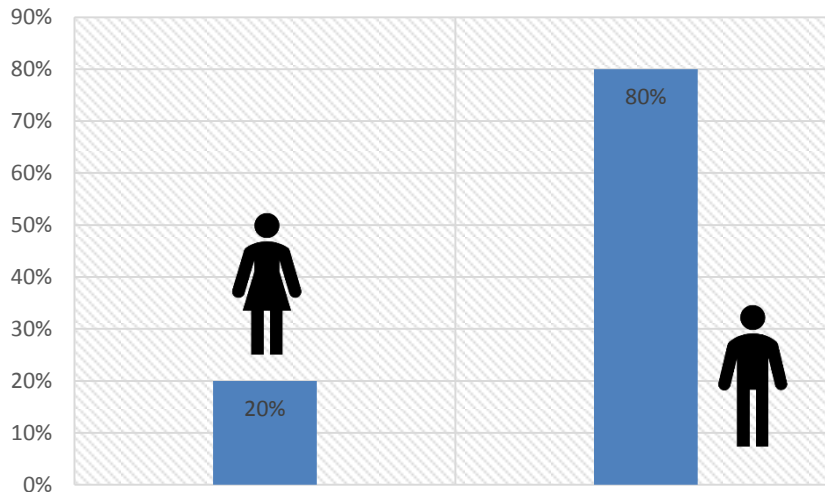
The international organizations are paying a lot more attention to gender inequalities in project management as well. According to the studies of the Project Management Institute (PMI) there is significantly higher percentage of men than women in the projects, although the international organization did note that this ratio is different in each country. This is strongly related to the country-specific<sup>31</sup> cultural features too, since for instance in the Arab countries the participation of women in project management is much lower than in the Western-European states. The results of the PMI (2015) well reflect that on an average basis the 20/80 rule applies here as well, which means that – on average – women are four times underrepresented in the projects than men.

---

<sup>30</sup> PMSZ

<sup>31</sup> the number of examined countries was 36, the number of approached project managers was 26.000





Source: author's construction based on PMI 2015

**Fig. 6. Participation of men/women in project management (%)**

In 2014 the Institute of Project Management in Ireland published research results in which it checked the proportion of men and women attending project management courses. The analysis showed that 41% of the participants in courses were women and 59% of them were men, therefore men were still in the majority, but the percentages had begun to get closer together (Ryan, 2014).

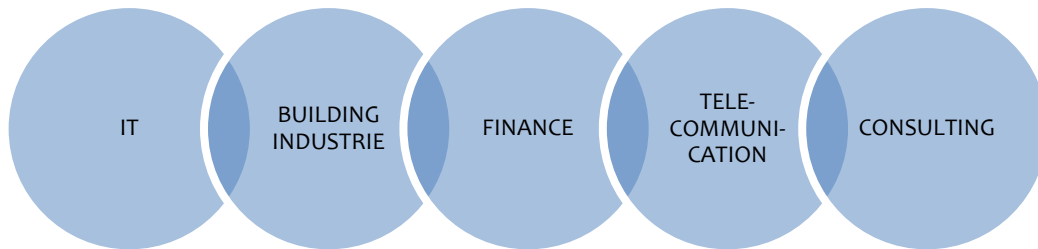
On the other hand, the research results claim that in the past decade there have been more and more industries where the number of female project managers has grown<sup>32</sup>. Among these, communications, information technology, construction, consultancy and financial services can be underlined. The above cited research of Ernst and Young from 2006 already came to the conclusion that in Hungary these industries were the ones with the highest project intensity<sup>33</sup>. The majority of the organizations operating within these sectors carry out at least ten projects per year, and one project manager has to lead and manage up to 3-5 projects at the same time (EY, 2006). Former studies<sup>34</sup> confirm that women are usually able to concentrate on several things simultaneously<sup>35</sup>, whereas men can typically focus on only one thing at a time. If we only considered this factor then we could declare that women would be better project leaders, because they are able to keep an eye on multiple project tasks with higher efficiency. However, this alone is not enough to deem them better project managers.

<sup>32</sup> research of the Association of Project Management (APM)

<sup>33</sup> project intensity: number of projects carried out during a given period of time. The more projects are carried out in an industry or by a company, the higher the project intensity is considered to be

<sup>34</sup> According to American studies the reason for this is that between their two cerebral hemispheres there are a lot more sensitive nerve fibre connections.

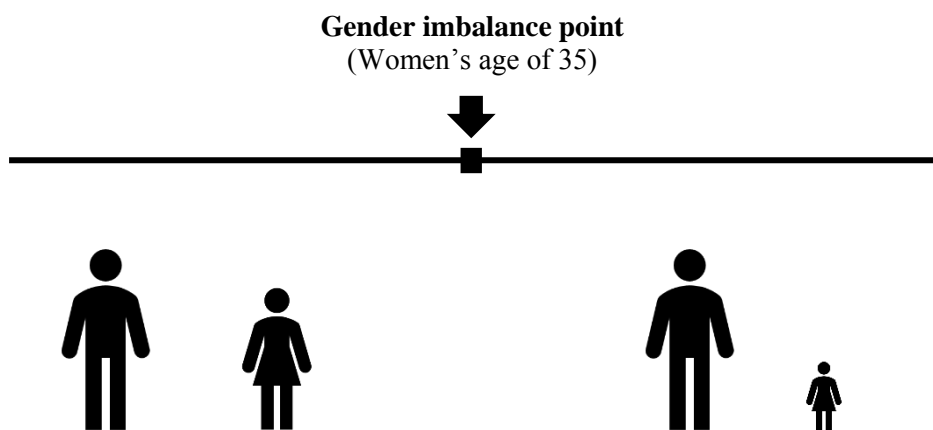
<sup>35</sup> multitasking



*Source: author's construction based on Ernst and Young Report 2006*

**Fig. 7. Industries with high project intensity and high percentage of female project managers**

The Project Management Institute has made numerous researches in the past years that tried to disclose the success factors of the projects. Based on its study from 2009, the increase in the rate of female project managers could be detected in the very sectors mentioned above. In addition, it needs to be emphasized that according to the researches there is a sharp cut-off line regarding the age, since above the age of 35 women appear in project manager positions in a much lesser extent than under the age of 35. It can even be considered as a gender imbalance point because from this age the gap between the percentages of male and female project managers starts to become wider, clearly in the favour of men. The researches investigating the place and role of women in the society – including the PMI – agree that the most important reason for this can be found in their willingness to have a child. After the age of 35 the tasks related to starting a family and raising children strongly determine the role of women in project management (PMI, 2009).



*Source: author's construction*

**Fig. 8. Rate of female project managers above the age of 35 (infographic)**

The difference between male and female project leaders is not only present in the context of their participation rate. As we could see earlier through the study of WEF, on average men



have a higher salary than women, and it is the same in the case of the income of project managers too. An English research of the Association for Project Management (APM) in 2015 pointed out that female project managers earn an average 30% less than the male ones. However, there is no clear evidence or correlation that would blame women for most of the project failures. The unsuccessful projects can be connected to roughly the same percentage of male and female project managers, hence it cannot be stated categorically that men are better leaders (APM, 2015).

The way has significantly opened to female project managers in the past decade, but we are still far from being able to say that the proportion of genders in this profession is equal. The previously mentioned 2009 study of the Project Management Institute serves as evidence of this. During that research some strategically important industries were analysed, that were also meaningful with regard to project intensity as well. Although we can find a growing number of female project leaders in these sectors, the percentage of women stayed below 50% in all the cases. It needs to be highlighted that in the fields of information technology, communication and consultancy the rate of female project managers were about 30%, and the highest percentage was detectable in the sector of financial services, but it was still under 50% even there (PMI, 2009).

Opinions differ, concerning whether men or women are the better project leaders. The famous culture dimensions of Geert Hofstede essentially define the features that might characterize the life of a certain society or community. Of these dimensions the so-called masculine and feminine features can be underlined, as they are partially related to the roles of men and women in management. According to Hofstede, in a community that has masculine features financial success and social advancement are the determining values. Performance is paramount, the central element of which is measuring performance in money. Characteristics that can mainly be attributed to women are pushed into the background, such as tenderness, concern and other social factors. The researches of Hofstede noted that Hungary bears with excessively masculine features. This can be associated with the fact that the participation rate of women in leadership – including project management – is significantly lower. In turn, the feminine cultural features mean that cooperation and caring for each other evolve into being dominant in the culture. Performance is not solely defined by promotion or the size of profit. Feelings, attention and understanding each other come to be important. Conflicts are tried to be solved by compromises instead of by the exploitation of the power hierarchy. Tenderness, caring and paying attention can generally be identified with women, who have mastered these skills during the course of history through their family and raising children. If we consider the effectiveness of the project team and project success to be about the harmonious cooperation of the ones participating in the project, then the feminine cultural features become extremely appreciated in project management. It is critical for the project leader to constantly care for the team members, to look out for their behaviour, to be able to motivate them and to provide them with the help and support they need at a given point in time. The feminine values are just as significant in the context of project management, so project leaders can only be truly successful when they are able to integrate both cultural features at the same time. The following table shows whether the masculine or the feminine features are in majority among the examined countries. All this is worth to compare with the previous Gender Map Index values too. The higher the value is in column 3, the more specific the masculine cultural features are to the society.



Table 3

**The Gender Map Index and the masculine/feminine (M/F) cultural features**

<b>Economy</b>	<b>Rank</b>	<b>M/F cultural features</b>
Iceland	1.	10 (F)
Finland	2.	26 (F)
Norway	3.	8 (F)
Sweden	4.	5 (F)
Rwanda	5.	no data
Germany	13.	66 (moderate M)
Latvia	18.	9 (F)
Great-Britain	20.	66 (moderate M)
USA	45.	62 (moderate M)
Hungary	101.	88 (excessively M)

*Source: author's construction based on Hofstede Center*

The above table perfectly proves the statements of the WEF as well. Gender inequality is lower in the countries that have the highest rates on the WEF list, and Hofstede's researches confirm that the feminine features are indeed brought to the fore in these countries.

In conclusion, for the sake of the project success it is not enough to possess only one or the other cultural dimension. For the interpretation of the role of a leader both features become essential, therefore we have to endeavour to find the balance between the masculine and feminine characteristics. It is nevertheless clear that the latter puts forward the prosperity of the community, teamwork and people-orientation, thus it is imperative for the leadership of a project team that the project manager has both the masculine and feminine features.

Another study stated that there is no considerable difference between male and female project leaders. In 2002 Gerard Mulenberg – with the assistance of NASA project managers – analysed the question whether male or female project managers can be deemed better. He involved 8-8 male and female project managers in the research and examined them in terms of various dimensions, such as their age, education and personal characteristics. In the end he came to the conclusion that the distinction between them as project leaders is miniscule. In his opinion it's just a common myth that women are better in leading projects because they are socially more sensitive, they communicate better, they are team players and they have a strong capacity to promote their interests. Reality is that it cannot be decided without doubt if men or women are the better project leaders. For that reason it is not entirely logical either why men still have an excessively large proportion in project management. The management of projects could be trusted on women just as confidently, since the skills, knowledge and experience of the project leader are the more determining factors when appointing someone for the position of project manager (Mulenber, 2013).

The same statement can be found on the online portal of the 20|20 Business Insight too. The website, offering project management courses and advices, noted that gender does not define the successfulness of the projects. The successful project management requires a wide spectrum of adequate skills and abilities, which can be possessed by both men and women.



According to the Business Insight the reduction of gender inequalities needs to be started in the education system. Girls need to be encouraged in school already, they need to be led towards the profession and they need to be provided with help in familiarizing themselves with the fields of mathematics', project management and the necessary sciences (20|20 Business Insight, 2017).

### **Conclusions, proposals, recommendations**

When writing the study we wished to examine two basic hypotheses. The first hypothesis claimed that there's no fundamental difference between male and female project leaders. The success of a project does not depend solely on whether it was a man or a woman responsible for the project management. Women can be just as good project leaders as men. The project success is not subject to the gender of the project leader, but it is much rather based on the leader's personal integrity, expertise and people-centered approach.

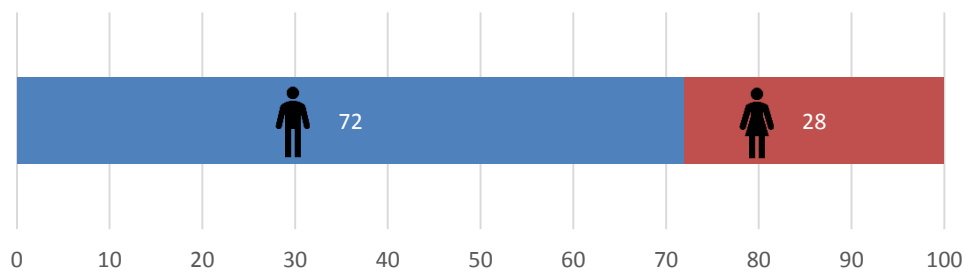
On the basis of the introduced results the first hypothesis has been proven to be true. Although there have not been too many researches in the recent years focusing on the role of men and women in project management, according to the results at hand women are not worse leaders than men at all. Albeit gender inequality is detectable in several countries, it has not been demonstrated anywhere yet that women are actually worse in project management than men. The 2015 survey of the APM stated that men and women are able to successfully manage projects to the same degree, and the gender of the project manager does not clearly determine the future success or failure of the project. Culture researcher Hofstede underlined that the performance of a work team can only be truly enhanced if in view of the cultural dimensions both the masculine and feminine characteristics can be identified. The latter are extremely important during team management, conflict management and motivation management, to name a few. On top of that, Muhlenberg's research showed that there is no significant difference between the male and female project leaders. In light of all this, we considered the H1 hypothesis to be accepted.

The second hypothesis said that although in the past decade several efforts have been made to reduce the distinction between men and women, in project management men still have a dominant role. There is hardly any industry – or none at all – where projects are managed by women in the majority of the cases. It can be stated that project management is still a masculine profession, and this has been undoubtedly confirmed by the introduced results. The WEF's Global Gender Map Index draws attention to gender inequality the best. However, gender inequality is detectable not only with regards to their place in society, but from the aspects of employment or income situation as well. According to the researches, female project managers are not paid as well either as their male counterparts, so the difference is present in the field of project management too. The 2015 work of the PMI revealed that on average there are four times as many male project leaders as women, though the percentages might differ in the certain countries and sectors. This proportion is highly influenced by how masculine or feminine the society is, and this is the reason why for example the cultural dimensions have been introduced (Geert Hofstede).

The international organization that analyses project management (PMI) also emphasized in another study that women undertake the leadership of projects in an increasingly lower rate typically after the age of 35. From that age there are more significant differences in favour of men. On the other hand, we have to mention that in the industries with high project intensity the share of female project managers has grown, but we cannot find a single sector where it exceeds



50%. Women do not manage projects in a greater proportion than man in any of the industries. As we could see in connection with the participation in politics, we can make the same general observation regarding project management: the role of female project leaders has become somewhat stronger, but we cannot talk about equality yet at all. In relation to the APM's research above from 2015, a survey needs to be noted as well, also conducted by the APM<sup>36</sup>. In particular, The Salary and Market Trends questionnaire was filled by 2,717 people. This survey indicated that only 28% of the project professionals were women.



Source: author's construction based on Drake 2016

**Fig. 9. Proportion of female project leaders based on the APM's research (%)**

In the research of the APM the female project managers proved to be much younger. 46% of the male project professionals participating in the survey were younger than the age of 45, while this ratio was only 26% among women. This chimes with the results of the PMI's research from 2009 and with the content of Figure 8, which shows that after the age of 35 the proportion of the female project professionals decreases. On the other hand, under the age of 35 there are a significantly higher percentage of female project professionals, since women under 35 represented 36% of the sample, as opposed to the men's 24%. This survey also acknowledges that women in project management earn a lot less than men (Drake, 2016).

The 2014 survey of PMI Ireland<sup>37</sup> reflects advances in the proportion of female project leaders, which concluded that there are more and more women taking part in project management courses and the gap is closing on the gender ratio differences. The upcoming years will surely bring further progress in this field too, and the gender ratio will be equal not only in the courses but at the head of projects as well in the industries with high project intensity. The trend seems to point to the likelihood of reducing the inequalities, but still many years will have to pass before female project leaders can appear in the same proportion as men do today.

## References

Adler, N. J & Izraeli, D. N., 1996. *Competitive Frontiers: Women Managers in a Global Economy*, Journal of International Business Studies Vol. 27, No. 4, pp. 802-807

<sup>36</sup> APM: Association for project management

<sup>37</sup> The Institute of Project Management in Ireland



- Association for Project Management, 2015. Women in project management [Online] <https://www.apm.org.uk/community/women-in-project-management-sig/> [Accessed 3 February 2017].
- Drake, S., 2016. *Woman in project management*. APM Associate for Project Management [Online] <https://www.apm.org.uk/blog/women-in-project-management/> [Accessed 3 February 2017].
- Ernst and Young, 2006. *PM survey* [Online] <http://www.pmi.hu/index.php/publikaciok/felmeresek/89-pm-felmeres-ernst-young> [Accessed 4 February 2017]
- Esélyegyenlőségi útmutató, 2009. [Online] <https://www.palyazat.gov.hu/download.php?objectId=27583> [Accessed 2 February 2017].
- Geert Hofstede Center, 2017. *The comparison of cultural dimensions* [Online] <https://geert-hofstede.com/countries.html> [Accessed 4 February 2017].
- Harari, Y. N., 2012. *From Animals into Gods*. CreateSpace Independent Publishing Platform
- Mulenburg, G., 2013. *Gender in project managers: Are NASA women and men project managers equal?* [Online] [http://www.revistagep.org/ojs/index.php/gep/article/view/223/pdf\\_1](http://www.revistagep.org/ojs/index.php/gep/article/view/223/pdf_1) [Accessed 4 February 2017].
- Project Management Institute, 2009. *An exploratory study of gender in project management* [Online] <https://www.pmi.org/learning/library/gender-project-management-workplace-dynamics-5609> [Accessed 2 February 2017].
- Ryan, M., 2015. *Women in project management - an Irish perspective*. PMI Ireland [Online] <http://www.projectmanagement.ie/blog/women-in-project-management-an-irish-perspectiv> [Accessed 3 February 2017].
- World Economic Forum, 2016. *The Global Gender Map Report*, Switzerland, Lausanne [Online] <http://reports.weforum.org/global-gender-gap-report-2016/> [Accessed 4 February 2017].
- Worldbank Group, 2017. *Proportion of seats held by women in national parliaments* [Online] <http://data.worldbank.org/indicator/SG.GEN.PARL.ZS> [Accessed 4 February 2017].
- 20|20 Business Insight, 2017. *Women in project management* [Online] <http://2020projectmanagement.com/2013/09/women-in-project-management/> [Accessed 3 February 2017].