

SELYE E-STUDIES



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CAN AGILE MANAGEMENT METHODS BE FUNCTIONED IN INVESTMENT PROJECTS?

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Abstract

The subject of modern management methods belongs to current and utilitarian issues that are considered in the area of theory and practice of business management. The article has epistemological character. Management sciences are interdisciplinary and often refer to the paradigmatic distinction. The main research goal is to systematize knowledge about modern management concepts and create a foundation for further practical research on a specific investment project. The author focused on the development of the agile concepts and they can be used in investment projects. The summary indicates that modern management methods are not recommended for each project.

Key words

Investment project, scrum, growth, management, agility.

JEL Classification: A2, D2, D21

Introduction

In the management sciences a road is currently being sought which in times of changeable environment will allow the company to grow and stand out from the competition. In recent years, many new management concepts have been created that primarily relate to one basic concept of business agility. It is true that this topic is already present in many scientific articles, including epistemological articles, but there is no complement to those theories in the context of showing how they can affect investment projects. While tracking scientific publications, one can also conclude that agile methods have virtually no defects, they are in a sense “fashionable” in the world. Is it true that the introduction of agile methods is a kind of panacea for any company's problems?

In 2001, the Agile Manifesto was created (Beedle, M., *et al.*), however, this was not the beginning of this management movement. Already much earlier there were several theoretical bases for agile methodology of business management, and more specifically, the methods of managing the production stage. Undoubtedly, they arisen from the system school and the systemic approach itself, as well as from the concept of Scrum, created by Takeuchi and Nonaka (1986). Already then it was noted that classic management methodologies were not so flexible as to allow faster product development in a turbulent environment. Attempts have been made to adapt to customers and create new management trends. As a result, concepts such as scrum, poker planning and later Kanban were created. However, this was not the end, over the years, enterprises created their own variations of those concepts, showing more and more ideas for agile management in the company.

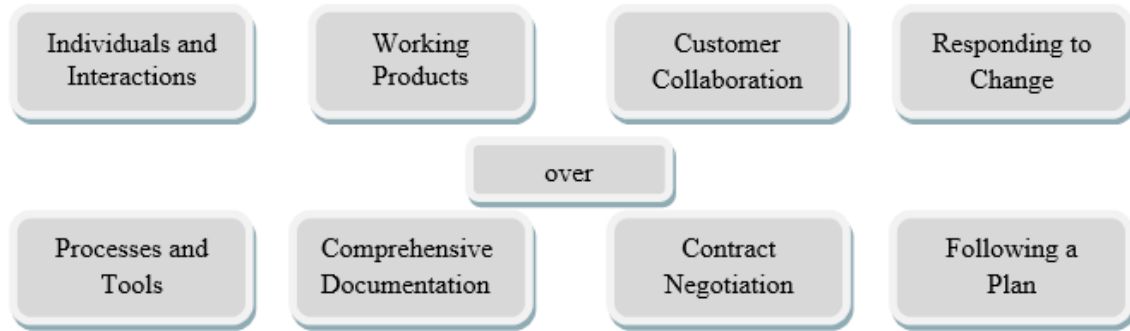


Figure 1. Manifest Agile

Source: Own study

In agile methods, thanks to the orientation on the implementation of the most important effects, the stages and activities that are not as important as, for example, the detailed documenting, can be postponed. According to this assumption, one should spend as much time as possible on contacts with customers, during which a stable relationship is built with them. However, the question arises as to whether all enterprises can operate on the basis of an agile management system? In the case of agile methodology, it is not often possible to identify the end of the project, because we never know whether the technology or expectations of customers are to change many times and, above all, what changes will occur on the market where we operate. The agility is usually recommended for medium and small projects, but is it possible that large enterprises that implement mass projects are also able to adapt to modern management trends? In the agile approach, instead of detailed planning, attention is focused on the ability to respond to changes and to match the project to the iteration (Owen, R., *et al.*, 2006). So, can we use agile methodologies for each project?

Theoretical background

The traditional approach to project management, also known as cascading approach, undoubtedly works in conditions where the environment and the market situation, which is very stable are known. We are also guided by the fact that we know the customer's expectations and that they are not variable. This project management model has obviously many advantages, and its stages can be represented as:

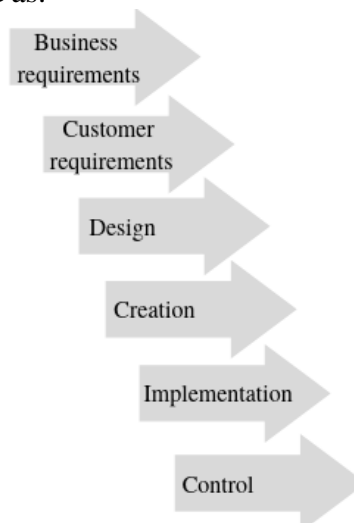


Figure 2. Stages of project management in a classic approach

Source: Own study

As we can see in the figure above, the project management, which is based on a planned and predictable structure, can work in a stable environment, but what can we do when times and the market become more and more uncertain? The project management is currently performed under conditions where one needs to quickly meet customer requirements, but at the same time it is hard to define them. That is why, APM concept appeared for the management methods, according to which it is assumed that the project is divided into smaller units of operation, so-called iterations. After completion of each of those units a value is to appear. This division works because of the assumption that sudden changes and disturbances may occur during each iteration. The structure also allows to redefine the activities. However, it also has its drawbacks, this method of management is practically impossible to implement in large investment projects, because it would significantly affect the structure of the solution and further implementation of the project. In such projects, participants usually have to be sure from the outset what they expect and they cannot change their mind in this respect, and the contractor cannot fail to meet the schedule.

The concept of agility was for the first time presented in 1995 by Gehani, then he assumed that the agility was simply the ability to market the product faster than by using traditional project management concepts. This triggered a wave of subsequent publications, and in the same year, articles of Goldman, Nagel and Preiss (1995) and Motweni and Kumar (1995) appeared, where they stated that it was an adjustment to aggressive changes, rapid growth of the company, the ability to act in crisis situations of the enterprise. For example, Y.Y. Yusuf (2012) presented the features that an organization should have, to be classified as agile, they included: speed of adapting to prevailing conditions, ability to use uncertainty, resources flexibility, and development of relational capital. Those features were also highlighted in the article of Horlach *et al.* (2016), who believed that currently only such enterprises can succeed on the market.

The subject of agility in an enterprise originates from the management sciences. A series of considerations and research of scientists has led to the development of this concept in economic sciences faster than ever before. Earlier, the competitiveness was measured primarily in the quality of the product and its price. This approach has been radically changed. Dorst (2011), Razzouk and Shute (2012) show the similarity between the agility and Design Thinking. All the erroneous locations of this trend are caused by the lack of precision in the definitions given and the systematization of issues in epistemological publications. This can be seen in Highsmith's (2004) publications, who claims that the agility appears only in an enterprise whose business environment is not certain, while Boehma and Turne (2004) already define that the organization must have knowledge and experience regarding its environment. Erickson *et al.* (2005) put forward the thesis that enterprises should abandon traditional project management methods and adopt the only right direction. Closer to the assumptions of this article is the publication by Saaty and Sodenkamp (2008), in which they identify the concept of agility only with greater success in the planning, execution and control of the investment projects. In the opinion of the author of that publication, there is a close correlation of the concept of agility, not only with the production process but also with relations with the environment and the possibility of reaction to changes.

It should also be pointed out how misleading is to combine the concept of agility with flexibility. This was used by Qumer and Henderson-Sellers (2008), who in their publication showed that the agility is the possibility of using flexibility for unexpected changes. Flexibility and agility are correlated with each other, but only when we talk about the enterprise structures. It must have flexible structures so that it can become agile. Flexible production, personnel and resources allow the company to become agile in the perspective of changes and competition on the market. Edivandro Carlos Conforto *et al.* (2016) treat agility as the basis of the APM (Agile

Project Management) approach and it means for them the efficiency of a project team, which translates directly into the results.

Methods

of the main methodological problems that is rooted in the interdisciplinary nature of the management science is associated with the ability of paradigmatic distinction. Therefore, some areas of the management sciences are still in the area of pre-pragmatic, i.e. in a way methodologically immature science. It is still not entirely clear how, for example, to examine the agility of a given company, what growth or development rates should be taken into account. Undoubtedly, the precursor of the paradigm theory was T.S. Kuhn (1968). He formulated the concept of a paradigm in the methodology and philosophical theory of cognition as: theory and concepts that form the basis for learning and the model of solutions in a given field of science. As a basis for the theoretical discussion, one can adopt a critical analysis of both domestic and foreign literature in the field of modern management methods and their application in the company's operations. Scientific articles, conference materials and all industry publications have been thoroughly analyzed. Those activities were aimed at responding to the following research hypothesis put forward by the author:

H1: the use of agile management methods for large investment projects has a negative impact on their realization.

The main goal of the article was to systematize knowledge about modern management concepts and create a specific foundation for conducting research on specific investment projects, in relation to particular trends of management agility. A few research methods have been used for this purpose. The author has conducted desk research, or analysis of secondary data included in industry reports and various scientific publications, then through content analysis, messages were reduced to describing the most important meanings, including key words in terms of agility. Simple observation and non-invasive measurement, involving the analysis of some investment projects and the preliminary analysis of whether agile methods could be used in them, were subsequently performed.

Results and Debate

Scrum

The essence of this agile method is the iteration, which is understood as the systematic approaching the goal in steps. The most important element of Scrum is Sprit, during which new dimensions of the product are created. Scrum delivers the product in small increments, which means that we are able to control its performance on a regular basis. Scrum is not a methodology, it is a set of rules that allow to efficiently receive feedback on the product and on the project (Cervone, H. F. 2011).

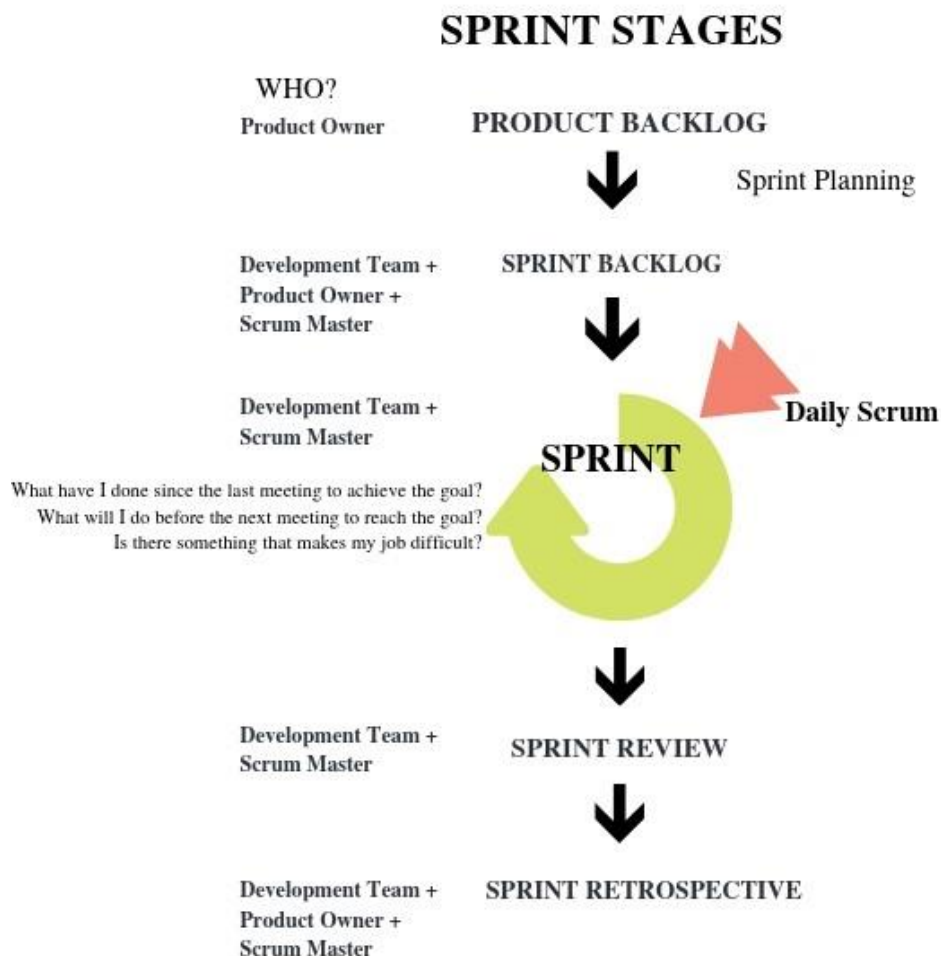


Figure 3. Sprint stages.

Source: Own study.

Sprint in enterprises usually lasts approx. 4 weeks and new project functions are created during this process. In the first stage of Backlog, a register of features and requirements that our product should have, is created. The project functions are systematically supplemented and directed to implementation (Mahnic, V., 2012). Sprint Backlog is a package of product functionality. During the project implementation, the team meets every day, and Scrum Master also participates in those meetings. Meetings allow to determine the stage of the team work. Once a week a Product Backlog Refinement is also held, during which, with the participation of the Product Owner, it can be determined whether the expectations regarding the product have changed and whether the planned functionality is implemented correctly. The final stage is Sprint Review, during which the results achieved by the team are presented. During the Retrospective step, we evaluate the advantages and disadvantages of the project and we plan further possible improvements.

Table 1. Basic features of Scrum and their potential impact on investment projects

Feature	Influence	Evaluation
Relying on the team work.	The team has complementary competencies - analysis, programming, testing.	+
Scrum Master oversees the team.	Sharing observations with the team, help in increasing the efficiency of teamwork.	Frequent meetings are a waster of the time which mainly contributes to the success of the investment project. -
Delivery of the project in stages.	Knowledge of the project success for the Project Owner.	-
Each of the iterations has a certain time range	Necessary increment after each iteration.	-
Transparency of the plan and structures.	Lower costs of inspections and possible repairs.	+
Agility in adapting to changes.	Ability to change the scope, technology and activities of the team in a timely manner.	-

Source: Own study based on industry articles.

After analyzing the scrum method, it might seem that this is not a method that will allow the development of the investment projects. The investment projects are strictly limited in time. In general, it is not possible to perform the Sprint Retrospective stage, because work on the project ends simply by closing it. In the investment projects, it is important to control the budget, the scope of the project and, above all, the schedule. From the above analysis it is clear that the Scrum method will be the most adequate for the software, but its use in investment projects is probably pointless. The software is constantly being improved and developed, hence the Scrum structure perfectly suits the possibilities of working in this industry. Among the methods promoting PM in Agile, Scrum is usually indicated as only a production method, able to be introduced at the delivery level. It is not possible to enter it into the Project Management. Scrum can work as a way of organizing work, e.g. of developers to be managed by PM. This set of practices and techniques has been built to create complex products. Therefore, scrum is a completely different approach. The project management concerns delivery of the entire scope and closure of the project on a fixed date. The fact that we use so-called Fixes in the investment projects, does not mean that we could introduce Scrum in such projects. Scrum gives a kind of “illusiv” sense of project control, while it should function practically only in projects with a variable scope and a short perspective of time. Scrum is a methodology which is very difficult to be implemented in the project, and the biggest mistake, often made by entrepreneurs, is designating it as the leading methodology that can be implemented in any project. Scrum is not a project management method, it does not even introduce the concept of a project, it only works where the product will be created.

Kanban

The foundation of the Kanban concept was created by Taiichi Ohno (2008), who decided to reorganize Toyota's production. At that time, a breakthrough set of agile project management methodologies emerged along with the development of production systems. It

was also then that Goldratt (2007) for the first time presented a technique that was an improvement of scrum and described it as Kanban. It features included:

- no iterative approach,
- possibility of implementing several projects at the same time,
- having a clear process policy,
- flow management,
- work visualization.

He also defined this method as the method right for IT projects, not taking into account the ability to manage other projects.

Table 2. Main Kanban characteristics and their disadvantages.

Team	Defining possibilities, common problem solving and cooperation, decisions on processes modification, sharing competences and tasks.	This methodology transfers on the team a very large responsibility for the time of performing, because no schedule is created in it, which means that employees need to be perfectly aware of where the project is going to be, and the time of its implementation is not artificially extended.
Board	It serves to visualize the work. It presents the current status of work and burdening of departments within the project. Activities limits and their status.	It may turn out that the team members do not have or have difficult access to the board. It causes disturbances in the flow of knowledge, which is actually the most important assumption of this methodology.
Work in progress	Due to the fact that each department can only have a certain number of activities, it is not possible to implement activities at a given time and to shift the status of their implementation, if there is no vacancy in the given department. There is no time limit for the given activity.	Tasks can be poorly divided, which will result in a waste of time in relation to the tasks.

Source: Own study based on (Kraśiński 2012, p. 293)

Although the Kanban methodology has many positive assumptions, it cannot be introduced in all conditions. The biggest limitation will be the irregular flow and, consequently, the underburden of teams that implement the project, which will probably lead to losses for the organization. Kanban, like every other agile methodology, has limitations that concern the size of implemented projects. It should be mentioned again that large projects need documentation and precision in the relationship between the customer and the team. Nonetheless, the Kanban methodology may already be implemented in the management of investment projects, to a greater extent than the Scrum methodology. The benefits that speak for the introduction into the enterprise include (Anderson, 2010):

- reducing costs by reducing overloads and downtime,
- increasing the quality of the product,
- increasing the team performance,
- shortening the time of the project implementation,

- employee satisfaction, when the work is evenly distributed.

When analyzing the main assumptions of the Kanban methodology, it can be seen that it gives the opportunity to implement the following four basic project tasks: planning, organizing, executing and controlling. Therefore, it can be said that Kanban is suitable for implementation in projects outside the IT industry. Of course, it should be noted that this is not the ideal methodology for large investment projects. It gives the opportunity to manage multiple projects and integrate information, stakeholders, resources and tasks. Therefore, it can be used to implement the investment projects, but the decision should not be too hasty and guided by “trends” in the management.

Classic method of project management in combination with Agile PM

The classic method of the project management does not consider changes that may occur on the market and the possible change in customer expectations. The literature review shows that scientists attribute this method, especially to very large projects, where it is not possible to plan without a schedule. In the classic approach, time plays a decisive role and, in principle, it can be assumed that it is the most important determinant of success. The time frame of the project is set at the beginning of its adoption. Plans that are then created are not flexible in terms of changes in deadlines. It is assumed that the time is estimated as accurately as possible. This is determined by its cascading nature because it does not return to the previous stages. Therefore, it can be noted that the project management is conducted cyclically in this method, according to the Deming cycle. Both in classic and agile methods, six variables, according to which the project should be constantly monitored can be distinguished.

Table 3. Six aspects of the project effectiveness in the traditional method in combination with the Agile PM Method.

Variable	Scope	Agile PM	Scope
Scope	Plan implementation.	Features	Scope of the project works and final functionality of the product.
Term	Deadlines of the project and of individual stages of tasks.	Time	Deadline: of the project, increments, timeboxes.
Quality	Defining the requirements for the implementation of the project, its materials.	Quality	Functional requirements, properties, features, Agile PM maturity in the organization.
Expense	Budget implementation.	Budget	Only one budget for the project.
Risk	Risk management by means of naturalization or minimization of threats.	Risk	It concerns making it impossible to increase the company's chances
Benefit	Waiting for benefits from the implementation of the investment project.	Business benefit	Appearing when using the supplied products.
-	-	Resources	Understood as the relational capital in the enterprise (Stolarska, E., 2018)

Source: Own study

As it appears from the above, the Agile PM methodology is characterized by an iterative-incremental-adaptive structure. It is a kind of full project methodology that does not omit any project parameters used in the classic method, and even provides another parameter

which is closely related to the functioning of the concept of relational capital in the enterprise. Additionally, the Agile PM method promotes a different scope of management of the mentioned parameters. Therefore, this method can be used in large investment projects, in contrast to the agile scrum method, which is simply intended for product development in the project, rather than for conducting the entire project. Agile PM is a method, this concept cannot be confused with the methodology. This is indicated by the fact that it has a set of good practices, tools and techniques, but above all shows how to combine project management with the delivery of products. Therefore, it can be stated that the Agile PM method is a hybrid method, because it consists of elements from the classic project management method, but also of the products production method, which probably has its roots in the Scrum method. In the AgilePM philosophy, changes are preferred, unavoidable and even recommended. This method actually relies on a specific vision of what the investment project requirements are to be, they become even more evident when the project is implemented.

Table 4. Summary of the classic management method with AgilePM

	Classic Project Management Method	AgilePM
Type	Sequential-cascade	Iterative-incremental-adaptive
Guided by	Plan	Change
Paradigm	Process	Adaptive
Requirements	Established at the beginning	Revealed in progress
Changes	Controlled	Recommended
Time	Several months investments	Max. 6 weeks
Management	An individual manager is responsible for each investment stage, everything boils down to management and production.	Employees have more autonomy in taking action, there are few strictly supervising people, everything boils down to management and production, but with particular emphasis on business.

Source: Own study based on industry websites

The above table presents a detailed explanation of two approaches to the project management. It is extremely important to control costs in the project management. Therefore, the time-consuming stage of estimating, defining the scope and planning the budget cannot be avoided. Unfortunately, analyzes occupy the largest part in the investment projects which causes the need to reject the agile management methods. When we look at the second column in Table 4, we can clearly see that the data on the characteristics of the classic approach coincide almost entirely with the requirements set for the investment projects in Poland. Such projects, implemented with the state budget or European Union funds, require the same structure of work as the classic project management approach.

Each methodology has its limitations. It should be remembered that when choosing a management method for the investment projects, first of all, the scale of the enterprise and the business environment should be considered. It is extremely difficult to imagine the implementation of undertakings formalized in the public sector using the Agile Manifesto method. Unfortunately, the market is currently “fashioned” by agile methodologies, but from

the industry articles, it is clear that the most promoted method is Scrum, which is not a good solution.

Conclusions

The project management approaches presented above differ significantly by their assumptions and features with which they can fulfill their functions. The classic management method is nothing more than a plan control. The plans concern long-term investments. In this methodology there is no time delimitation for individual stages, as in the case of the Scrum or AgilePM method. As can be seen from the analysis presented above, the classic approach best addresses the requirements of state and European tenders. In the Agile approach, plans are postponed until they are actually necessary. Still, they are not a determinant of how we should act. The situation on the market is changing, so it happens in the case of the development of a project, so it can be assumed that such a project must be dynamic and agile. In the author's opinion, the agile methods are not possible to be implemented in the large investment projects. The agile methods cause the separation of responsibility for work for each employee, which is not possible with a larger investment project. The method will undoubtedly be effective at particular stages of planning the given investment elements, but it is not possible to introduce it as a guiding method in managing the investment project. This is also indicated by Polish and European requirements regarding the implementation of the investment projects financed with the public sources. After analyzing the tenders, it turns out that none of the institutions even allows the possibility of accepting the proposals of agile performance of the investment project, rejecting it at the beginning during the initial verification. On the other hand, it should be borne in mind that the investment projects financed with public funds have a completely different meaning than the investment projects of private enterprises, and that the laws that relate to them are stricter. Probably this is the main blockade to the introduction of agile projects.

The project management is primarily a focus on the implementation of the plan, the introduction of an agile method can introduce a serious delay risk. In large investment projects, there is usually no place and time for adding new ideas and avoiding those unnecessary ones. Everything occurs under the principles established prior to the implementation of the undertaking. Although they are intended to bring maximization of values, experiments, changes in directions and testing of hypotheses, they are not desirable actions in the large investment projects, which again allows us to conclude that the agile methods are not appropriate in this respect. However, there are some features of the agile project management which should be added to the traditional management framework. Each unnecessary function generates costs in the project. Therefore, in this case, one should be guided by an agile method and strive to eliminate the implementation of unnecessary functions.

Not all of the investment projects are suitable for conducting them using the agile methodology. There are more effective and proven methods of implementing the investment projects, such as the traditional and cascade methods. The Agile methods, including Scrum and Kanban, do not provide any confidence that something will be more flexible, safer and better. The Agile phenomenon can be compared to a snowball, it drives itself, although in many projects it cannot be justified, just because nowadays every company wants to be "Agile".

Bibliography

1. ANDERSON, D.J. 2010, Kanban. Successful Evolutionary Change for Your Technology Business, Blue Hole Press, Sequim.
2. BEEDLE, M., et al. 2001, Manifesto for Agile Software Development, <https://agilemanifesto.org/>.

3. BOEHM, B., TURNER, R. 2004, *Balancing Agility and Discipline: A Guide for the Perplexed*. Addison-Wesley, Boston, pp. 6.
4. CERVONE, H. F. 2011, *Understanding agile project management methods using Scrum*. OCLC Systems & Services. *International Digital library perspectives*, Vol. 27 (1), pp. 18-22.
5. CONFORTO, E.C. 2016, *The agility construct on project management theory*. *International Journal of Project Management*, Vol. 34, pp. 660-674.
6. DORST, K. 2011, *The core of “design thinking” and its application*, “Des. Study”, Vol. 32, p. 521-532.
7. ERICKSON, J., LYYTINEN, K., SIAU, K. 2005, *Agile modeling, agile software development, and extreme programming: the state of research*. *Journal Database Management*, Vol. 16, pp. 88-100.
8. GEHANI, R.R. 1995, *Time-based management of technology: a taxonomic integration of tactical and strategic roles*. *International Journal of Operations and Production Management*, 15 (2), pp. 19-35.
9. GOLDMAN, S.L., NAGEL, R.N., PREISS, K. 1995, *Agile Competitors and Virtual Organizations: Strategies for Enriching the Customer*. Van Nostrand Reinhold, New York, p. 273.
10. HIGHSMITH, J. 2004, *Agile Project Management: Creating Innovative Products*, Addison-Wesley, Boston p.16.
11. HORLACH, B., DREWS, P., SCHIRMER, I. 2016, *Bimodal IT: Business-IT Alignment in the Age of Digital Transformation*, Conference paper – Die Multikonferenz Wirtschaftsinformatik Conference 2016, p. 1416-1425.
12. <http://agilemanifesto.org/iso/en/manifesto.html>
13. KUHN, T. S. 1968, *Struktura rewolucji naukowych*, tłum.: H. Ostromęcka, PWN, Warszawa, p. 146.
14. KUMAR, A., MOTWANI, J. 1995, *A methodology for assessing time-based competitive advantage of manufacturing firms*. *International Journal of Operations and Production Management*, Vol. 15 (2), pp. 36-53.
15. KRASIŃSKI, M. 2012, *Model zespołu projektowego w metodyce Kanban*, [w:] *Metody badania i modele rozwoju organizacji*, red. STABRYŁA, A., WAWAK, S., Mfiles.pl, Kraków, p. 293.
16. MAHNIC, V. 2012, *A capstone course on agile software development using Scrum*. *IEEE Transactions on Education*. 55 (1), p. 99–106.
17. OHNO, T. 2008, *System produkcyjny Toyoty: więcej niż produkcja na dużą skalę*, ProdPress.com, Wrocław.
18. OWEN, R., KOSKELA, L.J., HENRICH, G., & CODINHOTO, R. 2006, *Is agile project management applicable to construction?* In *Proceedings of the 14th Annual Conference of the International Group for Lean Construction*, pp. 51-66.
19. QUMER, A., HENDERSON-SELLERS, B. 2008, *An evaluation of the degree of agility in six agile methods and its applicability for method engineering*. *Journal Information and Software Technology*, Vol. 50, Issue 4, pp. 280-295.
20. RAZZOUK, R., SHUTE, V. 2012, *What is design thinking and why is it important?* *Review of Educational Research*, Vol. 82, pp. 330-348.
21. SAATY, T.L., SODENKAMP, M. 2008, *Making decisions in hierarchic and network systems*. *International Journal of Applied Decision Sciences*, Vol. 1, pp. 24-79.
22. SCHMIDT, H. *Explosive precursor safety: An application of the Deming Cycle for continuous improvement* *Journal of Chemical Health and Safety* Available online 26 October 2018.

23. STOLARSKA, E. 2018, Kapitał relacyjny w przedsiębiorstwach rodzinnych w Polsce na rynku usług gastronomicznych, *Przedsiębiorczość i Zarządzanie*, tom XIX, zeszyt 7, część III, pp. 59-70.
24. TAKEUCHI, H., NONAKA, I. 1986, The New New Product Development Game, *Harvard Business Review*, January 1986, pp. 137-146.
25. YUSUF, Y.Y., GUNASEKARAN, A., MUSA, A., CANG, S. 2012, A relational study of supply chain agility, competitiveness and business performance in the oil and gas industry. *International Journal of Production Economics*, Vol. 154, pp. 531-543.

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HOW FDI IN MANUFACTURING AND SERVICE SECTORS IMPACT THE EXPORT PERFORMANCES: THE CASE OF MACEDONIA AND CROATIA

Florida Veljanoska

Abstract

The main objective of this paper is to examine whether FDI to manufacturing sector brings export growth, while the FDI to service sector does not affect export performances of the recipient country. In order to respond to the purpose of this paper, I examined the cases of Croatia and Macedonia. FDIs in Macedonia are mostly motivated by the cheap resources, and therefore are directed in significant capacity in manufacturing sector, while Croatia is a typical example where FDIs are directed towards service sector. In order to confirm the hypothesis an empirical analysis is conducted, using contemporary econometric software EViews10. The results from Granger Causality test have confirmed the hypothesis that the FDI towards manufacturing sector is positively related to export, while FDI to service sector doesn't have impact on export performances.

Key words

FDI, export, manufacturing sector, service sector

JEL Classification: F14, F21

Introduction

Almost all developing and transition countries are “fighting” between each other, in order to attract more FDIs. That is due to many positive impulses in the recipient country, which come along with the FDI inflow. Such potential positive impulses are economic growth, export growth, technology transfer, unemployment reduction, easing the pressure on balance of payment, overcoming the gap due to the low level of domestic saving, etc. Although there are many benefits from FDI and among the main is the potential growth in export.

Theoretically, positive effects of FDI on export derives mainly because of the additional capital, more advanced technology and transfer of new products, training of local workforce and upgrading the technical and managerial skills, facilitating access to the new and large foreign markets, especially in the home country market, etc.. The most notable example of this is USA, where China had great benefits from the lobbying activities of multinational companies (MNC) in their home countries for favorable treatment of products from their foreign affiliates. FDI can also influence on export, through stimulating export of domestic companies and through industrial linkage or spill-over effects. According to this, there is direct and indirect impact of FDI on export. The direct impact is through the export of MNCs, while the indirect effect is through the spill-over effects of MNCs on local firms export activities.

Although, it is widely accepted that FDI may bring growth in export, the practice has shown that there are differences in inter-relationship between the FDI and export in different countries, depending on the sector where the FDIs are directed, and depending on the motive for FDIs. Most of the experts agree that FDIs towards manufacturing sector, cause an increase in export, while FDIs towards service sector do not have significant effect on export. The experts also consider that market or strategic-asset seeking FDIs does not influence on export, while the resource and efficiency seeking FDIs tend to be more export-oriented. That means that horizontal FDIs, which are driven by the motive to bypass trade barriers, will not increase export, while vertical FDI which is driven by the motive to produce at relatively low cost, should have positive impact on export.

Although in the literature is generally accepted that FDI has positive effect on export, there are some opinions that FDI may have negative effects on export. As an explanation for these statements, the authors emphasize that FDI may: reduce or replace domestic savings and investment; may transfer poor technologies which are inappropriate for the host country's factor proportions; may target primarily the host country's domestic market, and thus will not increase exports; may inhibit the expansion of indigenous firms that might become exporters; and finally may not help in developing the host country's dynamic comparative advantages by focusing solely on local cheap labour and raw materials.

In addition, the most important previous researches which have investigated the impact of FDI on export, will be presented. Mahmoodi and Mahmoodi (2016) used two panels of 18 European developing countries and 8 Asian developing countries. They found unidirectional causality from FDI to export in European developing countries in short-term, and long-run causality from export to FDI in Asian developing countries. Njong and Tchakounte (2011) conducted Eagle-Granger Causality Test for the period 1980-2003, and they discovered that high FDI contribute to higher export, through increasing supply-side capacity. One way causality from FDI to export growth was found in Taiwan in the period 1952-2005 (Lee,2007).Also, the studies which have investigated the causality between FDI and export in China, have found that FDI to China had great influence on China's export boom, and that the influence comes mainly from the FDI in manufacturing sector. The study conducted by Mazura, Sikwila, Nesongano (2018), for Zimbabwe for the period 1980 – 2011 has shown that FDI had positive impact on export in Zimbabwe.Kutan and Vuksic (2007), Njong and Tchakount'e (1998), Kneller and Pisu (2007) argue that export oriented FDI generate positive externalities in foreign, but as well as on domestic companies. Many researchers have also found positive correlation between FDI inflows and export (Cabral 1995, Black et al. 1994). Great part of the empirical studies have also confirmed that FDI promotes export growth of domestic countries by augmenting domestic capital required for further export, by helping transfer of technology, facilitating access to new-large foreign markets, by providing training for the local workforce and upgrading technical and management skills (Athukorala and Menon 1995, Zhang and Song 2001, Zhang and Fellingham 2001, Zhang 2005, Bing 2006, Piamphongsant 2007, Koppaipon 2008).

Hungary is the most typical example where constant growth in FDI brought proportional growth in export. That was because of the fact that initial FDI took place in manufacturing sector. As a result, Hungary has gained considerable market share internationally.

As for the case in Macedonia, there was one study by Selimi et al. (2016), who found that there is positive and significant effect from FDI to Macedonian export.

One study about Croatia (Vuksic, 2005), which used panel data for the FDI towards manufacturing sector for the period 1992-2002, has showed that FDI in Croatia have positive influence on export, but the extend of that impact is very low.

Contrary to the previously mentioned studies, there are some researchers which argue that FDI have negative impact on export performances, because they may lower or replace domestic saving and investments; the transfer of technology may be at low or inappropriate level for the recipient country's factor proportions; MNCs may target primarily the host country domestic market and as a result FDI may not increase export, but hinder the expansion of domestic companies, which might become exporters; and FDI may inhibit the development of host country's comparative advantages, by focusing only on local cheap workforce and raw materials (Makki and Somwary 2004, UNCTAD 1998, Ernst et al. 1998, Kumar and Siddhartan 1997).

Miankhel, Thangaveluk and Kalrajan (2009) used VECM framework in order to discover the causality between FDI and export in 6 emerging economies from Latin America.

Their research has shown that there is one-way causality from export to FDI, and not from FDI to export. There are also other studies which have not found any impact from FDI to export growth, such as studies performed by Sharma (2000), Nguyen et al. (2012), Golbergs and Klein (1998). The study about the case in India conducted by Sultan (2013), although found long-run equilibrium relationship between FDI and export, the Granger Causality test based on vector error correction model, did not find any causality from FDI to export.

While further theoretical insights would be valuable, empirical analyses of this issue are needed in order to better understand the FDI-export link. Revisiting of this relationship is more meaningful for the developing than for developed countries, since the first ones are facing serious economic problems and concerns, including high deficit in current account, problems with balance of payment and strong pressure on exchange rate. Therefore, it is very important, not only to discover how total FDI impact on export, but to discover how certain types of FDI's have impact on export performances. Consequently, the main objective of this paper is to determine how FDI's to manufacturing and service sector influence on FDI. In order to get the most reliable results, the cases of Macedonia and Croatia are investigated. Macedonia is a country that has almost the same structure of FDI, relating to the proportion manufacturing/service sector of FDI inflows at global average, while Croatian FDI's to service sector are far above the global average. It is the fact that the share of FDI to service sector dominate worldwide, and services are the largest and fastest growing sector in global economy, with more than 60% of global output, and in some countries even larger share in employment, and as a result there has a remarkable shift of FDI away from manufacturing sector, towards the FDI to service sector. However, the situation in Croatia, where the share of services in total FDI is more than 75%, is too high comparing to the global average. Namely, today the share of global FDI towards the service sector is between 50% and 60%, which is far below the share in Croatia.

In Macedonia the share of service sector in total FDI's is 49%, which is slightly less, comparing to the global average, and sharply less comparing to the Croatia. The share of FDI's to manufacturing sector in Macedonia and Croatia is 39% and 23%, correspondingly. From the given data, it is clear that Macedonia is a real representative of a country with more FDI's to manufacturing sector, and less in service (comparing to global average) and Croatia is a classical representative of a country with great share of FDI to service sector and extremely low level of FDI's towards manufacturing. Hence, the cases of Macedonia and Croatia can be used in order to determine the causality between the FDI in manufacturing and FDI in service sector on export performances in the recipient country.

The data for the research are provided from the National Bank of the Republic of Macedonia, Croatian National Bank, as well as from the World Bank database. In order to get the most reliable results an empirical research, using the contemporary econometric software EViews10, will be performed. First, unit root test will be conducted, in order to determine whether the time series are stationary, using the Augmented Dickey–Fuller (ADF) unit root test, as well as Phillips-Perron unit root test (PP). Then the Granger causality test will be carried out, in order to determine whether the variables are inter-related.

Material and Methods

The analysis in the paper covers the period 1995-2016. Data for total FDI, for sector distribution of FDI, as well as for export, were provided from National Bank of the Republic of Macedonia, National Bank of the Republic of Croatia, as well as from the World Bank database. In addition the data about FDI inflows and export in the Republic of Macedonia and the Republic of Croatia will be presented.

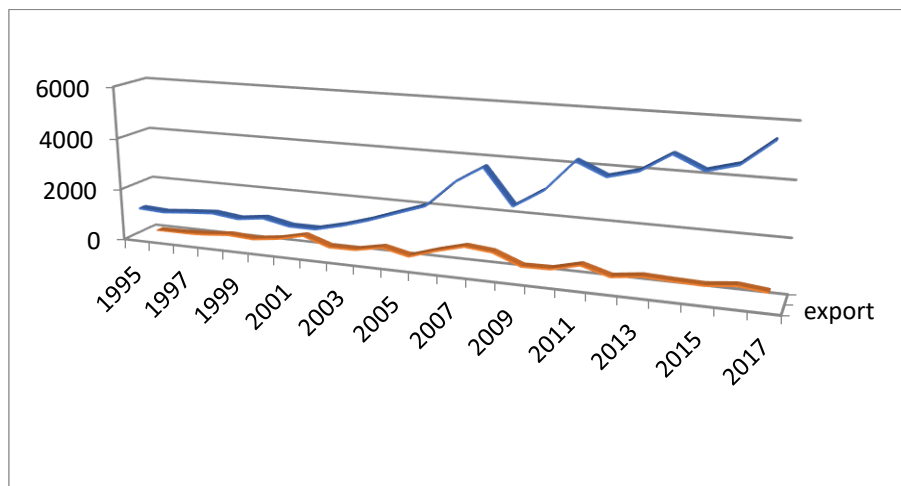


Figure 1. FDI inflows and export in the Republic of Macedonia in the period 1995-2017 in thousands of US\$.

Source: National Bank of the Republic of Macedonia

The Graph 1 shows the trend in FDI inflows and export in the Republic of Macedonia. From the presented graph it is noticeable that FDI inflows and export, share the same line till 2011, when there is slight downward trend in FDI inflows and in the same time strong upward trend in export. The general analysis of FDI inflows in the Republic of Macedonia shows that till 2000, there was neglectable amount of FDI in the Republic of Macedonia. The history record was reached in 2007, but after that the FDI inflows were lower than 400 million Euros. In regards to the export in Macedonia, it is worth mentioning that there is an overall strong growth in export in Macedonia, which is now 5 times bigger than the export in 1995. In the Graph 2 the trend in FDI inflow and export in Croatia is presented

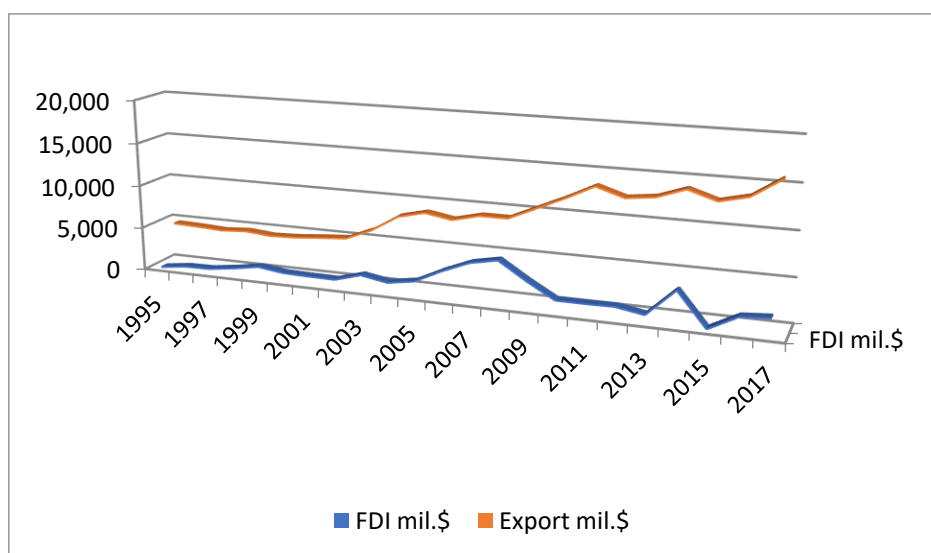


Figure 2. FDI inflows to Republic of Croatia in the period 1995-2017 in the million US\$

Source: National Bank of the Republic of Croatia

The data from the Graph 2 shows that generally, there is an upward trend in FDI inflows in the Republic of Croatia till 2008, and after, there was a strong decline that lasted till 2017. Only in 2014 there was slight recovery, but in 2015 the total inflow of FDI was as low as in the period before 1995, only 159 million US\$. As for the export, generally there is an upward trend in

Croatian export. However, there are some slight falls in certain years, but they are not as big, to disrupt the general inference for increase in export.

Considering the purpose of this research – to determine how FDI inflows to manufacturing and service sector impact on export performances of the country, the data about the structure of FDI are provided. Below is presented the FDI structure by sector in Macedonia and Croatia.

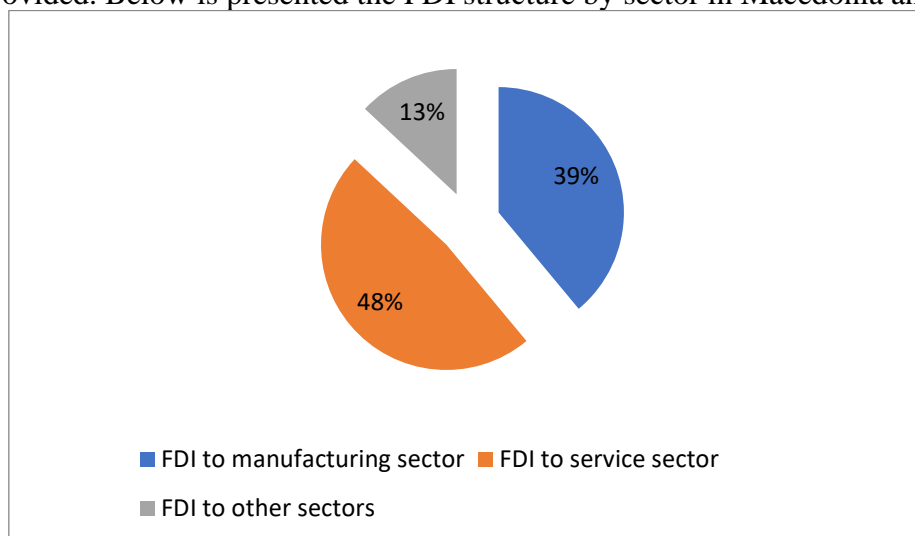


Figure 3. FDI inflows by sector in the Republic of Macedonia

Source: National Bank of the Republic of Macedonia

From Graph 3 it is noteworthy to mention that the share of FDI to manufacturing is smaller than the share of FDI to service sector, which is in accordance with the global trend in FDIs. Namely, the global FDI to manufacturing in 2016 were around 40%, and to services 50%. That is very similar to the sector distribution in Macedonia, where total FDIs to manufacturing were 39% and to services 48%. Overall, in the past two decades FDIs to services are more than half of total global FDIs, and their share is moving between 50% and 60%.

Contrary to the global and Macedonian distribution of FDI by sector, are the FDIs in Croatia, as it is presented in Graph 4.

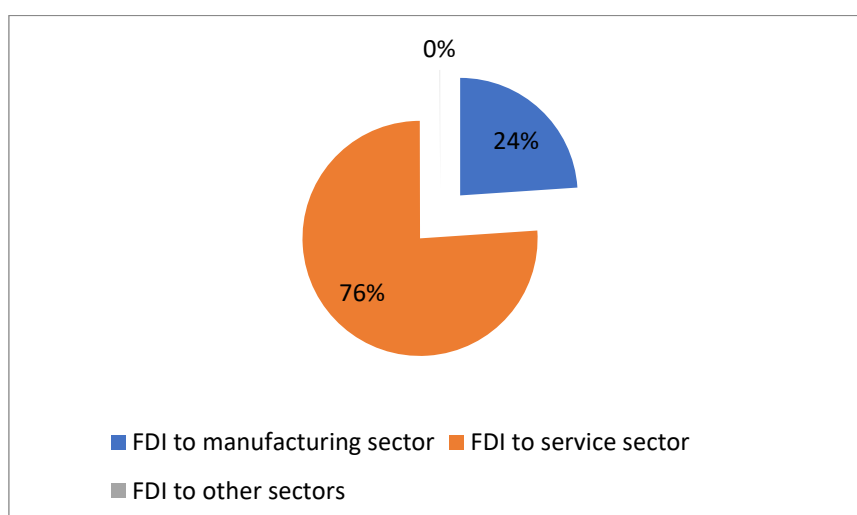


Figure 4. FDIs inflow by sector in Republic of Croatia

Source: Croatian National Bank

The Graph 4 shows that majority of the FDI inflows to Croatia were directed to services - 76%, while in manufacturing sharply below the global average, only 23%.

From the presented Graph, it is obvious that Croatia is a typical example of country, where FDIs are directed toward services, and Macedonia, is a classic representative of global distribution of FDI, by sector. As two countries are suitable representatives of countries – one for FDI to service sector and one for FDI that has significant inflow of FDI to manufacturing, the analysis can now be continued with the description of the empirical research method.

In order to get the most reliable results, an empirical analysis, has been performed. The empirical analysis is conducted with the help of contemporary econometric software EViews 10. First Augmented Dickey–Fullertest (ADF) and Phillips-Perronunit root tests will be fulfilled, in order to determine whether the variables are stationary and second, the Granger Causality test will be performed to see if there is causal relationship between FDI and export in Macedonia and Croatia.

Results and Debate

Unit root test

In order to conduct Granger causality test it is necessary to explore whether the time series are stationary, which means that unit root test needs to be carried out. For that purpose the two most important unit root tests will be accomplished. The first one is Augmented Dickey–Fullertest (ADF), and the second one is Phillips-PerronTest(PP). The null hypothesis is that there is a unit root, and the alternate hypothesis is that the time series do not have unit root. The ADF unit root test was done first in level form and then in 1st difference, in both countries and for both time series – FDI and export. The lag length for ADF and PP test were chosen by using Schwarz’s criterion (SC’s information criterions). Below are presented the results for ADF and PP test for both countries, and for both time series.

Table 1. ADF and PP unit root tests for time series FDI and export in Macedonia and Croatia

		Macedonia				Croatia			
		FDI		Export		FDI		Export	
		T-statistic	Probability	T-statistic	Probability	T-statistic	Probability	T-statistic	Probability
ADF	Level form	-3.2416	0.0309	0.87952	0.9929	-2.7866	0.0764	-1.0437	0.7186
	1 st difference	-	-	-5.9461	0.0001	-6.3221	0.0000	-4.742	0.0012
PP	Level form	-3.1345	0.0385	1.11257	0.9962	-2.7337	0.0844	-1.0206	0.7271
	1 st difference	-	-	-6.4221	0.0000	-6.3469	0.0000	-4.741705	0.0012

Source: Author’s research calculations

As it is presented in the Table 1 the results from the ADF and PP test indicate that export time series in Macedonia as well as in Croatia are non-stationary at their level form, but they achieve stationary in their first difference. As for the FDI time series, in Macedonia they are stationary on level form, while in Croatia are non-stationary on their level form, but achieve stationary on first difference. The same results were provided for the export time series. The critical value of 5% level of significance was considered.

Since, the results from the unit root test are adequate for Granger causality test, now the analysis can go further on Granger Causality test.

Granger Causality Test

As the results from the unit root test are eligible, the analysis can now go further on Granger Causality Test. The null hypothesis is that FDI does not Granger Cause export. The alternate hypothesis is that FDI does Granger Cause export.

The results from the Granger Causality Test are presented in the Table 1. The Akaike Information Criterion (AIK) and the Schwarz's criterion were used in order to determine the lag lengths, and both found that the optimal lag lengths for both cases are 6.

Table 2. Granger Causality Test - causal relationship between FDI and export in Macedonia and Croatia

Granger Causality Test - Macedonia			Granger Causality Test – Croatia		
Pairwise Granger Causality Test Sample: 1995-2017 Lags:6			Pairwise Granger Causality Test Sample: 1995-2017 Lags:6		
Null hypothesis Prob.	Obs.	F-statistic	Null hypothesis Prob.	Obs.	F-statistic
FDI does not Granger Cause FDI 0.0127	17	13.3572	FDI does not Granger Cause FDI 0.1462	19	2.48534

Source: Author's research calculations

The results from the causality analysis are showing the inter-relationship between the FDI and export in Macedonia and Croatia. Table 2 shows that in the case of Macedonia the null hypothesis should be rejected, and the conclusion will be that FDI have influence on Macedonian export. Contrary, the analysis about Croatia showed that null hypothesis should be accepted, and the outcome of the research will be that FDI does not Granger Cause export. It is considered 5% level of significance, which is usually set as mostly acceptable. Since p value is bigger than the accepted value of significance of 5% in the case of Croatia, the null hypothesis will be accepted, and it can be said that the past values of FDI cannot be used as a credible base for forecasting the future values of export. In the case of Macedonia p value is lower than the accepted value of significance of 5% and the null hypothesis should be rejected, and conclusion will be that past values of FDI can be used as a credible base for forecasting the future values of export.

The Granger Causality test which explored the causal relationship between the FDI and export in the Republic of Macedonia and the Republic of Croatia showed that FDIs are related to the level of export in the Republic of Macedonia, but are not connected with the level of export in Croatia. Those results, confirm the initial hypothesis of this paper that FDI to manufacturing sector have positive effect on export performances of the recipient country (as the case in Macedonia confirmed), while the FDI to service sector does not have any effect on export performances, as the case about Croatia showed.

Conclusion

One of the most important problems that are facing developing countries, is the shortage of capital for investment. In order to overcome this gap, developing countries are “fighting” between each other, in order to attract more FDIs. FDI is stable source of capital, since it is not volatile on external and internal shocks, as other forms of foreign capital are, and since it brings many benefits to the recipient country. Among other benefits from FDI inflow is the export growth. Although the general thesis that FDI brings an increase in export is widely accepted, still there are some experts, who argue that FDI does not influence on export performances. The statements that FDI are not correlated were also confirmed by some empirical studies in the past, also. That means that the effect of FDI on export depends on the type of FDI, on sector distribution of FDI, on investment motives, etc. That was actually the main objective of this paper, to determine how sector distribution of FDI impact on export performances of the recipient country. More precisely, the aim was to investigate whether FDI inflows to manufacturing sector are positively correlated to the export performances, while FDIs to service do not have any causal relationship whit export. In order to get the most reliable results, the cases of Macedonia and Croatia were investigated. The both are developing countries, and the difference between them is that FDI to Macedonia follow the global sector distribution of FDI, and have slightly less FDI to service compared to the global average, while Croatian FDIs to service sector are far above the global average. Consequently, Macedonia is taken as an example of country that has less or close to the global FDI to service, and Croatia is taken as a country with very high share of FDI to service sector. In addition, Macedonia has much more FDIs to manufacturing compared to Croatia, 40% and 23%, respectively.

In order to get the most reliable results, an empirical analysis, was performed, using the contemporary econometric software EViews 10. First, ADF and PP unit root test were fulfilled, to investigate whether both time series from both countries are stationary. The results from the unit root tests showed that export time series in Macedonia as well as in Croatia are non-stationary at their level form, but achieve stationary in their first difference. As for the FDI time series, in Macedonia they are stationary on level form, while in Croatia are non-stationary on their level form, but achieve stationary on first difference. The same results were provided for the export time series. The critical value of 5% level of significance was considered. Since the results from the unit root tests were eligible, the analysis continued on the second step – Granger Causality Test.

The analysis in Macedonia has shown that null hypothesis should be rejected, and alternate hypothesis that FDI Granger Cause export should be accepted. As for the case in Croatia, the Granger Causality Test showed that null hypothesis - FDI does not Granger Cause export should be accepted. So, the Granger Causality Test demonstrates that past values of FDI in Macedonia can be used as a credible base for forecasting the future values of export. The same cannot be said for Croatia, where past values of FDI are not eligible for predicting the future values of export.

The findings from the empirical research has confirmed the initial hypothesis from this paper that FDI to manufacturing sector has greater influence on export performances in the recipient country, than FDI to service sector. Actually, FDI to service sector does not affect the export performances of the recipient country

The outcomes from this research should be used by the policy creators, in the process of formulating adequate measures for attracting FDI. The results suggest that if the officials are willing to attract FDIs in order to increase export, then they should create adequate policies for attracting FDIs in manufacturing sector. If the primary objective is different, then they may also consider attracting FDI in service sector.

Bibliography

1. Athukorala, P. and Menon, J. (1995).Developing with Foreign Investment: Malaysia.Australian Economic Review. 28, 9-22
2. Bing, X. (2006).Chinese corporations going global. Presentation given at the ASEAN-UNCTAD Seminar Key Issues of FDI: Outward FDI from Asia. Chiang Mai. Thailand.
3. Blake, P. and Nigel Pain (1994).Investigating structural change in UK export performance: the role of innovation and direct investment. NIESR Discussion Paper 71
4. Cabral, L. (1995). Sunk costs, firm size and firm growth. Journal of Industrial Economics, 43, 161-172
5. Bucevska, V. (2014).Assessing the impact of FDI on Export performance of Macedonia and Turkey. International Conference on Eurasian economies. 1-8
6. Ernst, D. Ganisatsos, T. and Mytelka, L. (1998).Technical Capabilities and Export Success in Asia. London. Routledge.
7. Golberg, S. and Klein, W. (1998). Foreign Direct – Investment, Trade and Real Exchange Rate Linkages in Developing Countries. in Reuben Glick (Ed) Managing capital flows and Exchange Rates: Lessons from the pacific Basin. Cambridge University Press.5th Edition.
8. Jayakumar, A., Kannan, L and Anbalagan, G. (2014).Impact of FDI, import and export. Review of Research in Emerging Markets and the Global Economy: An online monthly international Journal. Vo. 1(1)
9. Kalirajan, K., Miankhel, A. and Thangavelu, S. (2009). Foreign direct investment, exports, and economic growth in selected emerging countries: Multivariate VAR analysis. Exports and Economic Growth in Selected Emerging Countries: Multivariate VAR Analysis
10. Kneller, R. and Pisu, M. (2007).Industrial Linkages and Export Spillovers from FDI.The World Economy. Vol. 30(1), 105-134
11. Kohpaiboon, A. (2003). Foreign Trade Regime and FDI Growth Nexus: A Case Study of Thailand. Journal of Development Studies. 40, 55-69
12. Kumar, N. andSiddharthan, N. (1997). Technology, Firm, Size and Export Behaviour in Developing Countries: The case of Indian Enterprises. Journal of Development. 31, 289-309
13. Kutan, A.M. and Vuksic, G. (2007). Foreign Direct Investment and Export Performance: Empirical evidence. Comparative Economic Studies 49(3), 430-445
14. Lee, W. (2007). Foreign Direct Investments and export performance: the case of Taiwan. University of Wollongong Thesis Collection
15. Mahmoodi, M. andMahmoodi, E.(2016).Foreign direct investment, exports and economic growth: evidence from two panels of developing countries. Economic Research-EkonomskaIstraživanja. 29(1), 938-949
16. Makki, S.S. and Somwaru, A. (2004). Impact of Foreign Direct Investment and Trade on Economic Growth: Evidence from 0Developing Countries. American Journal of Agricultural Economics. Vol. 86(3), 795-801
17. Marinesku, N. (2007). The link between export and inward FDI: The case of Romania. 9th ETSG Annual Conference. Athens
18. Muzurura, J.,Sikwila, M. and Nesongano, T. (2018).The impact of foreign direct investment (FDI) on export growth: Evidence from Zimbabwe-1980 to 2011.Research in Business and Economics Journal. Vol.12, 1-17
19. Njong, A.M. and Tchakount'e, R. (2011), Investigating the Effects of Foreign Direct Investment on Export Growth in Cameroon. Faculty of Economics and Management. University of Dschang. Cameroon

20. Nguyen, D.B., Tu, T.A. and Chu, T.M.P (2012). On the linkage between FDI and TRADE: Evidence from Vietnam. SECO/WTI Academic Corporation Project. Working Paper Series 5/2012
21. Piamphongsant, T. (2007). Thai Manufactured Exports: Performance and Technological Change Since the 1997 Crisis. Ph.D. Thesis, University of London
22. Selimi, M., Sadiku, L. and Reci, K. (2016). The Impact of Foreign Direct Investment on the Export Performance: Empirical Evidence for Western Balkan Countries, *Iliria International Review*. Vol.6(1), 57-66
23. Sharma, K. (2000). Export Growth in India: Has FDI played a role. Yale University Economic Growth Center Discussion Paper. No. 816
24. Sultan, Z.A. (2013). A Causality Relationship between FDI inflows and Export: The Case of India. Department of Management. College of Business Administration. Salman Bin Abdulaziz University Alkharj. Kingdom of Saudi Arabia.
25. UNCTAD. World Investment Report – different years. New York and Geneva
26. Vuksic, G. (2005). Impact of FDI flows on Croatian Manufacturing Sector. *Financial Theory and practice*. Vol. 29(2)
27. Zhang, Q. and Felmingham, B. (2001). The Relationship between Inward Direct Foreign Investment and China's Provincial Export Trade. *China Economic Review*.12, 82-99
28. Zhang.K.H. (2005).Promoting exports: the role of inward FDI in China.*China Economic Review*.vol. 11(4), 385-396
29. Zhang, K.H. (2005). How does Foreign Direct Investment affect host Country's export.performance?. The case of CHINA, paper presented to International Conference of WTO, China, and the Asian Economies. III Xi'an, China

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USEFULNESS OF THE ANGLO-SAXON TUTORING SYSTEM IN HUNGARIAN HIGHER EDUCATION

Orsolya Pócsik

Abstract

I have long wanted to write that in addition to talent management, why is English-Saxon tutorial system is useful and how become easily to apply in Practice of Hungarian Higher Education. The topic is not new, but the use of the method can lead to major learning (pedagogy), group dynamics, psychology, training and other interdisciplinary methodological changes. For all actors in this stage, this method can be fruitful and spectacular, both for lecturers and students. The study also points out - how does the curriculum understand the tutored, what are the requirements for a tutor, what levels do the tutorial system have, what results are expected, what is the link between the tutorial system and the web 2.0 application, etc.? In my paper I give an understandable way of the method of Academic Tutoring, what is a good practice in West Europe and in the USA. I tried to find differences in one hand a Frontal form and in another hand, a Tutoring system. The higher aspect is what is good for the student, who spends years in the Higher Education.

Keywords

Tutoring, roles, Higher Education, tutor, tutorial

Introduction

There is a number of methods and methods of Higher Education, the dissemination and consolidation of which has resulted in success in the given educational culture.

Among these, I would like to highlight the tutor method in my study, which, with its many advantages, also results in student and educator success. Effective in the sense of having a successful exam that has its earnings. Perhaps the tutor's existence can be considered to be a pedagogical training, as some of his pedagogical abilities are used by the individual. The attitudes, knowledge and skills learned here determine the status of individuals later on in the cathedra. The formal tutoring community becomes dominant in the student during the university years. It is a question of high importance in Hungary where the education system still needs methodological reforms in order to lay down the fundamentals of an efficient and prospering economy in the future. Even though Hungary can be proud of her Nobel prize winner scientists, the way of education and tutoring needs comprehensive reforms. As Neszmélyi (2016) described that from among competencies innovativeness and openness for studying are still weakly performing. Changes in students' learning-to-learn relationship change clearly and unambiguously. In this paper, I attempt to compare two types of pedagogical approaches, presenting the domestic and foreign practices and the relationship between these forms of learning and Higher Education in the digital world. This is an insight on the theoretical concept that the author seeks to be thought-provoking.

1. Pedagogical point of view in Higher Education:

Nowadays, we need to know what our Higher Education is good enough, what are the ways to transform and translate the knowledge into understandable. There are proven methods and educational models, schools in Higher Education as well. In a medium that is increasingly based on service, and which has to break the socialization synergies of the age. Individuals carry values, which also change, and Higher Education, even if individuals are transformed.

Already the great figure of Hungarian education, Apáczai pointed out the functions of the modern school, and in his sentences. he recalled that the school was responsible for the transfer of knowledge. The complexity and systemic nature of the school is already emphasized by Kozma (1999).

In my reading, the university, the everlasting apple mascot, a community of groups of people who want to learn from people with different knowledge, aiming at self-dissemination, which means they can be more assured of existence. The academic context in my case is the didactics, where I study my study. The old and new method of adult education is answered in the study, which by mass paradigm shifting the cathedral pedagogue would understand the material to be learned. Of course, the idea is international and the idea lies ahead of us.

The question is pedagogical; its implications are sociological, psychological and economic. Hungarian Higher Education is participatory, and many focus on compiling the curriculum, but the method chosen is at least as important. Another increasingly important criterion towards the education system is to comply with the practical needs of the entrepreneurs, or with other words not just to be excellent in theory but also in professional and practical training. For example, In 1999 the Ministry of Agriculture and Rural Development recognized this need and entrusted the high education institutes to organize non-payable professional events (like study courses, presentations, shows) for farmers (Neszmélyi - Kim, 2001), but in other professions also one can find such examples.

Gábor Halász made an interesting statement about the pedagogy of Higher Education and the fact that he sees that in more and more decades in the past decade. The fact that the classical functions of Higher Education - that is, research, teaching and service - are directed towards the teaching-learning function, which has several reasons. Two of them are raised separately. One is that in the previous decades, mainly as a result of national innovation or research and technology policies, Higher Education policy. Its attention turned to the research function to a great extent. The other process, which has attracted attention to teaching and teaching, The strengthening of the vocational training function of higher education and the reforms that have put learning outcomes in the forefront. Furthermore, it is interesting to point to learning outcomes, but also to new forms of skill development that are no longer in the classroom learning environment - such as lectures, seminars - but on real-world terrain, in real-life situations where students can learn them, the capabilities that the world of economy or work requires. This raises important questions about the quality of the learning environment and the organization of learning. (Kálmán, 2013)

2. What is the tutorial system in the Anglo-Saxon or American model of studying in Higher Education?

A system, whose elements are also used by Hungarian Higher Education, is merely care for talents, more words, and its results and other applications are worth considering.

The tutorial system is the foundation of the Anglo-Saxon education model.

According to Collins English Dictionary: tutorial system in British is a noun, means a system, mainly in universities, in which students receive guidance in academic or personal matters from tutors (Collins English Dictionary, 2016)

According to Collins English dictionary: tutorial system in American way, a system of instruction, as in some universities, in which a tutor directs the studies of each of the small group of students assigned to him or her. (Collins English Dictionary, 2016)

According to further dictionary, the tutorial group in British way is a noun in education, a small grouping of students given intensive tuition by a tutor. (Collins English Dictionary, 2016)

Countless authors call on Carl Rogers, who says learning is an equal self-realization. Here, the experiences and the interpretation of the curriculum should also be considered.

The tutorial system is best illustrated by the approach based on this approach.

The learning group is where they discuss experiences, draw conclusions, create new schemes, or create new models for the existing one. It is important for the teacher to recognize discovery learning pleasure, remember it. Another important aspect is to allow the students to unfold, as performance dissipation or anxiety reduces the student's chances of learning.

3. How does it deviate from the traditional Hungarian model, or what about all the higher education methods taught in Hungary?

What are the main differences between the 2 models?

The participants in the education process are teachers and students in Higher Education. (They have now disowned other actors who are part of the university, education process.) By narrowing down the actors of the education as subjects, I will examine and compare them as a role played.

These actors may be deterministically the individuals who have the highest or lowest level of Higher Education. I would like to give an interesting point of schedule, what is this: How call the Hungarian Higher Educational teacher?

Table 1. Tutor in Anglo- Saxon countries versus Hungarian Higher Education Teacher

Tutor in Anglo- Saxon countries	Hungarian Higher Education Teacher, Instructor, Lecturer
Keynoter	Performer/ Lecturer
Person, who discuss problems	Person, who give task for students
Knowledge transformator	Knowledge transformator
Question posing	Speaker
Interpret the material – focus: understandability	Interpret the material- focus: explainability for the material

Source: Own editing

It is worth examining the names of Higher Education students according to the domestic and foreign terminology. The Hungarian term is not translated into English. In fact, since the tutor is not an addict or a teacher, it is the most talented student who knows the lesson, knows the lecture, understands it and has the ability to transfer pedagogical skills. The tutor will explain in the afternoon a job interview when students ask questions and answer questions.

Table 2. Students' task in to 2 systems

Student in Anglo- Saxon countries:	Student in Hungarian Higher Education:
Reader	Listener
Arguer	Observer

Source: Own editing

Iván Falus - a well-known Hungarian didactic professor - explains the following about the lecture, a monologists teaching method that serves a logical, detailed, long-term expression of a topic. Simplifies elements of narrative, explanation, and illustration. (Falus, 2003, 216 p.) The length of the lecture varies from 15 to 20 minutes to 1.5-2 hours, depending on the age of the students ... However, regular lectures on long-term lectures are only justified in upper or adult education. (Falus, 2003, p. 216)

The performance has a condition system(Following Falus, I. 2003, p. 216)::

- The student's attention
- The teacher is an active participant
- The student is a passive host
- The method is economical
- The student's active receptivity
- Starts the student's constructive imagination,
- Thinking about your mind
- Motivates good performance
- Synthesizes the student's knowledge
- The instructor expresses his expressiveness

The use of the lecture is justified if (Falus, 2003, p. 216):

- the goal will be to convey new knowledge,
- the curriculum is not available in such short form,
- In a specific structure for a given study group,
- there is a need to raise interest,
- briefly memorize the information,
- it is used to introduce a curriculum part and then follow / follow other methods.

Traditionally, the structure of the lecture consists of three main parts: introduction, discussion, synthesis and synthesis. (Falus, 2003, 216 p.)

Seminar: It is a small group work where the teacher prepares a topic for students to understand the topic. The seminar method is one of the interactive cooperative techniques. Discussion, discussion, individual opinion as a form of work and a working phase in the form of seminar education.

Differences of the 2 model: Seminars & Tutorial model:

Table 3.: Comparison of Traditional Seminars vs. Tutorials

Didactic steps of Traditional seminar lesson	Didactic steps of Tutorials
Introducing: Discussion of topic and individual problems	Introducing: Discussion of topic and individual problems
Knowledge of responsibility	Knowledge of responsibility
Practicing	-
Systematization	Discussion

Source: Source: Own editing

As I am a pedagogical teacher I have learned that the seminary lesson is composed of blocks and parts:

The well-held seminar follows 4- 5 didactic steps:

- Introduction
- Knowledge of responsibility
- Practicing
- Systematization
- (Possible answer to questions at the end of the lesson).

The didactic steps of tutorials are as follows:

- Introduction
- Knowledge of responsibility
- Discussion

Basic differences:

- Cultural perception (graduation requirements, size of study groups, depth of secondary school curriculum, etc.)
- A form of class
- A lesson time frame
- Volunteering or faculty
- Method of financing: payable by the state or student

From the point of view of teaching material, each method is effective.

In my view, the two forms of are mainly based on a change in cultural perceptions and attitudes. In other words, cultural differences and teacher-tutors appear in different roles. Other is the method of processing the curriculum and the purpose of the formal and informal classroom.

Special case in Hungarian Elite High School Practice, in a way our talent became professionals in Hungarian Grammar Schools:

The teaching of the elite Hungarian Grammar Schools is similar to the tutor education, in the sense that most of the students attend a private lesson, where they are conversing with a school teacher but not with a teacher in the classroom, receiving the teaching material.

Tutor system is this, albeit not in the traditional sense. The tutor here is the teacher, the student is the host person who tries to understand the curriculum and prepare the teacher for the lesson. The tutor here is the teacher, the student is the host person who tries to understand the curriculum and prepare the teacher for the lesson. Elite training is also because students are selected on the basis of study results in the institution, which usually have family support.

Their teacher teaches a lecture, explains the curriculum, and the students ask questions only at the end of the day. The tutorial role will be the afternoon, corrective, preparatory teacher.

However, the success of the student is shared by the teacher of the subject, tutor (explaining, correcting) teacher, and last but not least the student.

Whatever the elite Hungarian grammar school does, the model works. Parents are eager to pay extra spending, which means investing in their children's human capital. At the teaching hour, the salary of the teacher in the Hungarian system is paid by the state, the payment of the tutor; correction fee is the responsibility of the parent. Here is time to understand the curriculum, because the tutor usually only increases the student's mental capacity, develops his / her knowledge and expressive ability. It is a very effective way to retrieve the learned material in "quasi-answer" and then evaluate it. Thus, the student acquires knowledge of the subject, requirement, and abilities of his / her own skills. He is able to acquire skills in the discipline of his or her ability to secure his later university degree.

Foreign tutoring practice

University of Wyoming Multicultural Affairs MA Tutorial program

Tutor Goals (University of Wyoming Multicultural Affairs MA Tutorial Handbook, 2011):

- Your primary aim the tutor is to assist the student to become a confident, independent learner.
- The tutor helps the student understand the course material
- The tutor helps the student develop skills for studying, organization, and managing time

Tutor's requirements- This is the keynotes for tutor's behavior (University of Wyoming Multicultural Affairs MA Tutorial Handbook, 2011):

- Be Professional
- Punctuality
- Clothing
- Personal Hygiene
- Credibility
- Confidentiality
- Be Positive
- Speak with good purpose
- Build rapport
- Be Prepared

Encouraged Tutor Behavior:

Tutors perform their work independently and without a supervisor present. Because you work in an autonomous setting, it is especially important that you maintain professional standards of behavior including (University of Wyoming Multicultural Affairs MA Tutorial Handbook, 2011):

- Reinforce key concepts
- Teach new material
- Teach study skills and strategies
- Model the behavior and habits of a good student
- Build a positive attitude toward learning and

Tutor- Tutored together study goals (University of Wyoming Multicultural Affairs MA Tutorial Handbook, 2011):

1. Main goal to develop a Study Plan and Schedule
2. Sub-goals: e.g., study a certain number of hours per week, learn the material in a particular chapter, develop a system for taking notes, attend review sessions with professor, etc.
3. Write Schedule: Have the student write out a weekly study and tutoring schedule.
4. Let the student know that having a written plan, following the plan, and assessing accomplishments each week is a proven method for organizing time and meeting goals.

Tutor Procedures - Details of University of Wyoming process:

1. All tutoring sessions must take place on the campus.
2. The Coordinators will primarily communicate with you via your campus email address. Tutors check your email regularly.
3. Complete a Tutor Re-Cap form for each session, and turn it in to your Coordinator within 24 hours following the session.
4. You must sign your time card by the 25th of each month. Checks are available on the 15th of the following month in the Business Office. You are paid at the current minimum wage rate.

Procedure for tutor absence (University of Wyoming Multicultural Affairs MA Tutorial Handbook, 2011)

1. If you know in advance that you will be unable to make it to a scheduled session, let your student know as soon as possible, and no later than 5pm the day before the session.
2. Check your email for a message from the student.
3. Wait 15 minutes for the student, unless you have had prior notification of the absence.
4. Fill out and submit the online No Show Forms soon as possible within 24 hours of the absence
5. Cancellation and No Show Policy: Maximum two no-shows per semester, per student.
6. Excessive number of cancellations may lead to termination of tutoring partnership.

Tutors' levels:

- Beginning Tutor
- Advanced Tutor (Level 1, 2, 3)
- Online- only Tutor
- Tutor Supervisor

Tutors' selection criteria Smith (2016):

- A-grade (excellent student)
- Mastered face-to-face tutoring technique
- Hold a Bachelor degree

What are the tutors' flexibilities & helps? (Tutoring and Demonstrating: A Handbook):

- Choose their own teaching hours
- Plan their own timetable (when it is possible)
- The tutor can get advice and help from the lecturing staff

Essential Criteria (University of St. Andrews):

- Completed mandatory training for postgraduates who teach (or registered to do so at next opportunity).
- Experience in teaching.
- Excellent communication skills.
- Friendly and approachable manner.
- Ability to work with a diverse range of students.
- An appreciation of different approaches to learning and teaching.

Desirable Criteria (University of St. Andrews):

- Experienced in tutoring and assessment at the University of St Andrews.
- Experience working with students 1:1

Didactic way of tutoring (Tutoring and Demonstrating: A Handbook):

- Tutorials must integrate with and give coherence the structure, content and aims of the course of which they are a part, and so in the most basic sense all tutors must,
- In developing their tutorial program,
- 'Follow the course'.
- Discuss the course leader
- He /she can get discussion and negotiation between course leader and tutor before the course begins.

- Way of the method: It is an important part of the responsibilities of tutors to ensure that they have identified, understood and accepted the constraints what he/ she will work.

What is the basic aim of tutorials? (Tutoring and Demonstrating: A Handbook):

- Deepening knowledge;
- Problem-solving;
- Facilitating open-ended exploration of themes and issues;
- Developing skills in argumentation and communication.
- To create a good learning environment for the students.
- Responsible for identifying the aim of a tutorial and for their own style in fulfilling that is the basic aim
- How tutors will approach their teaching duties from the departments
- Not responsible for the students' learning: the students are responsible for that

Classroom management- Only Organizational Tutors will (Peer Tutoring Handbook):

- Assist student in identifying and organizing a study area
- Assist student in prioritizing tasks
- Assist student in mapping out and/or taking steps to complete academic tasks in a timely manner
- Demonstrate organized note-taking skills
- Encourage students to obtain a subject specific tutor or set up a study group when appropriate

Responsibilities of a Peer Tutors (Peer Tutoring Handbook):

- Keep appointments
- Help the students to become independent learners/thinkers
- Be positive – even when discussing a student's mistakes
- Don't engage in negative talk about a professor
- Treat all students with respect
- Be knowledgeable about your content area
- Establish mutual expectations with your students
- Maintain confidentiality
- Be accepting of a variety of learning styles
- Have Work Completed (as much as possible)
- Review and understand material to best of ability
- Come prepared – have all materials, instruction sheets, syllabus for the course
- Communicate needs to Peer Tutor

Student- Tutored Responsibilities (Peer Tutoring Handbook):

- I will be on time. If I am 15 minutes late, the tutor is not obligated to wait for me and I will be considered a No-Show.
- I will be prepared. Assignments will be completed as fully as possible, readings will be completed, and I will have questions ready to ask. I will bring my text, notebook, syllabus, and assignment prompt to my appointment.
- I will attend class regularly.
- I will not expect the tutor to “know everything.”
- When my tutor refers me to my professor, I will follow through.

- I will approach learning with an open mind, listening to suggestions.
- If I must miss a session, I will call the ASC

Tutor responsibilities (Peer Tutoring Handbook):

- I will be on time. If I am going to be late, I will notify the ASC staff to have a message relayed to my student.
- If I must cancel a session, I will contact the student as far in advance as possible.
- I will be prepared to answer “most” student questions.
- I will admit when I don’t know a solution or an answer. I will try to find the information. I may also inform your professor about the situation.

Tutoring will be stopped for the following reasons (Peer Tutoring Handbook):

- When the student misses 3 tutoring sessions without reasonable notification
- When tutoring is not helping the student progress;
- When the tutor and the student agree that the student is able to make satisfactory progress working independently.

According to Mária Kraiciné Szokoly, practice orientation is an indispensable requirement in adult education, - it is enough to mention only the official documents of the European Union or the best practices and the wider propagation of these, and that author is already in theory of the theory and You talk about inseparable interconnectivity, believe it. (Feketéné Szakos, 2016)

"Cathedra pedagogy" in the Hungarian Higher Education

In traditional terms, Hungarian Forms are divided into two types of lessons: lectures and seminars. The lecture is a lecture in tertiary education in the world where the lecturer is explaining. Ask questions at the end of the lecture or at the end of the presentation if the students have questions or courage. The seminar is a world-wide small-scale occupation, usually working knowledge-based, or reconsidering case studies and tasks. The role of the tutor is in the background here, it is more of a help, motivation, and the role of the coach. You can understand the curriculum in both these forms or not. However, the best method, model, is to be found in the tutoring system common in the Anglo-Saxon countries. Why do I consider this method to be the best? Perhaps this was one of the Higher Education models that best resulted in the success of the students, it was the source of understanding, and resulted in effective and stable knowledge. According to János Ollé, the answer to the development of didactics is the experiment itself. (Ollé, 2016)

General requirements for students in every university or collage:

- Adult personality is capable of self-learning or learning to advance
- Motivated to learn
- To be able to ask questions to your instructor
- To be able to count on his or her own ability
- Satisfying expectations, rules and norms
- Being able to get involved in education-learning
- It is able to develop in an institutional environment
- Outbound as a more experienced, more educated, crippled student
- Know the key terminology technicians of your chosen science

General requirements for educators in every university or collage:

- Independent personality
- Provide your ability to pass
- Conduct a lecture with a capable explanatory method
- He can independently count his students within ethics
- Satisfying expectations, rules and norms
- Being able to get involved in education-learning
- It is able to develop in an institutional environment
- Can educate in a non-formal and informal manner
- It is able to pass the LLL approach
- Simultaneously facilitator, consul, student of knowledge transfer
- Finding skills for developing skills for your students
- Being able to change your attitudes in your students.

According to Andrea Kukoda Györfyné, teacher-student relations are complicated by the generation problems, the appearance of which is the difference in lifestyle and work style; Differences in different values, preferences, goals of life, and differences in tastes, dressing or wear. Today, however, the biggest problem lies in the differences in view (view) of the use of electronic media in the learning and teaching process. (Györfyné Kukoda, 2014)

Taught learning - to teach learning, learning to teach:

Teaching the best to learn, and vica versa. In rehearsal, in providing assistance to others, you may have been taught knowledge, intensive understanding, and much more thorough preparation from the tutor and learner when you are preparing for a presentation or teaching a classroom. It is quite obvious that in order to acquire knowledge to somebody else, I have to have a very reliable, thorough knowledge of myself. However, it is possible to apply taught learning in a classroom, in a seminar group, to the benefit of multiple learners, for example using in the tutor method. In such a case, in the case of small group work, a student is a leader, a teacher of the group, receives this task in advance, needs to be prepared and has a specific responsibility to make learning successful for members of his group. A learning process is divided into different areas; others can be tutors, so everyone can benefit from the teaching experience. (Nahalka, 2006)

Tutor System and Web 2.0 Education System Relationships

Addition to the modern age, and the spread of online courses, students are digital natives, it is necessary to examine how these two systems can be combined. Most educators can keep their interest in digital content and search. Digital education is also a prerequisite for universities in the universities.

Tutorial System must have been digitally? How? This is a new challenge. It is worth examining. In the spirit of the evolution of ICT technology, the transformation of classical teaching-learning methods and the redefinition of the learning environment, and the change of the various roles, can be found. The new types of modern technology and generation models help the learning process and the growing need for a number of examples to be found at home (Benedek 2013, Horváth-Molnár, 2010) and international (Piet, 2010) (digital teachers, Forum for innovative teachers, etc. (Molnár, 2016) Universities have begun to adapt to new generation student attitudes, habits, norms, learning styles, and e-learning systems have become educational systems. (Molnár, 2016) With these systems, many years of Higher Education experience shows that teaching activity is applicable to daytime activitie. (Molnár, 2016)

A good example in Hungary is the BME GTK Technical Pedagogical Department, where they recognized this practice, and teacher training has thus undergone a paradigm shift, ie, it has become discouraged from curriculum-centered, educational-oriented traditional learning theories and methods and has moved to an ICT-based atypical learning format. In this learning environment, smartphones, iPads, Kinect interactive units and web based services (shared documents, groups, electronic questionnaires, mobile applications, shared calendars, shared storage sites, social networking sites, virtual environments, etc. (Molnár, 2016)

For this, the changed learning environment is supported by the Web2.0-based virtual framework that supports Learning Management System (learning organization), both the Content Management System (Molnár, 2016)

Features of the web 2.0 device system (Benedek, Horváth Cz., Molnár, Nagy, Nyíri, Szabó, Tóth, Verebics 2012):

- Web 2.0 is an IT medium where users collectively organize and manage content
- The host of the portal only provides the IT framework and avoids content constraints
- It is characterized by bottom-up organization (from user to group, eg blog community, forum)
- It is characterized by service-oriented, service development,
- The relative nature of personal data management, data privacy anomalies, business, public and personal information are disclosed to users Below, I list the list of 100 most popular web-based websites that are available for web-based services that are essential for independent learning. (Including but not limited to). Twitter (micro blogging tool)
- YouTube (video sharing)
- Google Documents (Office Workgroup Tool)
- Delicious (social bookmarking tool)
- Slide Share (Presentation Hosting)
- Skype (instant messaging / VoIP)
- Google Reader (RSS / feed reader)
- Wordpress (blog tool)
- Facebook (social network)
- Moodle (LMS system)
- Prezi (presentation software)
- Google (web search engine)

After the second-generation web portals, the web 3.0 family has to be noted, which is no longer a new one even though we have not fully learned all the functions of the 2nd generation. Web 3.0 generates a combination of content, commerce, community and community contexts with personalization and vertical search. (Benedek, Horváth Cz., Molnár, Nagy, Nyíri, Szabó, Tóth, Verebics 2012) This modern education system leads to the world of online courses, which I think will soon fundamentally change the framework of traditional seminar and tutorial forms.

Conclusion

I believe in four Higher Education teachers in Hungarian Higher Education. I also believe that the adaptive educational model of any successful university is the tutoring system, complemented by the possibilities offered by modern technology. The winner of the method is, of course, a student who can safely examine the subject he understands.

The lecturer and the afternoon tutor, who is lecturing, will win because the student will surely understand the material, and the successful exam will be their success. In didactics, as in the field of pedagogical science there is continuous path search. After a deeper understanding

of the Higher Education situation, I first engaged in teaching methods and comparison of learning outcomes. Then we studied how traditional pedagogy works, along with the lecture and seminar, and how much more effective solution is the tutorial education in the afternoon understanding. In the latter part, good practices have been mentioned, which is an evidence of an effective teaching method. Pedagogy as a discipline is one of the most valuable sciences because without a deeper knowledge, no segment of education exists.

Bibliography:

1. Benedek A. - Horváth Cz. J. - Molnár Gy. - Nagy G. Zs. - Nyíri K. - Szabó E. M. - Tóth P. - Verebics J. (2012): Digitális pedagógia 2.0: Typotex Publishing
Available at: < http://www.tankonyvtar.hu/hu/tartalom/tamop412A/2011-0023_DP/dp5_3_iktend_ch010000.html > [Accessed on: 22-08- 2017]
2. Benedek, A. (ed.) (2013): Digitális Pedagógia 2.0- Typotext Kiadó, Budapest, pp. 133
3. Collins English Dictionary
Available at: < <https://www.collinsdictionary.com/dictionary/english> > [Accessed on: 22-08- 2017]
4. Falus, I. (ed.) (2003) Didaktika- Elméleti alapok a tanítás tanuláshoz, Budapest, Nemzeti Tankönyv Publishing, p. 220-225 Falus, Iván: Az oktatás stratégiai és módszerei
5. Feketéné Szakos, É. (2016): Miért legyen gyakorlatorientált a felnőttképzés?, In: (ed.): Kraiciné Szokoly M. (2016): Felnőttképzésről három generáció nézőpontjából- Studies Magyar Pedagógiai Társaság és ELTE Pedagógiai és Pszichológiai Kar 164 p.
6. Györfyné Kukoda, A.: A pedagógiai tevékenység feltételrendszerének és módszereinek alakulása a közgazgatási egyetemi képzésben, PhD thesis 2014, 67 p.
7. Horváth Cz J. - Molnár Gy. (2010): Tapasztalatok elektronikus tanulási környezetről- A Moodle oktatási keretrendszer leírása, használata, Híradástechnika 5-6: 31- 36 p.
8. Kálmán, O.: A felsőoktatási- műhely pedagógiai trendjei- Interjú Halász Gábor professzorral, In: Felsőoktatási műhely: 2013-2-7-14 p.
9. Kozma, T. (1999): Bevezetés a nevelésszociológiába, a nevelésszociológia alapjai Tankönyvkiadó, 1999, Budapest
10. Molnár Gy.: IKT alapú módszertani megoldások alkalmazása a tanítási- tanulási gyakorlatban In: Felnőttképzésről három generáció nézőpontjából – Studies (ed.): Kraiciné Szokoly M, 2016, Magyar Pedagógiai Társaság és ELTE Pedagógiai és Pszichológiai Kar
11. Nahalka, I (2006): Tanulási tevékenységtípusok In: Gaskó, K, Hajdú E, Kálmán O, Lukács I, Nahalka I, Petriné Feyér J: A gyakorlati pedagógia néhány alapkérdése- Hatékony tanulás, 2006 101 p
12. Neszmélyi Gy. – Kim, S. S. (2001): The Agricultural Information and Extension Systems in Hungary
Korean Journal of Agricultural Extension 8:(1) pp. 59-72. (2001)
13. Neszmélyi Gy. (2016): Kompetenciák, innovációk megítélése (Chapter 4.5) In: Szügyi Gy., Ritter K., Bakos I. M., Gerencsér I. (ed.): Kézikönyv a képzési rendszer megvalósítása az önkormányzatok gazdaságfejlesztési feladatainak támogatására. 567 p. Szent István University Publishing, 2016. pp. 68-74. (ISBN:978-963-269-567-9)

14. Ollé, J (2016): Didaktika az ezredfordulón, In: Felnőttképzésről három generáció nézőpontjából-
In (ed.): Kraiciné Szokoly M (2016): Tanulmányok; Magyar Pedagógiai Társaság és ELTE Pedagógiai és Pszichológiai Kar 137 p.
15. Piet, K. (2010): ICT as explicit factor in the evolution of life-long learning. International Journal of continuing engineering education and life-long learning, 20 (1/2010), pp. 127-144.,
16. Smith, E (2016): Writing Centers in Multilingual Settings - A Workbook United States Department of State, Office of English Language Programs 95 p + annexes; Available at: < https://americanenglish.state.gov/files/ae/resource_files/writing_centers_508.pdf >; [Accessed on: 22-08- 2017]
17. Tutoring and Demonstrating: A Handbook Available at: < <https://www.ed.ac.uk/institute-academic-development/learning-teaching/staff/tutors-demonstrators/resources/handbook> > [Accessed on: 22-08- 2017]
18. University of St. Andrews Available at: < <https://www.standrews.ac.uk/capod/students/studyskillsandadvice/tutors/#d.en.354382> > [Accessed on: 22-08- 2017]
19. University of Wyoming Multicultural Affairs MA Tutorial Handbook, 2011 Available at: < <https://www.uwyo.edu/studentaff/step/tutoring/> > [Accessed on: 22-08- 2017]

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THE IMPORTANCE OF THE AGRICULTURE IN THE RENAISSANCE OF YEMEN

Abdulghani Al-sabai; György Iván Neszmélyi

Abstract

Agriculture employs more Yemenis than any other sector and spate irrigation is the largest source of irrigation water. Spate irrigation however is growing increasingly difficult to sustain in many areas due to water scarcity and unclear sharing of water amongst users. Mostly due to high population growth, misguided agricultural development and the growth of qat, a lack of law enforcement to regulate water use, and a vulnerable climate to climate change, the crisis may soon reach catastrophic levels. The agriculture uses 93% of the potable water, and does not actively encourage sustainable water saving techniques. Qat (*Catha edulis*; recreational drug) cultivation uses 40% of the potable water. The water crisis could be mitigated by reducing qat production.

Keywords

Yemen, sustainable agriculture, irrigation, qat, coffee

JEL Classification: Q18, N55, O13, R14

Introduction

Yemen is a low-income country which has been long ago striving to stabilise its economy, however the ongoing war has blocked Yemen's exports, dropped the currency's exchange rate, accelerated inflation. The food and fuel imports considerably diminished while the infrastructure was damaged. The long-lasting conflict generated a severe humanitarian crisis (CIA World Factbook) Yemeni population thus need humanitarian assistance in terms of food and healthcare in short term but first and foremost peace.

Agriculture is a key sector in the Yemeni economy, and provides a main source of employment for 54% of the population. Agriculture produced 17.5% of Yemen's GDP in 2010 (*Source: Central Statistics Organization, Statistic book, 2010*), according to the Central Statistics Office of Yemen. Agriculture also plays an important role in food security, in improving the trade balance, and in efforts towards integrated rural development. In addition, the agriculture sector helps to stabilise the population by reducing internal migration and its related social and economic problems. The agriculture sector is also key factor in natural resource management, and may consume up to 90% of available water in Yemen.

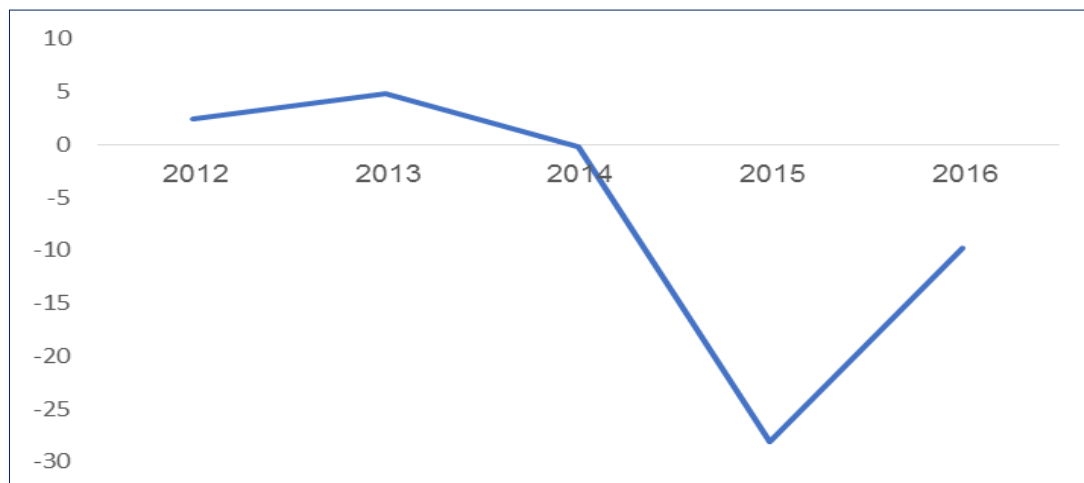
The labour-intensive sector is largely underdeveloped and inefficient, as a result of soil erosion, the high cost of credit and land, a lack of investment, and the scarcity of water. Most of the cultivated land is irrigated and dependent on groundwater, but high demand could exhaust water supplies by 2020. Although agricultural output has increased steadily in the past few years, crop yields remain low relative to those produced by comparable countries.

Major agricultural products include fruits, vegetables, and cereals, but production is rarely sufficient to meet domestic demand. As a result, Yemen continues to import most of its food. Yemen also cultivates qat, a mildly narcotic plant indigenous to Africa. Although legal, the government has recently moved to ban its consumption in public offices and on army duty due to economic and social costs associated with those under the influence. It continues to be widely consumed, and future efforts to ban it are unlikely.

The Gross Domestic Product (GDP) in Yemen was worth 18.21 billion US dollars in 2016. The GDP value of Yemen represents 0.03 percent of the world economy. GDP in Yemen

averaged 17.01 USD Billion from 1990 until 2016, reaching an all time high of 43.23 USD Billion in 2014 and a record low of 4.17 USD Billion in 1994. The fluctuating GDP growth rates (between 2012 and 2016) can be seen in Figure 1

Figure 1 Real GDP growth in Yemen, 2012-16



Source: IMF (International Monetary Fund) staff estimates

Purpose of research

Yemen has a long history of developing strategies in the agriculture sector, This study seeks to examine the effect of agricultural production on YEMEN economy growth, because agriculture accounts for 61.2% of GDP. About 11% of Yemen's population lives in rural areas. Estimated direct employment in the agriculture sector by 33.6% of the labour force. In addition, the agricultural sector contributes to the employment rate of the labour force in the areas of transport, processing and trade, which would increase the employment of the sector to 21% thus, the agricultural sector is considered to be the most important sector in the field of development in Yemen because of its role in creating job opportunities rural areas, supporting the economy in agricultural communities, and providing food security where its contribution to GDP at the national level.

Material and Method

The data were collected from primary and secondary sources, these include the YSO (Yemeni Statistical Office) has been studied in relation to the land area and agriculture production. Also, interview conducted among the Yemenis, intellectuals, information from the journals and internet. It was concluded from the data that Yemeni farmers have great hope for the importance of agriculture to the country.

In the first step of the study, the existing data has been standardized. Thereafter, the findings as shown in Taiz city, where Qat and coffee are produced in several quarters and my observation in several fields, examined how mathematically can be organized into production groups. By standardization, I have eliminated the size differences between country's states. In the research course, testing methods were supplemented by deep interviews along with secondary research.

The importance and challenges in the Agriculture Sector of Yemen

Agricultural sector has a predominant role in Yemen, its contribution to GDP was 24.1% in 2017 (CIA World Factbook), while agriculture employs more than 54% of the labour

force and connected to about 73.5% of the population. The major crops and products are grain, fruits, vegetables, pulses, qat, coffee, cotton; dairy products, livestock (sheep, goats, cattle, camels), poultry; fish (CIA World Factbook).

Mention has to be made of the fact that Yemen lacks good quality arable land, the majority of the surface area of the country is unusable or degraded, only less than one million ha (2.05% of the country) can be considered stable land (see in Table 1 and 2).

Table 1. Types and areas of degraded, decertified and stable land in Yemen

No.	Data (classification)	Area (ha)	%
1	Unusable land	38,917,985	85.44
2	Degradation due to water drifts	5,070,608	11.13
3	Degradation by land erosion	578,189	1.27
4	Chemical degradation (salinization)	37,089	0.08
5	Physical degradation (hardening of the crust)	12,717	0.05
6	Stable territory	933,658	2.05
Total area		45,550,246	100

Source: Agriculture policies and strategies for Ministry of Agriculture and Irrigation, 2012.

Table 2. The division of the territory of Yemen according to the type of cultivation

No.	Data (classification)	Area (MHA)	%
1	Rocky desert lands and attended	21.0	45.16
2	Pastoral lands	22.6	48.60
3	Forest and forest lands	1.5	3.23
4	Lands under investment	1.4	3.01
Total area		46.5	100

Source: Agriculture policies and strategies for Ministry of Agriculture and Irrigation, 2012.

Table 3. The cultivated area by irrigation methods in 2015

No.	Data (classification)	Area (ha)	%
1	Land dependent on rain	468,873	40
2	Land Dependent on Groundwater	521,622	44.5
3	Lands dependent on flood waters	152,385	13
4	Lands dependent on the water of Ghoul	29,305	2.5
Total		1,172,185	100

Source: Agriculture policies and strategies for Ministry of Agriculture and Irrigation

So far it is visible that Yemen's natural circumstances are not really favourable for agricultural production. Besides the geographic endowments the lack or scantiness of rainfall can also be pointed out. Figure 2 shows the annual average rainfall in Yemen, while in Figure 3 the typical agricultural regions can be seen (illustrated with green colour on the map).

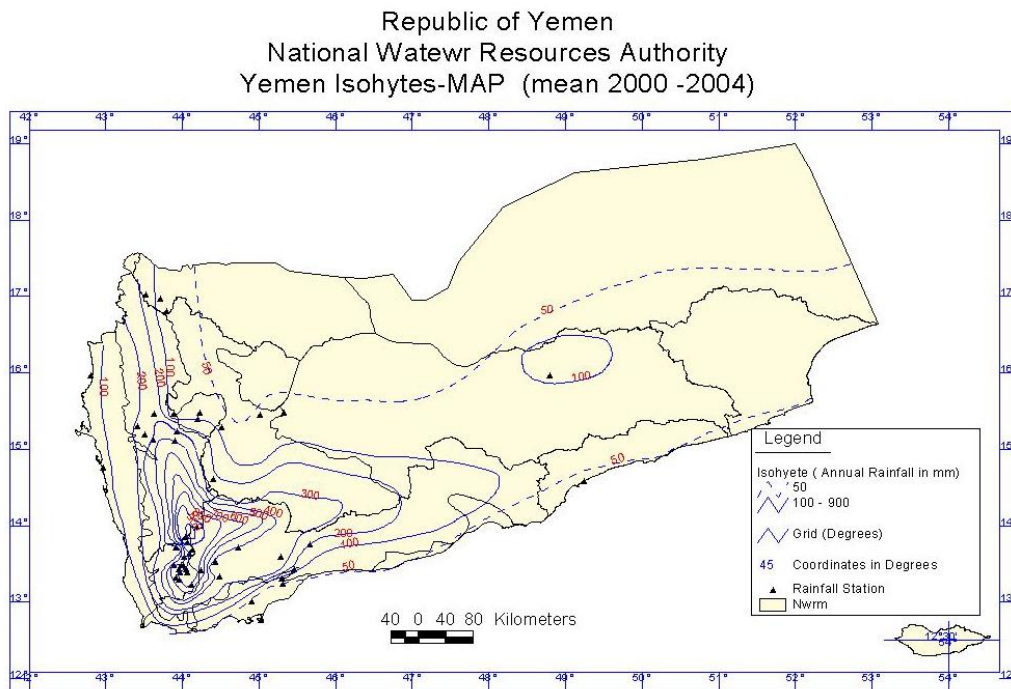


Figure 2 The annual average rainfall in Yemen
Source: Al-Eryani (2011)



Figure 3. Agricultural regions of Yemen
Source: Fanack

Challenges in the Agriculture Sector

1. Limited Water Resources

Availability of water is the most often mentioned constraint to the development of the agriculture sector in all parts of Yemen. Yemen relies on two main sources of water: rainwater and groundwater, where Yemen is one of the countries with water scarcity and classified within the arid and semi-arid areas. The average annual rainfall ranging between 200-800mm, while the rainfall in the three governorates of Ibb, Al-Mahweet and Hajjah is about 1200mm. Amount

of rainfall in all parts of the country ranging between 67.11 billion MC and 93 billion MC per year.

Statistics show that the total cultivated land in Yemen in 1970 was about 1.29 million hectares, of which about 37,000 ha were irrigated with groundwater, 120,000 hectares by floods, while about 73,000 hectares were irrigated by springs and water streams and the rainfed area reached 1.06 million hectares. In 2010, the total cultivated area has marginally increased to 1.37 million ha, with increase in groundwater irrigated area to 420.000 ha (almost 11 times), floods irrigated area also increased to 136.335 ha, while the rainfed cultivated area decreased to 695,388 hectares. (*MAI paper to national conference on management and development of water resources in Yemen, held in January 2011*)

2. *Land Resources Impact on Agriculture*

Land is a limited resource in Yemen. The total area of Yemen is 45.55 million hectares, with an estimated area of arable land of 1.61 million hectares, while the cultivated area in 2009 amounted to 1.31 million hectares, of which 695 thousand hectares of rain-fed farms, and an area of irrigated land of 693 thousand hectares. The estimated area of bush and forest land 1.5 million hectares while the total area of grazing land 22.6 million hectares, (*Statistical Yearbook issued by the Central Organization of Statistics, 2010*). Mountain agricultural is an amazing sight in Yemen, with terraced agriculture going back hundreds, if not thousands of years. However, the population density is very high in these areas, and every square centimetre is farmed. In this environment, agriculture can only increase through improvements in productivity, and a challenge for the future is posed by inheritance rules that will see small plots divided amongst large groups of siblings. In the coastal and plains areas, land is also limited due to water resources, and high populations. The key result of limited land is the need to focus on productivity improvements to reach agricultural goals. Land resources also need to have better registration and legislative procedures to ensure that conflicts over limited land are minimized, and to ensure that appropriate activities are undertaken on the land that will preserve it as a resource. Land degradation and desertification are also significant issues that need both study and policies to prevent land from being taken out of cultivation.

3. *Increasing Qat Production*

Qat production is increasing in Yemen. It is displacing food crops, and also utilizing limited groundwater. Qat cultivated area estimated at 154,000 ha in 2009 this represents about 22.3% of irrigated area (*Source: Central Statistics Organization, Statistic book, 2010*) and qat production consume 30% of agriculture water uses, while qat mainly cultivated in the highland where water scarcity is critical. Qat consumption is also considered to have a negative impact on society as whole, as lower income families spend too high a percentage of their financial resources on qat consumption. There are also health concerns from chewing qat. However, it is also a significant source of income for farmers, and accounts for a large percentage of agriculture production in Yemen.

It should be noted that many attempts to address the qat issue have come up with simplistic solutions that do not fully take into consideration rural incomes. The role of the agriculture strategy is to only take into consideration the needs of the farmer and the environment, and to defend this role in the preparation of a national qat strategy.

4. *Marketing Deficiencies*

Marketing of agricultural products in Yemen has many challenges at all levels. Small scale farmers have little access to extension that will provide them with advice on markets for their products, and an effective Market Information System (MIS) is not operating in Yemen. Small farmers are also disadvantaged by limited marketing opportunities provided by

traditional retail and wholesale markets, and the lack of associations and organization, Inefficiency of markets for agricultural products, and

5. *Absence of effective government role and lack of funding*

Throughout the assessment process of agriculture in Yemen, it became clear that there is limited support coming from the government of Yemen to Yemeni farmers. The reason is always the same, with budgets cut to the point where much of the Ministry of Agriculture and Irrigation (MAI), and the governorate offices, cannot function. However, there is a sizeable Agriculture and Fisheries Program Promotion Fund (AFPPF), which goes to subsidize inputs for cooperatives and farmers. Gaps in the financing can be considered as one of the major constraints in the way of agricultural development as it is really difficult to compensate the lack of capital, to develop the innovation in their agricultural activities and to purchase inputs (Széles et al., 2014).

Nevertheless, the policy, regulatory, research, enforcement, and extension functions of the government do not have adequate resources, and many offices cannot function due to lack of funds. Some offices report this lack of minimal funding going back 15 years or more, and some laboratories have been looted in various civil wars and never restored. Therefore, a critical challenge is to find a way to adequately fund the MAI, or to develop alternative private sector or donor lead programs that can take up some of the Ministry's functions.

6. *Climate Change*

Climate change is a critical issue and the impact on water and agriculture has been well documented in a report from 2009 from the World Bank entitled "Climate Change Impact Assessment on the Agriculture and Water Sectors, Republic of Yemen." The report indicates a change in rainfall in the year 2100 in Yemen could vary from a reduction of 46 percent to an increase of 45 percent over current levels. However, the report also is very concerned about the over extraction of ground water resources, and predicts a rapid collapse within 15 years. Scenarios for long term climate change are dependent on the over extraction of ground water to be solved by regulation in the near term. The report recommends that water saving strategies should be implemented immediately to protect the ground water, and to protect against a scenario that could see a reduction of rainfall.

Yemen to provide a longer time series of data for future climate change modeling activities, and continue to work on strategies that utilize less groundwater to take into account the current over use of water resources.

The main characteristics of the agricultural crop production in Yemen

Agricultural land (% of land area) in Yemen was 44.6 % in 2014, according to the World Bank collection of development indicators, compiled from officially recognized sources but the general Summary Area (HA) & Production (MT) of Agricultural Crop in Yemen 2011-2015 according to the Ministry of Agriculture and Irrigation in Yemen.

Table 4 . The main crops and products of Yemen

Crop /Year		2011	2012	2013	2014	2015
Cereals	Area	784,844	854,689	857,024	727,069	585,658
	Prod.	816,548	909,741	863,934	699,962	459,246
Vegetables	Area	80,795	89,773	87,138	81,911	69,616
	Prod.	988,463	1,132,852	1,032,414	968,323	902,852
Fruits	Area	93,989	94,123	94,380	93,968	91,447
	Prod.	991,091	1,001,411	999,256	993,643	938,523
Legumes	Area	45,684	47,966	48,011	45,422	40,889
	Prod.	89,820	96,013	96,765	92,216	75,988
Cash Crops	Area	88,785	88,194	85,692	84,152	80,288
	Prod.	87,911	90,199	87,960	85,538	77,017
Qat	Area	162,584	167,682	168,772	169,386	166,557
	Prod.	180,630	190,856	193,394	193,940	184,749
Feeders	Area	155,248	158,546	158,387	149,652	137,730
	Prod.	1,970,546	1,954,710	1,933,474	1,778,411	1,533,546
Total	Area	1,411,929	1,500,973	1,499,404	1,351,560	1,172,185
	Prod.	5,125,009	5,375,782	5,207,197	4,812,033	4,171,921

Source: The website of the Ministry of Agriculture and Irrigation of Yemen

From economic point of view Yemeni agriculture could significantly increase the production one of the most important export items, the coffee, generating more income or revenue to government purse and having a major impact on the gross domestic product. The coffee sector was one of the pillars of the economy. For example, around 1720 the country recorded highest production of Arabic coffee after the establishment of a Dutch coffee factory in the Mukha region in 1708.

In this context, the Yemen Bank for Reconstructions and Development has continued to lend support to the farmers and governments in the region as they consolidate their economies on the basis on increased efficiencies and competitiveness in coffee production. Furthermore, the Bank has attached high priority to reducing poverty and decreasing economic and social inequality in the country via provision of loan with less interest rate on lending. The intellectuals and educated elite in Yemen have played a vital important role on encouraging the local farmers to boost the coffee production and discouraged the Qat production. Therefore, the Government must come up with policies that will replace or support the Qat cultivation area with agriculture farms, subsidized the agricultural farming tools. It should create and expand local and foreign market for agricultural produce. There should be adequate water supply and provide more fund to agricultural sector.

Conclusion

The agricultural sector which is already heavily constrained by structural challenges, such as dwindling water resources, has been further inflicted by the conflict due to substantial increase in prices of agricultural inputs and fuel, transportation costs, as well as increasingly restricted access to markets due to insecurity and reduced overall demand due to the diminishing purchasing power. The crop, livestock and fishery production is severely affected particularly in those governorates with continued insecurity, reduced access to land, agriculture inputs, and disruption of market systems. Cereal production in the country has reduced by 33% while small ruminants' livestock production has reduced by 40% for sheep and 42% for goats in 2016 as compared to pre-crisis. Agricultural production is constrained by lack of agricultural

inputs (83%), lack of animal feed (62%), crop and livestock diseases (54%), and lack or shortage of rainfall (34%).

After all Yemen, which is struggling with civil war and poverty faces serious difficulties to provide her population with food in sufficient quantity and quality. It highlights the need to facilitate adequate dietary intake for women and children to promote optimal growth and prevent malnutrition through adequate food provision and livelihood support to families. In short or even mid-term humanitarian assistance is badly needed, however the agricultural potential may be developed in longer run to a level at which Yemen could even be exporter of several crops One idea is to increase the production of coffee which can be relatively easily sold abroad while production of other crops, like qat could be shrunken.

Bibliography

1. Agriculture policies and strategies for the Republic of Yemen Ministry of Agriculture and Irrigation, 7/2009.
2. Agriculture Sector Strategy Matrix 2006-2010 and Plan of Work to Implement Strategy for Two Years 2006-2007, Ministry of Agriculture and Irrigation of Yemen, 10/5/2006.
3. Al-Eryani, M. (2011): Yemen's Water Crisis: Understanding the Causes and Designing the Solution Conference presentation at "Yemen's Developmental Present and Future: A Workshop on the Nation's Population, Environment, and Security Challenges" Washington, D.C., 18 May 2011 Available at: < <https://www.wilsoncenter.org/sites/default/files/Amb%20Al-Eryani%20Presentation.pdf> > [Accessed on: 25-08- 2019]
4. Alum's social enterprise, Gold Mountain Coffee Growers, connects Nicaraguan producers to speciality roasters The Source; October 7, 2014 Available at: < <https://global.wustl.edu/alums-social-enterprise-gold-mountain-coffee-growers-connects-nicaraguan-producers-speciality-roasters/> > [Accessed on: 18-10-2018]
5. Coping Strategies in Rural Yemen and Policy Implications, World Bank Report No. 51027-YE, 10/6/2010.
6. Fanack Available at: < <https://fanack.com/yemen/geography/> > [Accessed on: 18-10- 2018]
7. Framework for FAO's Medium-Term Plan for the Development of Food and Agriculture Sector of the Republic of Yemen 2011-2015, Food and Agriculture Organization of the United Nations, 12/2010.
8. National Food Security Strategy: Summary, Ministry of Planning and International Cooperation/International Food Policy Research Institute, 11/2010.
9. National Information Center of Yemen Available at: < <http://www.yemen-nic.info> > [Accessed on: 18-10- 2018]
10. National Statistical Center, Yemen 2016
11. Qat Production in Yemen: Water Use, Competitiveness and Possible Policy Options for Change; Ministry of Agriculture and Irrigation / Food and Agriculture Organization, 9/2008.
12. Republic of Yemen Agricultural Strategy Note, World Bank, 28 May 1999.
13. Széles Zs. – Zéman, Z. – Zsarnóczai, J. S. (2014): The developing trends of Hungarian agricultural loans in the term of 1995 and 2012 Agric. Econ. – Czech, 60, 2014 (7): 323–331

Available at: < https://www.agriculturejournals.cz/publicFiles/187_2013-AGRICECON.pdf > [Accessed on: 18-10- 2018]

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THE SITUATION OF THE AGRICULTURAL MACHINERY PARK TOO MUCH OR TOO LESS

Diána Szűcs – Eszter Nagy

Abstract

Hungarian agriculture has been developing in recent years thanks to modern technology and developments. Technological development, however, was not paired with economic rationality and did not follow the guidelines of the required growing size of industry of the so-called fashionable precision agricultural approaches. [Lazányi (1999, 2005)]. Agriculture is a special industry with a lot of external influences that sometimes occur unexpectedly, so full rationalization is almost impossible. Weather is unpredictable, but can be adapted to. The volume of high processed products needs to be increased, while the lower value-added products and low processed products dominate in the Hungarian agrarian export. The problem with precision farming is that not all farmers can afford to use technology. The machines are expensive and require great economies of scale to use them. On the other hand, European agriculture consists of small or very small farms, which are often unable to provide viable income to farmers [Szűcs (2017)].

Key words

Agriculture, competitive agriculture, technology development, machinery park, over-mechanized agriculture, hungarian agriculture, agricultural production

JEL Classification: Q19

Situation of Hungarian agriculture

According to the government public information, generational change in agriculture is seen as a national affair, supporting young people with a significant amount to choose rural life, which has been promoted through a multi-stakeholder policy program. They want to help farmers to implement economically and environmentally sustainable irrigation management, preparing an act for undivided land ownership management, and continue to support the capacity expansion and efficiency enhancement [MTI (2019)].

The agriculture of those countries is more efficient and competitive which products are on the international markets, where the mechanization and the level of mechanization are higher. The productivity and the mechanization are affected by the land structure and the production structure. On smaller, more fragmented estates, machines are less able to produce efficiently and with good capacity utilization than larger lands and farm sizes. In the latter, the results of farming are also higher, which makes it possible to raise the level of mechanization more quickly. In Hungary, statistics record 427.732 farms (2017) with an average holding of 12.8 hectares / farm. In the 4.670.000 hectare agricultural area of Hungary, 357.000 individual farms and 7.850 economic organizations share: individual farms on 2.724.000 hectares and economic organizations on 1.946.000 hectares [Hajdú (2018)].

There have been many common forms of machine usage and investment in the small-scale economic structure of countries with advanced agriculture; the main purpose of which is to minimize costs through the rational and efficient usage of available resources. These solutions, which have worked well for decades, such as machine storage, machine co-operation, machine rental, hire and machine and economy support, have clearly demonstrated their ability to contribute to a more rational use of technical resources, reducing the disadvantages of inefficacy or excess capacity [Takács 2000].

The parallel phenomenon in Hungarian agriculture is a significant excess capacity and inefficacy at the economic level. Particularly the small producers' use of assets is wasteful, although the low utilization of resources can be seen in all sizes of manufacturers. At the same time, farms with a lack of capacity acquire the necessary resources in the form of wage services rather than in some other way of cooperative solution [Baranyai - Tóth N. - Vinogradov - Kovács - Vásáry (2014)].

The outcome and profitability of agricultural production are greatly influenced by the form and effectiveness of cooperation between producers [Takácsné – Takács, (2003); Takács, (2017), Korauš et al. (2019a)]. Cooperation between producers can be informal (machine rental, reciprocal work, machine tools, etc.) and formal (cooperatives, machine circles, producer organizations, business associations, interprofessional organizations, product councils, etc.). Trust in transition economies is particularly important, as in these countries, the legal system is often not effective enough, for example the costs of enforcing the contracts are very high [Baranyai - Szabó (2017), Korauš et al. (2019b)].

Material and method

My research is based on a primary database, but at the same time I called for the available secondary data. A questionnaire survey was carried out regarding to the farm mechanization. The questions of the questionnaire compiled in the course of empirical research - among others - covered the following topics: education, family background, level of mechanization, farming profile, irrigation, organic farming, cooperation with other farmers, group membership, expectations of a farmer organization. During my secondary research, I used statistics from machine sales.

Quantitative research

As a quantitative research, I prepared an online questionnaire, which helps to confirm and refute my hypotheses based on the opinion of the respondents. During the sampling period, the majority were those farmers who were interested in agricultural production, either as their full time job or just a few hours a day. The target of the sample was 150-200 respondents, which was not initiated by random sampling techniques. The questionnaire used to compile the data was compiled with the help of Google Questionnaire Maker, which was used by social media to get quick and more responses. The questionnaire was filled by 201 farmers, which did not change after the data cleaning. During the sampling, I was interested in the opinion of those working in Hungarian agriculture, so the sample is not representative.

Hypotheses

H1: Hungarian agriculture is over-mechanized considering the size of farming

H2: Hungarian farms cannot compete due to their size and revenue

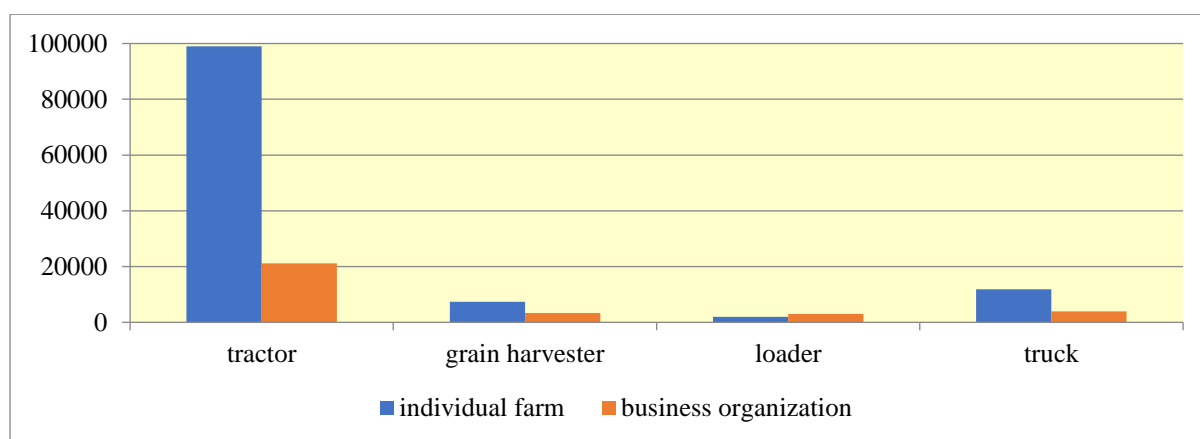
Examining the hypotheses

Nowadays, Hungarian agriculture is served by 159.000 self-propelled engines, of which 120.160 are tractors and 10.770 are grain harvesters. 82.4% of the 120.160 - piece tractor park used for production is operated on individual farms, and 17,6% are located in business organizations. In Hungary, an average of 3.200 new tractors are used, with more than 40% of tractors in individual farms and nearly 22% in business organizations are over 20 years old. Regarding the technical upgrading of the tractor park, it is also unfavourable that about 50% of the new tractors are purchased each year are of low-cost, but less modern MTZ or Belorussian models.

The second most important key machine in Hungarian agriculture is grain harvesters. Currently, 10.770 cereal harvesters are harvesting crops in the country. Nearly 69% of these operate in private farms and 31% in business organizations. The new harvesters that are purchased annually represent the most up-to-date European standards. In individual farms, 30% of combine harvesters and in business organizations only 11% of them are older than 20 years.

According to the KSH survey, 5.000 self-propelled loaders work in agriculture, 40% of which in private farms and 60% of them in economic organizations. The smaller versions with a lifting capacity of less than 3 tons are in the majority, but at the same time it is favourable that their annual renewal rate is 8-10% on average and in 73% more versatile telescopic variants and more exploitable are being .

The truck park has been halved since the change of regime and seems to have stabilized around 15.600-15.800 recently. Approximately one third of these operate in business organizations, two thirds in individual farms. The smaller (supplier, service) trucks are the majority of them. This may also be due to the fact that the price of heavy duty off-road trucks is very high, which is why farms prefer tractor-trailer deliveries.



1. Figure: Distribution of the main agricultural machinery between individual farms and business organizations

Source: KSH, own editing

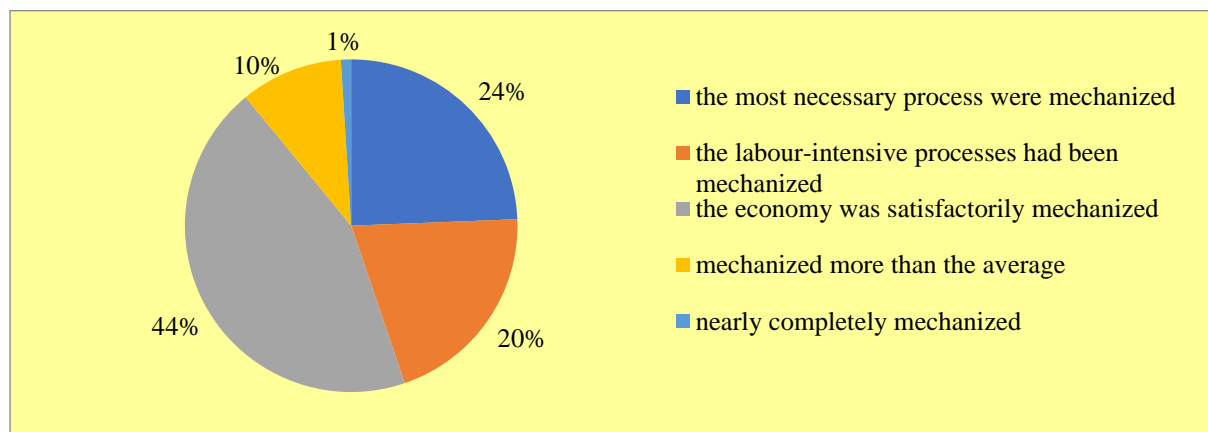
Most machines in soil cultivation work within production technologies in Hungarian agriculture. On average, 5.200 new soil tillage machines work every year, which also implies a technological change in the field.

Nutrient dispensers and plant protection machines are essential for crop production. They are bought in large numbers by farms (1.000-1.200 pieces) year after year, but they are among the physically fastest depreciating machines. The vast majority of machines are operated by individual farms. Where there is the greatest need for technical development and increased investment: irrigation. Only 1.5% of the country's agricultural area is irrigated by farms. Existing irrigation equipment is aging, needing an accelerated replacement [Hajdú (2018)].

The basis of my hypothesis is that no matter how much the Hungarian farmers have access to various EU or domestic subsidies, the fragmented land and the machinery of different levels of development alone make it harder to prosper than to be cohesive, think as a group and operate accordingly.

Regarding the mechanization of their farming (2. Figure), almost a quarter of those who completed the questionnaire replied that only the most necessary processes were mechanized, and in the case of one fifth of them the labour-intensive processes had been mechanized. 44%

of the respondents said that their economy was satisfactorily mechanized, 10% said they were mechanized more than the average, and 1% said they nearly completely mechanized.



2. Figure: The level of mechanization according to the respondents participating in the research

Source :own resource, own editing

According to a statistical survey based on a sales report of some 140 machine tool dealers and manufacturers, the market of power and work equipment in Hungary has grown significantly in one year. In the first half of 2017, record sales were recorded in both agricultural machinery and parts sales, while the Hungarian machinery market performed the highest turnover compared to the same period last year. The farms purchased new agricultural machinery worth HUF 76,6 billion in the first half of 2017, which represents a 40 percent increase compared to the sales of machinery in the first half of 2016 [AKI (2017)].

In 2017, world agricultural production started to grow and exceeded EUR 100 billion; expert forecasts predicted further growth in field machine sales for 2018. In Hungary, machine dealers were also optimistic, not only by the 2017 figures, but also by the fact that after the evaluation of the tenders, animal husbandry and horticultural investments could start [Agrarian sector (2018)].

Examining the impact of the support system on technical development, several authors stressed that direct aids have no or only indirect impact on agricultural investments, so their role is not decisive in agricultural innovation processes [Varga (2006, 2008) Vásáry (2008) Mohamed et al. (2010)].

Cost-income relationships are fundamentally influenced by different support and financial regulatory systems. However, in this case, as with most technology changes, the producer is interested in the expected direct profit or indirect profit benefits. In this case, it can be stated that there are two major categories of costs; the variable costs depend on the growth of the farming, while the fixed costs do not change due to the growth of the farming. Precision technology changes in both cost categories. In the case of highly demanding technology, data acquisition costs are significant, especially in the early stages of technology application, but many technological developments can reduce costs. For example, remote sensing using satellite imagery is much cheaper than field testing and soil sampling [Tamás (2001)].

In economic terms, the slow spread of technology is not only explained by the need for extra investment. Partially targeted support could be used to promote its spread, partly through further support for environmentally conscious farming, but the indirect agricultural innovation preference through the tax system could also help [Vásáry (2008); Béres (2008)].

According to Zahalka (2010), the widespread use of precision technology in the United States has accelerated, as a significant proportion of producers have come to realize that the adaptation of as many elements of production technology as possible to factors affecting competitiveness is crucial. On the one hand, cost efficiency appears; on the other hand producers are excluded from certain markets due to the lack of complete traceability of the production process. The study of the economic relationships of precision crop production should receive a prominent role in the future, examining the issue primarily at the operational economy level. The exploration of macro- and business-economic relationships can lead to clarification of the tasks of the participants in the related industries. In addition, the financing anomalies of the innovation process can be identified [T. György K. (2011)].

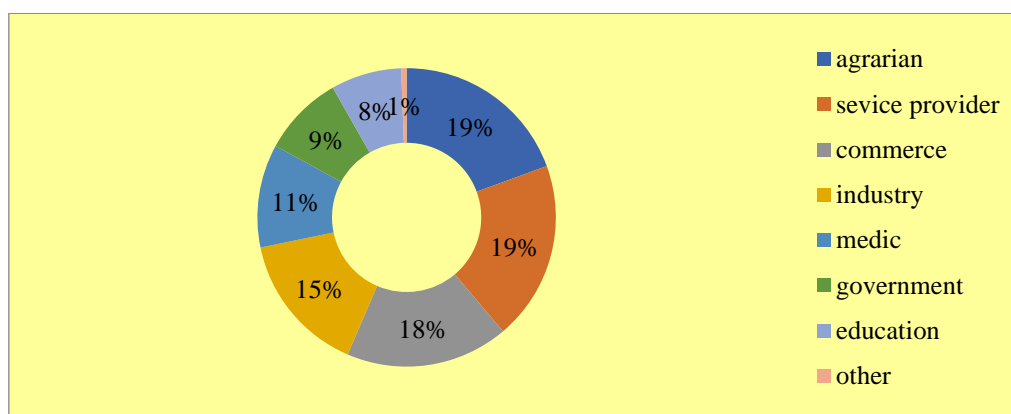
Regarding the examination of the prevalence of precision crop production in Hungary - although we have no knowledge of a representative survey on this subject - based on the experience so far, the proportion of people using multiple elements of precision technology in Hungary should not exceed 5% of farms. The process is still somewhere in the early stages of adopters / introductions. The reasons for the slow spread include the lack of education and expertise [Pecze (2008), Kalmár (2009)].

In relation to agricultural innovation, Husti (2008) states that as the sector is multi-player on the user side, the participants are of different sizes, have a significantly different financing situation, often do not have capital, have the expertise to adopt innovation, and the ultimate success of innovation lies in the sub-processes.

Precision technology will become more widespread if producers accept that they do not always have to strive for an "independent economy". The use of a service based on consultancy or the development of common forms of machine use assumes that there is a sufficient degree of trust among the participants [Popp et al. (2002) Takács (2008) Pecze (2009)].

Data from my research shows that the majority of respondents consider agricultural activity as a supplement to earnings.

37,8% of the respondents were women and 62,2% were men. Approximately 85% of those completing the questionnaire have a main job, 80% of whom do not work in agriculture (3. Figure).

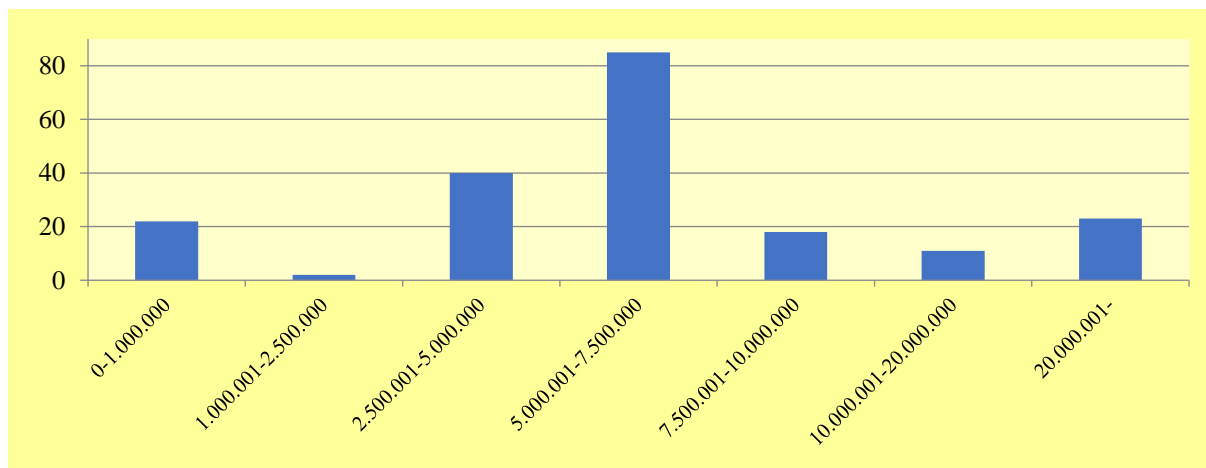


3. Figure: Distribution of main job sectors indicated by respondents

Source :own resource, own editing

Earlier research estimates suggest that revenues of 20 million forints will generate annual revenue that can create the conditions for individual farming. More than three-quarters of the farms (77%) do not cross this sales threshold, and only 15% of them meet this "criterion" [Zs. Baranyai - G. G. Szabó (2017)].

Data from the responses to my questionnaire support the above statement, as nearly 89% of the respondents stated that their sales were below HUF 20 million (4. Figure), and even 83% didn't even achieve HUF 10 million revenue. This means that if two people in a family are engaged in agricultural activity, then the two farmers do not reach the HUF 20 million revenue, i.e. according to the previous estimation researches they are not able to create an economically operating individual farming system.



4. Figure: Distribution of the annual sales revenue of the farmers participating in the questionnaire

Source :own resource, own editing

Conclusion and suggestions

My research has supported my hypothesis, both the sales statistics and the respondents who filled out the questionnaire; confirm that the Hungarian agricultural industry has been over-mechanized. In addition to ecological conditions, the performance, market and competitiveness of agriculture mostly depend on the quality and quantity of the production funds (biological, chemical, technical, human, etc.). The agriculture of those countries can produce more efficiently and competitively, where these funds are available at a higher level and their utilization is at a higher level [Hajdú (2019)]. Professionals and the government are constantly working on developing the necessary conditions for precision technology: educating and engaging the young generation in the sector, supporting the purchase of agricultural machinery and moving to organic farming, or mentioning the promotion of irrigated areas. But one thing is still missing. The fragmented estate system and the small farms do not allow the possibilities provided by precision farming to be exploited by Hungarian farmers. There is a discrepancy in purchasing machinery. Grants are available for the development of the machine park, but in order to be able to use the technology offered on the tray, there is no need for a machine park of this size; so to say the Hungarian agriculture is over-mechanized but not efficient enough.

Bibliography

1. Agrárgazdasági Kutató Intézet (2017) – Statisztikai jelentések mezőgazdasági gépek forgalma - XXVII. évfolyam 3. szám
2. Baranyai Zs. – Szabó G. G. (2017) A termelői szövetkezés–együttműködés gazdasági-társadalmi feltételei és akadályai a magyar mezőgazdaságban – az nkfi alap (otka) K105730. sz. kutatási téma legfőbb empirikus eredményei és következtetései in: A

- szövetkezés–együttműködés akadályai, feltételei és fejlesztési lehetőségei a magyar élelmiszer-gazdaságban, Agroinform Kiadó
3. Baranyai Zs. – N. Tóth Zs. - Vinogradov Sz. - Kovács Z. - Vásáry M. (2014): Van-e létjogosultsága a géphasználati együttműködéseknek a magyar mezőgazdaságban? – Üzemek géphasználati jellemzőinek elemzése, Károly Róbert Főiskola Gyöngyös - XIV. Nemzetközi Tudományos Napok
 4. Béres K. (2008): Az ösztönzés néhány eleme az innováció serkentésére. In: Műszaki fejlesztési támogatások közgazdasági hatékonyságának mérése. (Szerk.: Takács I.) Szent István Egyetemi K. 2008. Gödöllő. 135-144 p.
 5. Husti I. (2008): A hazai agrárinnováció lehetőségei és feladatai. Bulletin of the Szent István University Special Issue. Part I. Gödöllő. 605-616 pp.
 6. Kalmár S. (2009): A precíziós gazdálkodás terjedésének vizsgálata. Gazdálkodás. 53. (6) 609-611p.
 7. Korauš, A. - Gombár, M. - Kelemen, P. - Backa, S. (2019). Using quantitative methods to identify security and unusual business operations, Entrepreneurship and Sustainability Issues 6(3): 1101-1012. [http://doi.org/10.9770/jesi.2019.6.3\(3\)](http://doi.org/10.9770/jesi.2019.6.3(3))
 8. Korauš, A. - Dobrovič, J. - Polák, J. - Kelemen, P. (2019). Security position and detection of unusual business operations from science and research perspective, Entrepreneurship and Sustainability Issues 6(3):1070-1079. [http://doi.org/10.9770/jesi.2019.6.3\(15\)](http://doi.org/10.9770/jesi.2019.6.3(15))
 9. Lazányi, K. (2005): Precíziós mezőgazdasági üzemek stratégiája, In: Lazányi J (szerk.) Fenntartható homoki gazdálkodás megalapozása a Nyírségben. pp. 336-379.
 10. Lazányi K, Lazányi J, Wiwczarowski T (1999): New economy and sustainable land use, In: Lazányi J, Dobránszki J (szerk.) Agricultural Research in Nyírség Region. pp. 1767-1770.
 11. Mohamed Zs. – Takács Sz. – Szűcs I. – Bede – Szőke É. (2010): Effects of agricultural research & development on the GDP of EU member states. Gazdálkodás. 54.24. Special Issue 2-15. p.
 12. Pecze Zs. (2008): Az IKR Zrt. Precíziós gazdálkodási rendszere. In: Gazdaságilag optimális környezetkímélő hibrid alkalmazást célzó folyamatszervezési, irányítási és alkalmazási programok kifejlesztése. (szerk.: Takácsné György K.). Szent István Egyetemi K. Gödöllő. 2008. 103-118. pp.
 13. Pecze Zs. (2009): Precíziós gazdálkodási rendszer. IKM Magazin, Bábolna, 2009 nyár, 29.p.
 14. Popp J. – Griffin T. – Pendergrass E. (2002): How Cooperation May Lead to Consensus Assessing the Realities and Perceptions of Precision Farming in Your State. Journal of American Society of Farm Managers and Rural Appraisers. 65. (1) 26-31 pp.
 15. Szűcs D. (2017) Factors influencing the rational production in the Hungarian agriculture - Symposium for Young Researchers
 16. Takács I. (2000): Gépkör – jó alternatíva? Gazdálkodás. 44 (4), pp. 44–55. Takács I. (szerk.) (2017): Az együttműködési attitűdök gazdasági-társadalmi hatótényezői az Észak-magyarországi Régióban működő kkv-kban. Az OTKA és a Károly Róbert Főiskola támogatásával. Gyöngyös, p. 190.
 17. Takács I. – Baranyai Zs. – Takács E. (2008): Factors of Efficiency Change of Assets on the EU-15 and Hungarian Farms from 1990s. Studies on the Agricultural and Food Sector

- in Central and Eastern Europe. Agricultural economics and transitions: What was expected, what we observed, the lessons learned. (Ed. by Csáky Cs. – Forgács Cs.) IAMO. 44. II. 581-590 pp.
18. Tamás J. (2001) Precíziós mezőgazdaság (elmélete és gyakorlata), Mezőgazdasági Szaktudás Kiadó, Budapest, ISBN 963-356-339-9
 19. T. György K. – Takács I. (2003): Az üzemméret és a tőkehatékonyság összefüggései, a hatékonyságnövelés néhány alternatívája. In: Szűcs István (szerk.): Birtokviszonyok és mérethatékonyság. Budapest: Agroinform Kiadó, pp. 99–167.
 20. T. György K. (2011) A precíziós növénytermelés közgazdasági összefüggései, Szaktudás Kiadó Ház Zrt., Budapest, ISBN 978-963-9935-76-1
 21. Varga T. (2006): Ráfordítások és hozamok az EU-ban és Magyarországon. Gazdálkodás 50. (4) 7-17 pp.
 22. Varga T. (2008): A beruházási támogatások gazdasági hatásai az EU-tagságunkat megelőző időszakban. In: Műszaki fejlesztési támogatások közgazdasági hatékonyságának mérése. (Szerk.: Takács I.) Szent István Egyetemi K. Gödöllő. 89-102 pp.
 23. Vásáry M. (2008): A közvetlen támogatások műszaki fejlesztésére gyakorolt hatásának értékelése a hazai tapasztalatok alapján. In: Takács I. (szerk.): Műszaki fejlesztési támogatások közgazdasági hatékonyságának mérése. Szent István Egyetemi K. Gödöllő. 103-117 pp.
 24. Zahalka A. (2010): Precision Agriculture – The future is here (and the journey is just beginning!) Topcon Precision Agriculture. 18, February 2010.
 25. Agrárszektor (2018.03.20.) <https://www.agrarszektor.hu/gepek/vegre-lenduletet-kaptak-a-gepeladasok.10304.html>, downloads: 09.03.2019.
 26. Hajdú J. (2018.09.10) A magyar mezőgazdaság gépesítési színvonala, <https://agrarium7.hu/hirek/1329-a-magyar-mezogazdasag-gepesitesi-szinvonala>, downloads: 09.03.2019.
 27. MTI (2019.02.22) <http://nak.hu/agazati-hirek/videkfejlesztes/161-gazdasagfejlesztes/98830-a-vidék-jovoje-a-fiatal-gazdak-kezeben-van>, downloads: 10.03.2019.

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HOW TO GROW OF OPPORTUNITIES CAN IMPROVE IN THE PERIPHERAL COMMUNITIES? THE CASE OF HUNGARIAN PERIPHERAL SETTLEMENTS

Ilona Gerencsér

Abstract

Human resources, as a generator and main driver of economic, social processes. Spatial distribution, quality composition, greatly influences the development potential of the regions. The different development policies are trying to reduce the differences between the regions, be it cohesion or rural development policy. The phenomenon created the basis for new research areas such as geographic, socio-functional center-periphery theory research. The aim of the study is to test the possible causes of social center periphery development. On the other hand, it describes factors that allow the disadvantageous position of the periphery to move in a positive / positive direction. Based on several field studies, “diagnoses” illustrate real settlement examples and try to refute the idea of a negative pre-order of peripherals.

Key words

Endogenous sources, Centre-periphery model, Local communities, Social network, Social capital

JEL Classification: J24, O15, O18, P25, R11

Introduction

Within regional science, there has always been a great deal of emphasis on examining different territorial differences. Possible reasons for differences in development are explained by center-periphery theory. The model expresses the inequalities of a spatial system of any size. The two extremes are the center and the periphery, which reflect the relative central and peripheral positions of the spatial elements. The value of the center is positive and the value of the periphery is negative. The center is the point closest to the rest of the set, while the periphery is the outermost (border) point measured from the center. The center-periphery model has three fundamental meanings: the positional (geographic) center-periphery duality is analogous to the mathematical center- boundary. The central concept of delimitation of position centers and peripherals is distance. The development (economic) center and periphery can be delimited on the basis of efficiency and profitability. Based on the geographical area, the centers can be identified with developed and peripheral regions with underdeveloped areas and settlements (Lócsei-Szalkai, 2008).

Different levels of development or backwardness require different areas of intervention, development, and determination of directions. When defining development directions, it is important that individual territorial levels can be individually identified. For example, a region can be uniquely characterized by elements of area capital that, without being exhaustive, may include: geographic location, size, natural resources, built heritage, infrastructure, social or social capital.

The differences in economic development are certainly related to the geographical location. Countries closer to the equator are generally poorer than those in the temperate zone. there are huge territorial disparities within each country. Economic geography tries to explain the difference in the economic development of different areas with the natural differences of these areas. Even if there are no advantages and disadvantages provided by natural geography, the economic purpose of each region may be extremely diverse (Krugman, 2000).

With the emergence of the issue of development and backwardness in regional policy, new methodological ideas explaining the causes of phenomena have also come to the fore. In addition to the purely quantitative characteristics, the idea of qualitative indicators and the measurement of them was also raised. The measurement approach, based on purely economic criteria, measuring development was supplemented with concepts such as human development, standard of living, happiness. These are the characteristics of social capital. With the appreciation of these new concepts, measuring territorial development can give a much more nuanced picture of the social and economic characteristics of a region. On the other hand, it is also possible to develop complex indicators and methodological approaches (Szabó-Farkas, 2012).

“According to sociological resource theories, the quality of life of individuals is determined by the resources at their disposal to achieve the living conditions that are highly valued by the individual. The Human Development Index is also a resource-oriented indicator of quality of life, and measures the development of each country, taking into account the skills and choices of its citizens. When establishing the index of human development, the Nobel Prize-winning Amartya Sen relied on the fact that development is not only a process of the economy, but of human existence, and of the development of individual abilities ”(Csikszentmihályi, 2007: 12). According to Molnár, success is not only due to economic factors (Molnár, 2013). Research by Goda and Kassa also confirms that the development of human capital can be the key to mitigating territorial disparities and improving the effectiveness of development policies aimed at improving economic competitiveness (Goda-Kassai, 2011). That is why communities play a specific role within the economy.

Edel sees them as internal, flexible resources that can be the main engines of transformation (Edel, 1992). Research shows that developments have been most effective in areas where social activity was high at local level (Goda-Kassai, 2011). Social activity can be characterized by relationship and social capital. The concept of social capital was founded by Bourdieu (1983), who said it was a resource based on belonging to a group. In theory, he made it clear that the size of a person's social capital depends on the extent of the network of relationships he can actually mobilize. Social capital typically consists of bonds, norms, trust and institutions, so the network of relationships within communities can be well characterized.

Data and methods

The study contains the partial results of a complex research covering a number of topics, including the network of communities. The selection of settlements on a geographic periphery where community-based community-building activities and contact networks can be seen as successful has been an important consideration in defining the sample area. In this study, the periphery means both borderline and distance from the capital. Three Hungarian settlements (Egercsehi, Keszölc, Komlóská) were included in the sample. The connection network of the communities was analyzed using quantitative and qualitative characteristics. Quantitative indicators were analyzed primarily with the help of the available HCSO database.

The survey method used in field research and other data collection is the questionnaire, which is suitable for descriptive, explanatory and reconnaissance purposes (Babbie, 2001). The questionnaire used in the research covered the question of the key players in the community, the strengths and weaknesses of the community. Interrogated the network of contacts within and outside the settlement; the involvement of individuals within the community. Questionnaires were settled by arbitrary sampling and in a representative manner (10 per cent of households). Interviews with those who determine community life are a further qualitative part of the research. The research was carried out between 2016 and 2018.

The social network of Egercsehi

The issue can also be exciting because Egercsehi basically consists of two "separate" settlements (Bányatelep and Ófalu), which are physically separated by a hill and several kilometers apart. A considerable part of the countryside is covered by forests instead of agricultural cultivated areas, and hence forestry is the dominant. On the southern side of Mátra, grape production is significant, farming and shepherding are insignificant. Completed the cultivation and the profile of the settlement was increasingly determine a mine opening in the early 19th century.

Prior to the start of the mine, the former village part worked as a cohesive community and food provider. In the early 19th century, the Beniczky family settled here and built a castle. The profile of the settlement with the appearance of coal has changed significantly. György Beniczky, the landowner of that time, was associated with the opening of the mine, which became the only deep-mined and largest coal mine in Heves County. The mining site was also the most prosperous part of the settlements, the miners' existence, culture and traditions brought by the miners settled here from other parts of the country. Among other things, a set of regulations defining the lives and daily lives of miners and the rules that they had to keep up with during their work and life led to the formation of a closed community of miners.

Not only did the miners work, but some segments of their private lives were highly regulated because of the social and other institutions in place. Maybe these were also the reasons for the miners' collaboration. That is why it was important to examine whether the people living here - together with the two settlements - considered themselves as one community. Nearly half of the respondents (48%) think that their community has some or all of their community awareness.

Civil society organizations in the village also contribute greatly to the development of community consciousness. They participate in organizing and conducting many events annually. During our existence, we also tried to find out that those respondents who think that the settlement has local community consciousness only because of the activity of the civil sphere, or whether the population lives in a community form of social contact through independent, individual initiatives. (Figure 1)

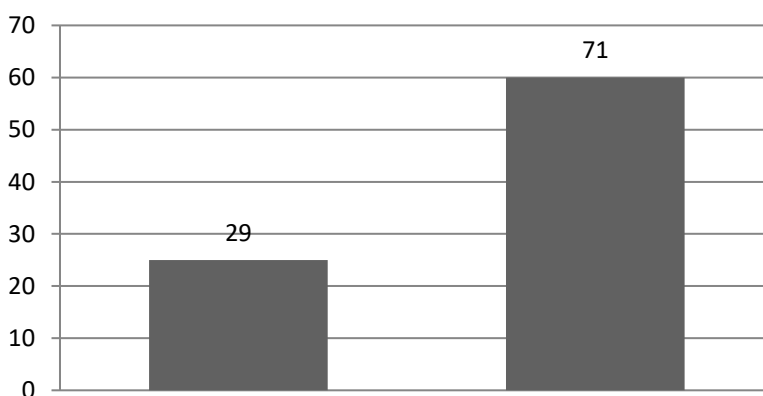


Figure 1: Does community life live outside civil society? (%)

Source: Egercsehi's own survey based on a questionnaire survey, 2019

Most of the respondents are aware of the functioning of local organizations, yet most of them are not members of any civil organization. Of the respondents, almost two thirds of the members of the association do not live in any community outside the civil society. This is explained by the younger generation with the lack of time and the older generation with age. Only 29% of the respondents live in some form of active community life outside the events

organized by civilians. For the most part, these are excursions, cauldrons with friends, family, but the village day, joint holidays, beach, cinema are among the answers. All of these suggest that a small part of the locals (20%), a community-based program (village day) for the development of community consciousness, and civil activity are sufficient to see the locals as a community. This may be due to the fact that the working layer is forced to travel due to a lack of local job opportunities, which generates the lack of time for living the community. This is why respondents feel that the events that take place every year provide enough space for the community to live.

Changing Community Life Over Time

During the operation of the mine, the primary beneficiaries of the services were the miners' families, of course, the villagers could also have had a variety of opportunities. The cultural life of the mining community was also decisive in the settlement because the mining company was the financier of the various events. During the operation of the mine there was a sparkling cultural life in Egercsehib, and the miners were a biased and cohesive community. One of the most important community events of miners was the annual mining day. The other community scene was the House of Culture, where the famous artists of the age were called on numerous occasions. Almost all of the events were financed by the mining company, so there was no need to pay for it, the supply was free for everyone. The miners' theater circle, the miners' choir, and the mining band, which had jazz and symphony classes, provided community-wide cooperation throughout the year (interview with József Kormos).

While the mining day was the biggest event of the year at the mining site, farewell to the village. The villagers were typically more religious than those who lived in the mining site, who were raised by the system. In this case, the families invited their relatives and hosted them, and as a result, the village community was much more family-friendly and friendly than the settlers, as the miners - who came from many parts of the country - did not associate with each other - typically work, rules and mine. The community offered the community, while the relatives of friends and relatives strengthened the village population. In the village, community life was lived in the spinning area, where good conversations took place. Other theaters of community life were the library and the culture house. The intellectuals living here have played a decisive role in the local community life and its development over the years. There was a dance group within the school, and they regularly competed. We can also consider the community retired club as a community formator, as they organized themselves as organizers and performers of a settlement event at a mining event. Their activity was primarily to build the mining community, as they mostly preserved the values associated with the mine and the songs related to the mine in folk songs.

Following the closure of the mine, local people have witnessed radical changes in both employment and cultural and community life. The young people went elsewhere, and the older people were working here and there. They have witnessed a radical decline in the standard of living so far. Jobs, service and cultural institutions that have been in operation for decades have come to an end and have been closed down. All of these changes have had a negative impact on community life. Of the previously well-functioning organizations, only the football team remained viable and the retired club, with the help of the rest, was out of business. (interview with András Tóth) A small number of developments can be observed in the settlement. The current mayor is trying to integrate the smaller community groups isolated from each other, to guide the settlement into a development path.

Human aspect of Keszölc settlement

Keszölc is situated in the county of Komárom-Esztergom and is under its jurisdiction. It is located at the foot of the southwestern Pilis Mountains. In the life of the village, viticulture has played a decisive role. Mining began in 1972 on the Lencse Hill in the village. With the proliferation of mining, the "two-family" families have emerged: the head of the family is a miner, but he also has land, which is mainly cultivated by the woman.

The settlement was started in 1716 in the village. Slovaks settled in the area of Keszölc from the area of Nitra. The population of the settlement has been decreasing since 2011. Until the economic crisis, the migration balance of the village shows a positive shift exceeding the regional average, but after the crisis we can see a drastic negative sign. Presumably, the economic environment caused by the crisis caused a deterioration of employment and quality of life in the settlement, which helped to emigrate from the settlement. We also see a drastic increase in the aging index of the settlement, but its rate is below the regional and county average.

Social activity and involvement may be best represented by the number of non-profit organizations and their activity. The Village Club has been operating in the village since 1970. In spite of this, the settlement can be said to show low social activity compared to both county and district settlements, as the number of non-profit acquisitions is significantly below the county and national average. Less than half of their numbers are regional averages (Figure 2).

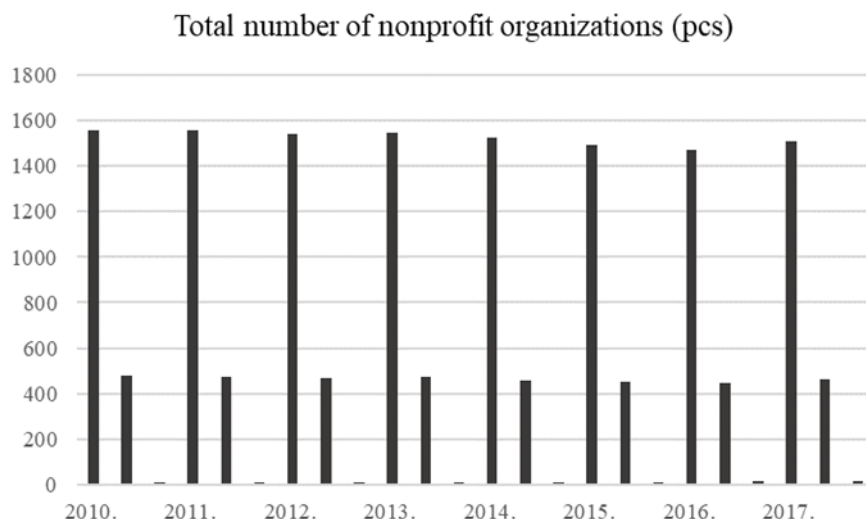


Figure 2: Number of registered non-profit organizations per thousand inhabitants, from 2010 (pcs)

Source: Own editing by HCSO, 2019

Characteristics of community life and the role of young people

The respondents think, in whole or in part, that their community has community consciousness. This is probably due to the tradition of nurturing traditions, local community organizations and community building programs.

„The community is a cohesive force to preserve the tradition of succession, for example. bass bustle when they go around the village and collect the eggs. With that, Lent, no music, no ball, until Easter, begins, ”said one of the interviewees.

„The community is the part of the population that dare to do something better, ”said the head of one of the NGOs.

The interviewees were defined as a friendly community that was basically inclusive, although according to their view:

„There is a narrow core that keeps in contact with the stockbrushes only. Those who are not just sleeping here will soon be actively involved in the life of the community. ”- a respondent said.

Civil society organizations in the village also contribute greatly to the development of community consciousness. They participate in organizing and conducting many events annually. In addition to the nationally organized holidays, Kesztlöc has traditionally held the Fathers Day. In the settlement, the positive perception of NGOs is not proven more than the image of locals about these organizations and their activities.

„The settlements are driven by well-organized associations; the results are often more than official bodies, ”said a respondent.

As a condition for a good community, the existence of common goals and their broader acceptance and support have been defined, and "internal motivation must not be imposed on people from outside, anyone can participate in everything, everything is advertised," said an interviewee.

Community builders are primarily those from the age of 30 to 40 who want to stay in the settlement and want to live differently for what they are willing to do. The same interest may be a community shaping factor. In this way, football and ping-pong, the bikes, the reading area, the retired club and the Peacock have been working in the settlement for decades. A separate group of cellar hikers make up every week a different cellar within the village. The staff of the institutions also form a small community. There is a summer camp for children in the village. A successful event at Easter is the tent making as well as the Family Day, where there are kids-adult games, races and common cooking. In the summer, the Star Wasting Night was organized with a tradition of organizing performances and a joint star-watching for the locals. There are also many communities in Cologne in the virtual space as well as on social sites. Almost all the contributors to the lack of information and lack of public passivity and lack of interest expressed the lack of community. In the area of development, the settlement can be considered active. A number of ongoing and future applications have been realized.

Social network of Komlóska settlement

Komlóska is first mentioned in 1404 as the name Komlóstelek. In 1592 it became the property of Rákóczi. The family regularly puts Ruthenian serfs on their estates. The ancestors of today's population arrived in the village after 1720. In 1792 the population was 346 (Sasvári, 1996: 22). According to Sasvári (1996), there is only one village in the area of Ruthenians, where Ruthenian language is used in everyday contact, Komlóska. Ruthenians had no territorial demarcation or statehood, so their national identity and independent entity was determined by their Greek Catholic religion (Benedek S., 2003). This is also the case with the Ruthenians in Komlósk. In their case, the practice of Greek Catholic religion helps to preserve their identity. In the life of the heroes, the priest (under the name of the locals: pancho) is actively involved in community building. On the one hand, more than three-quarters of the events are related to a church holiday. On the other hand, you are officially invited to any other event. (Interview with Benedek Szikora)

The preservation of the Ruthenian identity is not only manifested through the practice of church activities. The Church's community-building role is also linked to secular holidays, with almost all national or secular celebrations taking place in the temple. The youngest of them can first meet the Rusin identity through kindergarten and school education. Typically, during all holidays, preschoolers and school-age children are involved in some kind of program and thus become part of community life. (Interview with Grand Marina Preschool Manager) The earliest possible attachment to the community can be a condition for the settlement's survival. (interview with László Köteles Mayor)

Cultural events organized either by the local government or by NGOs may be further areas for experiencing a sense of belonging to the community. Typically, these events are local mappings of national holidays. Community venues provide an opportunity to experience social relationships outside of a close family or friends. Such a monthly event is the Zemplén Days, organized jointly by the municipality and the church. It is held in the temple, and there is a liturgical ceremony one hour before. In many cases, the rapporteur is a priest serving guest. (interview with László Köteles and Benedek Szikora)

The characteristics of the village community

Although the settlement's population is very hospitable, it is a very reserved community. The reason for this may be the Ruthenian identity consciousness that only accepts settlers under certain conditions. Another reason is simply due to the spatial characteristics of the settlement, a kind of sacking. So someone comes here for a certain purpose, and people in the village do not have the opportunity to meet with strangers and unexpected visitors. (Interview with László Popovics, Benedict Szikora) The hospitality of the locals is reflected and confirmed by Figure 3, which shows that almost three-quarters of the declarants consider the owners of the weekend houses as members of the community. The community understands the members of the weekend houses, those who take part in the events of the locals.

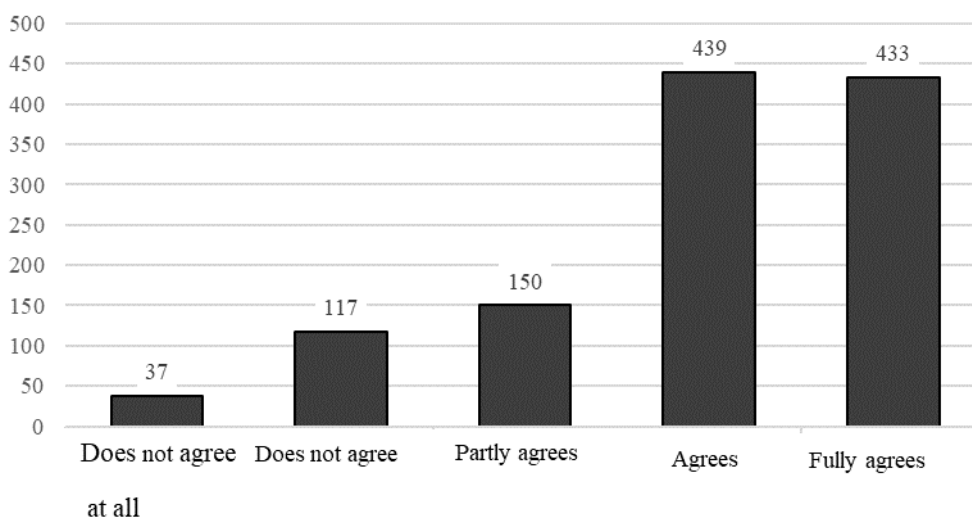


Figure 3: "Only temporary residents are involved in the community life of the village"

Source: Own editing based on own research, 2019.

The older age group (aged 50 to 80) has a much more determined Komlós consciousness. There is also a greater commitment to each other. However, this cohesion is not as early as a few decades ago. (Interview with László Popovics, director of Marina Marina) The younger people do not play a decisive role in the life of the community. They want to do it less, and want to get everything done within the community. Unfortunately, passivity is increasingly characteristic of the older age group as well. Attempts are being made to eradicate disinterest through various municipal and civil initiatives, such as the organization of a ward or charity ball, or annual herbal, house, and spring greeting events. (Interview with László Köteles, Mayor) The settlement has implemented many applications and has several future development goals.

Conclusion

Within Egercsehi, different cultural traditions are typical of parts of the settlement. Community life is primarily ensured by programs organized by the municipality and by the actions of civil organizations. Members of civil organizations are typically made up of a narrow active core, with multiple memberships at the same time. According to the interviewees, it can be stated that Egercsehib was once a prosperous, sparkling economic and community life. All these results and values from the past should encourage people living in the present-day Egercsei to collaborate with the community, as we have seen the majority open to cooperation and action.

Community life is mainly ensured by the actions of the population and NGOs. Members of civil organizations are typically composed of a narrow active core. Young people are actively involved in local events and solving problems, and organize community events. All of the respondents are willing to make a settlement, a community that leads to the strengthening of the local community. Community moves have been successful in both sport and cultural life. All of these people living in Castellon should be encouraged to further community collaboration, as we have seen a fundamental expectation of a cohesive community, cooperation and action. In the future, this openness will definitely need to be exploited by the leaders of the city and NGOs.

The main organizing force of the Komlósk society is the religious lifestyle that helps to maintain the identity of the Rusyn, open to those who can identify with this way of life. On the other hand, it also mediates since it adheres to its traditions and does not always seek to connect with the multicultural trend of today. This is mostly felt by the migration of the young generation from the settlement.

Out of the three settlements in Keszölc and Komlóska, not only is the community life lively, but it is similar to the tendering. While the use of grant funds and the community network in Egercsehi are less successful at the moment. From all this, we can assume that active social life influences not only the openness within the community but also towards the external actors and opportunities. In spite of their unfavorable geographical location, the settlements on the periphery are able to move on to the path of development if their communities are open to each other and their environment.

Bibliography

1. Babbie E.: A társadalomtudományi kutatás gyakorlata, Budapest, Balassi Kiadó, 2001, p. 274-291.
2. Bourdieu, P.: Ökonomische Kapital, kulturelles Kapital, soziales Kapital. — Kreckel, R. (Hrsg.) Soziale Ungleichheiten. Soziale Welt. Sonderband 2. Göttingen. 183-198. o. In: Tóth, B. I. (2010). Az immateriális és a területi tőke összefüggései. Tér és Társadalom, 24(1), 1983, p. 65-81.
3. Csité A., Németh N.: Az életminőség területi differenciái Magyarországon: a kistérségi szintű HDI becslési lehetőségei (No. BWP-2007/3). Budapest Working Papers on The Labour Market 2007. p. 1-70.
4. Edel, M.: Latin American urban studies: beyond dichotomy, in: R.M. MORSE and J.E. Hardoy, Rethinking the Latin American City. Washington, DC: Woodrow Wilson Center Press In: Wilson P. A. (1995): Embracing Locality in Local Economic Development Urban Studies, Vol. 32, Nos 4- 5, 1995, . 1992, p. 645-658
5. Goda P., Kassai Zs.: A 2004-2010 közötti gazdaság- és regionális fejlesztő operatív programok összehasonlító kistérségi vizsgálata, Gazdaság & Társadalom, Nyugat-magyarországi Egyetem Kiadó, 3. évf., 2011/2. pp. 93-110
6. Krugman P., Grosz A.: A földrajz szerepe a fejlődésben. Tér és Társadalom, 2000, 14(4), p. 1-21.

7. Lócsei H., Szalkai G.: "Helyzeti és fejlettségi centrum-periféria relációk a hazai kistérségekben." KSH, Területi Statisztika 2008, p. 305-314.
8. Molnár M.: Factors of Success in Case of Local Society, DETUROPE – THE CENTRAL EUROPEAN JOURNAL OF REGIONAL DEVELOPMENT AND TOURISM Vol.5 Issue 3, 2013
9. Sasvári L.: Ruszin hagyományok görög katolikusságunk néprajzában. Etnikum, 1996
10. Szabó P., Farkas M.: A fejlettség különböző felfogásai és mérései Európában és Magyarországon. Közép-Európai Közlemények, 2012, 5(1), p. 86-101.
11. Tóth, B. I. (2010). Az immateriális és a területi tőke összefüggései. Tér és Társadalom, 24(1), 1983, p. 65-81.>.

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