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PANNON MANAGEMENT REVIEW

Pannon Management Review contributes to bridging scholarly management research and management practitioner thinking worldwide. In particular, *Pannon Management Review* broadens the existing links between Hungarian scholars and practitioners, on the one hand, and the wider international academic and business communities, on the other – the Journal acts as an overall Central and Eastern European catalyst for the dissemination of international thinking, both scholarly and managerial. To this end, the articles published in *Pannon Management Review* reflect the extensive variety of interests, backgrounds, and levels of experience and expertise of its contributors, both scholars and practitioners – and seek to balance academic rigour with practical relevance in addressing issues of current managerial interest. The Journal also encourages the publication of articles outside the often narrow disciplinary constraints of traditional academic journals, and offers young scholars publication opportunities in a supportive, nurturing editorial environment.

Contents

Zoltán Veres

EDITORIAL: MANAGING INTANGIBILITY IN A SUCCESSFUL WAY

Dear Reader,

Welcome to the 1st Issue of Pannon Management Review in the year of 2018, which follows its usual structure. In this issue a really actual topic, namely intangible character of the business and nonbusiness activities has been put into the focus.

In management science research of hard and soft (say: tangible and intangible) success factors has a long history. In the past nearly 30 years also interpretation of the project term has been undergoing through significant changes. Previously by projects frequently big construction projects were meant. The term itself however has got a much more general content. Since the 90's scientific research of projects has been developing in two directions. One is a general approach of the projects, i.e. investigation of those with soft, negligeable or even non-interpretable tangible content, the other is the transactional interpretation of the projects. Both approaches are overlapped in the area of the professional service projects. From this the project marketing, as a daughter of interorganizational marketing, was born. If I have to underline the core principle of these latter projects, I can state that comprehension of uncertainty decreasing competences is a business interest.

Based upon a series of interviews among real competences of projects suppliers five factor groups can be distinguished. These groups with their components are as follows:

1) Professional competences
   a) know-how; b) human resource; c) financial; d) technology and tangibles; e) problem solving capacities; f) innovation; g) conflict management; h) project management

2) Trustworthiness
   a) experience; b) credibility; c) financial; d) business ethics; e) authority
3) Communication
   a) skills; b) willingness (to communicate); c) language
4) Relational
   a) network; b) relationship management
5) Delegational
   a) responsibility; b) powers; c) recognition of limits of competence; d) extension of competence

The paper of Nikoletta Tóth-Kaszás, *„An unused opportunity or the way of progression?"*, explores the success factors of a special project category, namely of the cross-border projects in the higher education. She finds that those are the role of the project manager, the consciousness of the project processes, the on the job type knowledge sharing, the competences deriving from the project manager personality, the learned competences of the project manager, his or her external motivation and internal motivation factors. If we disregard differences, i.e. focus on similarities, then we can discover common problematics of the different project approaches. Consequently researchers of projects are able to learn from each other.

As it is in scientific research of project management, also such other areas as e.g. the lean production, a soft, i.e. more abstract approach can help in deeper understanding of the phenomena. And deeper understanding can lead us to better practices. The findings of the authors György Péczely and Darion Liberona draw attention to the soft, cultural side of lean production implementation and give practical advice on methods how to shape and control the cultural aspects of the implementation process to improve the chances of success. In their article *„Elaborating and Validating Unified Lean Culture Model"* they show that lean could be interpreted in different abstraction levels, as basic underlying assumptions, espoused values, methods and tools, giving an interrelated definition for each.

From the interview with Tamás Krämer, managing director of CONSACT Consulting Company Ltd. the Reader can follow the changing focus of the consulting business in Hungary in the past more than 25 years. In the first years of the above period quality management projects were dominating, while nowadays process improvement consultancy has come into the focus. As for the marketable competence of the nearly graduated population the message of the interviewee is that „… if somebody cannot find his/her own area, another very good strategy is to be a generalist …"

Finally let us have a look into another soft research area. This is nonbusiness sector, where in market terms abstract values are objects of the exchange. Apparently profitability cannot be interpreted, in fact an extended approach of service consumption makes similarities explorable. The article of Dávid Máté Hargitai, *„Stakeholder Attitudes in Hungarian Athletics"*, examines the interest structures of the different stakeholders and the preference structure which can be derived from those interest in a segment of the amateur sport sector. Preference structure is an important question in marketing management, since the boundaries of consumer segments can be determined based on the significant differences in preferences. In the paper it is examined how the sport functions, defined in the literature, appear in the athletics and what differences can be seen. In the research part, it is investigated in a survey, whether the explored dimensions can be used to define the complex sport products, as compared to as specified by the theory.

We do hope that the articles of this issue will induce further research and publications.

Zoltán Veres, Professor of Marketing, at the University of Pannonia, Veszprém, Hungary, Head of Department of Marketing. He was born in Hungary and he received his university degrees from the Technical University of Budapest (Masters degree in Electrical Engineering) and the Budapest University of Economic Sciences (Masters degree in International Business). He obtained his PhD in economics, at the Hungarian Academy of Sciences. More recently, he obtained his habilitation degree at University of Szeged, Faculty of Economics and Business Administration.

He worked as project manager of numerous international industrial projects in the Mediterranean region (e.g. Greece, Middle East, North Africa) between 1977 and '90. Since 1990, he actively participates in the higher education. Among others he taught at the College for Foreign Trades; at the Ecole Supérieure de Commerce d'Angers and between 2004 and 2009 he was Head of Institute of Business Studies at the University of Szeged. In 2011 he was appointed professor of Marketing at the Budapest Business School (BBS), Hungary, and between 2010 and 2014 he was also Head of Research Centre at BBS. Since 2014 he is Head of Department of Marketing at the Faculty of Business & Economics of the University of Pannonia, Veszprém, Hungary and the editor-in-chief of the Pannon Management Review.

Zoltán Veres has had consultancy practice and conducted numerous research projects on services marketing and project marketing. In 2001 and 2002 he was Head of Service Research Department at the multinational GfK Market Research Agency. He is a member of the research group of the European Network for Project Marketing and Systems Selling, Lyon; Advisory Board member of Academy of World Business, Marketing and Management Development, Perth (Australia); member of Comité Cientifico del Academia Europea de Dirección y Economía de la Empresa (Spain); Advisory Board member of the Nepalese Academy of Management; member of Board of Supervision at Association for Marketing Education and Research, Hungary; Advisory Board member of McMillan & Baneth Management Consulting Agency, Hungary and consultant of Consact Quality Management Ltd., Hungary.

He has nearly 300 scientific publications, including the books of *Introduction to Market Research*, *Foundations of Services Marketing* and *Nonbusiness Marketing*. He has been editor of series to Academy Publishing House (Wolters Kluwer Group), Budapest. Besides Zoltán Veres has been editorial board member of the journals Revista Internacional de Marketing Público y No Lucrativo (Spain), Вестник Красноярского государственного аграрного университета (Krasnoyarsk, Russian Federation), Tér-Gazdaság-Ember and Marketing & Menedzsment (Hungary); member of Социально-экономический и гуманитарный журнал Красноярского ГАУ, member of Journal of Global Strategic Management, Advisory Board and Review Committee; member of Asian Journal of Business Research, Editorial Review Board.

Nikoletta Tóth-Kaszás

AN UNUSED OPPORTUNITY OR THE WAY OF PROGRESSION? – WHAT DOES TENDER PROJECT MEAN AND HOW CAN WE BE SUCCESSFUL IN IT?

Numberless researches and theories were born in the topic of project and project management during the last decades. However there is an area, which interpretation is different from the traditional approaches in several aspects: the definition and interpretation of tender projects has been less in the focus of researchers so far. In the first part of the study I am going to partly make up for this shortcoming; then I would like to underline the surprisingly important role of tender projects through the example of the higher education sector. My empirical research was focusing especially on the cross-border tender projects. I analysed the projects implemented in the frame of cross-border co-operation (CBC) programmes between 2007 and 2013. I had focused on the projects of the Hungary-Croatia, Slovenia-Hungary and Austria-Hungary CBC programmes and tried to identify the role of higher educational institutions. An intention of the study was to draw the attention to the appearance of higher education in the cross-border tender projects and based on the previous empirical researches to highlight the possible key of success. During the research I have concluded that seven factors contribute substantially to the success of cross-border projects. These are the role of the project manager, the consciousness of the project processes, the on the job type knowledge sharing, the competences deriving from the project manager personality, the learned competences of the project manager, his or her external motivation and internal motivation factors. As a lock-up of my essay I have conceived those steps, along which a higher educational institution can tread on the project management maturity path.

Definition and interpretation of tender project

The project definitions and its interpretations for tender projects

Numberless definitions of project management concept were born during the last decades. These definitions stress for example the unique, novel and complex nature of projects, or emphasize that it should have defined goal, budget and timeframe. Since the focus of my research is on the tender projects, in order to find the appropriate concept it could be interesting to examine different traditional project approaches and see which items are most frequently mentioned by the authors. I have collected the project concepts from the most cited authors and created an extract from the elements of the definitions (Table 1).

The described 11 definition elements are not fully overlap with each other regarding the content of the projects. Several factors, however, are mentioned by significant part of the authors. In the Table 1 we can see that out of the 11 examined definitions nine authors mentioned the defined timeframe with specified start and end date as main feature of a project. It can be concluded that it is the most common recurring item among the project definitions. Eight of the analysed authors are considered important to emphasize the unique nature of projects and seven of them to have the specific, concrete goals. Thus, these elements are considered definitely important in connection with the project definitions.

Definition element	Number of mentions	Authors
defined timeframe with specified start and end date	9	Graham, Turner-Cochrane, Aggteleky-Bajna, Görög, PMBOK, ISO 9000, Madauss, Kerzner, Pinto
unique nature	8	Turner-Cochrane, Aggteleky-Bajna, Görög, PMBOK, ISO 9000, Madauss, Gareis, Verzuh
defined, concrete goal	7	Graham, Görög, PMBOK, ISO 9000, Kerzner, Gareis, Pinto
defined budget	6	Graham, Turner-Cochrane, Görög, ISO 9000, Kerzner, Pinto
using human and other resources	5	Graham, Turner-Cochrane, ISO 9000, Kerzner, Pinto

using human and other resources	5	Graham, Turner-Cochrane, ISO 9000, Kerzner, Pinto
novel approach	5	Turner-Cochrane, Aggteleky-Bajna, Görög, Madauss, Pinto
temporary nature	3	Graham, Gareis, Verzuh
complexity	3	Aggteleky-Bajna, Görög, Madauss
practical implications	1	Aggteleky-Bajna
multifunctional nature	1	Kerzner
customer orientation	1	Pinto

Table 1 Certain element of the project concepts and their frequency in the literature
Sources: Graham, 1979; Turner-Cochrane, 1993; Aggteleky-Bajna, 1994; Görög, 1999; Madauss, 2000; ISO 9000, 2001; Verzuh, 2006; PMBOK, 2006; Kerzner, 2006; Gareis, 2007; Pinto, 2010

In my view, however none of the above described definitions can be transferred directly to the examination of tender projects. Not all the conceptual elements shown in Table 1 can be interpreted for the tender projects. In my opinion the novel approach and the unique nature play lesser role in the tender projects, as well as the complexity and multifunctional features.

On the other hand, using the above mentioned criteria we can state that the tender projects can be described by a collection of these items:

- defined budget: granted amount of subsidy with the national and own contributions;
- defined timeframe with specified start and end date: determined timeframe in the subsidy contract;
- defined, concrete goal: fulfilment of the activities, indicators and outputs outlined in the accepted application form;
- using human and other resources: granted subsidy, involved staff and equipment;
- practical implications: in case of tender projects are also common requirement to create results applicable in the practice;
- customer orientation: to achieve the project's target group and its satisfaction.

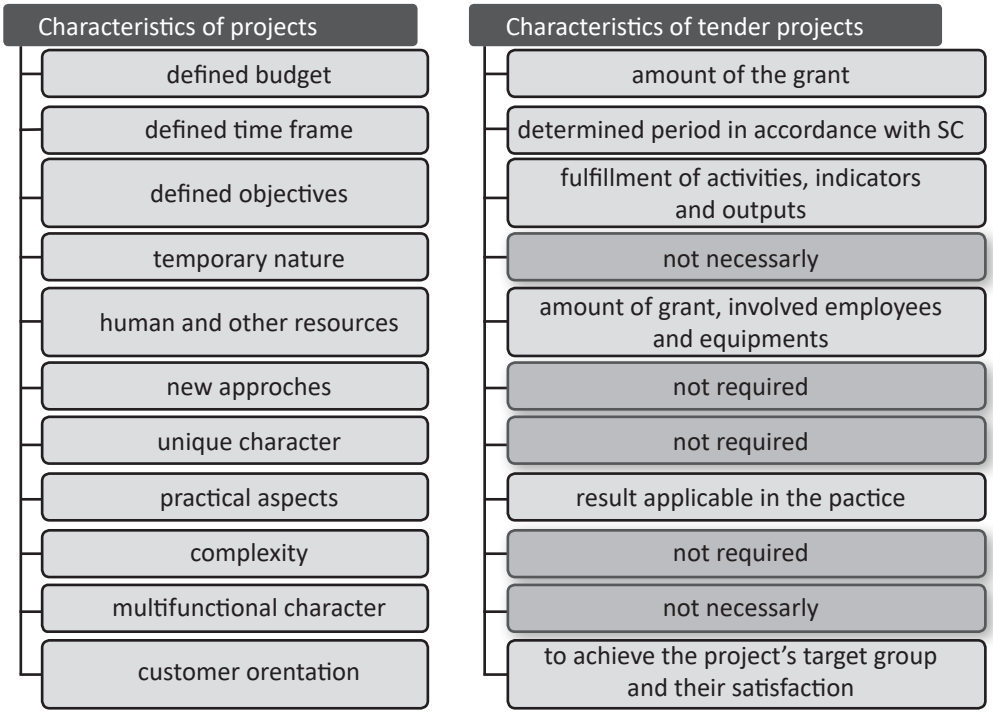

Figure 1 The characteristics of projects and tender projects
Source: own research, 2016

Looking for factual definition for the tender project is not an easy task, since as I have mentioned, there is scarcer literature background. Based on a generally accepted approach the tender project is a project, which financial background is provided by a financial contribution of the European Commission. Thanks to this (financial) instrument each project collaborates to achieve the long-term goals of the European Union (European Commission, 2014).

Based on the Project Life Cycle Management Guide issued by the European Committeeprojects are series of activities, which goal is to achieve the stated objectives till the given deadline in the granted budget (European Commission, 2004:8). This definition is fundamentally does not differ from the traditional approaches.

However, it also describes that a tender project has:

- clearly defined stakeholders, which includes the primary target groups and end-users as well;
- clearly defined coordination, management and financing rules;
- monitoring and evaluation system;
- appropriate financial and economic corroboration, to ensure that the achievements made by the project outperform expenses (European Commission, 2004:8).

In my opinion this supplement can also not be considered as tender project definition, primarily because the last thought - since we cannot talk about revenues or profits in the examined tender projects. The interpretation of expenses is same way relevant, if we are analysing the sustainability of the project results or the necessary additional expenses not funded by project. Determination of the stakeholders, coordinating organization and the monitoring, nonetheless, are important elements in this area as well.To aggregate the above mentioned I was looking for a definition which is valid for the tender projects and includes meaningful elements. So I accepted partially Pinto's approach for the projects, since it contains the most desirable items, as defined budget and timeframe, given resources, specific objectives and customer-orientation. If these elements are completed with the characteristics given by the European Commission, a total picture of the tender project concept will be established.

A tender project is a project which

- financial background is provided by the financial contribution granted by the European Committee or other external supporting institution;
- stakeholders are clearly defined;
- has clearly defined coordination, management and financing rules;
- has monitoring and evaluation system.
- Furthermore it has defined budget and timeframe, given resources, specific objectives and customer-orientation.

The project success definitions and its interpretations for tender projects

As a project never affects a single person, we can talk about a number of target groups and stakeholders regarding the projects. So it can be also stated that all stakeholder consider different things as project success.

In my opinion this supplement can also not be considered as tender project definition, primarily because the last thought - since we cannot talk about revenues or profits in the examined tender projects. The interpretation of expenses is same way relevant, if we are analysing the sustainability of the project results or the necessary additional expenses not funded by project. Determination of the stakeholders, coordinaing organization and the monitoring, nonetheless, are important elements in this area as well.

As Freeman and Beale said, an architect see the success in the aesthetic appearance, an engineer in the technical skills, an accountant in the within the budget spent amount, a human resource manager in the majority of employee satisfaction, while a CEO sees the success in the stock market value (Freeman-Beale, 1992:8–17).

So the judgement of the project success is not an exact science, and there is no one good solution or exclusive approach.

The relevant literature is highly diverse, many researchers tried to quantify the project success or determine objective indicators for that. In the following I give an overview about the different definitions of the project success, and I will attempt to describe the success of the tender projects through these approaches.

Table 2 shows the general project success approaches and their descriptive adaptation for the tender projects, according to my own interpretation.

Authors	General project success approaches	Tender project success approaches (own interpretation)
Görög	achieving the general objectives and characteristics (time, cost, quality)	completion and closing of project within the given deadline and budget
	meet strategic goals	starting tender projects, which are in line with the organization's strategic objectives, has the necessary competencies for the task
	stakeholder satisfaction	satisfaction of the applicant, the control bodies and the target groups of the project

Authors	General project success approaches	Tender project success approaches (own interpretation)
Kerzner	project manager and project team	the project manager coordinates the project and prepares the requests for payment, so his/her job directly contributes to the success; while the project team complete the undertaken tasks
	home institution	the home institution can contribute to the success through its staff, their competences and assistance
	consumer organizations	the feedbacks and the satisfaction of the project target group can generate further projects
Verzuh	consensus among the project team, the customers and the management regarding the project's objectives	the existence of the consistency between the applicant organization and the cooperating organization in the planning and implementation
	the progress can be measured with a plan that shows the entire route and clearly identifies the responsibilities	creation of progress reports which include the implemented tasks and their performers
	constant and efficient communication among the people involved into the project	reaching the target groups is required in tender projects, what must also demonstrate a variety of ways
	regulated scope	a tender project will be supported within delimited geographical limits and to perform defined tasks
	management support	the support of the management and its appearance at certain representation events can increase the prestige, the awareness, thus the success of the tender project

Authors	General project success approaches	Tender project success approaches (own interpretation)
Kendra - Taplin	project manager competences	the project manager coordinates and manages the tender project, and as the people who is preparing the progress reports plays important role in the success
	performance evaluation system	the control and monitoring bodies also expect the performance evaluation of the project manager and other staff working on it
	business processes	the control and monitoring bodies also expect the transparency of business process in the projects
	project organizational structures	the temporary nature of the tender projects (similarly to general projects) can causes problems in the organisational structure, so the appropriate infiltration of the project into the structure can contribute to the success
Shenhar et al.	project efficiency (conformity in time and cost)	closing the project within the given timeframe and budget
	the effect on customer (customer satisfaction)	the satisfaction of the applicant organisation, the control bodies and the project target group
	business success	tender project rarely generate revenues, however their economic benefits in the sustainability of organizational operation are significant
	preparing for the future	tender projects can often contribute to the future development of the organisation – it is easier to implement a development in the frame of a tender project and its grant, than sustain it from own resources

Table 2 The dimensions of project success and their interpretation for tender projects
Sources: own compilation based on Görög, 1996:15–21; Verzuh, 2006:22–24; Kerzner, 2006:7; Kendra-Taplin, 2004:30–45; Shenhar et al., 2001:699–725

An intention of this study was to draw the attention to the appearance of higher education in the cross-border tender projects and based on the previous empirical researches to highlight the possible key of success. In the next chapter I am going to introduce the emergence role of tender projects in the operation of higher educational institutions.

The emergence role of tender projects in the operation of higher educational institutions

Working in the higher education sector sometimes look like balancing on a scale. The most important activities are around the education, but it is expected to make researches, publications or take care of the rising generation, looking for talented students, as well. It can be complicated not just from the aspect of time management, but sometimes from the aspect of financial background, as well. This is the point where the tender projects "come into the picture".

Since Hungary acceded to the European Union, numerous tender opportunities became available for example for universities and colleges, as well. These calls for proposals supported some educational tasks, like talent management, staff improvement, inner trainings etc. and also supported the higher educational researches, as well. These EU projects often helped the institutions to develop their infrastructure and optimize their staff, or educational portfolio. Meantime due to the changes in the financial structure of the higher education and to the demographic "hole" in Hungary's society, unfortunately these projects usually meant the basis of some educational or research work.

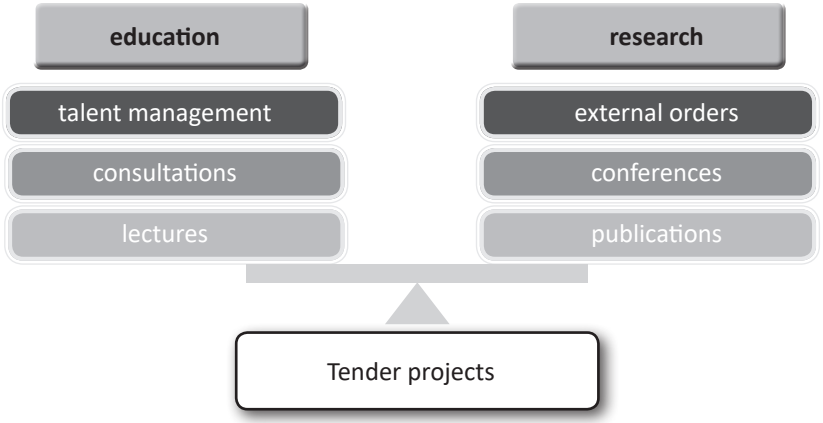

Figure 2 The supporting role of tender projects in higher education work
Source: own research, 2016

These above processes meant that more and more higher educational institution were forced to apply not just to nationally funded projects (like TÁMOP, TIOP) but also to European Territorial Programs, as well.

Since the 1990s the European Union has paid more and more attention to support cross-border developments both in its own outer boundaries and in the border regions of future member states. Mostly public or public equivalent bodies, non-profit organisations can apply for funding: national, regional or local authorities, municipalities, universities, non-profit organisations and associations. The subsidy is quite high; beside the 85 per cent ERFA funding each organisation gets ten more per cent national funding, as well.

Figure 3 The structure of financial background of cross-border project
Source: own research, 2016

Universities lying on the supported programme areas took advantage of these opportunitiesoffered by the territorial programs. From the statistics of the cross-border co-operation (later CBC) programs it is displayed that 10–30 per cent of the total supported project were implemented with the participation of universities.

I have made researches in the western border region of Hungary and examined three cross-border programs: the program between Hungary and Croatia, Hungary and Slovenia and Hungary and Austria.

In the CBC program between Hungary and Croatia a total of 154 projects were supported in the period 2007–2013. Among these 154 projects there were 30 that were partly or fully implemented by universities. From Hungary three universities were concerned: University of Pécs, University of Kaposvár and the University of Pannonia through the Nagykanizsa Campus.

In the Slovenia-Hungary CBC program a total of 41 projects were implemented in the examined period, five with the participation of universities. In this case only one Hungarian university was concerned in three projects, the University of Pannonia.

Finally in the program between Hungary and Austria a total of 86 projects were supported between 2007 and 2013. Among these projects there were 22 partly or fully implemented by universities. From Hungary five universities were concerned: West-Hungarian University, Széchenyi István University, University of Pannonia, Markusovszky University and the Corvinus University.

	Hungary-Croatia CBC Program	Slovenia-Hungary CBC Program	Austria-Hungary CBC Program
Total number of projects	154	41	86
Total number of involved partners	616	190	358
Number of projects with university participation	30	5	22
Number of universities involved into projects	3 • University of Pécs • University of Pannonia • University of Kaposvár	1 • University of Pannonia	5 • West-Hungarian University • Széchenyi István University • University of Pannonia • Markusovszky University • Corvinus University

Table 3 The appearance of universities in cross-border programs
Source: own research, 2016

The topics of these projects performed by universities were mostly preparing common educational programs, student exchange programs or summer schools. On the other hand strengthen the external connections was also an important element, through common researches or commonly organized events.

The key of success – experiences of empirical researches

Methodology of the empirical researches

During the last two years I have examined the projects implemented in three different cross-border co-operation programmes (Hungary-Croatia IPA Cross-border Co-operation Program 2007–2013, Slovenia-Hungary Cross-border Co-operation Program 2007–2013, Austria-Hungary Cross-border Co-operation Program 2007–2013).

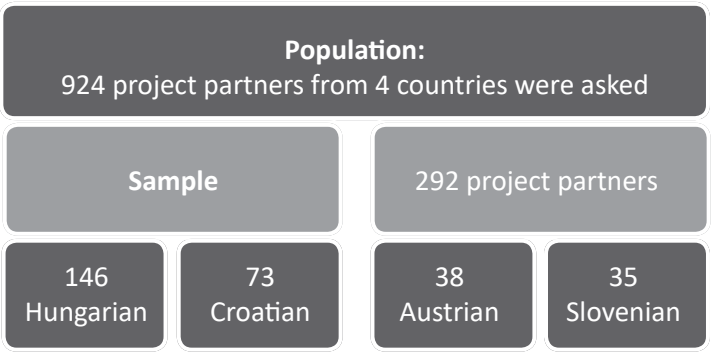

Figure 4 The characteristics of empirical research sample
Source: own research, 2014-2016

My goal was to explore the main characteristics of the implementing organisations, the key criteria and influencing factors of the project success. In order to that I attempted to accost all institutions have taken part in the above mentioned CBC program projects.

I have sent my trilingual questionnaires to a total of 924 organisations in Hungary, Croatia, Slovenia and Austria. These project partners have meant the population of my empirical research. In *Figure 4* it can be seen that I had sum 292 responses from the four countries: 146 from Hungary, 73 from Croatia, 38 from Austria and 35 from Slovenia. Here I have to notice that Hungary was concern in all the three examined CBC programmes that is the reason of the higher respondents' number from Hungary.

Results of the empirical researches

Based on the literature overview I supposed that the **tender project success can be measured by the three elements of the "iron triangle": quality, time and budget.**

Regarding the success criteria of projects I involved 16 variables into the factor analyses. The analyses proved three success criteria with 0,841 KMO values, which compressed 9 variables from the original 16.

The total variance ratio, as the index of the explanatory capacity of the factors analyses was 62,188%, which also supports the success of analyses.

We can conclude that we cannot determine the tender project success with the elements of the "iron triangle" and we should define new criteria.

- Time factor:
  - implementation of activities meet deadline
  - project closing on schedule
  - meet reporting and correction deadlines
- Project management success:
  - project outputs realised
  - project indicators achieved
  - project activities performed
- Satisfaction of target group
  - the project reached its target groups
  - satisfaction of target groups members of the target group participated in project events (Kaszás et al., 2016)

Furthermore based on the literature overview **I have assumed four main project success influencing factors:**

- **organisational structure,**
- **knowledge sharing at the organisation,**
- **motivation of the project managers,**
- **competences of the project managers.**

In order to define the crucial affecting elements of tender project success I have used regression analyses. The independent variables were the details of the above mentioned four topics; while the defined tender project success criteria constitute the dependent variables.

Checking the results of the regression analyses we can conclude that the role of project manager in the organisational structure is essential. Those institutions could be successful in tender project management, in which…

- the project manager is situated between the top management and heads of different departments in the organisational structure,
- the project manager is primarily a coordinator and decision-maker,
- the project manager has the right to command and control the activities of the project participants,
- the project manager directs the organizational unit established especially for project purpose.

These elements can help notably in keeping the designed time schedule.

The **consciousness of project processes in the organizational** structure is also important. In a successful organisation…

- a high-level coordination and succession is realized between the projects,
- has significant social capital,
- there is significant potential to create applications (necessary knowledge, expertise and experience).

These can give the background for the usage of project management planning tools.

Regarding the knowledge sharing it was conducted that the **on the job type of developments** are important, like a coaching or mentoring system. So in a successful institution there is…

- coaching system (assists a certain employee to develop the competencies that are needed for the project),
- mentoring (the mentor is available as an advisor if it's required),
- grant application counsellor (an expert who provides help in the organization in planning projects),
- public procurement counsellor (an expert who provides help mainly in arranging and certifying the procurements).

Keeping the time schedule and satisfying the indicators, outputs of the projects, some **project management competences** are indispensable. There are some personal skills, **deriving from personality** that statistically proven way can help this, like:

- the ability to collaborate,
- attitude for teamwork,
- good adaptability.

There are other, learned, **methodological skills** that can contribute especially to the contact making, and clear communication with the partners, like

- clear goal definition,
- being result-oriented,
- ability to make decisions,
- identifying problems and suggestions for solution,
- cautious and efficient risk management.

Regarding the motivation of the project manager I have to mention that **both the external and internal motivation** can work in order to implement successful projects. The project managers could be motivated by:

- financial and social security ensured by the work,
- the status guaranteed by the work,
- the salary,

- the potential to be creative that lies in the job,
- the intellectual incentive and challenge that the job involves,
- the potential to develop that the job involves,
- the independence and individual work duty ensured by the job,
- the diversity that the job involves.

The primary research proved that the tender projects implemented in the analysed cross-border cooperation programs are influenced by some organizational and individual factors.

I also assumed that there are no significant differences among the project success influencing factors in the three studied programs, and the same or at least very similar affecting factors can determine the success (Kaszás et al, 2016).

Discussion - The first steps towards the project management maturity

In the study I have drawn the attention to the project success influencing elements in case of tender projects. Once we know the affecting factors, we can define those steps that an organization should do in order to be successful and reach a maturity in project management.

As a closure I present the most common problems of the organisations based on the above mentioned criteria and influencing factors; and formulat those steps that can help on them.

First of all for those organizations which can **hardly keep the deadlines** I suggest first of all to solve the problem of the substitution of legally authorized signatories. Because of the representation duties sometimes days go by till a leader sign a project document. It is improper in the world of projects. As an example I can mention some universities, which have installed new rules regarding project document signatures and delegated this authority to lower levels.

Some organizations have **problems with the project management methodologies** and do not know the project planning tools, for example. Solving this problem mini courses (about for example time-planning or logical relationships of the activities) can be initiated by the Technical Secretariat, since they have the proper knowledge and tools, which may be transmitted to the project partners. I am convinced that the Technical Secretariats are able to organize these kinds of mini-courses and the potential applicants would take part on these courses. This training can be important from another aspect, as well: the applicants need more moderate and better designed indicator- and output planning, because in many cases the partners are not been able to meet these. A full description of these elements in the application form can be an advantage as early as the evaluation of the submitted proposals, as it shows the candidate's professional preparedness and sense of reality.

There are organisations that **have not paid enough attention to the target groups** of their projects. In this case I suggest identifying the proper communication channels, tools and not preparing leaflets about the project data. Experiences show neither the public nor the enterprises are not interested in the project information and the presentation of the partnership. Project publications should be much innovative, more noticeable and less conventional. So these should be more customer- or target group oriented and emphasize the benefits of the project for these groups.

The trust and so the **professional network** of an organization can be huge advantages in cross-border projects. I suggest the organizations to keep their contact active, for example through newsletters or partner parties. Networking can be helped by sending newsletters to our partners on monthly basis, which briefly outline the institutional events that have occurred and are also affected by. So the partners do not be noticed by the media when we win a project in which they might be interested. Year opening or closing partner meetings can also help to activate our contacts, where an organisation can regale its current partners, gives them a small gift. These little things can help to trengthen the relationship between the organizations.

Some organizations **do not have enough experiences** in cross-border projects. They have to use those matchmaking surfaces are offered by the Technical Secretariats, like the program webpages or the event. Participation on matchmaking events can also be successful. To these events we should arrive with already existing per-page project ideas as a draft, in which we can mark the potentially eligible organizations as well.

I also have to mention that the organization's interest to strive to keep the staffs, who have already gained experience in cross-border or other types of projects. The employees should be encouraged to participate in project management trainings, or on informational workshops and conferences organized by the Technical Secretariat.

So they can get specific information about the particular characteristics of the program. This accumulated knowledge can be extremely useful for the organisation in the long run.

Conclusion

As a conclusion we can state that the tender projects should be treated differently from the general projects, since there are significant differences in its definition and interpretation. On the other hand the tender projects are project themselves, so we must not abandon what we know about project management. These general theories are the bases of the tender project interpretations.

In the first part of my study I highlighted that we need a little modified thinking if we are dealing with tender projects and we need some new ways exploring them. To that end I compiled a perception for the tender projects.

A tender project is a project which

- financial background is provided by the financial contribution granted by the European Committee or other external supporting institution;
- stakeholders are clearly defined;
- has clearly defined coordination, management and financing rules;
- has monitoring and evaluation system.
- Furthermore it has defined budget and timeframe, given resources, specific objectives and customer-orientation.

After that I presented the importance of the cross-border tender projects through the example of the higher educational institutions and defined the tender project success criteria as follow:

- Time factor: implementation of activities meet deadline, project closing on schedule, meet reporting and correction deadlines.
- Project management success: project outputs realised, project indicators achieved, project activities performed.
- Satisfaction of target group: the project reached its target groups, satisfaction of target groups, members of the target group participated in project events.

Finally I concluded that there are lot of elements that can affect the project success in the border region. In *Figure 5* we can see a summary about these elements.

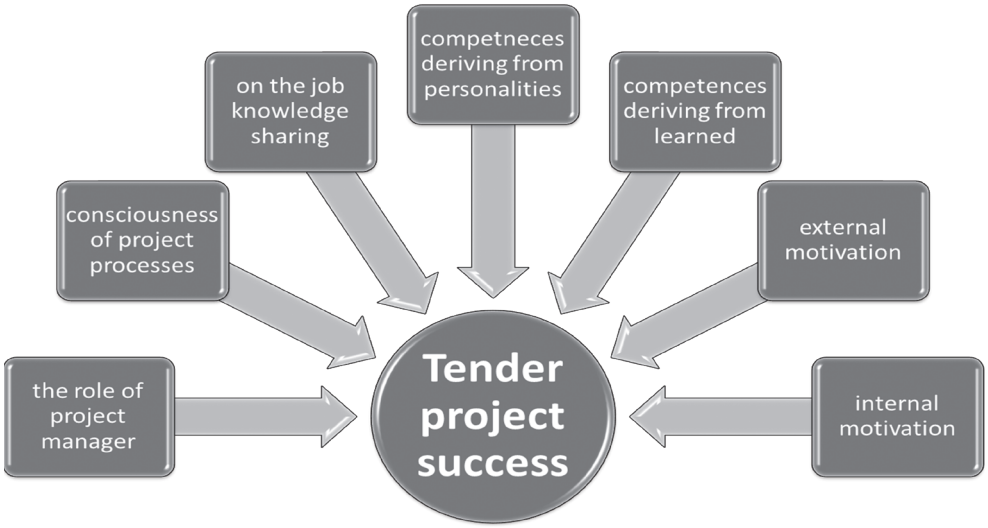

Figure 5 The project success influencing factors in case of cross-border projects

Source: own research, 2014–2016

As a closure I presented the most common problems of organisations that can hamper a project to be successful; and formulate those steps that can help to be successful in a tender project.

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György Péczely – Dario Liberona

ELABORATING AND VALIDATING UNIFIED LEAN CULTURE MODEL

The interpretation of 'lean production' has been slowly shifting from technical to socio-technical aspects since its appearance. This is well illustrated by the growing number of expressions associated with lean like 'lean management' and 'lean thinking'. Seeking more advanced and at the same time more successful ways of lean implementation, researchers and practitioners discovered that carefully adding human, behavioural, management, leadership and many other soft elements in the lean melting-pot, will most likely improve application results. Still, despite all the efforts made, the socio-technical definition of lean is still blurry, researcher-dependent and mostly not confirmed by evidence. This study introduces a unified, cultural definition of lean integrating the culture model of Schein and the lean model from Modig and Åhlström. It shows that lean could be interpreted in different abstraction levels, as basic underlying assumptions, espoused values, methods and tools, giving an interrelated definition for each. The study also presents the findings of an empirical quantitative questionnaire research verifying the 'lean culture' definition and identifying correlations between 'lean culture', corporate competitiveness and corporate characteristics, based on information from 193 participating Hungarian medium and large sized industrial companies. The data show that the underlying assumptions of lean culture named Objective waste elimination, System level rationalization and Vision is improvement are significantly correlated with the components of corporate competitiveness. The findings draw attention to the soft, cultural side of lean production implementation and give practical advice on methods how to shape and control the cultural aspects of the implementation process to improve the chances of success.

Introduction

The phrase "lean production" (LP) was created by Krafcik in 1986 (Krafcik, 1986) and became widely known and recognized thanks to the success of the book The Machine that Changes the Word (Holweg, 2006). LP, often referred as the western version of the Toyota Production System can be interpreted in a hard approach, purely as a production system, a set of tools and techniques (e.g. changeover time reduction, pull system, Andon), a method for production that delivers outstanding operating results (Shingo, 1999). However, there is a relatively strong consensus, that LP can also be interpreted in a soft-hard approach, as a system that has philosophical, management and behavioural aspects, that support the use of lean tools and techniques to reach their full potential (Womack & Jones, 1996) (Shah & Ward, 2003) (Hines, Holweg, & Rich, 2004) (Takeuchi, Osono, & Shimizu, 2008) (Báthory, 2011). The mixture of soft-hard approach represents the mainstream perception of LP and considered to be valid. Some, but relatively few researchers go further, and state that LP is not only tools and techniques with the supportive philosophical and management background, but a specific type of organizational culture that could be described through specific characteristics. (Anand & Kodali, 2010) (Modig & Åhlström, 2012) (Toarniczky et al., 2012) (Losonci et al., 2017). This approach is quite appealing as researchers most often identify organizational cultural issues as the main cause behind LP implementation failures (Friel, 2005) (Benders & Slomp, 2009) (Jenei, 2010). In other words, empirical research built around LP as a type of organizational culture seemingly opens the opportunity to find significant improvement in LP implementation practices and so, deserves further attention.

The main goal of this study is to contribute to this field of research by finding or creating and validating an own lean culture definition. The goal statement consists of two main parts that both have their own significance.

The first part is finding or creating a lean culture definition, or in other words, to provide an explanation that interprets lean production in a broader sense. This would put the tools and methods of lean production in the context of organizational culture or in a wide range of further organizational characteristics. It also has to be able to explain the difficulties often arising through lean production implementations. By this, the lean culture definition would allow companies to govern their lean implementations in a more comprehensive way. Besides this, the definition for lean implementation also has to be provided. This term is often used in the literature and among practitioners as a general concept.

However this might lead to confusion without specifying detailed characteristics for it, while the lean culture definition would be difficult to put in practice without a definition for lean implementation.

The second part of the goal statement is to validate the lean culture definition. For this, on one hand, the structure of the elements in the lean culture definition has to be validated. This is important for understanding the interrelationships between specific elements of lean culture and other organizational characteristics. On the other hand, the basic aim of organizations to improve their competitiveness by lean production (Demeter & Losonci, 2011) has to be taken into consideration. Otherwise, the validation would not be useful for practitioners. Therefore, during the validation process, the relationships between lean culture and corporate competitiveness have to be assessed. Positive outcomes would prove the appropriateness of the lean culture definition while they would also encourage practitioners to use the lean culture model for their implementations.

During the next chapters, existing lean culture approaches are taken into account, then, combining the gathered knowledge, a lean culture model is formulated. Afterwards the characteristics and results of an empirical research aiming to validate the lean culture model are shown.

Lean culture – literature review

First, the interpretations of lean culture found in literature are listed and the methods that researchers used for their own definitions are analysed to develop the conclusions for this study.

Interpretation of lean culture

The expression culture is widely used together with LP, but often as a comprehensive word that covers most aspects of organizational behaviour, philosophy, thinking, ideologies, decisions, management styles and so on (Browaeys & Fisser, 2012) (Mann, 2005) (Radnor et al., 2006). These express the importance of lean culture while not defining lean culture precisely. Many researchers recognize the lack of a clear lean culture definition and evolve their own approach by giving a specific list of elements or keywords that describe the characteristics of lean culture (Dennis, 2002) (Miller, 2005) (Toarniczky et al., 2012).

The main criticism for these is that it is not clear what these keywords are referring to. It is not clear if they could be applied at the same level of abstraction or if they are connected to each other in some ways. For example, Toarniczky et al. (2012, p. 109) lists 'meetings', 'tolerating failures' and 'leading by example' as characteristics of lean culture. However, the former can be considered as a commonly used technique at every company, the middle as a specific managerial behaviour and the latter as a general managerial behaviour. This inconsistency in these models makes understanding and its practical use very difficult. A few researchers try to overcome this obstacle by creating a hierarchical model, but they do not use the expression lean culture for their approach (Hines, Holweg, & Rich, 2004) (Anand & Kodali, 2010) (Modig & Åhlström, 2012).

A common criticism for all the listed types of lean culture definitions are that they do not rely on the extensive knowledge pool of organizational culture literature (Losonci et al., 2017). By this, they neglect the enormous knowledge and experience gathered by researchers since the beginning of the extensive organizational culture research that started in the 1980's (Sackmann, 1991). Still, there are a few attempts trying to combine LP and the organizational culture knowledge in order to define lean as a culture (Losonci et al., 2017), these are introduced and analysed in the next chapters.

Utilizing well known organizational culture assessment tools to define lean culture

The starting point of these researches is to use well known and scientifically accepted assessment tools to measure organizational culture dimensions at lean user and at non-lean user companies in order to identify differences, and by this, to identify the main characteristics of lean culture. Gelei et al. (2013) found, that the management styles of a lean practitioner and traditional companies are almost the same, and where differences could be found, they conflict with well-known lean principles/keywords. In the study of Toarniczky et al. (2012) a questionnaire measuring lean culture characteristics was used in an empirical research, but analysing the results, lean culture could not be identified. Shop floor subcultures of a company was analysed by Losonci et al. (2017) using the Competing Values Framework (CVF) created by Cameron and Quinn, finding only partial correlations between CVF dimension and usage of LP tools, which was not sufficient for defining lean culture.

As it was shown, empirical researches trying to utilize mature organizational culture assessment tools to define lean culture could not deliver satisfying results. Analysing the studies, two common points could be identified that are responsible for this lack of success:

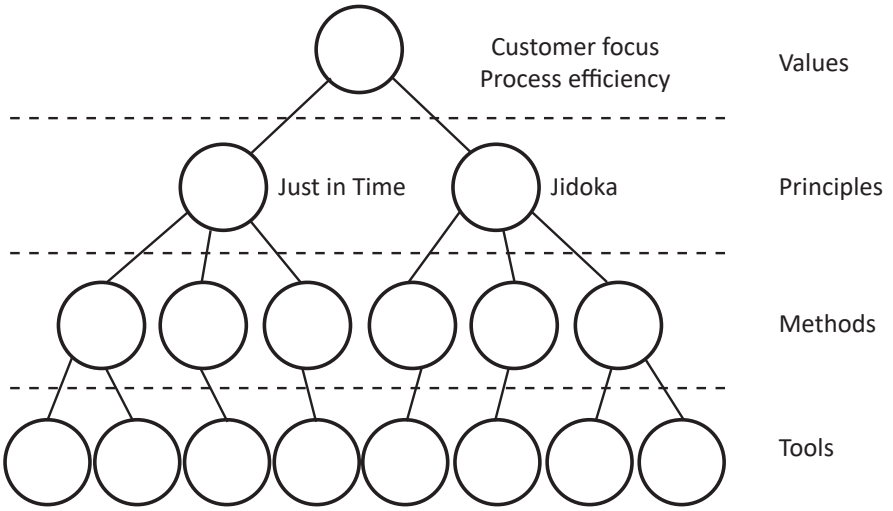
- Using maturity level of lean tools as an independent variable in the research model (Gelei et al. 2013) (Losonci et al., 2017): The models measure the maturity level of lean tools at the examined companies, and group companies based on the received values. In other words, the models consider that a company is lean if it is using lean tools and a company in non-lean if it is not using lean tools. However, LP implementation experiences show that a lean tool could be applied for and against lean principles (Naruso, 1991). In both cases, the answerers would give a high maturity rating for the relating question, even while there is a big chance that their organizational cultures were hugely different.
- Elements of possible lean culture are defined in a one-sided manner (Gelei et al. 2013) (Toarniczky et al., 2012): Researchers give predominantly one-sided or self-evident presumptions for lean culture. Many characteristics of lean culture they evaluate do not have a valid opposition. For instance, one of the researches defines responsibility as a feature characteristic of lean culture (Toarniczky et al., 2012, p. 109). That means that if a company is not lean, their workers would be irresponsible, which is very hard to accept and interpret at any company. No employee of any company would rate themselves as irresponsible no matter if they are lean or not. Or in other sense, if LP was so self-evident, every company would be lean, which is clearly not the case (Modig & Åhlström, 2012).

Combining organizational culture and LP knowledge

A lean culture definition combining relevant organizational culture and lean knowledge could not be found during the literature review. However, even though not using the expression lean culture, and also not using any relevant organizational culture knowledge in an explicit way, the lean model ('This is lean' model) from Modig & Åhlström (2012) mostly fulfils these criteria (Figure 1).

In the 'This is lean' model, LP is interpreted and defined on different levels of abstraction (Values, Principles, Methods, Tools). The connection between levels symbolizes that all elements should be aligned with each other, and not just theoretically, but also in practice.

From LP perspective, the 'This is lean' model is mostly built on relevant LP knowledge as the book pays a great attention for analysing and demonstrating a key element of LP, the focus is on process efficiency. However, the values level of the model could be criticised as one of the values, customer focus is included based on a personal interview, not based on a thorough research, so it is probably that some other values might be missing.



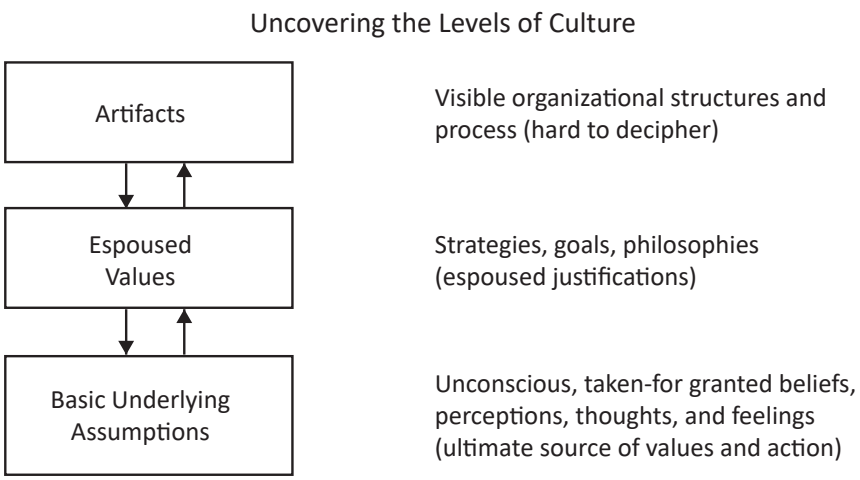


Figure 1 Modig and Åhlström's 'This is lean' model
Source: self edited (Modig & Åhlström, 2012, p. 138)
and Schein's organizational culture model; Source: self edited (Schein, 2004, p. 26)

From an organizational culture perspective, though the authors do not express it, the model's structure shows deceptive resemblance to Schein's organizational culture model. The meaning of Methods and Tools; Principles; Values from 'This is lean' model are practically equivalent to Artefacts; Espoused Values; Basic Underlying Assumptions in Schein's model respectively, while, the connection, interdependence of the model elements are interpreted in the same way at both cases. (Modig & Åhlström, 2012) (Schein, 2004). To sum up, the structure of the LP definition of Modig and Åhlström could be interpreted as a structure for a lean culture definition.

Conclusions of the lean culture literature review

The main conclusions from the studies trying to define lean culture through using well known organizational culture assessment tools are the following:

- Measuring the maturity of LP through assessing the use of lean tools should not be done by quantitative surveys using standardized questionnaires due to possible interpretation issues.
- The definition of basic lean culture elements must be created in a way that its opposite is a viable, interpretable and valid.

The main conclusions from the studies trying to combine organizational culture and LP knowledge are the following:

- The structure and logic of the 'This is lean' model could be used to define lean culture, because it is compatible with one of the most accepted organizational culture model, Schein's model.
- The elements, especially the Values level of the 'This is lean' model should be revised through a comprehensive analysis of LP literature.

The unified lean culture model created based on the findings listed is presented in the next chapter.

Elaborating the unified lean culture model (lean culture model)

The basis of the model is the 'This is lean' model from Modig & Åhlström (2012). As its structure is compatible with Schein's organizational culture model, the basic structure itself is not transformed, but some changes are made. The top two levels of the 'This is lean' model were renamed according to the nomenclature used in Schein's model. The labels Values; Principles were substituted for Artefacts; Espoused values respectively, while labels for Tools and Methods remained unchanged. Also, model was rotated by 180 degrees so that the order of levels would reflect the Schein model's order of levels (Figure 2).

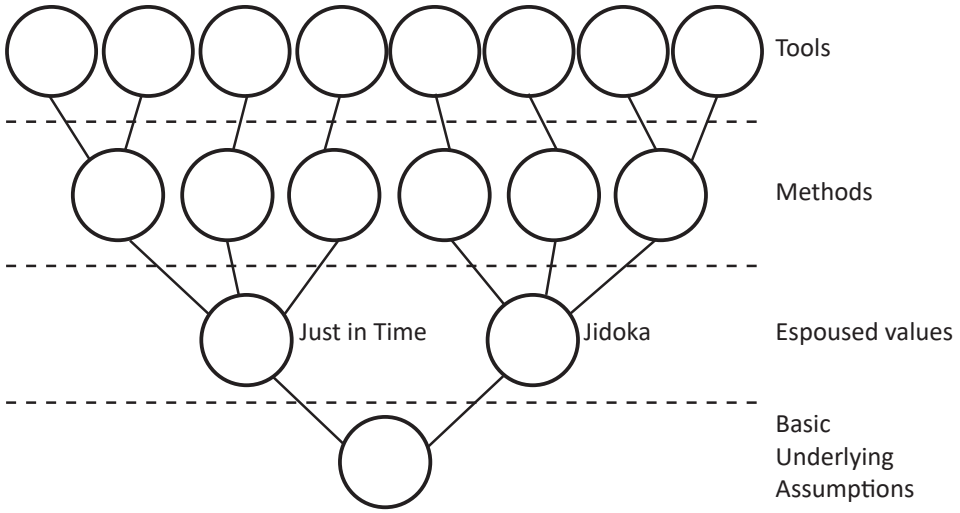


Figure 2 The structure of the unified lean culture model
Source: self edited

In the next step, a definition to all levels of the model was formulated. The most difficult part of this is the definition for Basic Underlying Assumptions because as Schein describes, these are unconscious, taken-for-granted beliefs, perceptions, thoughts and feelings. However, Schein also describes two processes in relation of Basic Underlying Assumptions and Espoused Values that help overcoming the difficulties. The Basic Underlying Assumptions unconsciously define which Espoused Values could be valid for a specific organizational culture, and if an Espoused Value remains unquestioned, unchallenged for a long time, it will become a Basic Underlying Assumption (Schein, 2004).

Defining the model elements

Taking all aspects into consideration, five lean culture Basic Underlying Assumptions (later used simply as lean assumptions) were identified through a comprehensive qualitative LP literature analysis (Péczely, 2017). During this process, Espoused Values of LP were identified and then grouped based on similarities in their characteristics taking into consideration that according to Schein, the common features of the Espoused Values within a group would specify the characteristics of the Basic Underlying Assumptions (Schein, 2004). At the end, a name and definition for each group was formulated, paying attention that the opposite of the definition would be still be valid.

This process resulted in the following five lean assumptions:

- Comprehensive thinking: Employees of the company are thinking at whole company and supply chain level. They strive to do their job in a fashion that they provide maximal help and benefit for the other organizational actors. They establish corporate systems and operation according to this principle.
- Waste-oriented thinking: The employees of the company are only willing to do jobs that are useful and valuable from the customer perspective. As a result, they are self-critical towards their own work, and continuously strive to find and visualize wastes that do not fit into this picture. They eliminate identified wastes in teamwork, where they perform detailed analysis to understand and solve root causes in order to find a solution that prevents reoccurrence.
- Continuous improvement: The employees of the company are actively participating in improving their own work and in the broader sense, the operation of the company. Utilizing their creativity, they signal if they find an opportunity for improvement, but they do not make hasty decisions, they chose the right solution after a careful consideration of all possible options. All systems in the company are created in a way that they represent the need for improvement.
- Respect for human resources: The employees of the company respect both the physical and intellectual productive forces of every people. The physical respect is realized in ergonomic, easy to work, comfortable workplaces and processes. The intellectual respect is realized through treating people as creative companions, who are able and willing to learn and develop. Therefore the employees share information, ask and hear each other's opinion and get empowered through involvement in tasks.

- Future orientation: The employees of the company prefer long term objectives at decision making, even against short term financial goals, knowing that this is the guarantee for the long term prosperity and survival of their company.

For defining the level of Espoused Values, the definitions from Modig and Åhlström (2012) were accepted:

- Just in Time: the aim to create Flow in each organizational process.
- Jidoka: the aim to reveal cases where Flow is interrupted and start a countermeasure to restore the Flow.

For Methods and Tools a joint definition has been created:

- Every operational development technique and its materialization that transmit the values of one or more lean assumptions.

At the end, the process of lean culture implementation was also defined:

- Every project or continuous activity consciously using lean tools and methods, as a result of which company characteristics change towards lean assumptions.

Defining the opposite of the lean assumptions

As it was found during the literature review, the basic elements of the lean culture can be considered valid if the opposite of them is applicable and interpretable. As in the lean culture model, every level of hierarchy is derived from the lean assumptions; an opposite definition is given for these.

- Silo thinking (the opposite of Comprehensive thinking): Employees of the company are thinking at the level of their own work, responsibilities. They strive to do their job in a fashion that they provide maximal benefits for their organizational unit not taking further organizational actors into consideration. They establish local systems and operation according to this principle.
- Symptom-treatment thinking (the opposite of Waste-oriented thinking): The employees of the company are only willing to do jobs that are useful and valuable from the perspective of the company management. As a result, their main goal is to meet their manager's expectations. If that is not achieved, a fast problem-solving process is started aiming to treat the visible symptoms.

- Operational focus (the opposite of Continuous improvement): The employees of the company focus on completing their own work at their best in order to maintain flawless operation. Finding and exploiting possibilities for improvement is the task of a dedicated team of professionals, who possess all the necessary technical and technological knowledge. All systems in the company are created in a way that they represent the need for flawless operation.
- Norm thinking (the opposite of Respect for human resources): The employees of the company consider human workforce as a resource that has to be used as efficiently as possible. As a result they build ophisticated norm and measurement systems to control labour effectiveness and expect workers to meet the required goals.
- Present orientation (the opposite of Future orientation): The employees of the company prefer short term objectives at decision making, taking only short term, often financial goals into consideration knowing that this is the guarantee for maximizing immediate gains.

The next chapters show how the validity of the lean culture model has been tested through an empirical research.

The method of the research

The chapter defines the cornerstones, boundaries and main characteristics of the research planned.

The goal of the research and consequences

The main goal is to validate the lean culture model through quantitative empirical research. For this, the research is focused on examining the lean assumptions level of lean culture model. Omitting other levels of the model from the research is justified by solid reasons, while it also carries some risks. The reasons for and against this decision are listed below.

Reasons for:

- Each other elements of the lean culture model are derived from the lean assumptions
- The connections between lean assumptions and other levels in the lean culture model are validated by the qualitative research made during the LP literature review
- Helps to avoid the difficulties arising during the measurement of lean tools and methods
- Helps to keep the research focused on the key topics drawn up during the definition of goals

Reasons against:

- The interrelationships between lean assumptions and other levels of the lean culture model were not tested and proved empirically, and thus, might be the result of subjective aspects of analysis used during the qualitative research. The clarification of this issue is a subject of future research.

Considering the reasons listed, it has been decided that the research is focuses on the examination of lean assumptions and results are extrapolated to lean culture.

Research questions

To validate the lean culture model, the following research questions (RQ) have to be answered about lean assumptions:

- RQ1: Can the composition and interpretation of lean assumptions be validated?
- RQ2: Does the presence of the lean assumptions at a company's organizational culture significantly positively influence its competitiveness?
- RQ3: Does the presence of the lean assumptions significantly influence the company's operational characteristics?
- RQ4: Does the presence of the lean assumptions significantly influence the organizational cultural characteristics?

RQ1 is self-explanatory; the lean culture model was created based on qualitative research and therefore has to be confirmed by quantitative evidence.

Through RQ2, the validity of the model is challenged. Literature suggests that the implementation of LP positively affects organizational performance and corporate competitiveness (Huson & Nanda, 1994) (Oliver, Delbridge, & Lowe, 1996) (Bhasin, 2012). A positive answer provided to this question during the research would give further confirmation for the existence of the lean assumptions.

RQ3 aims to investigate the interrelationships between lean assumptions and company characteristics. It is well known that LP has a great effect on many aspects of the company. LP companies are often different from non-LP ones in many ways. They have different organizational structure (Womack & Jones, 1996), the regulation of their processes are stronger, (Jones, Womack, & Roos, 1990), they maintain stronger supplier partnership (Anand & Kodali, 2010), their workers are more empowered (Shah & Ward, 2007), their production strategy is more integrated (Vinodh & Chintha, 2011) and so on. To sum up, literature suggests that LP practitioner companies have some distinctive characteristics; therefore companies characterized by strong presence of lean assumptions should carry the same marks. If such correlations found would give other confirmation to the lean culture model.

However, the same differences, examined by RQ4, are not necessarily present in terms of organizational culture. As Cameron and Quinn (2011, p. 84) writes, "Our own and other's research has found that congruent cultures, although not prerequisite for success, are more typical for high-performing organizations than incongruent cultures are". In other words, the most significant feature of the organizational culture of successful companies is that they don't have any outstanding feature; they are balanced and shared by everyone within the organization. Therefore, the correlation between LP and organizational culture deserves examination.

The hypotheses

Based on the research questions, the following hypotheses were created:

H1:
Lean can be interpreted as an organizational culture and so,
a, can be interpreted at all abstraction levels of organizational culture
b, and the content and meaning of each level can be clearly defined.

H2:
Lean culture's Basic Underlying Assumptions significantly determine Corporate competitiveness.

H3:
Lean culture's Basic Underlying Assumptions are significantly related to organizational characteristics.

Analysing hypotheses, it is clear that H1 was partially proven during the elaboration of the lean culture model. However, the content and structure of the lean assumptions still have to be confirmed. H2 is the presumed answer for RQ2 and was formulated in a way that it would align with information found in the literature. H3 was elaborated as a presumed answer for RQ3 and RQ4. These aimed to investigate in relation to lean culture the operational and organizational cultural of characteristics of companies, however, in order to get a clear and simple hypothesis, these latter two expressions were left out, and only the phrase organizational characteristics were used. Nevertheless, during planning the research model, careful attention must be paid on assessing both operational and organizational cultural aspects.

The research model

To test the hypotheses, the research model was elaborated (Figure 3).

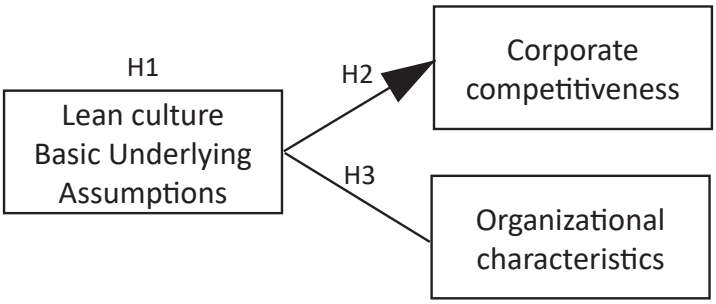


Figure 3 The model and hypotheses for the empirical research
Source: self edited

The model expresses the relationship that lean assumptions as independent variables significantly determine corporate competitiveness as dependent variable as indicated by the arrow. The compliance of this relationship is supported by researchers finding positive correlation between the implementation of LP practices and corporate operational success (Huson & Nanda, 1994) (Oliver, Delbridge, & Lowe, 1996) (Bhasin, 2012). Also, the model expresses the relationship between lean culture and organizational characteristics. At this case, only a line, not an arrow has been drawn in the figure, because the direction of the effects between the variables can't be decided.

Operationalization of items

To test hypotheses; an empirical quantitative research has been designed using a standardized questionnaire.

To survey lean assumptions, altogether 15 questions have been created, three for each assumption. The contents of the questions were defined based on the lean literature review.

To survey corporate competitiveness, a validated corporate competitiveness survey has been used (Chikán, 2006). This consists of 24 questions measured on a Likert scale ranging from one to five. The questions gather information from three components of corporate competitiveness (C): organizational ability to change (A), organizational operability (O) and organizational performance (P). The interrelations between these four items (C, A, O, P) serve as the basis of the competitiveness calculation method. The three items measured (A, O, P) determine corporate competitiveness (C), but also, there is a connection between them. Organizational ability to change (A) and organizational operability (O) determines the skills (S) of the company, which defines the organizational performance (P) as shown in the corporate competitiveness model (Figure 4). As a result, the corporate competitiveness is calculated through the following formula: C = P * (O + A). (Chikán, 2006)

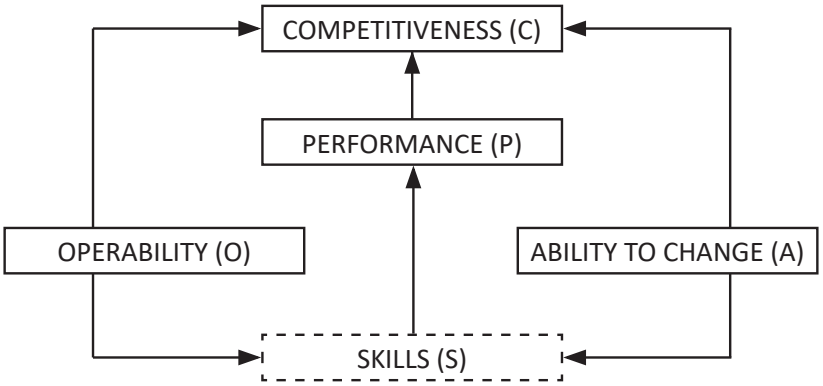


Figure 4 The corporate competitiveness model used for the research
Source: Chikán, 2006

McKinsey's 7S model (Figure 5) has served as a basis for measuring organizational characteristics. This model was chosen because it is a widely accepted model enumerating the factors (Strategy, Structure, Systems, Skills, Style, Staff and Shared values) that decisively influence organizational competitiveness (Deal & Kennedy, 1982). Also, as it was previously discussed at the analysis of the research questions, that during the research, both operational and organizational cultural characteristics of the companies have to be examined. The 7S model is ideal to meet these requirements, as the hard (Strategy, Structure, Systems) and three soft (Skills, Style, Staff) elements of the model can be interpreted as operational characteristics and the last soft element (Shared values) can be interpreted as organizational culture. (McKinsey, 2008)

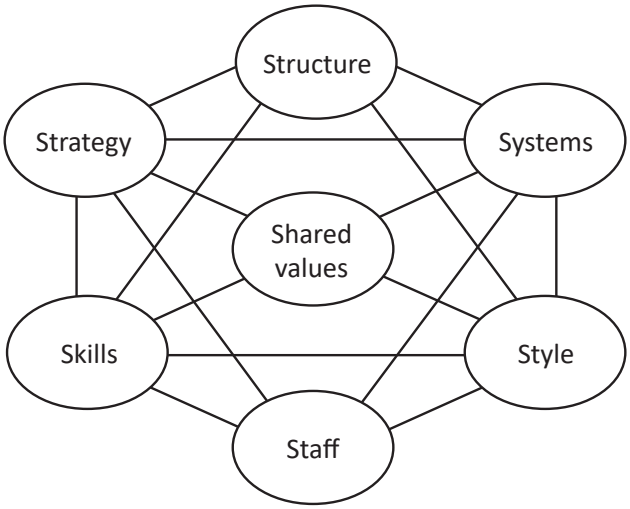


Figure 5 The McKinsey 7S model
Sorurce: McKinsey, 2008

For five of six operational characteristic elements of the 7S model (Strategy, Structure, Systems, Skills, Staff), 18 own research questions were formulated. For the last operational characteristic element (Style), the Blake-Mouton leadership style assessment tool was used (Blake & Mouton, 1964), because it is a validated, widely accepted and easy to use method. For the organizational culture element (Shared values), Cameron and Quinn's Organizational Culture Assessment Instrument was used (Cameron & Quinn, 1999, p. 26–28). The reason for this choice is that this

assessment instrument is a validated, widely used and accepted and easy to use tool for gathering information about organizational culture.

Besides that, seven questions about basic company information like specific industry type, organizational hierarchy and years spent implementing LP have been worked out.

Methodology of the research

The scope of the research has been limited to Hungarian companies due to accessibility and linguistic reasons. Processing industry companies have been selected knowing that LP was originally a method for efficient production (Jones, Womack, & Roos, 1990), and also because of accessibility reasons. Among these, ones with 100 or more employees have been selected into the final research population which would improve interpretation of results. Also, no criteria have been specified for engagement in LP implementation, because comparing the results of LP implementers and non-LP implementers seemed to be reasonable. From these companies, production managers and continuous improvement managers were asked to participate as they were considered to be the ones to give the most appropriate answers.

The data was collected between April 2014 and December 2015. For this, several data collection methods were used. The questionnaire was sent to 959 companies via postal mail, to over seven thousand email addresses, and four hundred people were asked to provide data at different events.

Results

Responder statistics

During the data collecting period, total 254 valid questionnaires have been received from 192 companies, which is roughly 15 per cent of the total population (Table 1). From these, 151 companies had experience with implementing LP, while 41 haven't started this process yet. This ratio of lean implementer and non-implementer companies most likely does not reflect the real situation in the population as this value is biased by data collection methods. The 151 implementer companies have on average 5,32 years of experience with LP.

	Research sample statistics		Population statistics		
Company size [employees]	Number of responders	Responder ratio by company size	Number of companies by company size	Responder ratio in company size groups	Responder ratio compared to total population
100-250	51	26%	757	6,74%	4,13%
251-500	61	32%	262	23,28%	4,94%
501-1000	51	26%	128	39,84%	4,13%
1001-2000	22	11%			1,78%
More than 2001	8	4%	88	34,09%	0,65%
Σ	193	100%	1235	100%	15,63%

Table 1: response statistics,
Source: self edited

Testing Hypothesis 1

To test Hypothesis 1, on the answer scores given for lean assumption items, first Cronbach's Alpha calculation has been made to validate data consistency. If Alpha shows that the data is consistent it means that the items refer to the same entity, in our case lean culture. Performing the analysis, a value of 0,816 was calculated for Alpha that confirms the internal consistency of the data (Lance , Butts, & Michels, 2006).

In the next step, the structure of the data has been analysed. For this, exploratory factor analysis and confirmatory factor analysis have been performed. This method has been chosen as factor analysis is a tool that is capable to identify hidden, latent structure behind data (Székelyi & Barna, 2002). In our case, the factor analysis of data can confirm the structure of the five lean assumptions. However, statistical analysis did not confirm the original lean assumptions, but suggested a somewhat different structure (Figure 6).

Analysing the extracted factors from an interpretability point of view, they were found valid, and so a definition has been provided for each:

Factor 1 - Vision is improvement: The long term survival and prosperity of the company and its environment depends on employees and system constantly aiming to improve. Employees utilize their creativity and signal if they find an opportunity for improvement, but they do not make hasty decisions. They chose the right solution after a careful consideration of all possible options to make sure they prefer long term objectives at decision making, even against short term financial goals. All systems in the company are created in a way that they represent the need for improvement.

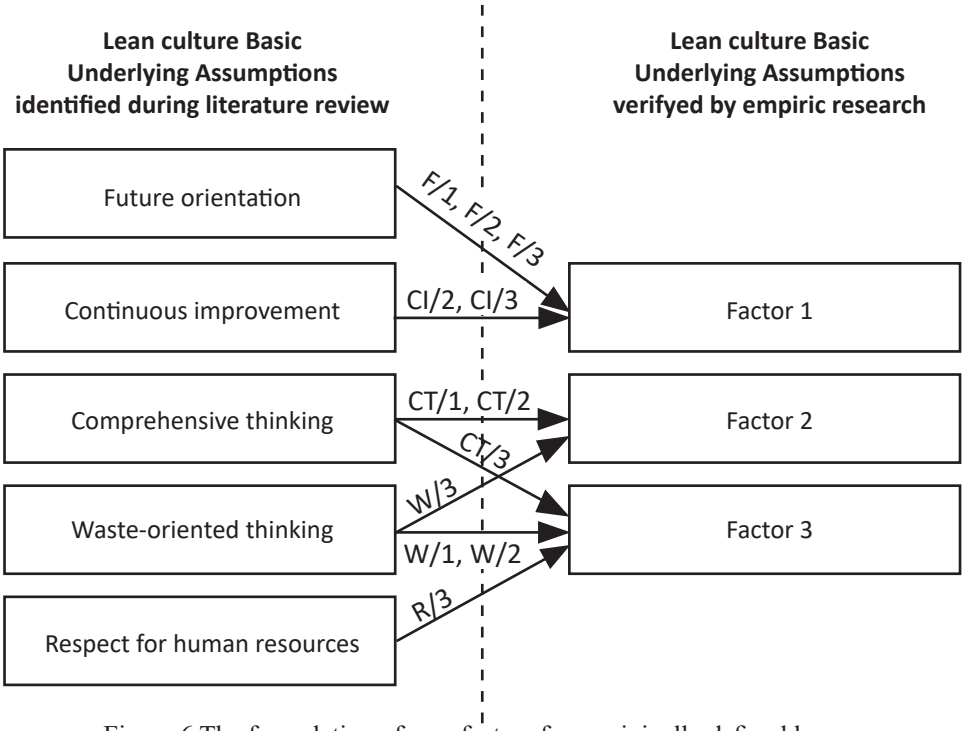


Figure 6 The formulation of new factors from originally defined lean assumption items. Items from Continuous improvement (CI/1) and Respect or Human resources (R/1, R/2) were omitted from the final model.
Source: self edited

- Factor 2 - System level rationalization: The employees recognize that every part of their company is interconnected to each other. Keeping this in mind they design and build all of their systems to work in harmony and synergy. To this end, they are striving to identify and eliminate irrationalities breaking this harmony.

- Factor 3 - Objective waste elimination: The employees of the company consciously search for and highlight wastes especially problems that make their work difficult or uncomfortable. The task of eliminating wastes is given to mixed and empowered teams and assisted through intensive and extensive communication. The waste elimination work is based on objectivity, breakdown of losses, measurements and detailed analysis.

As for the original lean assumptions, the opposite definition for all assumptions has been formulated.

- Fast decisions for improvement – greedy algorithm[1] (the opposite of Vision is improvement): The long term survival and prosperity of the company depends on the result-oriented attitude of the employees. Employees utilize their creativity to reach tangible results as quickly as possible; when a problem arises they make efforts to treat symptoms so that the problem would not risk their actual work. They prefer short term financial goals instead of long term possibilities. All systems in the company are created in a way that they represent the need for reaching result goals.
- Superposition principle (the opposite of System level rationalization): The employees of the company adopt the principle of superposition, that is to say, the excellent operation of the parts ensures the excellent performance of the whole. Sub-systems are designed and operated with the aim of maximizing their efficiency in their own sole, arrowly interpreted environment. In this belief, interconnections, synergies and communication between sub-systems are not considered important and will not receive any special attention.
- Task-force logic (the opposite of Objective waste elimination): The employees of the company are requested to concentrate on accomplishing their jobs. It is not a shared task to identify and solve wastes, this the responsibility of a specially trained team of professionals and managers. Improvement initiatives are derived from the corporate strategy and guided by a small group of specialists; utilization of the results is the duty of the workers in the area concerned.

[1] The greedy algorithm always selects the choice that is optimal at the given step, or in other words, delivers the greatest immediate results. It chooses the local optimum in the belief that this would lead to a globally optimal solution. (Cormen, Leiserson, & Rivest, 2003)

Testing Hypothesis 2

To test Hypothesis 2, a linear regression analysis has been made where the new lean assumptions served as the independent variable and components of corporate competitiveness (organizational ability to change, organizational operability and organizational performance) and corporate competitiveness itself as dependent variable (Table 2). The analyses of the results show that all lean assumptions have a significant positive effect on corporate competitiveness and its components.

	R^2		Coefficients		
	determination coefficient	Constant	Vision is improvement	System level rationalization	Objective waste elimination
Organizational ability to change	0,426	3,358	positive significant (+0,265)	positive significant (+0,074)	positive significant (+0,181)
Organizational operability	0,368	3,585	positive significant (+0,180)	positive significant (+0,076)	positive significant (+0,112)
Organizational performance	0,082	3,610			positive significant (+0,318)
Corporate competitiveness	0,229	25,446	positive significant (+2,129)		positive significant (+3,370)

Table 2: The result of the regression analysis testing Hypothesis 2
Source: self edited

Testing Hypothesis 3

To test Hypothesis 3, a correlation analysis has been made between the lean assumptions and the elements of the 7S model.

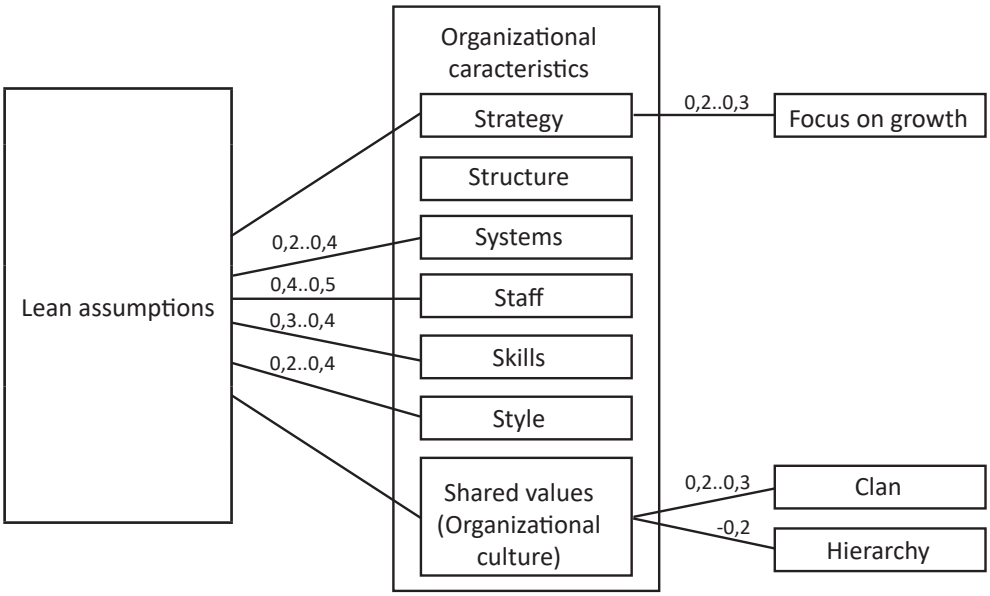


Figure 7 The correlation of lean assumptions and organizational characteristics
Source: self edited

Figure 7 summarizes the results of the correlation analysis made between lean assumption and organizational characteristic items. The result are visualized in a simplified way for two reasons. The analysis included examining correlations between more than fifty items; a detailed visualization of the results would be impractical. Also, during the analysis, it was observed that many items show similar behaviours when compared to lean assumptions. The analysis found relatively little correlation between hard elements of the 7S model, and relatively strong correlation between all the soft elements.

Implications

The research has revealed a lot of interesting aspects of interrelationship among LP, LP implementation and organizational culture. The results are useful are they are both creating new opportunities for researchers, and new LP implementation practices for practitioners.

Research findings

The primary finding of the research is that Lean can be interpreted as an organizational culture, because firstly, it could be interpreted at all abstraction levels of Schein' organizational culture model, and secondly, the content and meaning of each level could be clearly defined. For this, the unified lean culture model has been elaborated. The Tools, Methods and Espoused values levels of the model have been defined based on comprehensive literature analysis while the Basic Underlying Assumptions level of the model has been defined through an empirical research. By these, the research findings can be interpreted as a supplement and continuation of the works from Gelei et al. (2013), Toarniczky et al. (2012), Losonci et al. (2017) and Modig & Åhlström (2012).

The empirical research also pointed out that lean culture Basic Underlying Assumptions significantly and positively determines Organizational ability to change, Organizational operability, Organizational performance, and as a consequence, Corporate competitiveness. As the strength of lean culture characteristics was measured through the level of lean culture Basic Underlying Assumptions, the findings consequently imply that lean culture significantly and positively determines the same corporate competitiveness components. It has to be added that though placing their focus on technical maturity of LP instead of cultural maturity of LP, previously, many researchers have come to similar results regarding LP (Liker & Yen-Chu, 2000) (Rother & Shook, 2012).

The empirical research has shown that lean culture Basic Underlying Assumptions correlate significantly and positively with the Clan characteristics of the organizational culture, negatively with the Hierarchy characteristics of the organizational culture, positively with the growth focus of strategy, positively with the level of sophistication, development and transparency of processes, and positively with Staff, Style and Skills of soft elements of organizational characteristics. The findings related to Clan and Hierarch characteristics indirectly contradicts with the findings of Cameron and Quinn (2011, p. 84), who identifyied congruent cultures being more typical for high-performing companies than incongruent ones. The contradiction is indirect; because our research has found that strong presence of lean culture Basic Underlying Assumptions results in improved corporate competitiveness, and at the same time, it has also found correlation between the strong presence of lean culture Basic Underlying Assumptions and Clan, Hierarchy characteristics. Considering these relations transitive, it could be deduced that Clan and Hierarchy characteristics determine corporate competitiveness, but this conclusion is not supported by the data.

The contradiction is indirect; because our research has found that strong presence of lean culture Basic Underlying Assumptions results in improved corporate competitiveness, and at the same time, it has also found correlation between the strong presence of lean culture Basic Underlying Assumptions and Clan, Hierarchy characteristics. Considering these relations transitive, it could be deduced that Clan and Hierarchy characteristics determine corporate competitiveness, but this conclusion is not supported by the data. A correct conclusion could be that the strong presence of Clan, and the weak presence of Hierarchy characteristics are supportive towards strengthening lean culture Basic Underlying Assumptions, and so, LP implementation.

Further correlations between lean culture and organizational characteristics highlight that the bond between LP and the soft elements of organizational characteristics is much stronger and extensive than the bond between LP and the hard elements of organizational characteristics. Nonetheless, researches analysing the hard outcomes of LP are much more widespread (Pham & Thomas, 2012) (Hines, Holweg, & Rich, 2004) than ones analysing the soft outcomes of LP (Jones, Womack, & Roos, 1990) (Shah & Ward, 2003).

To sum up, the data gathered during the research confirm the Hypotheses.

Lean interpreted as culture

The research provides further evidence for the notion that LP implementation should be interpreted as an organizational cultural change. Results highlight, that it is not enough and rather misleading to put focus on LP tools only during the implementation process. As Takeuchi, Osono, & Shimizu (2008, p 12.) stated, "Emulating Toyota isn't about copying any one practice; it's about creating a culture." Also, results give practical implications about aspects of organizational culture that should be changed implementing LP. Espoused values and Basic Underlying assumptions are defined by the unified lean culture model which companies should aim to reinforce for becoming leaner.

Interpreting lean as culture has important consequences. It explains from a relatively new aspect why overwhelmingly technical focus of typical lean implementations (Péczely, 2017) most often does not lead to optimal results. A relatively new aspect, because despite it was proven that cultural issues are responsible for lean implementation difficulties (Friel, 2005) (Benders & Slomp, 2009) (Jenei, 2010), these researches treated this symptom in a one-sided manner.

They suggested that the organizational culture of the implementing company is responsible for the events. However, this research points out the importance of the basic concept of the lean implementation process. It shows that at those cases where organizational culture was blamed for implementation difficulties, rather the implementation process was faulty. The implementers expected their company's culture to be open for a technical focused lean implementation instead of transforming the implementation to a socio-technical process that helps to overcome cultural gaps. In other words, the research highlights that lean implementations have to be able to form the company's culture in a way that it would become supportive towards the technical elements of lean. For this, the current state and the required state of the organization's culture have to be measured and defined and the change between the two states managed.

From another point of view, by validating the lean culture model, the research explains why it is so difficult to sustain lean implementation results and why improved company operations tend to return to their pre-implementation state. (Browaeys & Fisser, 2012) (Bhasin, 2012) (Lund, 2014) (Brodzinski, 2015) As the model indicates, each element of it is connected to each other and consequently they affect each other. If an element of the lean culture is changed, it would slowly start changes in the other elements. However, this relation is transitive, which means that the effects are back and forth. The changed element affects the unchanged one and the unchanged one affects the changed one. This is the process Schein (2004) has described about how Basic Underlying Assumptions effect Espoused values and Artefacts and vice versa. The result of this kind of relationship is that, if during the lean implementation, only tools and methods are changed in a short period of time (as often done in technical focused implementations) the espoused values and assumptions would only barely change. And so, they would put constant pressure on the tools and methods to change back to the pre-lean state. At the moment the special attention and pressure to sustain is reduced, lean tools and methods would be changed back to their original state due to the changing effect of the other levels of culture. This provides further lessons for lean implementers. They can choose between two ways. They either can decide to change tools and methods and to sustain results they accept that they have to invest great efforts for a long time. Or they can decide to change all levels of culture towards the lean direction, which is a great investment at the beginning, but it would guarantee effortless long term sustainability.

At this point a remark is required. During the previous sections, the technical focused lean implementations are often criticised, but it has to be made clear that companies should not be blamed for choosing this approach. Their aim is to improve their production, a technical process that results in the fabrication of a tangible product and LP includes plenty of technical tools and methods that aid this initiative. Therefore it is an absolutely logical choice to concentrate on the technical elements, but as shown before, also misleading.

The relationships between lean culture and organizational characteristics

The notion that lean implementation is a change of organizational culture is quite often cited (Browaeys & Fisser, 2012) (Mann, 2005 (Radnor, Walley, Stephens, & Bucci, 2006), but rarely backed with concrete, executable practical suggestions. This research, by identifying lean assumptions and crafting a tool to measure the level of lean assumptions give a practical method that implementers could use to increase the success rate of their lean implementation process. Assessing the level of lean assumptions at a company could give a good guideline on how much the organizational culture should be changed. Is it nearly at the point that is supportive towards LP, or rather a lot of attention is required to come to the desired state? Which aspects of lean assumptions are strong at different organization units and management levels, which characteristics, behavioural patterns needed to be strengthened? If the answers for these questions are clear, companies can easily and purposely choose from well-known development tools (e.g. teambuilding, communication trainings, root-cause analysis training) and thus, make the whole lean implementation process more controlled and guided.

The research also gives hints about which other organizational characteristics and how should be reconsidered during the lean implementation. Mainstream LP literature puts more emphasis on the technical elements of LP (Shingo, 1999) (Ohno, 1988) (Womack & Jones, 1996), however this research has proved that the presence of lean assumptions are at least as much related to soft characteristics of the companies as hard, technical ones. Thus, if soft characteristics remain unchanged and only technical characteristics are improved during the lean implementation, the likelihood of lean assumption characteristics resisting change increases. Also, the research provides guidelines how the soft elements of the company should be changed to become more supportive towards LP. Propagating Clan features and team management style, developing skills and staff would all be beneficial.

The research also provides an easy to use tool for measuring the presence of lean assumptions in organizational culture. Using the questionnaire, managers can get a detailed feedback about their company's current situation before implementing LP at the same time opening the possibility for monitoring the progress (for example by yearly repeated surveys).

Summary

In the paper, the possibilities for interpreting LP as a type of organizational culture were examined. It has been shown that this topic deserves special attention because researchers quite often identify organizational cultural factors responsible for LP implementation failures. Despite the importance of the topic, surprisingly few attempts aiming to define lean culture were found, from which none could offer a complete, validated definition suitable for surveying.

Learning from the experiences of these researchers, a unified lean culture model has been elaborated. The elements of the unified lean culture model were derived from the organizational culture model of Schein (2004) and the structure of the unified lean culture model was derived from the model of Modig & Åhlström (2012). Building from bottom to top, the elements of the model are Basic Underlying Assumptions, Espoused values, Methods and Tools. The elements are connected to each other in way that Basic Underlying Assumptions determine Espoused Values, which determine Methods, which determine Tools. From the other side, successful changes in Tools can modify Methods, which if successful, can modify Espoused Values, which if successful, can modify Basic Underlying Assumptions.

To validate the unified lean culture model, a quantitative research has been worked out including a surveying questionnaire measuring lean culture Basic Underlying Assumptions, corporate competitiveness and organizational characteristics. Hungarian processing industry companies have been invited to participate in the research. The results have confirmed the Basic Underlying Assumptions element of the unified lean culture model with small changes compared to the original version. The final Basic Underlying Assumptions have been named: Vision is improvement, System level rationalization and Objective waste elimination. Analysing these, valid counterparts for each Basic Underlying Assumption have been found, and named respectively: Fast decisions for improvement – greedy algorithm, Superposition principle and Task-force logic. These highlight that implementing LP and propagating lean culture is not a self-evident choice, but a decision between viable alternatives.

The research has also provided evidence that the lean culture characteristics of a company correlate with its competitiveness. From on hand, these findings add a further confirmation to the researches appreciating the outstanding results that could be gained by implementing LP. From the other hand, it highlights that implementing LP bearing the aspects of lean culture and lean culture Basic Underlying Assumptions in mind, compared to traditional implementation processes, improved results could be gained.

Finally, the research has shown that relationships among organizational characteristics and lean culture are stronger in terms of soft characteristics than in hard ones. These findings underline the recently more and more voiced opinion of many researchers that implementing LP is much more than implementing technical tools, also, it is a change in organizational behaviour and by this, in organizational culture.

Applying results, companies can greatly improve the efficiency of their LP implementation and through this; they can significantly improve their competitiveness.

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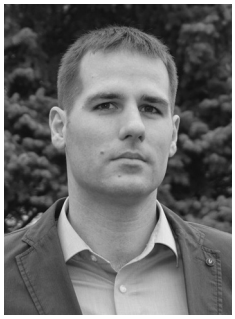

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Portraits of Companies

"… IF SOMEBODY CANNOT FIND HIS/HER OWN AREA, ANOTHER VERY GOOD STRATEGY IS TO BE A GENERALIST …" - INTERVIEW WITH TAMÁS KRÄMER, MANAGING DIRECTOR OF CONSACT CONSULTING COMPANY LTD.

Q: Good morning, my name is Zoltán Veres, I am editor of the Pannon Management Review. This journal is a scientific journal published by the University of Pannonia in Veszprém. And the basic goal with this journal is to present the management practice at different firms, different industries in Hungary. Last year we published four different interviews, which four special topic, and one of them was from the consulting industry. Now we return back to the consulting industry, which is a very - I think - interesting and exciting practice in the business field.

The goal for this interview today, is to present yourself afterthat to present the practice of your firm and the challenges in front of the consulting firms in the Hungarian market. First of all, may I ask you to introduce yourself, your carrier path and chances, please?

A: Yes, okay good morning, my name is Tamás Krämer, and please pass my greetings to the readers of your journal. I am managing director of the CONSACT Consulting Company Ltd. We established this company 25 years ago. It means it was in 1992. But we had prepared for the establishment of the this company six years earlier. I think that was a new generation of the consultants in 1992, and that is why we had the slogen that time: „We are the new generation of the consultants".

I think that was a big change in that era, because before the 1990's there were some consultants, you know, but they were engineers and the regime was the old regime and Hungary needed a new type of consultancy in1992. We were faced with a lot of challenges that time.

So the Hungarian company needed new type of consultants and we had a small group. It meant five young people. We were all engineers all, as for me for example chemical engineer and afterthat I graduated as an economist. And we established this Consact consulting company, and our main field was system-building. Building systems means there were a lot of standards and requirements from the western part of Europe and Hungarian companies thought that it was very important to meet these requirements. And the main requirement was - maybe you remember - the ISO 9000 requirements and this company was stablished with the goal to help companies to meet the requirements of ISO 9000.

Q: How was the competion that time? I think there were plenty of famous western consulting firms in the Hungarian market. Or you were alone in the market that time in this field?

A: At that time there were not so many western consulting companies here in Hungary. We were not alone, because there were some other Hungarian consulting companies, and the average size were from five to twenty people. And we could became a quite big company by the end of the 1990's. We had more than twenty employees at the end of 1990's. The main field was ISO 9000, because that was a new industry. A new industry to build these systems, because almost all of the Hungarian companies needed this kind of system, and they could not meet the requirements alone, so they needed a consulting company. That market was a huge market. I do not know the exact number but we had more than 400–500 contracts a year in this field. So this was a quite big market. And finally, I guess, more than 16 000 Hungarian companies got the certification on ISO 9000.

Q: What was your position among competitors?

A: We were the market leader, I am absolutely sure.

Q: In sales you mean, or profitability or …?

A: Maybe both. Maybe not profitability. I do not know the figures of other the companies, but the number of contracts, number of the employees and the turnover our company were the biggest, or one of the biggest companies in this field. We had an idea involving in and establishing companies abroad. Abroad meant countries where we could find people who could speak Hungarian, so we have subsidiaries in Romania first of all, in Slovakia and in Serbia, because we could export our knowledge and our know-how to these countries, and we could find people, who could speak Hungarian in these countries.

Q: A little bit back to the beginnings. Who was the idea generator? Who found out to enter this market in your team?

A: All of us were young people, you know, but originally we all dealt with a very similar area, for example, myself, I worked for a company which dealt with qualification of products. It was a very famous company here in Hungary, it was called 'Kiváló Áruk Fóruma' (Forum of Excellent Goods), which was a well known company here in Hungary. And I dealt with qualification of the products. And after that, it was a Japanese professor, professor Shiba in cooperation with Mr. Kapolyi, who was the industrial minister that time, exported a very famous methodology here to Hungary. This methodology was - in its English name - TQM (total quality management), but this was a special total quality management. The main master or the main professor Mr Shiba was, who developed a methodology for that, and this methodology was a state supported methodology here in Hungary. And I was very lucky, because that was a small core team, and I was a member of this core team, that consisted of 20 or 30 consultants. We got lots of materials from professor Shiba, and we could learn a lot about TQM and about the system development from him. And after that when Hungarian companies entered the western market, they needed to get a certification on ISO 9000. So this area reformed other areas, this area was ISO 9000 area. This was not an idea, this was a requirement of the market itself. And if you were present in this field, you could feel that there was a huge demand at Hungarian companies.

Q: Did you work in the chemical industry at that time?

A: Yes of course, chemical indusrty and lot of other industries, small companies. First of all our clients were bigger companies and this was the first step in our company life.

Q: Would you summarize the history of the Consact company from the beginnings up today?

A: Yes, I can try it. So this was the first step, and after that there were lots of other types of contracts in our practice. For example there were a lot of other standard requirements, for example the HACCP in the food industry. Maybe you know, that this is a safety and risk management system of the food industry. I can mention enviromental systems as well. This was one part of our life and there were a lot of other companies, and they needed to improve their proccesses. This was a little different type of activities. A different activitity, because in this field there were not any kind of standard requirements. The main demand was the demand of the clients, and they wanted to improve the performance of the company. They wanted to reduce the number of the employees, they wanted to increase their profits so this was the main goal, and we had to and have to find the right methodology The way how to reach these goals.

Q: How has your business portfolio changed during this period from the beginning up today?

A: First of all, in the first five years or five-ten years ISO 9000 system was 90 or 80% of our turnover. And after that HACCP in the food industry was a very important part of our life. Later we had a lot of clients from the public industry, goverment, local goverment, and from other institutions.

Q: And nowadays?

A: Nowadays the situation is similar, because, we have lots of works for meeting any kind of requirements. We help companies to meetrequirements in the legal part and in the customer part. For example we have to create systems for protection of the data. Maybe you have heard about big scandals where some data went out. So this is one main area, and sometimes we study the enviromental responsibility of the company. Beyond this I have to mention health and safety responsibility in a company, or sometimes they need a special food industry system for quality insurance. So this is one type of our work. Sometimes companies come and want to improve their processes. The process can be very compicated, human processes or

technical processes, manufacturing, and we can can find the right methodology for improving these processes. After that we have to introduce/apply these methodology and these improvement technics.

Q: Can you make a forecast in this market in the future? What are your expectations considering the future?

A: I think, this is a very sensitive area. If the economy goes well, our area also goes well, because companies have enough money to place order to consulting companies.

Q: So your activity depends on the state of the economy?

A: Yes of course, this is absolutely sure. For example five years ago we had some very bad years, it was 3 or 4 years. It was bad for us because of the general crisis. But if the economy goes well, the company can pay for consulting companies to make a lot of activities. For example they do not want to employ a person or they do not want to give a task to their colleagues being very busy. Or they do not want to deal with systems or standards, because they do not have enough time to deal with these questions. And they can say, okay, it is not a problem, we have money, we can place an order to the consulting company, please, maintain our system. Please, write new documents, and write new processes. So I am sure that could be one direction and the other direction inproving processes. A lot of companies and lot of managing directors need some help for the managing processes. And they need some advice, they need some personal advicer, and we can help them to manage their processes.

Q: Last question: what is the message for the higher education, what could be done in a different way from the viewpoint of business practice? Or you think, everything is okay in the higher education, I mean in the business education. What is your experience with the people with a fresh diploma?

A: I think we need two different types of colleagues. Sometime we need very specialized persons.

Q: Specialized for example? In which area?

A: For example data protection or data base, or specialized in computer technologies. In my opinion, if anybody knows his/her professional area and goal very clearly, he/she needs to get knowledge very deeply. This is a very good strategy for students, if they know that area. For example the data protection is a very good area. I am sure after the university nobody can be a very good expert with very deep knowledge, but somebody could start it after the third year or after the second year. In the last 2–3 years anybody can get a quite deep experience in the concerned area and after 3 or five years he/she can become a very well paid expert. This is one type, but sometime we need another type employee. This person can solve the problems and can communicate with other people and can find the common language with these people. They do not need so deep experience, and so deep knowledge in one area but he/she has to be a very sensitive and a very good problem solving person. So if somebody cannot find his/her area, I think, another very good strategy is to be a generalist.

YOUNG RESEARCHERS' SECTION

Dávid Máté Hargitai

STAKEHOLDER ATTITUDES IN HUNGARIAN ATHLETICS – QUALITATIVE ANALYSIS?

In Hungary, sports seems to become rather appreciated in the political and social area. In this paper the complexity of sport service is going to be examined, which can be summarized in four dimensions related to several functions. The purpose is to reveal those effects concerning the values, which determine the operation of the particular sport / sport service. The area of investigation focuses on the attitude research of the concerned groups (stakeholders) in the Hungarian athletics. Besides the sports economy and stakeholder management, the comprehension of consumer (stakeholders in the athletics sports) preference mechanism has to be mentioned as well. The latter is an important question in marketing management, since the boundaries of consumer segments (Allenby-Rossi, 1998) can be determined based on the significant differences in preferences. In this paper it is examined how the sport functions, defined in the literature, appear in the athletics and what differences can be seen. *What kind of contexts characterize different functional areas (preference segments) and the connection of stakeholders in the athletics?*
In the research part, it is investigated with the help of a questionnaire with attitude scales and factor and cluster analysis, whether those dimensions can be used to define the complex sport products, which are specified by the theory.

Dimensions of the sport service

The definitions of sport functions were known earlier as well, just the emphases shifted in different times. In the initial period, competition has come into view, considering social and historical aspects, it has been supplemented with numerous factors, primarily with social features and values, for today.

In the literature, Alosi (2007) defines five factors as the basic functions of sports, which is in line with the Hungarian Ist Act from 2004 (Sport Act). The role model function is interpreted by the author as a part of the educational function, notwithstanding in other sources, it is treated in the context of education, and it is still highlighted (Lyle, 2009).

Health function: physical activity offers an opportunity to consolidate the health of the population, and the healing of some diseases is an important tool in the prevention of cardiovascular and cancer diseases, and ultimately improves the quality of life, especially among the elderly. According to the Eurobarometer 2010 survey, 77% of the population proved to be inactive, as they did not move more than three times a month. 53% of the Hungarian never do regular exercise, which is only 37% on average in Europe.

Educational function: Active participation in sport, based on this function, serves the development of a balanced personality in all age groups. In competition, personal character can be developed and easily transposed into any area of life (Siedentop-Tannenhill, 2000).

Social function: Sport is a community-building tool that is a good for building a cohesive, interconnected society, fighting against impatience, violence, exclusion and racism, and reducing and preventing alcohol and drug consumption. Through sport, those people who are excluded from the labour market, get help for social integration, because we are able to accept others through sport (Woolger-Power, 1993).

An overlapping has been experienced in the interpretation of education and social function, thus the relationship between the two factors has been inspected, from an educational point of view. Woolger and Power (1993) present a detailed study on the different perceptions of socialization from the point of view of culture, society or the individual. Based on Geulen's (1989) thought pattern, the following statement can be formulated: Socialization is the development of personality based on its interactions ith its physical and personal environments. This concept involves the assumption that environmental conditions are necessary and decisive in the genesis of personality, and these conditions are reflected in social mediation. This relationship has to be understood as a complex interaction in which the subject itself actively participates and develops itself into individual, and does not restrict the relationship between the educator and the educated, the transmission of certain contentions of consciousness or institutions.

Consequently, the concept carries the education and it is logically subordinated to the notion of socialization.

Ideal function: Living in a community already existed in the prehistoric times among people. According to Lyle (2009), the community is specified by four factors: common purpose, common interests, shared value system and the knowledge of their existence. In the social system, the individual and his personality are preserved, they can be evaluated by sport either because they can emerge in a given framework with their performance, which can result in respect and may become an example to members of the community. Interpretation of the role model directly gains ground for the athletes and Olympians, indirectly in the performance, sports and popularity of sports. Thanks to marketing (eg sport sponsorship, CSR activities) and media, this is becoming more and more important today.

Cultural function: sport provides additional opportunities for embeddedness, better understanding of the environment, better social integration, and more effective protection of the environment. International sport events (Olympics, World Cup) contribute greatly to the understanding and acceptance of differences between cultures.

Recreation function: Sport activities are valuable leisure activities and provide opportunities for individual and community entertainment. The sport focuses on improving and stabilizing our performance and sense of well-being, our ability to improve our physical and mental capacity.

The next step is to determine the dominant values within the "live" segments of the sport, how they are related to each aspect of the sport function. The phrase live sport is basically not an economic concept, primarily used in the practice of local government support practice. It means sport activity and activities related to sport events. There are two categories within the live sport. On the one hand, the elite sport, which is created by the elite and professional sports. Basically, it is characterized by outstanding sport performance. On the other hand, community sports where sport does not generate income for the athlete, and within the category we can make distinction between public sports (free-time sports without direct organizational background), leisure sports, competitive and recreational sports of education systems, and training of associations as well (Alosi 2007).

	Live sport segments	Segment values	Dominant sport function
Competitive sports	Professional sports	business, awareness, image, trade, politics	economic, business
	Elite sports	ideal, development of infrastructure public goods, local and international prestige	Ideal
Community sports	Junior, school-university sports	body culture, motion teaching, education, socialization	education and social
	Public and leisure sports	health promotion, preservation of working ability, training	Health

Table 1 Principal areas - value - functions of sports activities
Source: own consrtruct based on Gyömörei , 2012, Nádori-Bátonyi, 2003

Table 1 shows that the social significance of sports plays a much stronger role in determining the function. In describing and interpreting functions, education and social function are referred to as separate categories, but derived from the segments' values, and as a result of the overlap between the two concepts, we look at the empirical research as one category as the socialization function. During the empirical research, athletics in the dominant sport functions is examined. However, the framework outlined above does not include the economic-business function of sport, but it is clear from the table that it is a decisive segment value. Sport economy deals with the production and distribution of sport goods and sport facilities, decision alternatives emerge in consumption and exchange, and the realization of social environment and consequences of the implementation of these decisions (Lera-Lopez-Rapun-Grarate, 2007). In recent decades, the economic importance of sports has been increased. On the one hand, the decline in state support required associations and clubs to deepen their knowledge in sport economics. On the other hand, health, body status and quality of life became major factors in modern societies, with increased leisure time sports became more and more popular for people as the entertaining function of sports and active recreation were appreciated.

According to another approach (Gratton and Taylor, 2002) - which, in my opinion, is a good supplement to the previous structure - the structure of sport economy can be depicted in a pyramid model, where the sport market is divided into a sport-specific way of distinguishing the professional and leisure sport market. Compared to the original figure found in the literature, some supplements were used. First, the names of each pyramid element were aligned to the conceptual framework used in the *Table 1* so that each segment can be clearly understood.

As shown in *Figure 1*, the formal sport market (professional sports and recreational sports) can be directly related to the indicated sub-markets: market of paying audience, market of broadcasting rights, merchandising goods market, volunteer market and sponsorship market. I have made additions to relationships, for instance, the merchandising market - although it rather exists in professional sports -, which is frequently seen in recreational sports and at events that makes up the two, and it can increase the engagement and loyalty of active participants.

The same conclusion has been found regarding the addition of links to sponsorship as many companies appear as sponsors in recreational sports. Sport goods and sport services at the bottom of the pyramid can be regarded as a derivative market because their demand and supply largely depends on the size of the sport market. The levels of the pyramid are governed and regulated by government and sport management units.

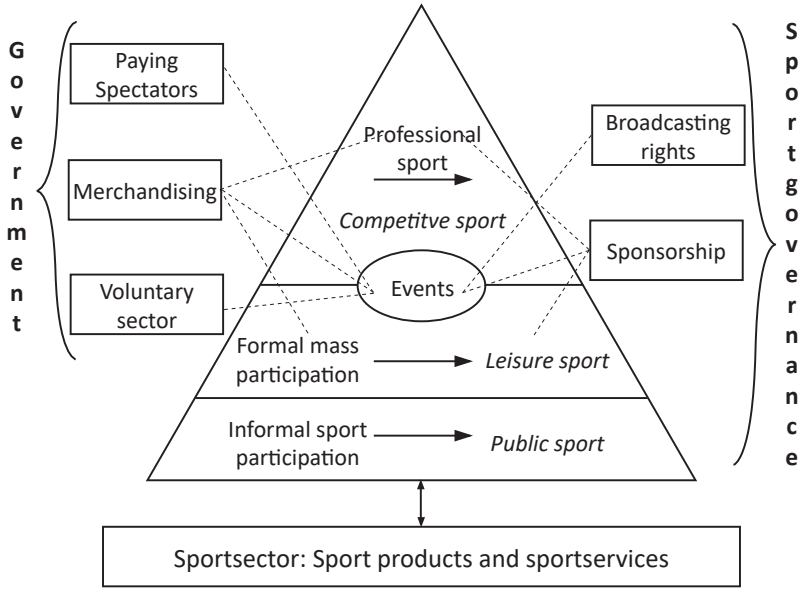

Figure 1 Structure of the sport economy
Source: own construct based on Gratton and Taylor, 2002

For a more detailed presentation of the full sport industry, *Figure 1* should be supplemented in regard to sport products and sport services. This is presented in the sporting model of *Figure 2*. Compared to the original model, the figure has been modified in some points. In the original model, "Leisure" appeared as a separate category, elements of which were provided by the fitness club and other services. Additionally, events and occasions category present items such as facility building and operation, which cannot be interpreted as a category component. In the outlined solution the "Other Service" group has been defined, which contains those factors that could not be categorized into anyone of the models. The group of business services stands the closest to this, yet I had to note that the components included in other services are not always business-related.

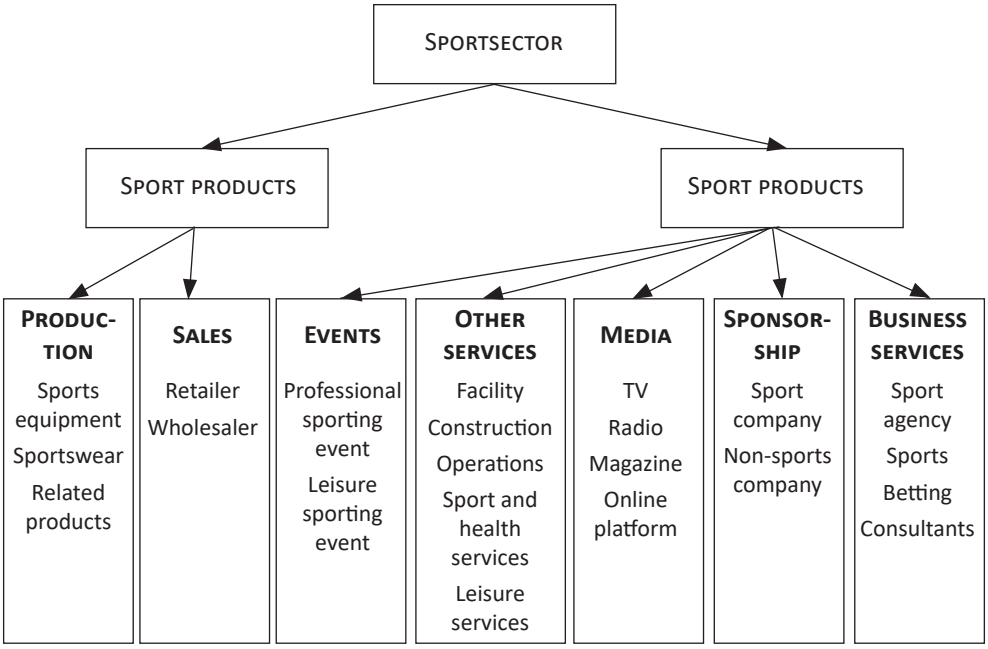

Figure 2 Gratton-Taylor's sports industry model
Source: own construct based on Gratton-Taylor, 2000

Participants in sport services

In our concept, stakeholders related theory is applied (Freeman, 1984), in which stakeholder decisions are the basis for the change. The stakeholder theory is one of the most significant management theory (Stieb, 2009), which is widely used in the field of sport industy as well (Covell, 2004, 2005; Heffernan és O'Brien, 2010; Mason és Slack, 1997). Continuous environmental change in the 21st century, which is exponentially increasing, has an impact on the sports industry, too (Katzell-Austin, 1992). In case of every smaller and larger sport clubs, there are many economic and social players in the environment, and those elements (people, groups of stakeholders, organizations, other companies, sometimes countries) will be major, which are capable to establish a lasting relationship (Mendelow, 1981) and will be able to influence the organization's goals (Freeman, 1984; Friedman et al., 2000, 2004). This kind of approach is a consequence of a process requiring a cultural change, which can be considered as a new concept in the Hungarian sport environment. Incorporating stakeholder interests and values is a serious challenge for our age. In the field of sport, not only management and business which matter can be impacted by the activity of stakeholders, but also those additional factors needs to be considered like a healthier and more decent living space. The condition of business success depends on how the particular company or, in the present case, a sports club is able to successfully manage its stakeholders. Corporate Social Responsibility recognised that nowadays it is no longer allowed to examine directly only the company itself. Stakeholders may have an impact on operation of the organization, investment willingness, money and other resources, as the organization is located in a social economy matrix. Reactions and interactions, as well as the organizational change around stakeholders, can vary considerably (Lewis, 2007). These do not only interact with each other in business but also with other factors. All in all, therefore, stakeholders are the persons or groups affected or affected by the operation of the company, whether they know about it or not (Preston-Sapienza, 1990).

The basic question is who can be considered as a stakeholder in this area. According to Starik (1994), four factors can be distinguished: firstly a relationship should exist between the person concerned and the organization, which can be direct (championship, player union) or indirect (player agent, player observer); secondly, those who are associated with decisive interests (population, supporters); thirdly, who can enforce their interests against the sports organization. Furthermore, other forms can also exist, such as the team owner or nonnatural persons who may affect the operation of the sport / branch of sport / organization.

Stoldt and his fellow researchers (2012) divided the community system of relationship in sports into eight factors: consumer, government, donor, media, investor, community, employee and industrial relations. The study of Gruning and Hunt (1984) has highlighted the decisive relevance of the connection between community relationships and stakeholders. Functional connections are essential for the organization to produce products or services. There are the workforce and resources (athletes, coaches, alliances, suppliers - sports tool manufacturers) on the input side of the functional connection, while consumers (supporters, family members), retailers and distributors (eg. media partners) appear on the output side. In case of normative relationships, these groups have an influence on the interests, values and goals of the organization (competitors, professional associations and expert institutions). In connection with "creating relationships", those are involved, who have control and authority over the organization and can provide resources for the autonomous functioning of the organization (presidency, government regulators, and shareholders). Those are involved in the "scattered" relationships that do not have a common interaction with the organization, but may have an impact on it, particularly in vulnerable times (media, community activities).

Research questions and hypotheses

In connection with the questions, an important aspect was to focus on the sport, within that on athletics, which is only partially explored by the science in Hungary.

The formulated research questions were:

1. *What are the functional areas (preference segments) that characterize this sport service?*
2. *What are the relationships between the individual functional areas (preference segments) and stakeholder relationships?*

In the theoretical review, it was shown that it is important, not only in business, to deal with the attitudes and preferences of stakeholder groups, as the sport has a similar effect on the different groups involved. By answering the first research question, the areas in which the sport service is defined in the sports economy is trying be to examined, in this case the Hungarian athletics. With the second research question, the relationship between the individual functional sports dimensions and the specific stakeholder groups are examined, whether there is a robust difference between the particular groups. I have examined my assumptions related to the questions with qualitative methods.

H/I. 3 basic stakeholder groups can be defined in Hungarian athletics: 'direct' (economic leaders, coaches, sportsmen); 'supportive' (government, local government, media, sponsor, association); 'indirect' (teams, educational institutions).

In the case of the first hypothesis the theory of Clarkson (1995) can be implemented, in which primary (direct) and secondary (indirect) concerned parties appear. Primary parties are in connections with the company, they define the operation fundamentally as compared to the secondary parties which have no such dependent relationship, the lack of which would make the operation of the company questionable. The support category is needed to be considered as separated one as the business paradigm changing mentioned in the theoretical overview can be identified as minor in our country, the supportive mainly approach the social and political paradigms in athletics. The instrumental stakeholder approach of Mitchell and partners (1997) can be interpreted more effectively in this context because they consider its power-legitimization-urgency in the same time and identify three groups accordingly. In case of latent concerned group (indirect), there is only one dominant feature.

The second group is the expecting concerned group (direct), where already two features appear at the same time (e.g. They have urgent demands but have no power to endorse. In general, they depend on other groups. In case of sport clubs, these are sportsmen who want to realize their earnings, but the final decision is made by the management which considers the whole operation.).

Finally, the third and most important group represents those who have power-legitimization-urgency, meaning they have enough power to realize their demands which are urgent and legitimate. Decision makers must consider this issue inevitably, they are identified as determined (sport supportive) concerned group.

H/II. In preference system individual segments can be identified by sport functions. There are 4 defining functions: medical, socializing, role model and business dimension.

The second hypothesis investigates the existence of theoretical sport functions created. In connection, the center of the investigation is that whether which functions appear in athletics in an identical way.

The qualitative method and framework of the research

The empirical research based on the individual sport functions represents athletics as a sport and service through different dimensions. The definition of preferences and attitudes, in connection with sport functions, is not reasonable to place under statistical analysis in a discreet manner, at first. According to Veres et al. (2014), thoughts are created individually, but opinion development is already largely influenced by the opinion of others and the environmental impacts (mass media, social media). Qualitative methods are particularly suitable for exploring these mechanism of action; they can model their views, attitudes, and image-forming. The aim of our qualitative research is to reveal the attitudes of stakeholders involved in the activities, which want to be investigated, and which will provide later on the basis for quantitative research through attitudes that can be mapped out of the results.

In the case of a minifocus group, it can be supposed that all participants will actively participate as they have high level of concerned factor about athletics (insider or directly concerned group). It was concerned during the selection process that the homogeneity of the group is crucial, thus the group creation was based on status, function of a certain club. This created the insider concerned group, where mini-focus group interviews were made by 3–4 people per group (between October 2016 and December 2017):

- managers (department leaders, board members, chairman)
- coaches (section managers, coaches)
- athletes

For the analysis of qualitative data, Atlas.ti 7 analytical software was used. By the help of this, it was able to explore consistence, opinion and connections. During the process, codes to analytical parts (different opinions) were assigned. These codes showed the existence of contextual samples and finally hierarchical group has been created based on these. Based on the answers during the interviews, the opinions were grouped (most emphasized opinions about the sport functions) and color codes were used to identify which concerned group they belong to. The software includes graphical show which helps to represent the quotes related to certain codes. This method significantly helped the transparency and interpretation of the results (Muhr, 1991).

Based on the literature, mini-focus group interviews were conducted, in which managers, coaches and athletes have been interviewed. Respondents were asked to express their views and experiences in connenction with functions of sport, which can be used to map the sport services they want to look at. The interview was put in a predetermined set of questions within the dimensions raised, and the people concerned were free to tell how they see the overall situation of the current Hungarian athletics.

Mini-focus group interviews took place along a specific guideline, yet it was thought to be important to share their opinions, feelings and related stories on the topic, which made the expressed attitude understandable. It can be mentioned as an advantage, that it was suitable for colliding and evaluating the opinions and experiences of those who were involved. It has made it possible to express attitudes, feelings and preferences as the core line of the conversation; exploring the causes, goals and wider connections. Of course, for each interview, there were problematic areas that we discussed in more detail. The reason of this can searchable in it, that what type of relationship the given stakeholder group is currently concerned with the athletics in.

In Hungary, according to the official source of the Hungarian Athletics Association (masz.hu), there are 161 athletics clubs today, which in itself represents a significant number, of course, there are sports associations for which the number of athletes is low. In the qualitative interviews, those clubs were selected, which are said to be determinate in today's Hungarian athletics. The success of earlier years has been taken into account and the intention that geographically far-off clubs form the subjects of the mini-focus group interview.

Viewpoint of effectiveness

Table 2 shows the results of the absolute point race (resupply, adolescence, short-range and hurdler branch, middle and long-distance running disciplines, walking disciplines, jumping disciplines, throwing disciplines) in the 2010–2012 period, and those domestic and international competitions were marked by the Association where points can be obtained. In this timeframe, it is also clearly obvious that the leading athletic clubs were the same.

	2010		2011		2012
1.	Bp. Honvéd SE	1.	VEDAC	1.	VEDAC
2.	VEDAC	2.	Bp. Honvéd SE	2.	Bp. Honvéd SE
3.	Buda-Cash Békéscsabai AC	3.	Buda-Cash Békéscsaba	3.	Dobó SE
4.	Gödöllői EAC	4.	Dobó SE	4.	Buda-Cash Békéscsabai AC
5.	Dobó SE	5.	KSI SE	5.	Gödöllői EAC
6.	KSI SE	6.	DSC-SI	6.	DSC-SI
7.	DSC-SI	7.	Gödöllői EAC	7.	KARC
8.	Ikarus BSE	8.	Nyírsuli	8.	Nyírsuli
9.	TSC-Geotech	9.	TSC-Geotech	9.	TSC-Geotech
10.	Szolnoki MÁV-SE + SI	10.	ARAK	10.	ARAK
12.	ARAK	18.	BEAC	12.	IKARUS BSE
19.	BEAC	19.	IKARUS BSE	18.	BEAC
53.	AC Bonyhád	47.	AC Bonyhád	28.	AC Bonyhád

Table 2 Scoreboard of the Hungarian athletic points competition in the period between 2010–2012
Source: own construct based on atletika.hu

Over the last three years, the athletics competition system has been transformed, so in absolute numbers it is difficult to express the success of each club, since the classic competition for points has been eliminated. The basis for the comparison is specified by the annual prized two-round (semifinal-final) team championships (each athletic club has the opportunity to associate with another - up to two - athletic clubs in a neighboring region), based on 42 events.

	2014		2015		2016
1.	GEAC-BEAC-IKARUS BSE	1.	Bp. Honvéd-UTE	1.	DSC-SI - NYSC
2.	Bp. Honvéd – UTE	2.	GEAC-BEAC-IKARUS BSE	2.	GEAC-IKARUS BSE
3.	DSC-SI – Nyírsuli	3.	DSC-SI – NYSC	3.	Bp. Honvéd - KSI SE
4.	VEDAC - Pápai SE	4.	Békéscsabai AC - SZVSE - Békési DAC	4.	UTE - MTK
5.	Dobó SE - Haladás VSE - Zalaszám ZAC	5.	VEDAC - Pápai SE	5.	Békéscsabai AC - SZVSE
8.	TSC-Geotech - Arak - Győri AC	6.	TSC-Geotech - Arak - Győri AC	7.	TSC-Geotech - Arak
10.	Dunakeszi VSE-Csepeli DAC - Reménység Vác	9.	Favorit AC - DOVASE - Bonyhád AC	8.	VEDAC - Pápai SE
12.	DOVASE-Szekszárdi AK SE- AC Bonyhád	11.	Dobó SE	11.	Favorit AC - AC Bonyhád

Table 3 Scoreboard of the Hungarian athletic team championship points competition in the period between 2014–2016
Source: own construct based on atletika.hu

Geographical frame

Charts 3 and 4 clearly show how many athletics clubs in the particular regions currently operate in Hungary, and how much of these are related to the population.

Figure 3 Distribution of Hungarian athletic clubs by area
Source: own construct

Name of the region	Number of clubs	Population	Population/ Number of clubs
Budapest	29	1,757,618	60,607
Bács-Kiskun	7	513,687	73,383
Baranya	8	371,110	46,388
Békés	3	351,148	117,049
Borsod-Abaúj-Zemplén	7	667,594	95,370
Csongrád	4	406,205	106,543
Fejér	5	417,651	83,530
Győr-Moson-Sopron	4	452,638	113,159

Table 4 Hungarian athletic clubs as a function of population size
Source: own construct

Name of the region	Number of clubs	Population	Population/ Number of clubs
Hajdú-Bihar	6	537,268	89,544
Heves	4	301,296	75,324
Jász-Nagykun-Szolnok	7	379,897	54,271
Komárom-Esztergom	5	299,110	59,822
Nógrád	6	195,923	32,653
Pest	15	1,226,115	81,741
Somogy	4	312,084	78,021
Szabolcs-Szatmár-Bereg	3	562,357	187,452
Tolna	6	225,936	37,656
Vas	6	253,997	42,332
Veszprém	5	346,647	69,329
Zala	4	277,290	69,322

Table 4 Hungarian athletic clubs as a function of population size
Source: own construct

The athletic clubs participating in the mini-focus group interviews:

- Alba Régia Atlétikai Klub (ARAK)
- Atlétikai Club Bonyhád (Bonyhád AC)
- Budapesti Egyetemi Atlétikai Club (BEAC)
- Debreceni Sportcentrum Közhasznú Nonprofit Kft. (DSC-SI)
- Ikarus BSE atlétika szakosztály
- Veszprémi Egyetemi és Diák Atlétikai Club (VEDAC)

The results of the research

The circle of respondents included the internal stakeholders in the first round, where the participants of the interview were the management of the club, the coaches and the outstanding athletes of the particular sport organization.One important question from the research point of view was to identify those stakeholder groups that affect the functioning of the sport. During the interviews, the relationship network could be divided into three main categories. Those belong to the first category, who have a direct impact on the daily work of the associations and are involved in its activities. The interviewees identified five groups in this category - by quotation frequency -: coaches, athletes *("Primarily athletes and coaches who work in some kind of employment ...")*; family *("Another huge circle of supporters with whom they are in constant contact, the contestants and their family members")*; management *("We are also in daily contact with athletes and colleagues and management")*; as well as civilian workers *("... and those who are engaged in civilian work, primarily in business administration.")*.

Those belongs to the second category, who do not have a direct impact on club operations, yet they have a prominent role in the mechanism. On the one hand, friends who have a decisive role with their opinion and support in younger age groups *("I'm mostly building on friends who are also athletes, support me, give me advice.")*. On the other hand, partners associations and educational institutions are included here, who provide base of athletes *("We are also in contact with schools where we occasionally attend a class or workout. In the context of a specific program (ARAK-active), every spring we assess the status of children in different playful competition and try to select them from there. ")*, or they offer an opportunity for a successful career for athletes to run it smoothly *("Talking about athletes from Győr and Fehérvár, there is also a cooperation agreement between the two clubs, as they learn and work in Pest")*. As well as the medical background which treats athletes in a preventative and curative manner *("In case of an injury, a natural therapist, but a dietitian, human innocent, and also massage therapists helped my work")*.

Finally, the support organizations were classified into a separate category, providing some kind of material support to athletic associations. The political dependence on Hungarian sports in general, and thus the athletics, is the dominant role of local governments *("The department is fundamentally supported by the local government, the budget may be 20 million HUF")* and the Hungarian Athletics Association or the Hungarian Olympic Committee *("Supports of Hungarian Athletics Association and Hungarian Olympic Committee in the form of Sport XXI. or performance grants ...")*, which most of the respondents mention with a fairly high frequency.

They provide the basic conditions for the operation in financial and competitive terms for achieving a given goal. The sponsoring site is clearly seen as a weakness by all groups of respondents *("It's a big step forward for the outstanding athlete to find a sponsor like Nike.")*; the reasons for this will be further analyzed in the economic dimension. Instead of the sponsors, the sport is still characterized by protectors who have previously linked to athletics in some way or are in personal contact with the leadership of the association and therefore support a club or athlete. *("There are onefold grants, from businesses that have some personal attachment to athletics" / "Financial support can be obtained through personal contacts.")*. Within the support, also the value of the news appeared, that is, the role of the media and how much they deal with the sport and how they do it *("The press needs news, primarily for local news and the club needs publishing their results to our sponsors, athletes and their families to see and get to know about the work of the club.")*.

Figure 4 illustrates the relationship system revealed by qualitative analyzes. The stakeholders are flagged in white: direct, indirect, supportive relationship. The darkness of the colors represents the frequency of mention, whose quantified results by respondent groups are shown in *Table 5*.

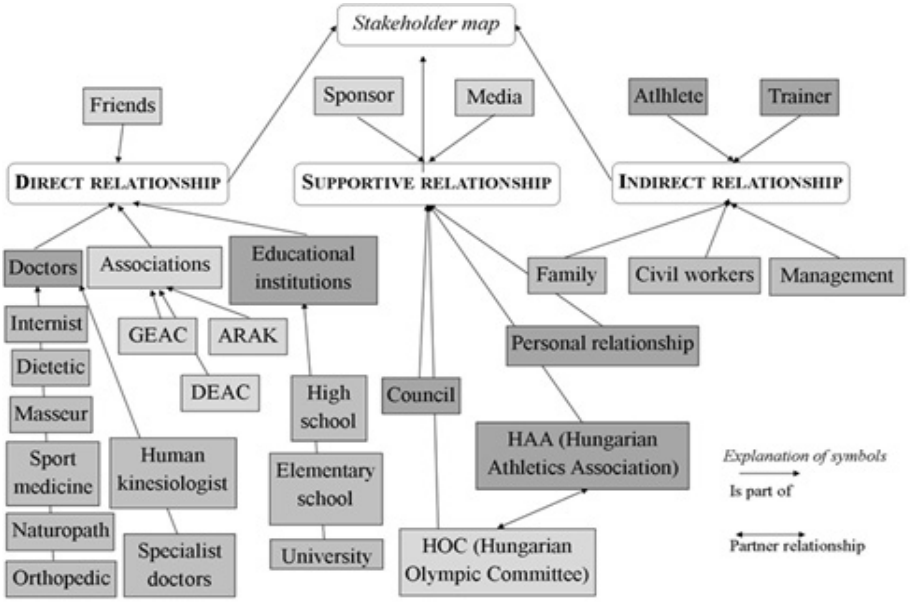

Figure 4 An explored system of relationships based on qualitative research
Source: own construct

CONNECTION NETWORK					
variable groups	**name of variable**	**frequency of athlete**	**frequency of coach**	**frequency of manager**	**frequency of SUM**
Direct	Coaches	4	5	6	15
Direct	Athlete	0	4	9	13
Direct	Family	2	2	2	6
Direct	Management	2	3	4	9
Direct	Civil workers	0	0	2	2
Direct	Educational institutions	0	6	5	11
Direct	Associations	0	0	6	6
Direct	Doctors	4	4	3	11
Direct	Friends	2	0	0	2
Supporter	Council	0	3	12	15
Supporter	Hungarian Athletics Association	0	5	9	14
Supporter	Personal relationship	0	2	9	11
Supporter	Hungarian Olympic Committee	0	3	4	7
Supporter	Sponsor	0	3	3	6
Supporter	Media	0	1	3	4

Table 5 Frequency distribution of the contact network variables among internal stakeholders, Source: own construct

Health function

Beginning with the basic functions of the sport, first thing that needs to deal with, is the health function and its projections. During the problem is being processed, the interviewees have covered several areas: the coach and athlete's philosophy (attitudes), the factors influencing the health of active sports, and the performance as a key element of the competition spirit, nutrition and health education by sport.

The first question referred to the healthiness of the sport. Each group approached the question from different points of view, but it can be stated as a basic principle that professional and amateur sports must be distinguished. According to most of the professional athletes, there is a level (when they are already competitive) when it can no longer be called healthy *("... so it's good to play, but who compete in sport, they will have more harm than an average person ...")*. There were differences between, where exactly this boundary is located in the groups and within the group, *("... it can be healthy until you want to win a national championship ..." / "... it can only be valid until the general age at childhood ...")*. Most of the coaches are more subtle, they have essentially linked the two concepts with success ("*The balance between the strain and the rest can be found, as long as the competitor does not reach the international level.*" / "*Where we are talking about serious results no longer so much.*"). The leaders indirectly expressed their opinion that this factor is best determined by the coach's philosophy, so they approached the question directly through the influencing factors. Many determinants have emerged from interviews, which influences health and can be classified into several categories as a result of the effect, and, in most cases, they are often related to each other.

The most distinguishable effect was the **aptitude of the athlete**, which included the genetic substance *("Which determines the injury is partly genetics, as well as, how much the athlete is mentally concentrated on the training")* and as a result of this, body part *("It depends on habitude as well, that there those, who achieve their athlete career without any health damage and lives perfectly at the age of 35, while others have another genetics.")*. Another category of factors affecting health is the **persons** (coach, family, doctor, philosophy of the athlete).

The defining role of the family is mostly important in terms of nutrition *("The family is a decisive factor in what and how the athlete feeds")*. Within this category, this element was formulated in the most shaded, as the group of interviewed approached the role of coach from several sides, which were linked to the philosophy of sports in several places. The first, which affects both the health and the performance of the athlete, is the qualification of trainer. Coaches have highlighted this importance *("I have a bad habit that I like to take part in courses too, but there are not many training courses in athletics, moreover they are absolutely missing in Hungary.")*. The problem is well represented in the previous quotation: there are no special sports forums and native-language publications that will allow the concerned group to become more educated. In many cases, it depends on the proactivity of the trainer *("I also buy books, mostly English publications.")* and the community where it is possible to work *("The primary source of information collecting is talking to colleagues working in this field...")*. This could lead to an additional problem, thanks

to the underdevelopment of the sport *(especially with regard to coach wages)*, generation gaps of clubs have emerged, which in many cases hindered bidirectional communication. Professional work, that is closely related to the previous variable, since the adequacy of the qualification greatly determines the level of professional work the coach can do. The lack or inadequacy of this can cause one of the biggest problems by athletes, which is the burnout that has been repeatedly aroused by both athletes and leaders during the interviews *("... there are coaches who should not be on the pitch, as they do not do well for the athlete and the child either professionally. Talented children may be discouraged if they are not trained or trained too early to get results and burn out. " / In this area, it should not be allowed thinking in the short term that many people are doing, obviously not intentionally, but they burn out the children.")*. The most common level that contains all of the elements that have appeared so far is the philosophy or the mentality of the trainer. This cannot be separated from any of the factors that have emerged so far, since it has an effect on them *("For 90% of injuries the coach is responsible for, the remaining 10% the mistaker might be the athlete, when he does not do what the coach asks and goes his own way")*. Doctors also appear to be influencing factors in this dimension, although in the frequency of mentioning even in professional athletes they appear on periphery *("The truth is that control of blood results must be constant there.")*. Their influence on health is indirect because they have a control function in the process. Finally, the mind of the athlete must be mentioned within this category. This factor cannot be evaluated on its own, as it can be related to athletic awareness, whose one of the main directions formulated by nutrition *("I eat consciously, I suppose, though I do not make it a maniac. I do not separate all the details into portions, but if I can, I'll take care of it.")*. Besides the control of the preparation *("At an amateur level this can happen if he or the coach is an idiot.")* and how well the goals are consistent with the abilities of the athlete are important. *("... if someone has the skills to predestine themselves as a national champion, but he has set the Olympics as a goal, then it depends on the professional work of his colleagues to see if health damage occurs")*.

With regard to professional sport, the dimension also gave rise to the assessment of **performance**. Essentially, the role of sports in health preservation becomes separated at that point *("Sport is linked to health but racing sport works with limit loads")*, according to athletes and coaches as well, as the limit loads no longer supports internal equilibrium, but overloads athlete for better performance.

An additional link can be explored with both nutrition *("... who feeds healthily, is not aware of how much the performance could fall with improper nutrition")* and talent *("... it can be said that a talented child is not harmed, endure, bares out pressure and do not need special tools and nutrition ...")*. However, it should also be taken into account, that in many cases the external environment may overwrite the relationships described above *("While at home environment, the load was completely different ...")*.

The role of **nutritional supplements** and the related opinions within nutrition was an inavoidable topic. The skepticism regarding to nutritional supplements was mostly expressed from leaders' point of view *("A significant portion of nutritional supplements does not develop. It is not as remarkable as it is supposed.")*, they believe that its efficiency and effectiveness are very difficult to judge, they rather consider it as a trend or business than a necessary supplement, and it is also believed as a potential source of danger *("It has become fashionable in the recent years, but it also has great dangers, these products are marked by too many ..." / "The another thing is that it is not known enough, what these drugs contain, and how the body reacts to whom who use it, will it be accepptable or not by the body.)*. This was confirmed by some answer of athletes *("I've taken a lot of nutritional supplements, especially protein. It presents during the whole year. I've taken nutrition supplement since my Junior ages, although there was no serious concept behind it.")*. On the other hand, coaches and athletes consider it crucial above a certain level *("...when we are talking about professional sport and competitive sport, it may be mentioned")*, which has several reasons. On the one hand, nutritionally poor meals should be completed *("there is not much nutrition in today's meals")*, in additon it can shorten the time of regeneration *("Mostly I'm taking regeneration supplements")*, besides it is easier for athletes to bear the load *("Basically, I've started using it for 2 years, because of the higher loads. Since I train more times and I run more than 100 km a day, so it is indispensable.")*.

The caution of opinions and attitudes to nutritional supplements is due to the fact that many people in the public are confused with the concept of dietary supplements and doping. This may also be due to the fact that the various products are continuously being tested, thus classification is changing from time to time. The topic of doping has emerged mostly among managers, where it was completely rejected *("There are a few adult competitors who may think about doping opportunities, but we have a strong conviction in this field, there was no, and we don't even want to help athletes with these tools. ")*.

I find it important to mention that, nevertheless, athletics is excessively one of the most sensitive to doping among sports. One trainer approached this topic from the another side, he thinks there is a group in athletics who does his best to improve his performance *("... so he sacrifices everything, perhaps even turn to doping does not even know what effect it has on his health")*.

Beside the influencing factors, two interest categories have also appeared in this dimension. One is the acquisition of the new basic forms of movement *("... learn movement patterns that can be base of other sports later on")*, which must be competed due to harder pressure in a higher level *("There is many kind of physiotherapy thing, for compensate all the moving system and the pressure, and do not have deformities that can cause problems in civil life and sports.")*. In addition to this learning value, a healthy athlete appears as an importance *("... the main value is a healthy athlete and not the result")*, influenced by health determinants; performance, participants, environment, talents, sport level.

Professional and amateur sport	"Who compete in sport, they will have more harm than an average person"
Health – efficency	"The balance between the strain and the rest can be found, as long as the competitor does not reach the international level."
Influental factor - persons	
Ability of athlete	"Which determines the injury is partly genetics, as well as, how much the athlete is mentally concentrated on the training"
Attitude of athlete	"I eat consciously, though I do not separate all the details into portions, but I take care of it."
Family-nutrition	"The family is a decisive factor in what and how the athlete feeds"
Qualification of trainer / professional work	"I like to take part in courses too, but there are not many training courses in athletics"
	"For 90% of injuries the coach is responsible for, the remaining 10% the mistaker might be the athlete, when he does not do what the coach asks."
➢ *Burn-out*	"… trained too early to get results and burn out"

Influental factors – performance	
Health – performance	"Sport is linked to health but racing sport works with limit loads"
Nutrition	"... who feeds healthily, is not aware of how much the performance could fall with improper nutrition"
Talent	"... a talented child is not harmed, endure, bares out pressure and do not need special tools and nutrition ... "
External environment	"While at home environment, the load was completely different ..."
Role of nutrition supplements	"It is not as remarkable as it is supposed."
	"Is not known enough, what these drugs contain, and how the body reacts to whom who use it."
	"I train more times and I run more than 100 km a day, so it is indispensable."
Doping	"There is no, and we don't even want to help athletes with these tools."
	"... so he sacrifices everything, perhaps even turn to doping."
Healthy athlete	"... the main value is a healthy athlete and not the result."

Table 6 Revealed alternatives of health dimensions
Source: own construct

Socializing function

The second function, that is the subject of the test, is lifestyle. Based on the qualitative results, the highest frequency was given to **community strength** and its positive effects especially in the case of the leaders and coaches *("We try to convince the child is a member of the community here")*. In the case of athletes, negative aspects of this factor also emerged, as in many cases, conflicts of interest may hurt performance. *(If I train alone, then more attention is given... working in a group sometimes creates a conflict of interests that can make the community morale worse.")*.

The other variable, closely related to the community, is the **effect of group work**, which has also appeared as a separate variable in a positive sense *("They work together, they suffer together, they compete together and are in good friendships, who are on the pitch opponents")*. As a result, athletes are often get into a **conflict situation**, which can also have a positive impact on their lives in the long run, even if the coach manages them properly. *("There was a little girl from Pécs, who has soon overtaken the age group, who were there worked with them for 3-4 years. And they were overwhelmed by them in a year. Jealousy, vanity, these must be mentioned because they are difficult to accept. On the other hand, there is the conflict that the outstanding athlete does not feel the proper attention.")*. In terms of frequency,as a secondary value in this area, the **success experienced** in a group-level has been appeared despite the fact that it is a personal sport. It is important for them to help each other during the workout or even race *("... last year I helped them to run in the level of European Championship")*.

The next major factor group could be related to learning, the direct element of which was connected to sport, the learning of movement patterns *("learn some forms of movement that could later be based on other sports")*, indirectly the impact of sport on learning, which is not positive because *"... it would bring extra to the nervous system ...,* but *for those who have less time for sports, and no time for slack"*. For the variables mentioned, additional background variables can be found in this interview: **timing** and **design** *("The day won't be broken, adjust to a strict agenda")*; **task orientation** *("They know what to do at what time")*, **concentration** *("I noticed that my ability to concentrate getting better, my brain workingbetter, my brain working better, I can understand things better ...")*. Due to the differences in efficiency in the performing sport, roles are quite differentiated within the group. According to the opinion of coaches it is positive in childhood *("There are norms in the group, which need to be consolidated and taken over by the newly attached child")*. At the level of athletes and coaches, which is a higher level, conflicts are generated *("Two piper can not fit in one inn")*. There were two external variables related to learning which has appeared, on the one hand, the opinions in connection with the **education system**, where it appeared to be a major factor *("In many cases the university does not even support my athlete work because they do not let me go to a training camp or competition")*. At a professional level, compatibility can be seen in the type of training by the athletes *("Very training-depending how much it is compatible, as there are training areas where it is only possible to do with a very drawn schedule (medical), and then you're mentally exausted too.")*. Leaders and more coaches also

have similar opinions *("Here in Hungary, higher education seem to be as a passive viewer, there are some positive attempts, but this is mostly person-dependent")*. The other determining factor, which has emerged in all three stakeholder groups, is parental attitudes, which in many cases can not be stated as positive effect in sports *("It is often the case that a parent does not allow a child to workout because they have got a bad mark or write have to write a test, must go to a private lesson. "/" This requires a parental intelligence, and foresight.")*.

Community power / the effect of group work	"We try to convince the child is a member of the community here."
	"…working in a group sometimes creates a conflict of interests that can make the community morale worse."
	"... last year I helped them to run in the level of European Championship."
Roles	"There are norms in the group, which need to be consolidated and taken over by the newly attached child."
	"Two piper can not fit in one inn."
The impact of sport on learning	"The day won't be broken, adjust to a strict agenda."
	"…my ability to concentrate getting better, my brain working better, I can understand things better ..."
➢ *Education system*	"Higher education seem to be as a passive viewer, there are some positive attempts, but this is mostly person-dependent."
	"In many cases the university does not even support my athlete work because they do not let me go to a training camp or competition."
➢ *Parental attitudes*	"It is often the case that a parent does not allow a child to workout because they have got a bad mark or have to write a test, must go to a private lesson."
	"This requires a parental intelligence, and foresight."

Table 7 Revealed variables of socialization function
Source: own construct

Ideal function

The question of this dimension is, what each stakeholder group reckon as sporting goods and sport values, what variables can be separated, and how it can be measured. The biggest difference between the groups was experienced in this area. The most commonly mentioned variable referred to **absolute success** in each group *("If one or more athletes will get to the Olympics, then they have to perform well and make an individual peak, and it's a huge thing in itself. To be an Olympics Icon is a life-long story.")*, since this is the basis for judging the sport and the club. *(„The measure of success is how the professional work is acknowledged, the mapping out of this is in the form of grants by the HAA.")*. However, the performance orientation of athlete is balanced by the **individual development** of the athlete, mentioned in a tight connection by the coaches and leaders. *("... as you proceed in your sport career, everyone have to achieve the result which is appropriate for the skills." / "Give everyone a goal that's accessible, personalized.")* In this respect, two intertwined pairs of attitudes can be identified, on the one hand, it is needed to be professsional athletes in the meaning of absolute comprehension, thus individual skills are determinative, so that everyone have to prepare personalized goals. The factors above, are largely determined by **professional work**, which is mostly lived as success by leaders *("It's a social engagement and a hobby. The success for me is to be an operative structure that can be insertable in the right professional content.")*.

During the interviews, additional discovered variables support these sports values (background variables). On the one hand, **building the mass base** appeared *("The biggest success is if there are many ...")*, for which it is essential to provide an **open environment** *("Providing an open environment for everyone to tell their problems or if they have a thought speak it out.")*. On the other hand, the **respect for tradition**s are also represents an added value *("Here by BEAC tradition has a prominent role, we preserve it and pass on it ...")* and the willingness to **renew** it *("At the departmental level it is a success if we can function well professionally and we can rejuvenate continuously in order to react to the new conditions ...")*.

Absolute success	"If one or more athletes will get to the Olympics, then they have to perform well."
	"The measure of success is how the professional work is acknowledged, the mapping out of this is in the form of grants by the MASZ."
Self-development	"Give everyone a goal that's accessible, personalized."
	"... as you proceed in your sport career, everyone have to achieve the result which is appropriate for the skills."
Professional work	"The success for me is to be an operative structure that can be insertable in the right professional content."
➢ *Mass base*	"The biggest success is if there are many ..."
➢ *Open environment*	"Providing an open environment for everyone to tell their problems or if they have a thought speak it out."
➢ *Traditions*	"Here by BEAC tradition has a prominent role, we preserve it and pass on it ..."
➢ *Rejuvenation*	"At the departmental level it is a success if we can function well professionally and we can rejuvenate continuously in order to react to the new conditions ..."

Table 8 Revealed variants of the dimension of sport success
Source: own construct

Business value

Financing is always a basic question in sport. From sport value and the aspects of it, it can be derived that at this time athletics cannot be function without **state aid** *("State engagement is better compared to previous years, it would work really difficult without")*, besides the role of social participation is also indispensable. *("Anyone who is not obsessed with stupidity and madness, leaves it. We have to go against many things.")*

During the interviews, stakeholders started from the basic idea that athletics could work on a business basis *("athletics is vendible a sport")*, but only in the far future, since many segments should change positively; coach training, compulsory physical education, social judgment of the sport, spreading in public awareness, infrastructure development. There are many positive examples in Western Europe where the sport has been rebuilt from nothing, but several factors need to be met, which according to the content analysis were the following. The number of athletes who achieved **peak performance** *("It could be vendible, but it would require more Hungarian athletes who are in the top 8 in the World Cup")*, **traceability of competition** should be simplified *("There are very few official IIAF competitions that can be easily understandable, for non-skilled people.")* and special attention should be paid to the crowd came from running as a hobby, by sport clubs *("Street racing yes, there are thousands of people there, thus it has a business value")* ensure a remunerative market. As long as there is no shift along these variables, sustainability is attributed to municipality engagement *("The philosophy that is represented is vendible because it is supported by the local government.")*, as well as it is ensured by local businesses through **personal contact** *("There is the possibility to find people who are sympathize with the sport")*. As long as there is no **market for this** *(„an internal market can be created with the increase of an athlete's base")*, so many sponsors cannot be involved, but local media as support organizations can appear. The majority of the managers and some coaches realise that the hobby running could give the success of the athletic business, it would be possible to extend the athletics, attract crowd runners, which work well abroad *("It's a common habit in Denmark to get joggers into the club, but it also requires culture as well")*. We have not been there yet to be a community-building force.

The strongest negative attitude associated with business value, which is appeared in the responses, is the **doping sensitivity** of sport, which is critical in connection with sport *("In Hungary our throwing events can be world-class, but those are very susceptible to doping, so that sponsors are very cautious in this area")*.

By the preparation of mini-focus group interviews in connection with business value, contrary to my preliminary expectations, other sectors of the sport *(eg. sports media, manufacturers and traders of sport equipments, sport health)* appeared in a negligible extent. One of the possible reasons for this, is that the interviewees approached the topic basicly in an introverted way, they mentioned those factors that appear in their own narrow environment (see: affected person revealed by contact network).

State support	"State engagement is better compared to previous years, it would work really difficult without…"
Personal relationships / municipality engagement	"The philosophy that is represented is vendible, because it is supported by the local government."
	"… there is the possibility to find people who sympathize with the sport."
Social engagement	"Anyone who is not obsessed with stupidity and madness, leaves it. We have to go against many things..."
Business-based operation	"The sport faculty is vendible, but in numerous factors positive change need to be occured."
➢ *Peak power*	"It could be vendible, but it would require more Hungarian athletes who are in the top 8 in the World Cup"
➢ *Competition traceability*	"There are very few official IIAF competitions that can be easily understandable, for non-skilled people."
➢ *Lack of market*	"…an internal market can be created with the increase of an athlete's base"
➢ *Appreciation of running as a hobby*	"Street racing yes, there are thousands of people there, thus it has a business value."
➢ *Doping sensitivity*	"In Hungary our throwing events can be world-class, but those are very susceptible to doping, so that sponsors are very cautious in this area."

Table 9 The variables of the business value dimension
Source: own construct

Summary

By identifying the stakeholder groups presenting in the Hungarian athletics, transparent network of contacts and operational processes come to conclusion in this field. In this article, with the attitudes of managers, coaches and athletes are being dealt. In the exploratory research mini-focus group interviews with athletes, trainers and leaders of several outstanding athletics clubs in Hungary were conducted.

Qualitative research has provided an opportunity to outline the relationship network (stakeholder map). The results showed that there were three significant sub-groups of stakeholders in the Hungarian athletics from the sports clubs point of view. In connectoin with the sport service, athletics, coaches and club leaders are involved directly, while indirect contacts are being disseminated (formal - in the form of cooperation agreement - and in an informal way) with other sport clubs, educational institutions and doctors which is able to improve the effectiveness and the basis of athletes. Supporters are primarily concerned with those who provide financial backing support (primarily by association and local government) to clubs and have their expectations and attentiveness in this regard. In the group of supporters, primarily those are concerned, who provide financial background support (primarily by association and local government) for clubs and, in this regard, have their expectations and interest validation. **In our research through the interviews the attitudes connected to sport functions have been revealed, which draws the attention to the specialties of this sport.** The results show that each of the examined areas has its corner points, but many other variables are also displayed:

Medical dimension: the difference between official sportsman and the amateur, the connection between health and efficiency, the sportsman skill and attitude, the expertise of the coach, the factors influencing performance (relationship of family and nutrition, role of nutritional supplements, doping, talent), external environmental factors.

Socializing dimension: the effect of community power and team work, the roles within the group, the effect of sport on learning (assessable skills, education systems, parental attitude).

Role model (success) dimension: absolute and relative sportsman efficiency, professional work (building of mass base, supplying open environment, traditions, openness for new).

Business dimension: support from federal and local government, personal contacts, social roles, the influential factors in case of business connection (maximum performance, championship administration, lack of market, the evaluation of hobby running, sensitiveness to doping).

The results obtained would provide an opportunity to get measurable athletics as a complex sports service through attitude-scales. It is possible to set up a preference sequence within the group and between them, whose incremental utility evolve in the synergistic affect between the groups. The many years of experience gained in Hungarian athletics shows that making processes more efficient is not just a matter of money. Structures have to change, but the circle of affected people need to know, as well as their attitudes and preferences.

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