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Győr, 2020

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Dear Readers,

You are holding the 4th issue in 2020 of the Tér-Gazdaság-Ember Journal. The issue consists of four scientific studies, one research in progress paper, one case study, one informing study and the issue ends with a laudation for the occasion of the retirement of the Chair of the Editorial Board, Prof. Dr. János Rechnitzer from Széchenyi István University.

The first study illustrates an approach of digitalisation, the next one describes the socialist banking system in Albania and in Yugoslavia. We continue with a marketing paper related to consumer attitudes towards e-advertising from an intercultural perspective. The next study gives a description of donor policies, challenges and dilemmas related to good governance. The following paper gives an overview of an ongoing research on self-directed learning readiness in virtual teams. Then we present a bibliometric case study and an informing study on transdisciplinary problem solving.

The issue ends with a laudation (written by Dr. Mihály Lados) dedicated to the work of the chair of the editorial board, Prof. Dr. János Rechnitzer. Professor Rechnitzer retired this year from the Széchenyi István University and the journal and the university would like to express their gratitude by presenting the milestones of his life and work. Professor Rechnitzer now is working as a professor emeritus at our university and he is a Chair of the Editorial Board.

Győr, 15 December 2020

Adrienn Reisinger Editor in Chief

STUDIES

JÓZSEF PAP – CSABA MAKÓ

Emerging Digital Labor: Literature Review and Research Design

Abstract

The key players of the platform economy (e.g., Uber) represent the 21st century form of capitalism, which has the following key dimensions: 1) supported by patient capital, 2) network effects, 3) focal role of consumers. The paper outlines the major characteristics of changing labor, focusing on the platform work in a European context. This study employs a mixed approach: there is a literature review about platform economy and platform work, a methodological examination of the research objective, and the preliminary results of semi-structured interviews with workers in the platform economy. The results of the study clarify some key characteristics of digital labor, in particular platform work, and it lays out the research design of a European research project (https://crowd-work.eu/), which focuses on organizing digital workers in Europe.

Keywords: platform economy, on-demand workforce, crowd work, future of work

JEL code: J46

INTRODUCTION

Digitalization brings about both social-economic and cultural changes at the same time. One of the critical drivers is increasing computing power. According to Moore (1965), the number of transistors on a dense printed circuit can double every 24 months. The other key driver is the growing role of data. McAfee and Brynjolfsson (2012) stated that in 2012, 2,5 exabytes of data were created every day, and this volume would be doubled every 40 months. As mentioned in a study by Domo (2018), "data never sleeps," they estimated that in 2020 there would be 1,7MB data created by every person in every second.

There are two major development areas of digitalization: Industry 4.0 and the platform economy. Industry 4.0 is about the digitalization of industrial technologies to increase efficiency and productivity of these technologies. Industry 4.0 is about executing the same processes, albeit much faster and with less waste in the process. The general implementation of this technology-centered approach seems to be necessary and decisive without any alternatives for the competitiveness of national economies. However, the "only question if its socially acceptable design remains to be answered." (Kopp et al., 2016, 7)

The platform economy can be viewed as a disruptive change in the capitalist economy: it is radically reshaping the traditional economic models of value chain. The platform economy is a peer to peer model, where a platform company connects the parties for content, goods, or service provision over the internet. Compared to Industry 4.0, the novelty of the platform-based business model lies in its ability to trigger entirely new eco-systems.

Contrary to the widespread general view, platform companies are not merely matchmakers in the concerned peer to peer (P2P), business to clients (B2C) and business to business (B2B) relations, but they also create new markets for a great variety of services, which did not exist before the appearance of the platform economy. The platform economy covers a variety of activities, such as search, sales and marketing (Google, Facebook, Instagram), broadcasting (YouTube, TikTok), funding (Kickstarter), banking (WeChat), travel (Uber, Lyft, Bolt, Airbnb), food delivery (Wolt, NetpincerGo), labor services (TaskRabbit, Gig Smart, Upwork), and logistics (Amazon).

Besides market creation, platforms may result in game-changing models in the 1) value creation (i.e., owning assets to granting assets), 2) governance structure (i.e., from make-or-buy to employ-or-enable), 3) management (i.e., from back-end-to front-end), and 4) labor (i.e., from jobs to gigs) (Grabher–van Tuijl, 2020). Our research focuses on the fourth dimension, in other words, the role of digital labor (platform work) and the labor process.

The next section outlines the critical features of the platform economy. The third section presents the main characteristics of the platform work. Section four assesses the literature review results, presenting Uber's emblematic case and insisting on the visible cross-country differences. The fifth section is focusing on the research design of the "CrowdWork21" European research project. The paper provides conclusions and indicates some future research challenges.

1. PLATFORM ECONOMY: "PATIENT CAPITAL," "NETWORK EFFECTS," AND "FOCAL ROLE OF CONSUMERS"

Platform economy stems from the sharing economy models, in which the exchange of services and goods happens in a peer to peer relationship. It is a new type of economy besides the traditional B2B and B2C relations. This means that these firms strengthen the characteristics of the 20th century's Network of Contract Firms. In this relation, Rahman and Thelen (2019) rightly stress the following three social-economic enablers of platform firms:

- These firms are supported by a more "patient" form of capital. Unlike the "break it up and sell it off" mentality of the 1990s, the financial interests behind firms, such as Uber and Amazon, are in it for the long haul. The financialization as a driver of their growth based "... on the assumption of

attracting a sufficient mass of users to occupy a monopoly position and then monetize their cusses ... very high capital gain will compensate for all the other risky investments most of which are not profitable.... Airbnb became profitable only in the second half of 2016." (Montalban et al., 2019, 5, 14)

- "... network effects are the *sine qua non* of the platform firms. The central goal is to secure a level of market dominance and concentration that will ultimately vindicate investors' patience." (Rahman–Thelen, 2019, 180)
- "Consumers figure centrally not just in the platform firm's market strategies but in their political strategies as well ... enjoy a much more direct and unmediated link to their users, most of whom connect to these firms through devices they carry in their pockets every day." (Rahman–Thelen, 2020, 179–180)

In this paper, we refer to the expression "platform" as a digital platform that enables a peer to peer connection between – both individual and organizational - sellers and buyers of services or goods. By using the information and computing technology (ICT), platform firms make the information available for both clients and service providers. However, in exchange for this service, a certain percentage of the value of the work is requested as a fee for the platform (e.g., Upwork requires 20 per cent commission fee for their services from the workers' income) (Grabher-van Tuijl, 2020).

2. PLATFORM WORK: HETEROGENEOUS LABOR MARKET AND TASK STRUCTURE, RATING AND RANKING AS TOOLS OF THE OUTSOURCED MANAGEMENT CONTROL

2.1. HETEROGENOUS LABOR MARKET AND TASK STRUCTURE

According to Reich (2015), the platform economy is the biggest change in the American workforce in a century. Supporters of the technology-oriented innovation stress that platform work has a promising "bright" future, where the demand of the next-generation workforce for independence and flexibility is matched with client hunger for the 24/7 working culture of a global, on-demand workforce. Others, representing the multi-sided view focusing on people as much as on technology think that there is a risk of erosion of quality work, which may have an unfavorable long-term impact on innovation and productivity (Makó–Illésy, 2020; Warhurst, 2020).

Concerning the labor market, it is worth making a distinction between Online Labor Market (OLM) and Mobile Labor Market (MLM). The OLM means that the client and worker have a distant relationship; the work is performed, assessed, and financed online (Upwork, Fiverr, Amazon Mechanical Turk (AMT)). In the case of

MLM, the contact between clients and service providers is mediated by the platform, but the service is carried out personally (e.g., Uber, Wolt, Bolt.eu, Oszkár). Other critical dimensions of platform work are work duration (micro vs. macro work) and skill requirements (high vs. low); these characteristics are described in Table 1.

Table 1 Types of Labor Markets and Platform Work

Characteristics of platform work	Online Labor Market (OLM)		Mobile Labor Market (MLM)	
	Electronically transmittable tasks		Services requiring personal presence	
	Micro-tasks	(Mini) Projects	Physical services	Interactive services
Duration	Short	Long	Short	Long
Skill level	Low-to-Middle	Middle-to-High	Low	High
Dominant form of transactions	Peer-to-Business	Peer-to-Business	Peer-to-Peer	Peer-to-Peer
Types of platforms	Amazon Mechanical Turk	Upwork	Uber	TakeLessons

Source: Codagnone et al. (2016, 7); Pajarinen et al. (2018, 5) – In: Makó et al., (2020, 152)

While platforms solve specific technical or informational problems, they also create new ones (e.g., precariat), especially for those gig workers who leave their ordinary work arrangements and engage in platform work as a full-time worker (Thelen, 2019).

Hicks (1963, 65) determined the following about the labor market "... although this market is one of the most imperfect with which we have to deal, demand and supply do influence wages even here, in however halting and irregular a fashion". As Hicks (1963) stated, demand and supply influence the wages of the workers. However, the online labor market is different compared to the traditional job market. In the traditional job market, most of the demand comes from for-profit firms; these firms use their sales and operational plans to calculate the labor demand and hire or lay-off employees based on the calculated results on top of their general workforce. Therefore, the demand for the firms' goods and services indirectly affects the demand for labor. While in the platform economy, the labor demand is straight market demand. The demand for goods and services relates directly to the labor demand and the price of labor. There is no mechanism or organization to smoothen the market demand; therefore, the wages reflect the real-time market value of the job.

In the case of Wolt, if operation managers see that the weather forecast is bad, e.g., heavy rain or snow, they expect clients to order more food as they will not go out to eat. At the same time, the food carriers are less likely to turn on their applications as they would also like to avoid having to ride a bike. The demand will exceed the capacity of food delivery through the Wolt application. In this case, the

operation managers introduce a so-called "surge price" to motivate the workers to work for a few hours and to fulfill the service deadline of 30 minutes for every food delivery; based on what Wolt is charging its customers. Wolt informs their workers of surge pricing through every possible channel, e.g., their application, SMS, and the social media. A similar surge pricing model works for UBER as well[1].

Platform companies distribute the market demand among platform workers. Thus, they aim to have a mechanism to cope with the fluctuation of demand and supply, especially incentivizing workers in case of upsides in demand.

Another significant difference between traditional employment and platform working practices is management control (Wood et al., 2019). In the early days of the platform operation, there was no systematic recruitment process in the case of platform workers; they downloaded the given platform's application, enrolled as a worker, and settled down to work. Nowadays, the platforms rely on a better structured recruitment process. When a future candidate enrolls, Upwork checks the applicant's skills and expertise to approve the Upwork profile. If they do not see demand for the types of profiles, the platform refuses the candidate. Wolt holds a half-day event for new workers as part of their recruitment and onboarding process.

2.2. RATING SYSTEM FOR QUALITY MANAGEMENT

During the operational phase, the platforms use rating systems as a *form of managerial control*. There are several forms of rating systems, but most platforms utilize the 5-scale method. For example, Bolt asks the passenger as well as the driver to rate each other. A rating system may be used as a constant quality assurance tool. At Uber and Bolt, taxi drivers are locked out of the application (so they cannot work anymore on the platform) if they fail to reach a given rating level. At Uber, if the rating of the drivers goes below 4.6 on the 1-5 scale, they can be dismissed from the Uber application, the details of the calculation method are not shared with them. There is no explanation of the system, while the drivers are surveilled constantly through the application (Kobie, 2016).

Wolt uses the 5-scale rating system; the customer is asked to rate both the restaurant and the food carrier. In case the rate is lower than 5, a customer service agent contacts both the food carrier and the restaurant. Sometimes, it may result in the termination of the contract with the carrier or the restaurant.

Upworkers also receive a rate from their clients using a 5-scale rating. Moreover, there is an opportunity to submit a written feedback report. During the interviews of our CrowdWork21 project, the rating system turned out to be the most crucial tool of controlling the workers. They make an effort by going beyond the standard services that the platform company requests from them.

At Upwork, during the hiring process, a future client may review every worker's completed jobs to date, all the ratings and written feedback, and even screen-

[1] https://www.uber.com/us/en/drive/driver-app/how-surge-works/

shots of the jobs completed. It improves the client's faith while hiring a platform worker but also functions as an efficient tool of the platform (managerial) control.

Some platforms ask the workers as well to rate customers; in case of Upwork and Bolt, if the customer's rating is low (according to the interviews, lower than 4), workers refuse the client's future contract. While human resource managers (HRM) in the traditional world of employment struggle to find the right performance management technics, the platform companies use direct customer/client assessment as a quality and performance control tool. In addition, they use technology to measure and manage workers' performance as well.

2.3. "COLLECTIVE SUPERINTELLIGENCE"

Platform companies identify themselves as IT companies. They provide technical solutions for their partners and their partners are both clients and workers. Upwork provides communication space to build a community in order to solve conflicts between clients and workers. It represents the outsourcing of conflict resolution by platform management.

Bolt, Wolt, and Uber use mobile devices to have real-time information about the worker's position, a machine learning algorithm to define the best solution for an upcoming request, and mobile-payment solutions to manage financial transactions. As Morschhauser et al. (2018) state, the platform companies use the technology to reach out to many people and distribute problem-solving.

In the case of Bolt, Wolt, and Uber, the platforms' algorithm forms a "collective superintelligence" (Bostrom, 2014) with the worker. Machine and human work together when it comes to task allocation, performance management, wage management, and quality assurance. The task allocation and wage management algorithms are a rare form of Artificial Intelligence when acting as a manager of the human worker.

In the platform economy, traditional labor practices and labor economic models are changed; hence platform working is considered an atypical work arrangement. There are examples of very high quality and very laborious work that has been done by people without any payment in exchange for their efforts, such as the development of Wikipedia or the operating system Linux (Malone, 2004). In these cases, the firms (Wikipedia and Linux) secured a platform and created a cause for professionals to contribute without any remuneration. They are true examples of the power of platforms.

There are also examples of elementary work for a minimal remuneration, such as micro-tasks on Amazon Mechanical Turk (AMT). Even though these micro-tasks seem to be easy and cheap; some are used in large scale Artificial Intelligence development projects. Thus, they are very valuable. There are also examples of people wanting to take on extra jobs besides their full-time jobs and perform gig work on the side.

The common theme in the aforementioned types of work, e.g., volunteering to something meaningful, doing micro-tasks for passing the time, or performing jobs on the side, is that the worker's engagement is different compared to ordinary work arrangement. The worker has more control over the work schedule, the number of working hours, the type of work, and the clients they work for. On the other hand, workers sacrifice job security, allowances, paid holiday/sick leave in exchange for the freedom of choice. The benefits that employers provide for their employees are either because of regulations or because of their interest in keeping their employees in their organization. The trade-off between freedom of choice and sacrifice of the corporate safety net is critical in the platform economy.

The above-described issues and the labor process, i.e., the job content, working conditions, employment conditions, and collective voices, are core topics of the CrowdWork21 project[2]. Before presenting the project design, we intend to give a summary of the outcomes of the literature review on platform work.

3. LITERATURE REVIEW: LACK OF TERMINOLOGY CONSENT AND VARIETY OF RESEARCH FOCUS

The platform economy is a trending topic in the academic field, primarily due to the technology involvement in the platform mechanisms, and the most substantial market capitalized firms are platform companies (Brynjolfsson, 2019).

The terms of 'gig economy', 'sharing economy', 'collaborative economy', and 'platform economy' have spread quickly since the foundation of such well-known global digital platforms, such as Uber, Upwork, and Amazon Mechanical Turk (AMT). The availability of digital data and smartphones are the most crucial factors that enabled the birth of platform economy (Montalban et al., 2019).

Despite the abundance of terms, there is no commonly used terminology. In the USA, the majority of papers use the term "gig economy". In Europe, the term "sharing economy" and more recently "platform economy" have become popular. In the research project CrowdWork21, the research consortium of four countries (Hungary, Germany, Portugal, and Spain) agreed to use term "platform work".

Based on a systematic literature review, the following seven research areas could be distinguished:
- Disruption of business and labor market,
- "Platformization" of work,
- "Servitization" of commerce through platforms,
- Working and employment conditions of platform workers,
- The technology infrastructure of platforms,

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[2] Website: https://crowd-work.eu/, Facebook: https://www.facebook.com/CrowdWork, Twitter: https://twitter.com/crowd_work21

- Regulation of platform work (i.e., dis-embeddedness or re-embeddedness process), and
- Future of digital work.

The existing literature covers predominantly the USA and Europe (particularly EU-15 countries) from a geographical dimension. However, the academic performance in Asia has been increasing at an impressive rate; the number of articles related to Asia is minimal, although platforms in this region, such as ZBJ.com, operate on a large scale. They provide services for micro, small, and medium enterprises by 13 million platform workers and have 6 million clients.

According to Manyika et al. (2016), being a gig worker is more complicated than the positivists would think. Based on the study of McKinsey Global Institute, a large portion, about 30% of 8,000 interviewed independent workers in the USA and Europe, chooses this form of work by necessity[3].

Frequently quoted papers focus on the issues of institutional embeddedness and the regulation of the platform economy. These papers question the narrow technological presentation of the platform companies as being a pure "matchmaker". "Platform operators insist on the role of neutral intermediary that solely matches the supply of and demand for independent contractors ... platform operators seek to avoid basic entitlements resulting from employment contracts – like social security, minimum wages, as well as work time and security regulations." (Grabher–van Tuijl, 2020, 9)

In this relation, it is worth calling attention to Thelen's (2018) analysis on an interesting international comparison on Uber's institutional regulations of personal transport (taxi) services in several countries. She contrasted Uber's rapid success in the USA with its failure in Germany and compromised based on its operation in Sweden. Assessing the role of institutional regulation and social actors, Rahman and Thelen (2019) insist that in the USA, platform companies successfully developed a strong alliance with consumers, which strengthened their position while running their operations. Moreover, these companies became rather quickly too important and too large to be just regulated by authorities.

After exploring the empirical experiences in the literature, Uber related analyses take the lion's share compared to all publications related to other platforms. The reasons are the following: Uber has received by far the most significant venture capital investment to date (~60BUSD); there were 3,9 million Uber drivers in 2018, these drivers worked in 63 countries and 700 cities, and they completed 14 million trips each day[4]. Uber also explores other industries besides taxis, such as food delivery, corporate or business mobility solutions, freight transportation, health services, urban air mobility, and advanced technologies. It is not by chance

[3]   https://www.mckinsey.com/featured-insights/employment-and-growth/independent-work-choice-necessity-and-the-gig-economy
[4] https://www.uber.com/en-GB/newsroom/company-info/

that many articles dealing with the digital platforms resulted in disruption in the capitalist economy, often using the label of "Uber-ization" of the economy (Grabher–van Tuijl, 2020; Thelen, 2018).

Some comprehensive international comparative surveys on platform work in Europe will be briefly presented in the next section of "Methodology – Data Collection". The results of these surveys call attention to the so-called "knowledge asymmetry" phenomenon within the EU. In the EU-15 countries, there is a knowledge asymmetry between the Northern and Southern European countries, and between the "Old" and "New Member States" (NMS). However, there are some important projects carried out in Serbia (Andjelkovic et al., 2019), in Hungary (Meszmann, 2018), and in Slovakia (Sedlakova, 2018). On the positive side, Hungarian scholars are involved in several recent EU supported projects (Kun–Rácz, 2019; Makó et al., 2020).

4. FILLING THE KNOWLEDGE GAP: OUTLINE OF THE "CROWDWORK21" INTERNATIONAL PROJECT

It is necessary to mention the four-country research consortium project called "CrowdWork21" involving Hungary, Germany, Portugal, and Spain.

The aim of the project is to map the existing and emerging new forms of interest representation ("collective voice") of platform workers. Identification of new trajectories of interest articulation requires an unorthodox and innovative approach towards labor relations. For example, according to our prior experiences with the platform workers carrying out "high-quality knowledge-intensive projects" (e.g., developing for Artificial Intelligence algorithms), the "Customer Service" portfolio of Upwork fulfills a crucial role of "grievance management" or conflict treatment between platform workers (freelancers) and clients. "Grievance management" at traditional firms represents the process by which HR departments of companies handle various types of employee-complaints. In the case of platform firms - usually regarding themselves as neutral intermediaries matching supply and demand - it would be a new platform function or "enrichment" of the standard responsibility of the "customer service". Creating this dispute resolution system or a kind of "caring management" about the platform worker complaints could give birth to a new form of interest reconciliation in the platform economy. This is not a new "role enrichment" practice to solve worker grievances to avoid the unionization at workplaces that took place in the early 20th century by the Human Relations Departments at the large U.S. companies.

The CrowdWork21 project aims to collect fieldwork (empirical) experiences regarding the following:
- Nature of platform work (i.e., micro-task vs. macro task, high-skilled vs. low-skilled jobs),
- Working conditions (i.e., autonomy in working time setting, incentive system (rating-ranking practice)

- Employment status (i.e., entrepreneurs, freelancers, contractors)
- Platform as a neutral intermediary or/and slowly engaging in employers' responsibility (e.g., the recent decision of the "Just Eat" platform company to stop using gig workers (Josephs, 2020)
- A collective voice and interest representation (i.e., the role of trade unions or emerging grassroots organizations, movements of blog writers, new global employers' initiatives (World Economic Forum, 2020).

4.1. METHODOLOGY AND DATA COLLECTION: PREFERENCE TO A CASE STUDY APPROACH

To better understand both generic and country-specific characteristics of platform work, it is advisable to mix the survey method with a case study approach.

Among the European platform work surveys, it is worth mentioning the following international ones:
- The "Collaborative Economy Research Project" (COLLEEM) survey covers 14 EU member states. Its ambition was to measure the size of platform workers among internet users (2017–2018) (Pesole et al., 2019).
- "Platformisation of Work in Europe" survey was carried out in 11 EU countries. This survey primarily aimed to identify the frequency and income generation effects of this kind of work (2016–2019) (Huws et al., 2019).
- "Digital Labor in Central and Eastern Europe: Evidence from the ETUI Internet and Platform Work Survey" - (2018–2019). This survey covered both internet-based (web and mobile application) and platform work and measured the frequency and contribution of platform work to monthly income (Piasna–Drahokoupil, 2019).

The above-mentioned European surveys were useful to receive a cross-country snapshot of the distribution of platform workers and their general characteristics (e.g., the regularity of platform work, income generation capability, socio-demographic characteristics of people involved, etc.). However, the survey method could not gain insights into the complexity of this new form of work: task-structure and content, functioning of the rating system as a form of managerial control, grievance solutions mechanism, and articulation or lack of the collective voice mechanisms.

To better understand how platform work is embedded into its social-economics and institutional context, qualitative research tools seemed to be more suitable for the international consortium members as a research tool. According to Yin (2009), a case study is preferable in case of how or why inquiries, if the researcher's control is limited. If several case studies are combined, it is a collective-case, multi-case, or multi-site study (Stake, 1995). The individual cases share a common characteristic or condition. The cases in the collection are somehow categorically bound together. They may be members of a group or examples of a phenomenon (Stake, 2006; Tomory, 2014).

Besides systematically reviewing the academic and gray literature, the core research tool of the CrowdWork21 project will be the "multi-case study". Each consortium member has to conduct interviews with stakeholders (i.e., platform workers, platform operators, officials of interest representative organization, and representatives of the grassroots organization) related to the selected platforms. Each research consortium country (Hungary, Germany, Portugal, and Spain) agreed to create case studies of at least four comparable global or national platforms representing the Online Labor Market (OLM) (e.g., Upwork) and Mobile Labor Market (MLM) (e.g., Wolt).

The Hungarian research team (Centre for Social Sciences at Eötvös Loránd Research Network, Budapest in cooperation with – SzEEDSM Doctoral Program in Business Administration at Széchenyi University, Győr) is planning to carry out case studies regarding the following platforms:

- Upwork (global, "high-end" digital platform)
- Wolt (European food delivery platform)
- Bolt (European taxi service platform)
- Oszkár (Hungarian ride-sharing platform)
- Click-for-Work (Hungarian micro-work platform)

4.2. CHARACTERISTICS OF INTERVIEW DESIGN: PRE- AND POST-INTERVIEW PROCESS

During this research process, four types of stakeholders were interviewed: 1) workers, 2) trade unionists, 3) associations/movements of workers, 4) association/movements of owners, or platform operators. The aim of selecting a variety of stakeholders is to get a comprehensive understanding of the platform work.

In order to have a well-designed interview structure, a checklist was created for each type of interview developed for various stakeholders. The first version was created during the project team meeting in Barcelona in 2019; several iterations were in the four country teams. Each team tested the initial version and added or modified the original questions. Once a national team was ready, a new checklist was shared within the entire research consortium. The checklist was verified, and a new version of the checklist was released after the list of questions and structure was finalized; there were seven versions until the final form. Versions five and seven of the checklists were tested with real interviewees to verify if it resembles the research objectives.

The critical challenge is to retrieve the information and structures from the interviewee correctly; while it has to have proper flow, it cannot take too much time. Otherwise, the interviewee will be lost. These nuances cannot be handled theoretically; empirical tests and verification of the research tools (i.e., questionnaire template) are inevitable.

Since the core methodological aim of this project is to collect comparable data, the critical challenge was to create a common language and terminology for the

consortium member countries. Each national team finalized their research check-list, iterated them in their local language, and translated them into English when submitting to the research consortium. The four-country teams ended up with the same list of questions and interview structure created collaboratively with several iterations via repeated video conferences.

Due to the COVID-19 pandemic, Microsoft Teams was used for recording the interviews. The interviewees agreed on being recorded during the interview. The interviews were carried out in Hungarian. The interviewer recorded the interview with Microsoft Teams, and created notes, asked further questions that were not on the checklist. Once the interviews were ready, the document with the notes and the recorded video could be uploaded into Atlas.ti for interpretation and coding purposes.

In the Hungarian team, each team member reviewed the interview results and created a summary of the interviews. These summaries were then sent back to the interviewer, so the interviewer could see whether the reflection of the other team members -who were not present during the interview - resembles the essential parts of the interview and if there were unclear items and misinterpreted texts by the interviewer, there was a possibility for further discussion and to reach consent on the content of the interview.

Based on the empirical evidence learned from the interviews and relevant knowledge collected from documents (e.g., Upwork Annual Report), the case studies are edited and integrated into a national fieldwork report. These national reports are the basis for further issues (e.g., working conditions, management control, collective voice) within the CrowdWork21 project. The comparative reports related to these issues certainly reflect the impact of the cross-country differences in employment regimes, technological and social infrastructure, and the stakeholders' interest and value systems in the four countries involved in this European project.

5. CONCLUSION AND FUTURE RESEARCH CHALLENGES

Firstly, the authors aimed for a systematic literature review of the platform economy and the role of labour. Then illustrating the impacts of the national institutional regulations; using the case of an emblematic platform company: Uber. The final research objective was to present an ongoing EU research project entitled "CrowdWork21".

The present study leads to several conclusions and outlines some future research challenges. First, it should be emphasized that the platform-based business model represents the 21st century form of capitalism. The ICT driven change in the *techno-economic paradigm* (Perez, 2009) has several outcomes. Among the well-known consequences, it is necessary to mention the hypes of the Industry 4.0 or recently the Industry 5.0 and the platform economy. Our paper outlines some features of the platform economy. Patient capital, network effects, and alli-

ance between platform operators with consumers are the key features of this platform economy. This economy is transforming the current practice of value creation, governance, management, and labor.

Second, the platform economy represents a disruptive change compared to the late 19th century firms in both organizing economic activities and markets. As mentioned above, in the 21st century, these functions will be practiced by the platform. *Patient capital* supports platform companies unlike the traditional firms where the shareholders are interested in the quarterly profit increase only. The network effect is the sine quo non for these companies, and their diffusions are supported by the close alliance between platform owners (entrepreneurs and venture capitalists).

In terms of illustrating the extremely fast growth and mega-character of the platform companies it is enough to mention the following example: Google, the platform economy giant, which, despite its 2014 revenues of 66 billion USD, had only 50,000 employees[5],[6].

The third important conclusion of this study concerns the *heterogeneous character of platform work*. Contrary to such a label as "crowd work", platform work covers high-skilled vs. low-skilled, micro-tasks vs. macro-task, high-paid vs. low-paid, and self-employed vs. contract workers. Therefore, our paper challenged the use of "crowd" terminology and suggested using the term "platform" work (or digital labor). In this relation, we share the position of Pongratz (2018, 59) claiming, "Though large numbers of workers are involved in the global online labor market, there is some evidence that they are addressed as individual experts rather than as an anonymous mass of people"

As a fourth conclusion – there is *no consensus* in the scientific community about the *terminology* – despite the great number of terms used on digital work (e.g., gig work, digital labor, crowd work, platform work, online labor). It is also important to emphasize the *systematic knowledge shortage* and the unbalanced nature of the research experiences in the digital labor market. For example, there is a knowledge within EU-15 (Northern vs. Southern countries) and between the Old and New Member States (NMS) of the European Union. Even in these circumstances, we may assert that platform work represents a fast-growing but still residual form of employment globally. This development has been sped up by the COVID-19 crisis in an unbalanced way. For example, platform work related to food delivery (i.e., Wolt, Deliveroo etc.) is growing very fast, and other types of platform work representing service work involving closer physical-social contacts (e.g., child-care, home-care) are decreasing, whilst some platform operation even closed (e.g., ClickforWork in Hungary).

[5] https://www.statista.com/statistics/266206/googles-annual-global-revenue/
[6] https://www.statista.com/statistics/273744/number-of-full-time-google-employees/

In conclusion, the paper outlines the main features of the CrowdWork21, an EU supported international project, to diminish the above presented "knowledge deficiency" syndrome. The four-country research consortium (Hungary, Germany, Portugal, and Spain) – using a qualitative research method (case study) – intends to understand job structure, working conditions, employment status, and collective voice of the platform workers in a comparative perspective.

Concerning the *future research challenges*, the Hungarian research team intends to go beyond the "hype" of platform work and question the unproven rosy picture of this disruptive change in the world of work. A similar overoptimistic and oversimplified view of technological changes took place at the end of the 1990s. "When, just before the bursting of the dot-com bubbles, it was thought that the Internet's new economy' model would reduce inventories, increase flexibility and transactions and subsequently accelerate growth and reduce economic fluctuation. That, however, turned out to be a myth." (Montalban et al., 2019, 20)

It would be important to question the validity of public view on the anonymous and isolated nature of public work. In this regard, one of the numerous research challenges is to understand better the "*community building*" strategy of platform management ("social-engineering"). This may help us better understand the complex and dynamic nature of the managerial control and the socially-culturally embedded character of platform work. The country-specific institutional arrangement may shape the degree of autonomy of the participants in the digital communities. In future work, it would be worth making a distinction between "loose community-building aims to activate the self-help and self-regulation of the crowd" and "controlled community building conversely, steers interactions through a highly structured technical design and strong platform moderation to prompt specific behaviors." (Gerber, 2020, 19)

To better comprehend the re-embeddedness process of the managerial control through various forms of community building, it would be necessary to integrate the role of *collective voice* (i.e., labor relations system, emerging grassroots associations) into our analysis.

Furthermore, the Hungarian research team intends to pay particular attention to the impact of the *COVID-crisis* on the platform workers' working and employment conditions. To this end, it would be an additional fundamental challenge to better interpret the differences in the share of "teleworkers" (or home office workers) during the first cycle of the COVID-19 pandemic: the share among the CrowdWork21 project countries was the lowest in Hungary (28%) in comparison to Spain (30 %) to Germany (37%) and Portugal (39.5%) (Eurofound, 2020). Hypothetically, differences may indicate that "beyond technical feasibility, differences in access to teleworking across occupations also depend on aspects related to the organization of work and the position in the occupational hierarchy (and related privileges), rather than the task composition of the job as such." (Milasi et al., 2020, 2).

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ESZTER KAZINCZY

The Socialist Banking System in Albania and in Yugoslavia: Two Extremes within the European Socialist Bloc

Abstract

The paper compares two different banking systems – and their political background – within the former European socialist sphere; namely the banking system of Albania and Yugoslavia. Based on the relevant literature, the paper provides a comparative overview of the two financial sectors, showing that two completely different systems emerged within the socialist bloc. According to the analysis, although the development of the two countries diverged, the banking sector legacy of both countries could be considered similar by the end of the socialist time period, meaning that basically the same challenges had to be addressed during the transition process. This also underpins the concept that generally only fundamental changes could lead to sustainable economic systems. Furthermore, we highlight that the development of the successor states' banking sector followed a similar path during the transition period, whereas the Slovenian system became an outlier to a certain extent.

Keywords: banking sector, economic history, socialism, Albania, Yugoslavia

INTRODUCTION

The paper compares the Albanian and the Yugoslav[1] banking system during the socialist[2] era. From a European perspective, it is important to understand the past and heritages of these countries, as in recent years all of the successor states became member or (potential) candidate countries of the European Union (EU). Thus, the region's economic and political development became relevant not only for the EU itself, but also for various international organisations that are active in the respective countries.

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[1] Within this paper, we use the short term of 'Yugoslavia'. Nevertheless, it is worth mentioning that following the Second World War, the country was named Federative People's Republic of Yugoslavia. At a later stage, the country was renamed the Socialist Federative Republic of Yugoslavia. Furthermore, occasionally the English translations differ.
[2] The relevant literature uses both the phrase of 'socialism' and 'communism'. Henceforward we use the former, as a full-fledged communist system was not achieved in the reviewed countries.

This paper focuses on the development of the two countries' financial sector, which is considered as a key sector in a full-fledged market economy. Levine (1997) summarises its importance by elaborating on how the financial sector mitigates the negative effects of market frictions, as it enhances the efficiency of resource allocation via fulfilling five core functions. These are the following: the improvement of risk management, the allocation of resources, the exertion of corporate control and monitoring managers, the mobilisation of savings and the facilitation of the exchange of goods and services. These functions support the relocation of savings, which enhances capital accumulation. They can also spur technological innovation by fostering efficiency. Levine concludes that through these channels the financial system is able to contribute to economic growth. This mechanism highlights the importance of the financial system, which has been/is dominated by the banking sector in the reviewed countries.

Both Albania and Yugoslavia were part of the so-called socialist bloc, but became the representatives of two extreme prototypes among the applied socialist models. The two countries started to implement the classical socialist development model after the Second World War. At a later phase, the two countries' development path diverged, both in terms of the institutional structure and the international orientation. In case of Albania, the country remained loyal to the classical socialist model and turned down fundamental reforms until the transition period. Regarding its international relations, it completely isolated itself from the world from the late 1970s to achieve the so-called 'self-reliance' (Vaughan-Whitehead, 1999). Yugoslavia followed an opposite path within the socialist sphere. It gradually developed its own unique model, which became neither classical socialist nor market economic. It established the system of workers' self-management, where the ownership of assets was shifted from the state to the collectivity of citizens. The assets were supposed to be managed by the employees on their behalf (Bartlett, 1997). Yugoslavia also broke away from the Soviet sphere, but has built good relations with the 'West' as a non-aligned country. As a result, the overall development paths of the two countries diverged as they gradually became two extreme prototypes within the socialist bloc.

We review the time period between the Second World War and the fall of the socialist regimes, but we also provide implications for the transition period. Based on the analysis, the paper aims to answer the following question: How did the socialist economic policies diverging development paths reshape the two respective banking sectors? The primary goal of the paper is to prove that despite the two different development paths of Albania and Yugoslavia, the banking systems had to address similar challenges during the transition period. In connection with this fact, the secondary aim is to highlight that similar financial structures have been created during the transition period. As a third objective – based on the findings – we intend to reflect on the relevance of path dependence theory. In order to fulfil these goals, we provide an insight into the major historical developments of the two banking sectors, while highlighting the most relevant factors for the specified

time period. We would like to stress that this research has been prepared from the commercial banking sector's aspect, thus we merely touch upon the relevant monetary policy where necessary[3].

The paper would like to add to the scarce literature on the socialist banking system of Albania and Yugoslavia by a comparative analysis and its implications. This work can also provide a starting point for further analyses. Furthermore, providing this historical overview can help financial experts to understand the institutional system in the region.

The paper is organised as follows. The next chapter presents the applied methodology. This is followed by an overview of the general economic policy background, in order to understand the two socialist banking systems' environment. Then we continue with the comparison of the main characteristics of the two respective banking sectors. In a further chapter we touch upon ownership-related common features following the fall of the socialist regimes. The final chapter concludes.

1. APPLIED METHODOLOGY

This study focuses on certain characteristics of the financial sector. Within the financial sector, we only deal with the banking sector, or more specifically, primarily with the commercial banking segment. The reason behind this is the fact that Albania and the successor states of Yugoslavia had / have bank-based financial systems. This means that other segments of the financial sector – for instance the insurance companies or the stock market – have merely a minor role.

Regarding the time frame, this paper analyses the banking sector of Albania and Yugoslavia during the socialist time period. We primarily focus on the sector from the 1970s until the fall of the socialist regimes. This was the period when Yugoslavia already implemented various reform waves, so both countries had their 'mature' socialist systems. Nevertheless, we also refer to the period between the Second World War and the 1970s in order to reflect the relevant development process[4]. Furthermore, this paper provides a brief overview on certain characteristics following the fall of the socialist regimes, in order to seek common institutional traits for path dependency.

The two countries' socialist banking systems are compared with the help of the relevant literature. This determines the categories in which the two sectors are compared. The analysis incorporates a qualitative overview, due to the role

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[3] It is noteworthy that detailed analysis on the respective countries' monetary policy is particularly scarce.
[4] Although we do not touch upon the countries' pre-Second World War history, it is worth mentioning that Roland (2010), for instance, claims that the institutional system's evolution might be affected by the region's long run history prior to the socialist experience. Indeed, informal institutions might be influenced by the pre-socialist history, but this goes beyond the scope of our analysis.

of the banking sector and the nature of the results. The most important common and differentiating features are summarised by comparative tables. The comparison helps to understand the socialist legacy.

In order to understand the banking sectors' socialist development, we also overview the main characteristics of the broader institutional background. To provide a theoretical framework for this qualitative comparison, we use Kornai's (1992) main line of causality (Figure 1).

Figure 1 The Main Line of Causality
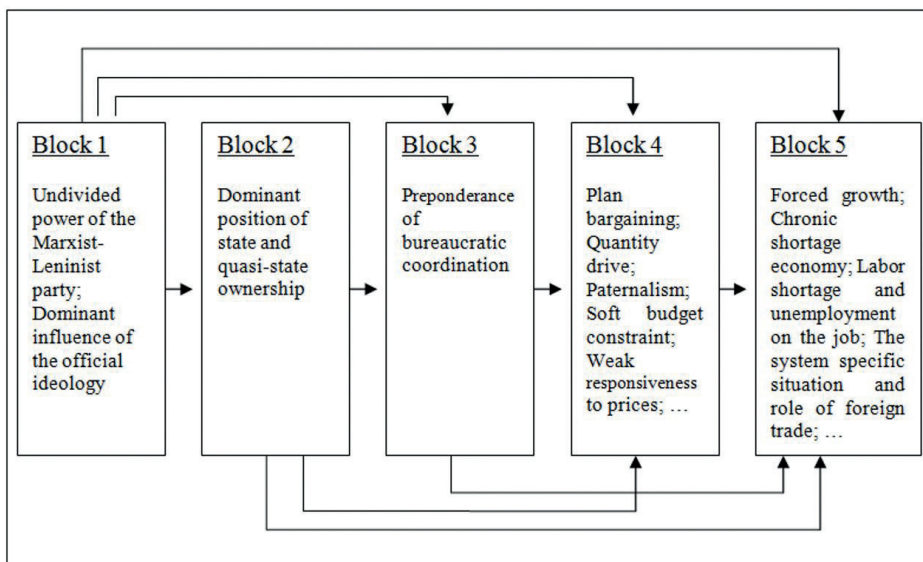
Source: Kornai, 1992, 361

Kornai classifies the most important political, economic, ideological and social phenomena of the system into five main blocks. These blocks depend on the interactions and layers of their effects. As an outcome, a coherent structure is built up, which explains the systemic mechanisms with its dominant features. The arrows among the blocks reflect the dominant line of causal connections. They show how each of the phenomenon groups are affected by all of the deeper factors. When using the phrase of systemic fundamentals, we refer to the basic building blocks, namely the one-party system, the ownership structure and the coordination mechanism.

As for the period following the fall of the socialist regimes, we merely touch upon respective characteristics in order to see if there are traits of path dependency. The aftermath or heritage of the socialist regimes is demonstrated partly by quantitative indicators. These data are primarily compiled from the reports published by the EBRD, the ECB and the respective central banks. For this period, the banking sector is analysed via the formal institutional system, omitting informal factors. Among the many key indicators of the banking system, we highlight

the ownership structure by the ratio of state and foreign-ownership. We reflect these data until the second quarter of 2018 (2018 Q2), as we can download reports using similar methodology until this date. We believe that these indicators can function as signs for path dependency, while they also signal common potential challenges. Furthermore, the ownership structure itself is represented by the second core block in Kornai's causality line.

During our primary analyses we deal with two countries; Albania and Yugoslavia. Nevertheless, when referring to the post-socialist era, the number of the overviewed countries increases to eight, due to the gradual dissolution of Yugoslavia. This implies that when reflecting current developments, we touch upon certain features in the following countries: Albania, Bosnia and Herzegovina, Croatia, Kosovo[5], Montenegro, North Macedonia, Serbia and Slovenia.

During our analysis we refer to the term of 'development path' or 'diverging path' of Albania and Yugoslavia. As a result, during our conclusions we would like to reflect on the potential implication of path dependence theory. There are various scientific fields where the theory is being applied, including different interpretations. For instance, Bednar and Page (2018) relate path dependence to institutional sequencing and culture. Martin and Sunley (2006) provide a detailed literature overview on the theory and its implications. In the current case, we imply the theory for economic policy stressing that a country's or a region's economic development is a consequence of irreversible historical events. To put it another way, the former institutional development influences or even determines an economy's future development based on its institutional heritages. The above described analysis helps to decide if the path dependence theory is applicable for the banking sectors' development in the reviewed countries.

All in all, this paper is an empirical work and it uses comparative analysis as a primary tool. The comparison is carried out mainly via qualitative analyses, but quantitative features are also included. The study is multidisciplinary, as it includes elements from finance, economic policy, transition economics or politics. This serves to understand the broader environment of the banking sector.

2. THE ECONOMIC POLICY BACKGROUND

This chapter provides information on the general political and economic background in Albania and Yugoslavia. It is important to overview the landscapes and the mechanisms in order to understand the banking sectors' operations. As a framework for this chapter, we follow the blocks of Kornai's causality line.

Starting with the first and core block, we touch upon the one-party system. Following years of power struggles and the elimination of the opposition, both

[5] This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and with the ICJ Opinion on the Kosovo Declaration of Independence.

Albania and Yugoslavia had a one-party political system. Both countries were led by a characteristic leader almost throughout the complete socialist time period. Unlike Albania, Yugoslavia underwent a number of reform waves. These, however, did not alter this core element; namely the one-party system. Merely certain ideological adjustments were required (Gligorov, 1998).

Turning to the second block, or the ownership structure, underlying differences could be detected. In Albania by 1947 widespread collectivisation resulted in the elimination of private property. Following the Second World War, Yugoslavia also started the collectivisation process. However, this process remained incomplete as the country started its own development path at an early stage (Kornai, 1992). In the 1950s, the first reform wave took place and the above mentioned system of self-management altered the classical socialist concept of ownership. The system of self-management remained a core element of the economic system until the fall of socialism. It became a reinterpretation of public ownership, and was used as a tool to explain economic development by politicians and mainstream economists. It was considered as using a market economic element in a more efficient way, as it mobilised the collective entrepreneurship according to their interpretation. Furthermore, it was treated as a more just form, as it was seen as a kind of profit sharing method (Gligorov, 1998).

As for the third block, namely the coordination mechanism, a widespread bureaucratic apparatus has been built to run the central planning system in Albania. Firstly, nine-month plans were implemented from 1947. This was followed by the classical five-year plans from 1951 (Schnytzer, 1982). These were run by the classical socialist methodology. This also implies that prices and exchange rates were fixed. They were primarily used for accounting purposes, but had no allocative role. This method omitted market mechanisms or competition (Vaughan-Whitehead, 1999). Yugoslavia also started to apply the methodology of central planning before the caesura. However, in the system of self-management the units were supposed to be led by the results of negotiations and agreements between the unions and associations. This was supposed to generate tasks based on social responsibility and mutual willingness. However, central planning was not completely eliminated, but its practical relevance shrank. Economic agents had only a minor role regarding the indicative plans, whereas the 'socio-political communities' had to view the plans as mandatory. To be more specific, in various time periods planning had different functions (Kornai, 1992).

These features directly led to certain phenomena related to the connections between the actors. These are demonstrated by block 4. In case of Albania, the existence of a kind of vertical dependence on superiors was clear. The great difference in the case of Yugoslavia was the fact that managers also depended on their subordinates. This meant that a firm's workforce gained a stronger relation with its heads, due to the fact a manager's re-election depended on worker support. As a result, besides the classical vertical dependence, the management in Yugoslavia also depended on their workers, creating a certain kind of double depend-

ence. Nevertheless, the connection with the superior institutions enabled the actors to gain various advantages; for instance, subsidy in case of loss, access to foreign exchange or investment credit. This leads to the fact that the phenomenon of 'soft budget constraint' – or a loose financial policy – was present in Yugoslavia as well. Furthermore, the dependence on workers increased the possibility of unjustified wage and benefit growth, but also limited the enforcing power of the firms' superiors. More populist actions were needed under looser bureaucracy. However, this system created a stronger relation between managers and their workers, making a clear difference from the classical socialist model applied in Albania. A certain kind of similarity between the two systems could also been highlighted. In case of Yugoslavia, the property rights did not allow the workers to take their 'investments' with themselves if they moved to a new firm. As a result, they became unmotivated in the firm's long-term development. In both socialist systems, people were encouraged to stick to a short-term interest and maximise the consumption or income of today, rather than to make investments for the long-term (Kornai, 1992).

All of these mentioned characteristics directly led to the typical lasting phenomena from block 5. We will pick a few unique or differentiating features from the list. In case of Albania, economic self-reliance was supposed to avoid balance of payment deficit, while reaching the economic growth targets (Schnytzer, 1982). In reality, the country was not able to balance the strong import dependence with its narrow export base (Vaughan-Whitehead, 1999). This led to the fact that foreign aid substituted the domestic savings that were supposed to finance the investments for the industrialisation programs. As a consequence of these facts, when Albania chose international isolation, the economy's sustainability deteriorated, and the country was not able to accumulate resources for the required investments (Sjöberg–Wyzan, 1991). This indicates that the long-term goal of self-reliance was never achieved in practice (Schnytzer, 1982). On the other hand, Yugoslavia opened the economy for western credit lines and trade from the 1950s. Throughout the years of reform waves, the country liberalised its foreign trade step by step, thus it tried to integrate the economy to the world market. Trade contacts were re-established with the Soviet bloc, but the main partner remained Western Europe. Furthermore, it even took attempts for the full convertibility of the local currency. Despite these attempts, by the late 1970s large trade and current account deficits were recorded. This could not be offset by the growing amount of workers' remittances, thus by the late 1980s state intervention and reforms had been implemented (Schrenk et al., 1979).

Inflationary pressure was a phenomenon of the classical socialist model. But the respective countries – likewise Albania – applied administrative measures for prices and wages to curtail the pressure. However, in Yugoslavia these measures were less complete or even left certain room for market mechanisms. There was a changing composition of the list of administratively regulated prices. As mentioned, the managers of the firms had to cope with a kind of double dependence, while the workers were motivated to maximise the short-term interest. In the

case of the wage pressure meeting soft financial policy, a wage-price spiral starts to unfold. This was one important reason for the inflation rate spikes (Kornai, 1992).

Regarding employment, it was bolstered in the classical socialist model by the expansion drive. Thus in Albania, the country stuck to the policy of full employment, despite a rapidly growing population. This population growth led to a milder inflationary pressure from the wage side. But this also indicated that the priority rather focused on creating employment opportunities than developing the productivity (Sjöberg–Wyzan, 1991). On the other hand, in Yugoslavia company income was rather spent on the workers' current consumption. Efforts were made to finance investments through state subsidies or banking finance with negative interest rates. As a consequence, firms were motivated to maximise the income of the workforce; the income per worker. This implies that the companies supported capital-intensive investments with little extra workforce demand. Uniquely, this led to the co-existence of unemployment and inflation (Kornai, 1992).

As a general conclusion, one can highlight that partial reforms were not able to overcome the systemic shortcomings. These derived from the core blocks or the lack of well-functioning market mechanisms. All of these discussed characteristics and phenomenon help to understand the banking sectors' background. They also underpin the two financial systems' similarities and differences.

3. THE BANKING SECTOR IN THE ANALYSED COUNTRIES

Following the general comparison of the two political and economic systems, we turn to the banking sector. The aim here is to highlight certain similarities or differences, which became relevant during the transition process of the successor countries. Bearing in mind this goal, the paper does not provide detailed analyses, but rather gives a broad overview for the purpose of comparison. The lessons are relevant not only for the financial system itself, but also for the broader political economy.

The general diverging development paths were also relevant for the banking system. The Albanian banking sector stuck to the classical socialist pattern. This implied that it had a one-tier banking system, meaning that the central and commercial banking sphere was not separated. A single bank – the State Bank of Albania – was in charge of the 'classical' activities of central banks, which included, for instance, the issuance of banknotes or the management of the country's reserves. Nevertheless, the State Bank of Albania was in charge of the 'classical' commercial banking tasks, as well as collecting deposits from households and firms or providing loans for the public sector and state-owned enterprises. This institution controlled the system of payments management and the management of international payments (Balliu, 2012). Despite the broad range of tasks, this state institution had limited room for its operations, as both the credit distribution and the monetary policy were directed by the central plans.

At a later phase, other banks were established by separating them from the central institution. These banks had dedicated purposes, as for instance, supplying rural funds or collecting savings. By the fall of the socialist regime – based on the structural segmentation – there were four state-owned banks covering different business fields; the State Bank of Albania, the Agricultural Bank, the Savings Bank and the Albanian Bank of Commerce[6]. In practice they merely followed the governance of the central plans and had an administrative role (Vaughan-Whitehead, 1999). When Albania launched its transition process, the banking sector was a compilation of these four, centrally directed banks.

Unlike Albania, Yugoslavia implemented a set of fundamental reform waves. As a result, the socialist banking pattern was completely reshaped by the 1970s, creating a unique prototype. Already in the 1950s, Yugoslavia established a two-tier banking system, which implied that central and commercial banks co-existed. The single central bank – the National Bank of Yugoslavia – was located in Belgrade. Based on the underlying reforms of the 1970s, a decentralisation of the monetary policy could be detected. As a result, the six republican and the two autonomous provincial central banks launched the process of gaining monetary sovereignty besides the state-level monetary authority (Singleton, 1976; Šević, 2002; Bonin et al., 2014). However, it is important to stress that the monetary policy itself was set on a federal level, whereas its implementation has been decentralised. The federal monetary policy was intended to support the real economy's agricultural and export sectors. Also this underpins the political motivations of the monetary policy, which could be detected in other socialist countries as well. On the other hand, the budget financing channel between the central bank and the federal state remained more hidden (Rant, 2004).

On the next level of the two-tier banking system, a large number of small, republic-level commercial banks operated (Bonin, 2004). Most of these small banks were internal company banks. Enterprises had to establish their own commune banks, as their credits were channelled through these new institutions. These small banks were owned by the communes. Though there were banks for dedicated purposes, most banks were involved in various activities, so the structural segmentation was less valid for Yugoslavia. These small banks' profits had to be returned to their investors, thus they had limited disposal over their own profits. From this aspect, these banks were merely financial service providers for their respective enterprises (Bonin, 2004).

In theory, banks were able to compete with each other, but in practice they continued to operate on their local levels. This was mainly the result of the bureaucratically set interest rate ceilings. Nevertheless – unlike in Albania – certain market economic elements did function to a limited extent. For instance,

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[6] Please note that the exact name of these financial institutions has been changed over time, while occasionally the translations differ. To read more on the development of the Albanian banking sector see, for instance, Balliu (2012) or Cani (1997).

a primary role of market-led commercial banks was fulfilled by channelling locally collected savings to investors via credits. Yugoslavia even had a specific capital market as it was possible to issues corporate bond with certain limitations (Singleton, 1976; Lydall, 1984).

Unlike Albania, Yugoslavia became an open economy, which generated significant amount of foreign currency transactions, culminating in the 1980s. The republic-level banks were required to transfer most of the foreign currency deposits to the Belgrade-located National Bank of Yugoslavia. In exchange, they received dinar-denominated credits. During the secession of Yugoslavia, the central bank in Belgrade froze the foreign currency deposits. This generated large holes in the respective banks' balance sheets. The puzzle of the so-called 'frozen deposits' had to be solved in the relevant countries during their transition process (Bonin, 2004; Bonin et al., 2014).

The financial structure becomes more complicated, when taking into consideration that in Yugoslavia the payments settlements system was separated from the banks. The internal payment system had been conducted through a state-level institution, which was responsible for all transactions within the country, and for the system of internal payment control and supervision. Following decentralisation, even regional-level Social Accounting Services have been established. It is noteworthy that the right of money issuance remained centralised on a federal level, while the republican central banks had their own account at the Social Accounting Service in order to fulfil the required monetary policy (Rant, 2004). The fact that the internal payment control and supervision was not integrated to the banking system generated further challenges during the transition period.

In the wake of the seceding countries' transition process, each republic had large main banks, which indicated a high level of market concentration. Beside these institutions, the banking sector included a large number of small, unhealthy banks. Generally, banks were characterized by a large share of non-performing loans and undercapitalisation (Bonin et al., 2014)[7]. Table 1 summarises the above mentioned, major differentiating features between the two countries' banking models.

[7] For further details on the development of the Yugoslav banking system see, for instance, Mrak et al. (2004).

Table 1 Main differentiating features between the Albanian and the
Yugoslav banking model

	Albanian model	**The model of Yugoslavia** (all valid from the 1970s)
Two-tier banking system	-	+
Bank management led by bureaucracy	-	-/+
Disposal over the banks' own profits	-	-/+
Competition in the banking sector	-	(Only in theory)
Channelling savings to investors	-	+
Existence of capital market elements	-	+
Integrated payments settlements system	+	-
Structural segmentation	+	-/+
Federal/republic division	-	+

Note: - Nonexistent, -/+ Partly existent, + Existent

Source: Kazinczy, 2013, 52; own compilation

Table 1 reflects the great difference between the two countries' banking sectors. Still, if we compare the two financial systems in respect of the fundamental requirements of a full-fledged market economy, we find similarities between the two countries. Table 2 summarises this outcome; namely that neither of the two financial systems fulfilled most of the market-economic requirements. Based on the two tables, we can conclude that although the two countries had different banking systems, their shortcomings were still similar. Both models constrained effective financial intermediation.

Table 2 The role of financial intermediaries in a market economy

	Albanian model	**The model of Yugoslavia** (from the 1970s)
Improving risk management	-	-
Efficiently allocating resources	-	-
Absorbing financial and real economic shocks	-	-
Monitoring managers and exerting corporate control	-/+	-/+
Mobilising savings	-	-/+
Facilitating the exchange of goods and services	+	+

Note: - Nonexistent, -/+ Partly existent, + Existent. The categories of the
table are gained from the work of Levine (1997) and ECB (2018).

Source: Kazinczy, 2013, 53; own compilation

To sum up, Albania and Yugoslavia have built up completely different financial structures. The latter even implemented certain market economic elements. Nevertheless, despite the reform waves, the fundamentals have not been reshaped. This led to the fact that similar challenges had to be addressed during the transition period.

4. THE AFTERMATH

Based on the finding that the two financial systems had to face similar challenges during the transition period, the next question arises: Were these challenges addressed in similar ways? In this chapter we briefly highlight characteristics that might be treated as the aftermath of the socialist time period. Due to the gradual dissolution of Yugoslavia, here we observe the banking sectors of eight countries.

First of all, it is important to underline that there are great differences among the starting dates, the methodology, the pace and the duration of the respective transition processes in the eight reviewed countries. The initial development level and the impact of military conflicts further differentiated the countries. In case of the banking systems – with the exception of Slovenia – all countries had to tackle at least one major banking crisis during the transition period. Certain countries also experienced financial meltdowns by the collapse of large pyramid schemes. Kosovo incorporated a special case, as its banking system had to be built from scratch under the auspices of international organisations[8].

The banking sector can be characterised by a wide range of qualitative features and quantitative indicators, but here we merely review the ownership structure. There are three main factors for highlighting the topic's importance. First – as Kornai's causality line also states – the ownership structure determines the phenomenon of the overall economy or the operation of a specific sector. Second, the shifting ownership structure played a pivotal role during the transition process. Third, even the latest developments and challenges in the sector are largely determined by the ownership structure. Figure 2 and Figure 3 show two main indicators that demonstrate the key features of the ownership; the asset share of state and foreign-owned banks. In 2000, the reviewed states were still in a different phase of their transition process. However, during this development all the reviewed countries chose privatisation, leading to state-ownership ratios of below 20% by the pre-global crisis year of 2008. This ratio dropped to 0% in case of Albania, Kosovo and Montenegro.

[8] There is broad literature referring to the banking sector's transition in the region or in a specific country. See, for instance, Barisitz, 2008; Berglöf–Roland, 1995; Bonin, 2004; Clunies-Ross–Sudar, 1998; Fink et al., 2007; Šević, 2002; Štiblar–Voljč, 2004.

Figure 2 Asset share of state-owned banks, %
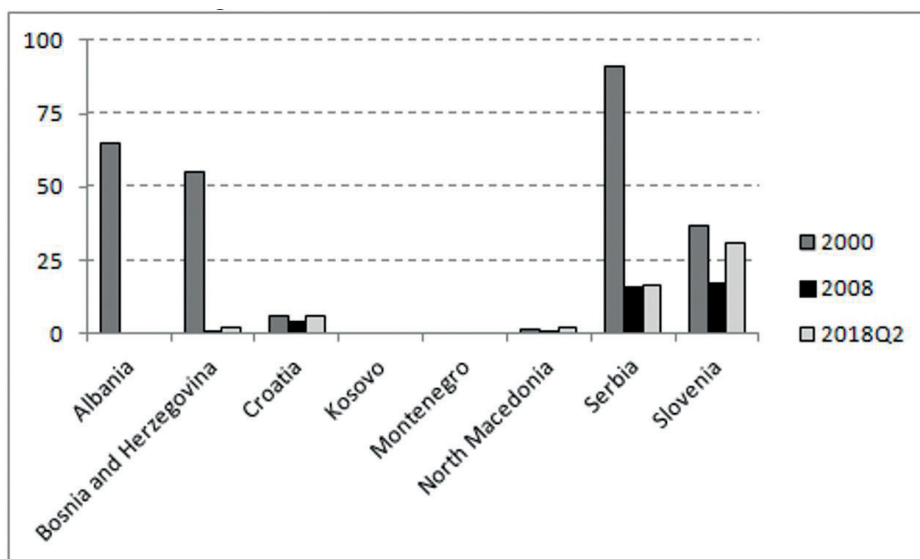
Note: Latest data for Croatia and Slovenia refer to 2018. 2000 and 2008 data for Kosovo and Montenegro are not applicable. Data for Serbia in 2000 refer to the Federal Republic of Yugoslavia.

Source: Bank of Slovenia; Croatian National Bank; EBRD, 2005; EBRD, 2009; ECB, 2019

Figure 3 reflects that generally foreign-owned – mainly EU-headquartered (ECB, 2019) – banks dominate the sector in the reviewed countries. Their market share showed a clear growth, which was over 75% before the global crisis in all countries, with the exception of Slovenia. This ratio was even over 90% in case of Albania, Bosnia and Herzegovina, Croatia and North Macedonia. During this period, Slovenia remained an outlier, as state-owned and domestic private banks dominated its market. Between 2008 and 2018 the almost continuous instability of the sector somewhat changed the ownership structure in most of the reviewed countries. In most cases the ratio of foreign ownership decreased as state owner-ship slightly grew. In Slovenia, there has been significant uncertainty surround-ing the presence of state-ownership in the largest banks for years. 2018 became a turning point, when state ownership dropped and foreign-owned banks emerged as the dominant participants in the banking sector[9].

[9] For more information and current development, see the respective central banks' homepages, the various editions of the EBRD's Transition reports or the ECB's reports on EU (potential) candi-date countries.

Figure 3 Asset share of foreign-owned banks, %

Note: Latest data for Croatia and Slovenia refer to 2018. 2000 and 2008 data for Kosovo and Montenegro are not applicable. Data for Serbia in 2000 refer to the Federal Republic of Yugoslavia.
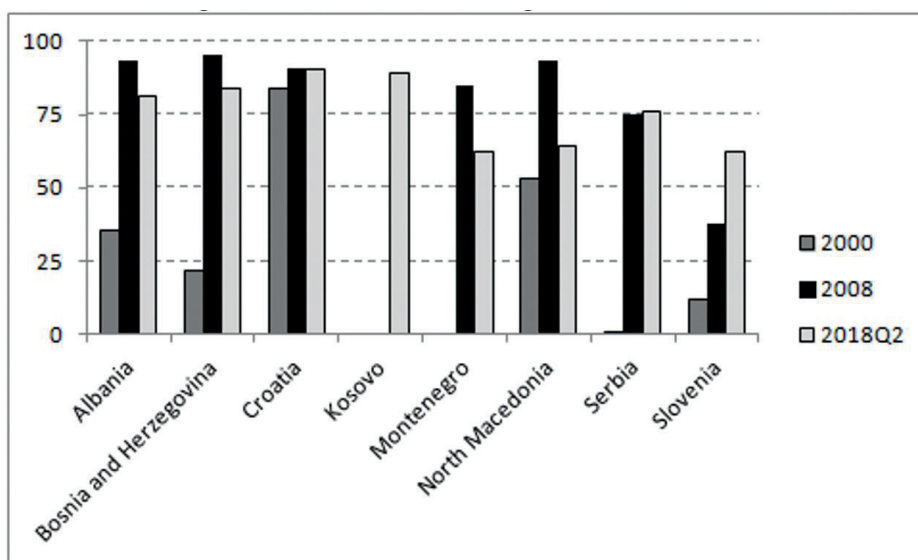
Source: Bank of Slovenia; Croatian National Bank; EBRD, 2005; EBRD, 2009; ECB, 2019

Despite the great differences characterising the transition period, a common template – with Slovenia being an outlier to a certain extent – could be specified by the end of the process. Namely, after a massive systemic collapse, large – primarily EU-headquartered – banking groups penetrated the local markets and fostered financial deepening. This latter phenomenon is often measured by the amount of banking sectors' assets in percent of the GDP. In the initial phase, foreign banks contributed to the sector's development process from various aspects. They transferred know-how, technology and financial resources, and they enhanced competition (Barisitz, 2008; Cani–Hadëri, 2002). At a later phase, during the pre-global crisis period, their operation became a mixed blessing, as they fuelled rapid credit growth in the region, leading to micro and macro-level vulnerabilities (EBRD, 2007).

During the financial crisis period, the financial integration via multinational banks became a double-edged sword (De Haas–van Lelyveld, 2014; Allen et al., 2017). Since 2008, there is a continuous risk of potential negative spill-overs from parent banks to their subsidiaries. The European Bank Coordination Initiative – dubbed as the Vienna Initiative – was launched in 2009 to mitigate the tension (De Haas et al., 2015). Nevertheless, the risk is generally present and occasionally there were / are signs of deleveraging (Vienna Initiative, 2019). This fact calls for the need of cooperation between home and host countries' supervisory and regu-

latory authorities (World Bank Group, 2019a), and the diversification of financing instruments (World Bank Group, 2019b).

5. CONCLUSIONS

The paper provided an overview on the main differences between the political and economic systems of Albania and Yugoslavia between the end of the Second World War and the fall of the socialist regimes. The comparison of the economic background was made via the framework of Kornai's causality model, whereas the banking sector was analysed with the help of the relevant literature. It can be concluded that a wide range of structural elements varied between the two countries. Albania remained loyal to the classical socialist model and even isolated itself from the rest of the world with the aim of self-reliance. On the other hand, Yugoslavia applied the system of workers' self-management; a unique system within the socialist bloc. As a result of the various reform waves, Yugoslavia implemented certain market economic elements, but with limited effectiveness. Still, from the 1970s, the ownership structure, the planning procedure, the disposal over the firms' own profits, likewise other core factors differed between the two countries.

This study provides an analysis of the history and development of the banking systems in Albania and the former Yugoslav countries. The paper's primary aim was to provide an overview on the main differentiating features of the two respective banking sectors. We focused on the banking sector from a commercial banking viewpoint. The main institutional differences of the two countries' financial systems have been clearly presented. The secondary goal, namely to highlight the similarity of the financial structures after the transition period, has been fulfilled by presenting the relevant literature and statistical data. The third objective was to consider the relevance of path dependence theory. This was underpinned by the two systems similar legacy and outcome. These facts prove that it is important to understand the historical background of specific institutional systems.

After studying the historical development of the banking systems in Albania and Yugoslavia we can arrive at the conclusion that no matter what reforms were introduced in different segments of the socialist economy – like self-management, elements of private incentives, collective ownership or introduction of limited commercial banking functions in the financial institutions – as was done in Yugoslavia, they could not change the substantial discrepancies of the socio-economic system, which resulted in the collapse of the economies. Following this phase, there was no other option left than to start the painful and long transition process leading to market economies. In addition, the successor states of Yugoslavia also had to deal with the traumas related to the often devastating succession process.

This paper's analysis can be continued in three main directions. Firstly, further research can be carried out by providing in-depth analysis of the banking sectors in Albania and Yugoslavia, focusing on a specific time range. Secondly, further

analysis can focus on the respective monetary policy. Thirdly, specific case studies can represent the highlighted development process of the banking sectors.

To sum up, despite the different development paths during the socialist era, similar challenges had to be addressed during the transition process in all countries. Though there were great differences among the economies regarding the starting date and sequencing of the transition, still a common template could be outlined. A clear outlier was Slovenia, but only until 2018. This indicates that current institutional structures can partly be explained by the developments during the socialist era, as historical legacies cannot be wiped out. Thus, based on the similarities of the post-socialist development in the financial systems, we can conclude that there are clear signs for a determinist path-dependency in the reviewed countries' banking sector.

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JOMON VARKEY VELLAYIL – VERONIKA KELLER

Consumer Attitude Toward E-Advertising from an Intercultural Perspective

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Abstract

The internet has now become an integral part of human life leading people rely on internet based services to reach the right decisions and seeking enjoyment. Marketers are increasingly promoting internet-based marketing communication because of its high effectiveness, creative options, and low-cost investment. So it is necessary to understand the users' attitude toward marketing communication such as e-advertising. The aim of this study is to analyze the significant relation between e-advertisement appeals, attitude, and purchase behavior based on nationality. An electronic questionnaire was used for data collection from seven countries India, Pakistan, Morocco, South Africa, Brazil, Laos and Cambodia where culture and beliefs are basically different. Altogether 270 responses were analyzed by cross-tabulation. Study results explain that there are statistically significant relations between e-advertising's appeals (information, credibility, privacy, irritation), attitude (negative attitudes towards a company because of an irritating ad), purchase behavior (negative purchase behaviors due to irritating advertising) and nationality. Internet communities are diverged so findings might be considered for advertising campaigns across multiple countries.

Keywords: advertising appeals, consumer attitude, e-advertising, nationality

INTRODUCTION

The marketing environment is changing constantly, most business organizations operate in a complex and competitive environment whereas demands are continuously changing due to short term time horizon of product competence, technological expansion, globalization and economic development, pace of lifestyle changes, etc. Business longevity and revenue generation continue to be a challenging goal for marketers so they explore the possibility of getting a mass audience for the marketing of products or services.

The aim of the paper is to get a better understanding concerning the relation between current consumer attitudes toward e-advertising and nationality. Advertisements, especially internet based media, are the major and the most important elements in the marketing communication mix. Digital advertising spending worldwide stood at an estimate revenue of 194.6 billion U.S. dollars in 2016. This data is going to increase constantly in the upcoming years, reaching an estimated

level of 335 billion U.S. dollars by 2020 (Guttman, 2019). According to an IAB internet advertising revenue report (2019) mobile internet access has exceeded mobile connection speeds, and more powerful mobile devices allow users to receive widespread advertising along with video ads without any interruption. According to the Kemp's Digital 2019 report, out of a world population of 7.676 billion 5.112 billion people are unique mobile users, 4.338 billion people are internet users, 3.484 billion people are active social media users, and 3.256 billion people use social media on a mobile device.

Cyber community is heterogeneous so their attitude and perception are relatively diverse so their acceptability 'likes' and attitudes has to be changed over the time. Previously, many studies have analyzed consumer attitudes toward online advertising in separate mediums and with different formats, including many ad formats within one medium, etc. However, most studies and findings seems to be re-checked with the current era because most studies are done in an age where internet experience was growing but now internet activity has become more common for all, so the user's attitude should be different than in the previous period. The success of an advertising campaign keenly depends on consumer attitude and perception. Consumer favorable attitude shows the way of advertising success.

General research objective is to analyze the relation of consumer attitude toward e-advertising based on culture. After the literature review the result of an online empirical study is presented. Overall research conducted based on significant factors for attitude formation toward e-advertising like advertising appeals – importance, informativeness, credibility, entertainment, irritation, privacy –, attitude and purchase behavior based on nationality.

1. ATTITUDE TOWARD ONLINE ADVERTISING

Internet-based communication is the latest and greatest medium for communication. According to Srivastava and Mishra (2012) online advertising is also known as e-advertising. Usman et al. (2010) explained that e-advertising is a form of promotion that uses the internet to deliver marketing messages to attract customers. In regard to Papadopoulos (2009) and Bruntha et al. (2019) internet advertising, also called online advertising, takes many forms, from traditional banners to rich media ads.

Fishbein, M. (1967, 890) defined an attitude as "*a learned inclination of human beings*". Likewise, Bamoriya and Singh (2011) defined attitude toward advertising as a response to advertising, either in a favorable or unfavorable manner. Fishbein and Ajzen (1975) emphasized that attitude is the one of the most prominent factors which affects the buying decision and determines consumers' intention and behavior. According to Mehta (2000) the consumer's attitude toward advertising is one of the most influential indicators since the consumer's cognitive ability toward advertising is reflected in their thoughts and feelings, which in turn influences their attitude (Mackenzie–Lutz, 1989). Marketers need to understand the

buying behavior of consumers when designing ads for the desired impact. Ads play an important role in creating the image of a product in the minds of consumers.

Consumer engagement with ad messaging has been found to be one of the most important personal attributes influencing ad message processing (Grimes, 2008). Advertisers use rational or emotional appeals or both together to express or translate their creative ideas. Rational appeals are informative and more effective than emotional appeals for new and intangible products in the market. Normally, demonstration, testimonial, problem solution, slice of life ads, dramatization advertising, and comparative advertising tools are being used in rational appeal advertisements while emotional ads mainly consist of non-verbal elements such as images and emotional stimuli (Pelsmacker et al., 2018). Emotional appeals do not necessarily evoke emotions in all people. Humor, eroticism, warmth, fear, shock tactics, and music are the tool commonly being used in advertising with emotional appeal (Pelsmacker et al., 2018). Ads need to be attractive and communicate relevant information to customers. Mehta (2000) argued that people who have a more favorable attitude toward advertising are more likely to be convinced by advertising. Advertising stimuli generate a number of intermediate processes such as creating attention, carrying over information, evoking acceptance of the message, credibility, positive affective reactions about the ad and the brand, activation, and purchase intention.

1.1. CULTURAL DIFFERENCES IN ATTITUDE

People that live in different cultures usually differ in their beliefs, previous experiences, attitudes, values, etc. Different values might lead to different needs and different consumption behavior. Tajeddini and Trueman (2012) stated that culture has a positive impact on customer orientation, innovation and company performance. Guo et al. (2006) cited that cultural classifications of Hofstede have a major influence on the adoption of innovation across regions. People in different regions have different cultural values, which can have a profound impact on information processing to advertising. Therefore, attitudes toward online advertising varies all over the world depending on the adoption of innovation and technology (Guo et al., 2006). Zarantonello et al. (2014) denoted that religious beliefs and cultural practice affect the liking of elements used in advertisements.

Usman et al. (2010) argued that perception of advertisements depends on cultural acceptance as well as new trends and fashion. Valaei et al. (2016) argued that individualism has a strong positive relation and long term orientation has lower side positive relation in terms of attitude toward online advertising and attitude toward online brands. Power distance and attitude toward online advertising are positively correlated but there is a negative relationship between masculinity and attitudes toward online brands. In addition, uncertainty avoidance does not show a positive effect on attitude toward online advertising and attitude toward online brands.

Abbas (2017) noted that in a Pakistani based research that television is the most inspiring medium for advertising. Another cross cultural research study performed in Warwick, Beijing and Hong Kong. Guo et al. (2006) revealed that generally all people have more negative attitudes toward online advertising compared to other media. The researchers found more negative attitudes in Warwick (UK). Respondents from Beijing have more positive attitudes than people from Hong Kong. Among the three cities there have been significant positive attitudes toward online advertising considering economic, regulatory and personal beliefs but social and ethical factors are insignificant.

1.2. DETERMINANTS OF ATTITUDE TOWARD E-ADVERTISING

Advertising appeal is the management and arrangement of ads to attract customers functionally in a creative manner. People remember and like the characteristics of creative ads. Ang et al. (2007) observed that novelty, meaningfulness and connectedness create favorable attitudes toward advertisements. Deep processing of advertising content promotes higher recognition and recall of brand and message elements. Repeated advertising appeal influences consumers to follow the product or service, shape their attitudes and manipulate their bias or ideas. Advertising appeal has a positive relationship between the behavioral intention and attitude. Syed et al. (2018) and Simola et al. (2013) empirically confirmed that in the case of web advertising, the effectiveness of an ad is highly dependent on its content and design. Visual complexity of ad design attracts viewers' attention to a certain extent.

1.2.1. INFORMATIVENESS

Informativeness refers to the degree of usability and effectiveness of the information contained in an online advertisement. Kotler and Keller (2016) state that consumers show a positive attitude toward advertising since they can learn about new products, specific product benefits and comparative product information, etc. According to Ling et al. (2010) providing information is the one of the most vital parts of advertising. Users want to have quick access to information related to their current desirable content and the information-seeking factor acts as a positive predictor for the formation of consumers' attitudes toward online advertising. Thangam (2018) acknowledged that 'web usage' has an effect on attitude to web advertising. People's attitude is positive toward web advertising, which is informative.

1.2.2. CREDIBILITY

Ling et al. (2010) highlighted that credibility is a believable perception which originates from the onlooker's mind but the source of credibility is the degree to which a source is considered as an expert and unbiased source. According to

Buda and Zhang (2000) when a message is perceived as credible, consumers will pay more attention to the message and it will be more persuasive. The credibility of an ad is especially affected by factors such as the company's credibility and the message's credibility (Park et al., 2011). Zha et al. (2015) denoted that advertiser credibility is a key determinant and affects the formation of attitude and behavior.

1.2.3. ENTERTAINMENT

Deep processing of advertising content promotes higher recognition and recall of brand and message elements. Vieira (2013) argues that pleasure and arousal are the fundamental components of consumer sentiment and effective responses to marketing stimuli and consumers' reactions toward advertising. Similarly, Weerapat et al. (2017) found that entertainment regularly supports advertising, which plays an important role in effectively capturing the attention of consumers, and the high entertainment rate of advertising influences the reduction of irritation. As a result, people usually respond to entertaining ads, which have a positive impact on the attitude.

1.2.4. IRRITATION

The internet medium incorporated with social media and mobile devices is used to create a direct communications line, through the placement of advertisements, with customers and prospects. Consumers are less likely to be tempted by ads that appear to be annoying, offensive or manipulative (Brehm, 1966). According to Saxena and Khanna (2013) when a person feels uncomfortable about advertising because of personal or social reasons, they become irritated by ads. Liu et al. (2012) came to the conclusion that advertising exploits techniques that annoy, offend, disturb for a short time, insult, or manipulate consumers are irritating. People react negatively when they perceive that their freedom of choice is threatened. Due to irritation of information (incorrect time, channels, target groups) negative feelings can arise. Irritation affects consumer attitudes that may lead to a general reduction of advertising effectiveness and the value perceived by audiences (Luo, 2002).

Cho et al. (2016) stated that marketers need to target potential customers at the right time and place, thereby giving potential customers the impression that they are buying an advertised product. Delivering advertising messages is only for current consumers or for those who want to receive advertising information because they need permission from their customers and to avoid customers who feel that advertising messages are annoying and irritating.

Nabizadeh and Gharib (2012) emphasized that irritation negatively affects the attitude toward internet advertising. The attitude can be negative even after getting permission if messages are irreverent and useless.

1.2.5. PRIVACY

Haq (2009) defined that one of the most serious problems facing individuals is the privacy of personal information. Privacy refers to the amount of personal information that others do not know. Consumer privacy has always been a critical issue in marketing, but with the rise of internet-based commerce and transactions it has become increasingly important in recent years. Privacy affects decisively the attitude to advertising (Rust et al., 2002).

Tucker (2014) argued that advertisers use personal data to target and personalize ad messaging as they did earlier, even after the introduction of restricted regulatory norms to manage privacy settings policy. Survey from the Open Data Institute (ODI) in 2019 shows that nearly 9 out of 10 people (87%) feel it is important or very important that organizations they interact with use data about them ethically.

1.3. RESEARCH ON ADVERTISING APPEALS

Zha et al. (2015) say that credibility on traditional media is most likely to transfer to web based media. Truthful and believable advertised information leads to a favorable attitude of consumers toward web advertising. Specific, definite and tangible facts on web advertising lead consumers to purchase a product or evaluate alternatives. They pointed out that credibility, perceived information and entertainment are important factors influencing attitudes toward web advertising.

In a Malaysian based study Li-Ming et al. (2013) found that consumers have a more positive attitude toward online advertising. They found that usability, credibility and information are important factors in attitude formation. However, in research based in China, Romania and U.S Wang, Sun and Thompson (2010) enlightened that five conviction factors such as information, entertainment, economy, credibility, and value corruption were seen as noteworthy indicators of frame of attitude toward online advertising.

Li-Ming et al. (2013) have emphasized that consumers click and read online advertising to search for information. Javid et al. (2012) have a similar opinion when advertising-related information is kept up-to-date on a product available in the market, so useful information creates positive perception and a positive attitude toward online advertising. In another study on Indian millennial attitudes to online advertisements, Bruntha et al. (2019) illustrated that online advertisements are more informative, if up-to-date product information that is useful for purchasing decisions is shared. Incentive based ads and animated ads have a more attention grabbing format. Respondents prefer to watch video advertisements rather than other ads.

Nabizadesh and Gharib (2012) concluded that informativeness, credibility and entertainment positively affect the attitudes toward internet advertising. Furthermore, Wang et al. added that not only information seeking, entertainment and credibility, but also economy and value corruption are significant predic-

tors of attitudes toward online advertising. Similarly, Panda and Mishra (2012) explored results that content of relevant information, visual appeal, reputation of a company, intrusiveness, and trustworthiness positively affect consumer attitudes toward internet advertising. They concluded that the emotional contents like joy and surprise, directly or indirectly, caused a smart attention concentration. Le and Vo (2017) emphasized in a Vietnamese based research that positive attitude toward traditional banner ads contain high informative value and negative attitudes toward pop-up ads with irritating attitude.

Liu et al. (2012) claimed in a Japanese vs. Austrian comparative study that users' cultural background strongly influences perception of visible advertising elements and they explicated that impact of 'credibility and information' on the perceived value of advertising is higher for Japanese than Austrians. Besides that, they found irritation higher for the Japanese sample than Austrian sample. High level of uncertainty avoidance and a more sensitive nature reflects the Japanese culture so advertisers should focus on providing advertising that best fits their real needs and interests by incorporating more specific considerations for cultural differences.

Punyatoya and Durgesh (2011) in an Indian research highlighted the factors - message truthfulness and believability, attractive content, consumer perception of customized or personalized message and ability to use a mobile phone - that significantly affect positive attitude formation and acceptance of mobile advertising. Cho et al. (2016) confirmed that for Vietnamese customers' entertainment, information and credibility are the most significant factors to have an influence on positive attitude toward mobile advertising, while irritation causes a negative attitude toward mobile advertising. They also mentioned that attitudes toward mobile advertising have a positive effect on Vietnamese consumer buying decisions. Similarly, Ünal et al. (2011) illustrated that advertisements with entertaining, informative, reliable, personalized, and prior permission based ads have a positive effect on creating attitudes toward mobile advertisements.

According to Tsang et al. (2004) entertainment was the most significant of the factors affecting respondents' attitudes toward mobile advertising, followed by credibility and irritation. On the contrary Cheng et al. (2009) maintained that internet and mobile-phone-based advertising are not very entertaining so it is reducing customer attraction toward advertising. Customized ads with a high entertainment valued message can create attraction and positive attitude toward advertising.

2. RESEARCH METHODOLOGY AND OBJECTIVES

The specific objective of this study is to analyze the significant relation of e-advertising attitude determinants based on nationality (Figure 1).

The following research questions were defined:
- Are there any significant relations between '*informativeness* in e-advertising' and consumers' nationality?

- Are there any significant relations between '*credibility* in e-advertising' and consumers' nationality?
- Are there any significant relations between '*entertainment* in e-advertising' and consumers' nationality?
- Are there any significant relations between '*irritation* to e-advertising' and consumers' nationality?
- Are there any significant relations between '*privacy* handling in e-advertising' and consumers' nationality?
- Are there any significant relations between 'consumer general *attitude* toward e-advertising' and consumers' nationality?
- Are there any significant relations between 'consumer *purchase behavior* due to e- advertising' and consumers' nationality?

Figure 1 The proposed conceptual framework of the research
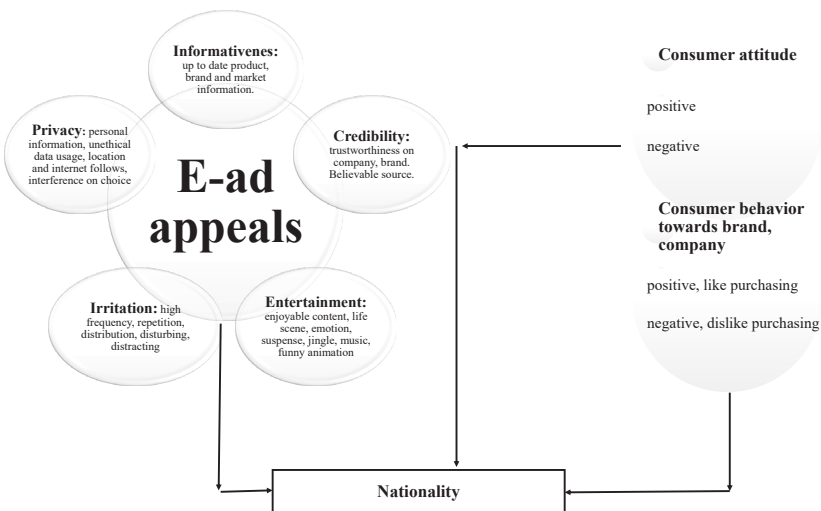
Source: Own compilation

2.1. RESEARCH DESIGN

The main objective of the study is to examine the significance relationship in consumer attitude toward online advertising based on nationality. In this study research design includes three parts: data collection, measurement and analysis.

2.1.1. QUESTIONNAIRE DESIGN

For the data collection a structured questionnaire was prepared according to the factors correlated to consumer attitude with respect to previous literature studies.

The questionnaire was designed in such a way that the statements were properly understood in the English language.

The questionnaire contained 28 questions with matrix, multiple choice, and dichotomous types.

The overall questionnaire consisted of three sections where questions in the first part were related to participants' interaction and convenience with internet and usage measured on nominal and ordinal scales. In the second section all questions were related to the respondents' attitude toward online advertisements. Attitude statements were measured on nominal scales (disagree, partially agree, agree). The third section of the questionnaire focused on the demographic profile of the participants and was measured on nominal scales.

2.1.2. SAMPLE COLLECTION

After developing the questionnaire, the next step was to obtain samples of research responses from selected countries; hence a structured electronic questionnaire was distributed to suitable citizens of each country through email and social media (Facebook) and personal contacts with the help of colleagues in selected countries within a 10-day time span (26 March 2020 to 4 April 2020). Responses were received individually from the participants and kept in accordance with the criteria for further analysis.

For the informational data collection seven countries were considered: South Africa, Brazil, Pakistan, Morocco, Laos, Cambodia and India where different religious beliefs and customs exist. In this section we will give a short description of the analyzed countries according to Hofstede's dimensions[1]. There is no data for Cambodia and Laos. South Africa's scores are for the white population, but the majority of the population is Black African. That is why the data of India, Brazil Pakistan and Morocco are considered. In terms of *power distance* Brazil (69)[2], India (77)[3] and Morocco (70)[4] are hierarchical societies. Pakistan has an intermediate score (55). India (48) has both *collectivistic* and *individualist* traits. Individuals are influenced by various social networks such as family, extended family, neighbors, work groups, etc. Morocco (46) also has intermediate scores with no special orientation toward individualism or collectivism. Brazil (38) is a collectivistic country where extended family and loyalty and long term business relations are extremely important. Pakistan (14) is considered to be a collectivistic society, where loyalty is a principal. Brazil (49), Morocco (53) and Pakistan (50) have very intermediate scores on the *masculinity* dimension. India (56) is considered

[1] https://www.hofstede-insights.com/country-comparison/brazil,india,morocco,pakistan/
[2] In Brazil it is important to show respect to the elderly. Status symbols of power are very important in order to indicate social position and communicate the respect that could be shown.
[3] In India communication is top down and directive in its style.
[4] In Morocco centralization is popular, subordinates expect to be told what to do and the ideal boss is a benevolent autocrat.

to be rather a masculine society in terms of visual display of success and power. The focus is on success and achievements and material assets. Considering *uncertainty avoidance* Brazil (76) has relatively high scores. Brazilians show a strong need for rules and regulations. At the same time Brazilians are very passionate and emotional people. They put an emphasis on the quality of life, they like chatting with colleagues, enjoying a long meal or dancing with friends. Morocco (68) and Pakistan (70) also have very high preference for avoiding uncertainty. India (40) has low scores considering uncertainty avoidance. India is traditionally a patient country. Considering *long term orientation* Brazil (44), Pakistan (50) and India (51) can be characterized by both short and long term orientation. Moroccan (14) culture is very normative. Brazil (59) is an *indulgent* society. People enjoy their lives, they are optimistic and spare time is important for them. India (26), Morocco (25) and Pakistan (0) are restraint societies so they are cynical and pessimistic. They control the fulfillment of their desires (www.hofstede-insights.com).

Convenient and collective sampling has been conducted from nearly all countries to obtain adequate number of responses. A total of 289 responses were accepted only from listed countries where the structured questionnaire was distributed. Finally, 19 uninvolved, incomplete responses were removed from the final dataset for further analysis. The sample was not a representative, one the authors would like to emphasize this study is an exploratory one and the main conclusions are true for this sample only. The sample can be characterized with the following demographics (Table 1).

The aggregate data was collected in Google Form and then converted to an Excel sheet separately, and each response and queries were coded using an adequate numbering system and imported to SPSS software for further statistical analysis. To answer the research questions multivariate statistical analyses were conducted. To analyze the connection between e-advertising appeals, attitude purchase intention and nationality Chi-square analysis was conducted. The authors took into consideration the expected value and the condition of variables measured on nominal scales Cramer's V was considered to check the measure of association.

Table 1 Basic demographics of the sample

Demographic profile of the respondents (N=270)								
Variable		**F***	**%**	**Variable**		**F***	**%**	
Gender	Male	134	49.63	**Educational qualification**	undergraduate	44	16.30	
	Female	136	50.37		Bachelor	138	51.11	
	Total	**270**	**100**		Master	58	21.48	
Age group	Young (18-34 years)	236	87.41		Other	30	11.11	
	Middle (35-55 years)	34	12.59		**Total**	**270**	**100.00**	
	Total	**270**	**100**	**Religion**	Hindu	59	21.85	
Nationality	Indian	81	30.00		Christian	70	25.93	
	Brazilian	29	10.74		Buddhist	70	25.93	
	Cambodian	26	9.63		Muslim	71	26.30	
	Laotian	44	16.30		Total	270	100.00	
	South African	27	10.00	**Net monthly income**	< 1000$	196	72.59	
	Pakistani	50	18.52		> 1000$	45	16.67	
	Moroccan	13	4.81		Not Prefer to say	29	10.74	
	Total	**270**	**100**		**Total**	**270**	**100.00**	

Internet usage by respondents
Daily usage: 98.7%
Usage longevity above 2 years: 98.44%; *F* = frequency*

Source: Own compilation

3. RESULTS OF THE EMPIRICAL RESEARCH

3.1. RESEARCH RESULTS

In order to analyze the connection between e-ad appeals, attitude, purchase intention and basic demographics cross tabulation (Chi-square analysis) was conducted. The relationship with informativeness, credibility, entertainment, irritation, privacy, attitude, purchase intention and nationality were analyzed. Significant relationships in the case of informativeness, credibility, irritation, privacy, negative attitude and negative purchase intention due to irritating e-ads were found. However, the strength of associations (Cramer's V) were below the average level (Table 2).

Table 2 Significant results of cross tabulation

Significant factors	Nationality Based	
	Pearson Chi-Square Value	Cramer's V
Informativeness of e-advertising	37.92	0.26
Credibility in e-advertising	33.69	0.25
Irritation to e-advertising	30.18	0.24
Privacy handling in e-advertising	43.70	0.28
Negative attitudes because of irritating e-advertising	51.65	0.31
Negative purchase behaviors due to irritating advertising	29.99	0.24
Chi-Square Critical Value	21.03 *Significance value: 0.05* *N=270*	

Source: Own compilation

Larger percentages of respondents fully and moderately agree that they would like to watch e-advertisements that are sufficiently *informative*. South African (70.37%) and Cambodian (65.38%) respondents prefer to watch sufficiently informative e-advertisements than other nationalities. Few respondents would not like to watch e-advertising that is informative. The respondents from Laos (20.45%) and Cambodia (19.23%) are most pronounced with this opinion. The percentage of respondents from Pakistan (0.00%) and Brazil (3.45%) is the lowest among those who do not prefer to watch informative advertising.

Large percentages of respondents have more *faith* to some extent toward e-advertisements than traditional advertisements. More Cambodian (46.15%) and Pakistani (54.00%) respondents strongly believe in e-ads than others but Moroccans (69.23%) and Brazilians (58.62%) are in the top of the moderately believer group to e-advertising. A considerably large number of respondents don't believe in e-advertising: South Africans (37.04%), Indians (34.57%) and Laotian (27.27%).

Out of 270 respondents 67.41% of respondents fully agreed and 24.81% respondents partially agreed with the statement they like and prefer to watch e-advertising containing humor, suspense, emotion, life scenes, pleasant memories, etc., whereas 7.78% of respondents disagreed with this statement. There is no statistical relation between *entertainment* in e-advertisements and nationality.

In total 23.7% of respondents fully agreed and 55.93% of respondents partially agreed with the statement that digital advertisements are *irritating* because of high frequency. But 20.37% of the respondents said that e-advertising is not irritating in nature. A lower percentage of people agree that they dislike e-advertising because of high frequency and irritating nature, relatively larger numbers that fully dislike them are from South Africa (40.74%), Brazil (37.93%) and Laos (34.09%), but other respondents who partially agree from Morocco (92.31%),

Pakistan (66%) and Brazil (62.07%). Comparatively there are more respondents who like e-advertising even with high frequency in India (27.16%), Cambodia (26.92%) and South Africa (22.22%) than other countries.

In total 42.96% of respondents are fully concerned and 45.56% of respondents are partially concerned about their *privacy* and ethical personal data usage by companies whereas 11.48% respondents are not concerned with their privacy. Most of the respondents are concerned about their privacy with regard to the ethical 'consumer personal data usage' by advertisers. Data reveals that mainly South Africans (70.37%) and Laotians (63.64%) are more concerned with their personal data usage. Moroccans (61.54%), Pakistanis (72.00%) and Indians (48.15%) are moderately concerned about privacy. Relatively more respondents are found from India (20.99%) who do not bother about their privacy, and Cambodians (11.54%) came in second.

68.89% of the respondents fully agreed and 25.19% partially agreed with the statement that they have *positive attitude* toward those companies or brands using good and credible information and entertainment in e-ads for promotion. However, 5.93% of the respondents disagreed with this statement. There is no statistical relationship between the "positive attitude of a consumer with good informative, credible, entertaining advertising" and nationality.

There is a statistical relationship between "*negative attitudes* toward companies because of irritating ads" and nationality. In total 45.19% of respondents have a fully negative and 23.7% respondents have a partially negative attitude toward companies and brands because of irritating ads, whereas 31.11% respondents do not have such type of negative attitude toward companies and brands because of irritating ads. Laotian and Cambodian respondents are found respectively the least negative attitude holders to companies and brands due to irritating e-advertising. Moroccan (73.92%) and Pakistani (70.00%) respondents are the most negative attitude holders with regard to irritating advertising. Most of the other respondents in a large percentage they do not believe that they hold a negative attitude toward companies and brands because of irritating advertising. Respondents from Laos (50%), South Africa (40.74%), and Cambodia (38.46%) do not have such type of negative attitude toward companies and brands due to irritating e-advertising.

41.85% of people fully agreed and 35.19% of respondents partially agreed with the statement that they are interested in buying the products of products' ads they liked. However, 22.96% respondents disagreed with this statement. There is no statistical relation between "e-advertising influences the *purchase behavior*" and nationality.

There is a statistical relationship between '*negative purchase behavior* due to irritating advertising and nationality. 37.78% of respondents fully agreed and 29.26% of respondents partially agreed with the statement that they do not like purchasing those products that have irritating advertisements. However, 32.96 % of respondents do not agree with this statement. Moroccan (84.62%) and South

African (55.56%) respondents significantly agree with this, but most of the Pakistani (52.00%) respondents do not have such type of negative purchase behavior with respect to irritating advertising.

3.2. DISCUSSION

Relying on the analyzed data the following conclusions are made. When an online ad is relevant to the recipient they develop a positive attitude and respond positively (Zeng et al., 2009). Online advertisements are more *informative* when frequently up-dated product information, that is useful for purchase decision, is included (Bruntha et al., 2019). Based on research results there is a statistical relationship between informativeness of e-advertising and nationality. Up-to-date information is very important for consumer decision making process so most people would like to watch e-advertising, which is sufficiently informative. South Africans and Cambodians are more likely to watch informative e-advertising than others but Pakistanis and Brazilians are in lowest among those who considerably do not prefer to watch informative advertising.

Credibility on traditional media is most likely to transfer to web based media (Zha et al., 2015). Research findings reveal that most of the respondents have faith to some extent in e-advertisements compared to traditional advertisements. Cambodians and Pakistanis significantly adhere more to credibility of e-advertising than others. While Indians, South Africans and Laotians have been found to be less-believers than others to e-advertising claims.

Weerapat et al. (2017) found that people usually respond to *entertaining* ads that have a positive impact on the attitude. Entertainment is an important factor in the case of e-adverting regardless of nation.

Excessive exposure to information by advertising is equivalent to inappropriate advertising messages, which are considered provocative or *irritating* (Cheng et al., 2009). Research findings have explained that some people dislike e-adverting because of excessive exposure. This type of dislike is typical for South Africans, Brazilians and Laotians. However, Indians and Cambodians get relatively less irritated by excessive exposure to e-advertising. So skipping and blocking options are relevant for e-advertising.

Concerns about the use of *personal data* are adversely affecting public attitudes toward e-advertising (Taylor et al., 2011). Relying on research findings respondents from all nations are more concerned about their privacy. Comparatively South Africans and Laotians are more concerned with respect to their personal data usage by companies and privacy while Indians do not care about their data usage by companies.

Nabizadeh and Gharib (2012) concluded that informativeness, credibility and entertainment positively affect the attitude toward internet advertising. Research findings show that there is no relationship between the positive attitude of a consumer with good informative, credible, entertaining advertising and nationality.

Irritation negatively affects the attitude toward internet advertising (Nabizadeh–Gharib, 2012). Relying on research findings, people from Morocco and Pakistan are found to have more negative attitudes toward companies if they get irritated by e-advertising. Most of the other nations reveal that they do not dwell on with negative attitudes toward companies and brands even if they get irritated by e-advertising.

There is no statistical relation between purchase intention and nationality. There is a statistical relationship between negative purchases due to irritated advertising and nationality. A large percentage of all nationalities, except for Moroccans and South Africans, do not exert such type of negative purchase behavior to a brand or company's product because of irritating e-advertising.

4. CONCLUSIONS

This research has been conducted based on sample data collected from seven countries were culture and beliefs are relatively different from each other. The major differences can be observed in case of individualism, uncertainty avoidance, long term orientation and indulgence. India and Morocco have both individualistic and collectivistic traits. Brazil and Pakistan are considered to be collectivistic. The level of uncertainty avoidance is lower in India than in other countries. Morocco is short term oriented. Brazil is an indulgent country and the others are restraint societies.

In cross-cultural advertising campaigns various cultural characteristics should be taken into consideration. If advertisers and marketers want to be successful they have to adapt the message and advertising appeals, i.e., informativeness and credibility to local cultures. Due to the extensive quantity of online ads there is a negative attitude toward advertising especially in Brazil, South-Africa and Laos. Advertisers should find the optimal number of repetition in the case of advertising to achieve the wear-in effect and avoid the wear-out effect. The protection of personal data is extremely important in South Africa and Laos. The adaptation strategy in the case if marketing communication can be a successful strategy for global companies.

Most of the findings vary according to cultural profile of people so marketers should take care of target group preference while making an e-advertising and consider the values and beliefs of users. Most of the people believe and follow e-advertising for information gathering for purchase decisions, so marketers should have honest advertisements rather than deceptive ones. Satisfied customers themselves spread the goodness to others in favor of a company, that is the recognition of a company and brand makes them loyal. It is good if e-advertising is in the local language rather than an international language, as customers have a preference to their native language and it helps them get a full understanding. People get irritated more because of repetition and untimed e-advertising between their internet usages. So advertisers may want to provide a reserve time option without ads if the user is in an emergency; a different strategy can be adopted to implement this option like rating an advertisement after watching the full advertisement at least once.

It is essential for advertisers to keep creativity in ads especially in first 3 seconds of video ads before the 'skip time', so users watch the full ad a minimum of once. Most of the respondents are concerned about their privacy so they do not like to click on something even if they want the product, so marketers should create a belief of security in users with regard to their privacy.

One of the main limitations of this research is the limited number of samples especially from Morocco. This study is an exploratory one and the main conclusions are true for this sample only. For more reliable conclusions more adequate sampling results are required. The attitude of people above the age of 55 was not considered in the sample, however they are active internet users and have strong purchase power.

Research can be elaborated on by including industrial consumer attitudes as well. In future studies, religion and cultural dimensions may be included. Comparing the attitude of users based on daily spending hours during internet usage of these countries is another possible extension of this study. Along with demographic factors, psychographic factors may be included in future studies.

ACKNOWLEDGEMENT

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SÁRA GIBÁRTI

Good Governance, Developing Countries and Aid: A Description of Donor Policies, Challenges and Dilemmas

Abstract

The social and economic problems of developing regions are among the most significant global challenges. Possible solutions for poverty reduction, and methods and forms of international aid appear from time to time in different aspects. The role of the international community as well as the recipient state has been significantly re-evaluated over the past few decades. The exclusivity of economic development has been replaced by the importance of social and human development, as well as effective state involvement and democratic values. The author's main aim with this paper is to provide a descriptive study on the range of interpretations that good governance may provide when examining the issues of developing regions and international development aid. It is important to emphasize the correlation of good governance and economic development, as well as the demonstration of the presence of good governance in development policy discourse though examples of multilateral and bilateral donors. Alongside the evolving trends in international development discourse, the main challenges and dilemmas of the correlation between international development aid and good governance will be discussed. The main result of the study is that although the principles of good governance have recently been an integral part of the aid policies of multilateral and bilateral donors, in reality these standards are rarely enforced. In addition to the processing of relevant literature, the examination of this issue is based on the analysis of relevant reports and data from the concerned international organizations.

Keywords: good governance, developing countries, international aid, donor policy

INTRODUCTION

The challenges of the developing regions and the possible solutions are parts of a remarkably complex problem that appear time to time in different aspects. The international community considered development aid as insurance of the advancement of developing countries until the end of the 1980s. As a reaction to the lack of political aspects in the discourse on development, the issue of correlation between (good) governance and development appeared from the 1990s. There is a consensus in the international community that several criteria of good governance significantly contribute to a country's long-term economic and social development. However, it is no consensus on how good governance

in fact relates to development processes, and on which segments of governance should we focus, which are essential for the development of the affected countries (Burnell–Rakner, 2011). Good governance is related not just to the effectiveness of democratic values, but to a certain government's actions against poverty or for the sake of the state's development. In this sense we can claim that the quality of governance plays a vital role in development, as better (or more effective) governance may achieve results in development, such as the increase of wages, higher educational rates or reduction of infant mortality (Kaufmann et al., 1999).

However, experience has proven that proper allocation alone is not sufficient for aid to reach their targets: the utilization of support is also a critical aspect. According to this idea, the government of the receiving country has just as much responsibility in utilizing the support effectively as the members of the donor community have in the allocation. The recipient countries must fulfil certain requirements, which have gone through significant changes: in recent decades governance minimums were added to the basic criteria of economic performance. So instead of going upwards on the charts of economic indicators, it is more requested from a country to maintain an effective governmental performance for the interest of social (and economic) development.

The primary aim of this paper is to provide a descriptive study of the range of interpretations that good governance may provide while examining the issues of developing regions and international development aid. At the same time, it is important to emphasize that the objective of the study is not to argue for or against good governance, nor is it intended to find solutions and proposals for dilemmas of foreign aid.

1. GOOD GOVERNANCE AND THE DEVELOPING REGIONS

1.1. BASIC TERMS

Before we take the correlation between governance and the developing areas into consideration, we should clarify the term *good governance*. The performance of governments was measured alongside different ideas, aspects and values through time. In many countries, the neoliberal state organization ideology from the 1970s is still in effect, stating that a government performs "well" if it withdraws from as many fields as possible and preserves its *"small and decentralized"* character (Pálné Kovács, 2013, 6). It is important to note that from the 1970s, determined state interventionism was blamed as the reason for backlash and it hinders of economic development. According to this neoliberal (or neoclassical) theory, the governments of the developing countries must ensure the maintenance of a free market and must step back, as this is the only way to encourage investments, economic development and the improvement of national welfare (Gilpin, 2004).

The recent interpretation of good governance mostly means that the aim of the nation-states is that they must operate through internationally acclaimed governance standards and requirements in the world of globalization (Pálné Kovács, 2013). In this sense, the requirement system of good governance can be divided into two aspects: firstly, it can mean the given country's democratic character, which includes the basic criteria of a legal state, freedom of press and speech, and the division of power, etc. Secondly, it may refer to the efficiency of a state in regulating public spending, organizing public services, or in one word: *public policy efficiency* (ibid., 8). Multiple indexes and charts are made to measure good governance based on several indicators and aspects, from which we can draw the conclusion that a connection can be observed between a country's efficiency/development and the performance of the government. Thus, we must consider not only the achievements of a certain country (either in economic or human development scale) but also the *way* it achieved these results. The so-called *Worldwide Governance* indicators can be divided into six sections: 1. accountability and participation; 2. political stability and security; 3. governance efficiency; 4. quality of regulation; 5. effectiveness of the legal state; 6. determined actions against corruption (Kaufmann et al., 1999).

The aspects listed above may serve as a useful referential point for studying and comparing different government performances. However, this method is not capable of measuring certain institutional failures, which may be responsible for poor governance and performance in a given country or region. It is important to note that it is a remarkably difficult task to create a generally applicable system of requirements where all the items indicate the cultural, economic, historical and political differences between states, regions and continents (Burnell–Rakner 2011).

1.2. GOOD GOVERNANCE AND THE UN'S DEVELOPMENT GOALS

The importance of good governance and poverty eradication became more pronounced in the UN's development agenda at the turn of the millennium in which the UN system used and unified the development experiences, achievements and remaining challenges of the past decades (Mingst–Karns, 2011). The Millennium Declaration adopted by the UN General Assembly in 2000[1] stated it is required from the states to fulfil the criteria of good governance in order to achieve the desired development objectives. According to the declaration, it is essential to create an environment that helps development and reduction of poverty, the honouring of universal values (e.g., basic human rights), as well as to accompany noble intentions with capabilities. These require comprehensive institutional and structural reforms, which require – beside the support of the international community – the determined actions of the affected states' governments

[1] General Assembly Resolution 55/2.

(UN, 2000). However, the Millennium Development Goals (MDGs) established on the basis of the Millennium Declaration do not explicitly include good governance as a separate goal or indicator. The program concluded there are aims that can be reached by 2015 on 8 different fields, taking the most severe social problems and factors hindering economic and social development into consideration. Among the goals, we can find the reduction of poverty rate among the population; the establishment of public education accessible to everyone; gender equality; the reduction of infant mortality; the struggle against the spread of HIV/AIDS, malaria and other diseases; and the development of environmental sustainability. The program monitors the countries regularly, it examines what efforts each government took in order to achieve the determined goals, on which fields did the country show progress, and on which fields are deficits present (UN, 2015)[2].

Although the MDGs and their results are by no means negligible, they have several criticisms regarding their effectiveness, relevance or measurement techniques. One of the most important critiques highlights that the goals intended to reflect merely on visible social problems, however, long-term and sustainable development – both economic and human – cannot be achieved simply by eradicating poverty or hunger (Ramcharan–Ramcharan, 2020). Furthermore, the MDGs miss the fact that a large number of the developing countries with a high rate of extreme poverty and hunger or with dysfunctional health care system are suffering from armed conflict. Without taking this crucial point into consideration, the special needs (e.g., restoration of civilian infrastructure, disarmament) of conflict-affected countries cannot be fulfilled and the MDGs cannot be universally achieved (Hill et al., 2010). Finally, the stated goals do not nuance the economic, geographical and cultural differences between continents and countries. They do not perceive the differences along which some countries have been able to achieve poverty reduction sooner and more effectively, and why the poorest countries are still struggling with the problem of extreme poverty (Dalgaard–Erickson, 2009).

With the "expiration" of the Millennium Development Goals, the UN Commission passed Agenda 30 containing Sustainable Development Goals (SDGs), which set a system of goals for another 15 years to fight global challenges. *Agenda 30* – just like the Millennium Goals – retained the importance of overcoming the societal challenges mentioned above. At the same time the SDGs gave more attention not only to environment protection and climate change or economic development, but it emphasizes the issue of global and national government performance more significantly than its predecessor (UN,

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[2] Surveys and reports conducted in 2015 measuring the efficiency of the program. Besides measuring the set goals at a global level, special attention was paid to developing regions, including: sub-Saharan Africa; Southern Asia (with or without India); Latin America and the Caribbean; Southeastern Asia; Eastern Asia (with or without China); the Caucasus and Middle Asia; Western Asia; and North Africa. The UNDP made reports separately for each country in relation to the achieved goals and challenges (UN, 2015).

2015). Although good governance is not included as a separate goal or indicator in the SDGs either, the sixteenth goal (SDG 16) expresses the demand for improved government performance, democratic values, peaceful and just societies, and acknowledges their importance in development.

1.3. GOOD GOVERNANCE AND ECONOMIC DEVELOPMENT

It is still undoubted that the reduction of poverty requires economic growth, which has always been preferred by the developing regions compared to social development. Economic development, as the exclusive requirement of the elimination of poverty had been in effect until the 1990s. However, the importance of government performance and state efficiency also came into focus apart from (or instead of) the economic system of requirements needed for social development (Kimura, 2011).

Based on the Millennium Development Goals — despite the fact that it describes the achievement of goals as dependent on the government's performance — good governance may serve as a basic condition of economic growth, which may provide a splendid foundation for the countries of the developing regions to achieve results not only in economy, but also in demographic and social indexes.[3] It is worth highlighting that the World Bank declared poverty as a significant social problem in its World Development Report in the 1990s for the first time after the organization had been heavily criticized for its development and credit initiations called the *Structural Adjustment Program*.[4] The program that targeted the economic skyrocketing of the developing regions was mostly criticized because the financial support and the loans resulted in significant withdrawals from the social branch (Kimura, 2011).

Considering these above-mentioned aspects, the governments of the developing regions are facing vital challenges: they must spend funds on healthcare, education, infrastructure and the creation of a social safety net without letting these expenses hinder investments and economic efficiency. Besides these, they must participate in economic development as well: they must provide favourable circumstances for the private sector, remain (or become) attractive for foreign investors, provide the proper legal framework and infrastructural conditions for these, and they must not forget about developing their human capacities (ibid.).

In order to implement and maintain these in harmony, governments in developing regions must be encouraged to do the following: establish transparency and accountability, implement efficient utilization of public expenditure and ensue imbalance, provide equal access to justice for all members of society to ensure

[3] These include the increase in the education rate, the reduction of infant and child mortality, and the significant improvement of healthcare and hygiene conditions.
[4] The World Bank received the most devastating criticism from the Independent Commission of the South on Development Issues that includes the countries of the global south. This organization emphasized the lack of a human aspect in SAP's development *("development with human face")*.

equality before the law, strengthen civil society and non-governmental civil society organizations, create a certain level of freedom in economic processes, and provide the legal framework necessary for the functioning of the government and the efficient maintenance of the state bureaucracy (Ashrafun–Uddin, 2007).

Here we should take a glimpse at the balance of the triangle of economic growth, government participation and social advancement. We can find some developing countries that still serve as examples for the tendency that they prefer measuring their development in economic indexes rather than in demographic ones. It is an exceedingly significant issue, as numerous countries can only remain competitive and join the international market if they violate environmental and labour standards and ignore basic human rights – which serves as a strong basis of child labour, extreme environmental pollution and cruel working circumstances. These countries try to become more attractive for foreign investors by failing to provide the proper legal frameworks and ignoring the above-mentioned anomalies (Gilpin, 2004).

2. THE CONNECTION BETWEEN DEVELOPMENT AID AND GOOD GOVERNANCE

2.1. DONOR POLICIES

The idea of good governance – as we mentioned earlier – has become a vital part of development policies in the recent years: international aid and loan organizations (UN, EU, World Bank, etc.) make efforts to expand the criteria system of good governance. These organizations see the effectiveness and rational utilization of loans and development aid in effective governance (Pálné Kovács, 2013; Temple, 2014).

The focus on the importance of government performance has become more common from the 1990s after the so-called Congress of Washington, as the exclusive economic conditions and requirements imposed on developing countries in the restructuring programs of the 1980s to promote economic progress did not live up to their expectations (Burnell–Rakner, 2011; Szent-Iványi, 2005). World Bank reports from the 1990s give an account, with sharp criticism, of the organization's aid practices and the questionable effectiveness of restructuring programs (Stiglitz, 2003). The World Development Report was the first to detail the challenges and anomalies appearing in development aid targeting the elimination of poverty. The report highlights that some developing countries have benefited from the development aid they have been given, while many donor states are stuck with the so-called 'development aid dependency'; the financial aid did not achieve the goals set out (reduction of poverty, economic development, etc.) (World Bank, 1990). The report points out that the correlation between the measure of aid and reduction of poverty is quite difficult to identify, as aid is only one of the several factors that can positively influence the economic and social progress

of a country. Therefore, the World Bank emphasizes the indisputable role of the recipient state in the report, according to which aid effectiveness depends primarily on the measures taken by the recipient countries to utilize aid (World Bank, 1990). However, it is also important that the report recognizes not only the role of the recipient state, but also the responsibility of donor countries and organizations in the success or failure of aid. According to this, donor countries have often ignored the institutional aspects of poverty reduction programs, and the characteristics and needs of the recipient countries. The report also highlighted that donor countries/organizations have failed to involve targeted social groups and that it is the responsibility of the donor community to support governmental measures aimed primarily at reducing poverty (creating jobs and income opportunities, provide adequate social networking, etc.). In addition, donors need to be much more cautious when monitoring aid, meaning that additional aid can only be provided to affected states if the donors are convinced of the proper utilization of support (World Bank, 1990).

Subsequently, the World Bank's reports focused on the importance of government participation in the country's development aid and development issues. It described the receiving state's responsibility as the locomotive of economic development in its study *Assessing Aid: What Works, What Doesn't, and Why* (World Bank, 1998). This approach was considerably in line with the general international concept at the time that a developing country's appropriate economic policy, institutional and legal framework could mean economic (and subsequently social) development and the targeting of allocated support (World Bank, 1998; Szent-Iványi, 2005). Donor countries/organizations also need to select the countries to which they donate on the following basis: a country with low income but properly established institutional structures and adequate economic policy should receive much more financial aid than a similarly low-income country that has not provided the economic policy circumstances that is required for progress (World Bank, 1998, 14). This so-called *selective aid allocation* is subject to some criticism, as this practice results in the poorest and poorly-governed states receiving less support, which are the most in need (Paragi et al., 2007).

Good government performance, as a basic requirement for developing regions, is also a characteristic of donor countries that are aiding "alone", which, like international organizations, have made some key elements of good governance as conditions of continued allocation of development aid.

In this regard, the United States was the first donor country to make the quality of government in the recipient countries a condition of development aid in the first half of the 1990s. In 1995 the Clinton administration made it clear through the *United States Agency for International Development* (USAID) strategy that the development of a country should be measured not only by economic indicators, but also by the performance of the political system and government, and support should be adjusted according to these. The Bush administration – following the Clinton administration – did not only continue this aid policy, but with the estab-

lishment of the *Millennium Challenge Corporation* (MCC) donor agency in 2004, it was made clear that the United States would be generous in its support of countries that are governed justly; they invest their available financial and human resources in the social development of the population and in economic progress. The then American president - and his predecessors - justified their aid policies by stating that good governance is one of the pillars of development, so the United States "rewards" countries that fight against corruption, respect basic human rights, and respect the idea of the legal state (Ashrafun–Uddin, 2007; Paragi et al., 2007).

Besides the United States, the United Kingdom has also strongly advocated for development aid to be determined on the basis of the performance of the aided governments. In a compilation released in 2006 by the *Department of International Development* (DfID), this country determined the methods and forms of aid it provided, depending on the recipient country's governance quality. At the same time, the United Kingdom, instead of focusing on the principles of democracy and the rule of law, focused on the fight against poverty, so it concentrated primarily on the efforts made by the governments to promote social development. Based on these, the document lists four basic ideas, which may provide guidance when determining the aid allocated to the receiving countries: (1) Is there determination towards reducing poverty? (2) Is there determination towards providing the basic human rights and fulfilling international duties and contracts? (3) Is there determination towards improving the utilization of public spending and reducing corruption? (4) Are there intentions for popularization of good governance, transparency and accountability? (UK DfID, 2006)

In addition, the report outlines three types of eligible countries where the United Kingdom determines the level and modalities of aid. The first group includes states with good governance, a strong commitment to the elimination of poverty and a proposition of development. In this case, the governments of these states will receive direct, long-term, predictable financial support to increase their budgets and government public spending, helping to eradicate poverty and increase funds on social spending. In countries where there is a weaker commitment to social development, the modalities of aid to governments may need to be restructured: the free utilization of financial support may be abolished and the aid that is meant to support spending must be spent on specified purposes; support may be replaced by support of a non-financial nature[5], the utilization of which shall be verified if possible. Finally, in countries where there is a lack of willingness to improve the quality of life among the population, aid must bypass the government and be distributed through international aid organizations, NGOs, so that aid flows instantly to targeted social groups, and areas of support (education, healthcare, etc.) (UK DfID, 2006).

[5] Food, medicine, vaccines, school assets, etc.

2.2. THEORY VS. PRACTICE

Despite the theoretical links between good governance, aid and donors' policies, we have to discuss the reality regarding donor countries' practices. Although there is no consensus among researchers on the effectiveness of aid, the impact of aid on development, and the relationship between good governance and aid (Udvari–Ampah, 2018), some important findings should be highlighted here. Research on aid, aid effectiveness and donor policies in recent decades has shown that the conditions and sanctions attached to good governance are unlikely to apply, and that discrimination against dictatorial regimes does not appear in practice. This means that anti-democratic regimes in developing countries do not necessarily receive less aid (Burnside–Dollar, 2000; Alesina–Weder, 2002). Donor countries are much more in pursuit of their strategic interests, and in many cases take into account historical, colonial ties (Alesina–Dollar, 1998; Collier–Dollar, 2001). However, these countries do not always cover those who seek to adhere to basic public policy minima or those who would be most in need of external assistance.

Whereas in many cases the primary objective of aid is economic and/or social development, it is important to emphasize that aid given to democratic governments can be used much more effectively to raise the living standards of those living in the recipient country and to reduce poverty. It means that aid that dictatorial countries receive can favour corruption is more likely to be ineffective and hardly capable of achieving the original purpose of foreign aid (Kosack, 2003; Collier, 2008; Kalyvitis–Vlachaki, 2012). It is also important to point out that even with aid conditionality methods, the amount of aid does not necessarily have a positive effect on the public policy performance of the recipient country (Collier–Dollar, 2002), at the same time, aid can contribute to positive results achieved in a country where the conditions for good governance are met (Burnside–Dollar, 2000; Collier–Dollar, 2002).

3. CLOSING REMARKS, CONCLUSION

The study attempted to outline the role of good governance in international development aid. In light of the above, the emphasis has gradually shifted from the exclusive importance of economic development to the need for a well-performing state.

Good governance has played a significant role in the development policy discourse in recent decades, as a result of which the recipient countries must not only meet economic criteria, but also account for their political development and government performance. This includes, but is not limited to, the legitimacy of the current government; efficient use of public expenditure; the efficient functioning of public institutions and state bureaucracy; respect for fundamental human and political freedoms; guaranteeing the security of the population as a whole and of various social groups (religious and ethnic minorities); and the transparent operation of government decision-making processes. In addition, the

relevant government must be able to make appropriate public policy decisions to implement the decisions made and to translate them effectively into practice. Donor countries, aid and lending organizations can choose the size and modalities of the aid disbursed; if there is evidence of a risk of inappropriate or inefficient use of aid by a given government, the aid will not be channelled to the population through governments, but with the help of international NGOs. The enforcement of democracy and the rule of law in developing countries is an interesting dilemma. The question is whether a state where the fundamental criteria of the rule of law, political freedom are exercised only to a limited extent or not at all, but there is an intention and commitment on the behalf of the government to eradicate poverty, can be sanctioned or not. On the other hand, we have seen that the policies of donor countries in reality fall far short of the principle of 'aid in return for good governance'. This means that recipient countries where the criteria for good governance are not met will not necessarily receive less aid. This also means that aid to corrupt governments does not necessarily serve its original purpose (poverty reduction, social development) and that aid is not suitable for democratizing dictatorial regimes.

Finally, we must pay attention to the political instability in developing regions, the expansion of crisis areas, and the unresolved conflicts and civil wars escalating for years. Despite outside help (humanitarian aid and international development support), the weakening, fragile states do not fulfil the requirements to properly protect the most vulnerable civilian population[6], provide appropriate education and healthcare, eliminate and impeach military organizations recruiting and arming children, and deal with domestic migration and the masses of refugees moving within the national borders.

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[6] The protection of the civilian population includes the prevention of armed assaults against populated areas, schools, hospitals and other public institutions, ethnical cleansings and genocides.

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INTERNET SOURCES:

- United Nations: *UN Millennium Campaign*, United Nations Online, http://www.un.org/millenniumgoals/
- United Nations: *Sustainable Development Goals,* UN Online, https://sdgs.un.org/

RESEARCH IN PROGRESS

KRISZTINA KUPA

Self-Directed Learning Readiness in Virtual Teams

Abstract

This study presents a research design, which provides a summary on the literature of virtual teams and Self-Directed Learning (SDL) and explains data collection and analytical approach of research focusing on how Self-Directed Learning Readiness Scales (SDLRS) can be applied in virtual teams. The planned research focuses on whether the SDLRS results in virtual teams will be similar to results in nursing education, where these scales were mostly tested. Furthermore, it will also test the assumption that members of virtual teams will score higher than participants from previous studies. The chosen SDLRS questionnaire was developed initially in 2001 and has since been tested and verified as part of the planned research. This paper gives an overview on the space, timing and methodological specifications regarding the data collection and covers the confirmatory factor analysis and descriptive statistics that will be used to analyse the data.

Keywords: learning, Self-Directed Learning, virtual teams

JEL classification: D83, M14, M16, M53

INTRODUCTION

Globalisation and the rapid innovation over the past decades significantly changed the way teams work, perform tasks and develop their skills and knowledge. Technology slowly started to take over workplaces, starting from phones and emails to instant messaging solutions, videoconferencing and online collaboration tools. Nowadays almost every team is virtual in its operations, since they use emails, software or other information and communication technology tools to perform their daily tasks. The deciding factor whether teams are virtual is whether they work from various locations and if they almost solely rely on technologies during their collaborations.

Previous summaries on virtual teams (Lipnack–Stamps, 2000; Bell–Kozlowsi, 2002; Berry, 2011) provided general theoretical background and more current studies (Hoch–Kozlowski, 2014; Dulebohn–Hoch, 2017; Larson–DeChurch, 2020) analysed the leadership aspects of virtual teams, highlighting team development as one of the crucial areas in virtual teams. The study prepared by the author of this article (Kupa, 2020) provided a critical literature review of virtual teams and their leadership aspects and identified that there is a gap in virtual teams' litera-

ture regarding learning strategies, which led to further research in the academic literature in learning and individuality.

Virtual teams have their own benefits and challenges, which are also relevant when it comes to developing a team or individuals, improving skills, gathering knowledge or sharing existing information within team. Virtual teams heavily rely on online learning and platforms but have challenges in regard to learning techniques that are more interpersonal and are based on trust such as mentoring or coaching. Virtual nature also brings forward several issues regarding classroom settings, such as time-differences, language barriers and the proactivity and self-directedness of the learners has become evident in virtual teams as well.

When someone works from home, moreover, starts working in a new team or organisation from another location without the opportunity to meet face-to-face, their learning strategy becomes the key to their success. Whether these individuals possess the necessary skills, personality traits and motivation to be the owner of their own learning path – i.e., they are ready to self-direct their learning – can be measured through Self-Directed Learning (SDL) readiness scales, such as the ones developed by Guglielmino (1997) or Fisher et al. (2001). The common feature of these scales is that they consist of several statements that have to be evaluated on a Likert-scale, where the highest score means higher readiness for individuality in the learning path.

This paper summarises the methodology that is required to test, whether the scale of Self-Directed Learning Readiness (SDLR) as defined by Fisher et al. (2001) measured in nursing education is suitable to measure SDLR in virtual teams. This test has been done through circulating the questionnaire of Fisher et al to workers in virtual teams in Hungary and the data collected will be analysed using confirmatory factor analysis. After this analysis the hypothesis that the SDLR score of virtual teams is higher than in traditional school settings will be tested with descriptive statistics.

Section 2 of this paper provides an excerpt on the critical literature review performed on virtual teams and SDL literature. Section 3 gives an overview of the research method, approach, data collection and analysis to be executed. Section 4 gives a conclusion.

1. CRITICAL LITERATURE REVIEW

1.1. VIRTUAL TEAMS

The concept of virtual teams originates from the 1990s, where their benefits and description were in the focus of several studies (Byrne et al., 1993; Dess et al., 1995). Virtual teams have the same basic concept as traditional teams: they are a set of individuals sharing the responsibility to perform tasks as a complete social entity.

Team members have to work together using their different skills and providing support to other members to reach their common goal (Ricketts–Ricketts, 2010). Virtual teams differ from traditional teams in that they have the ability to work together using IT and communication technologies while the team members are located in different locations and face-to-face meetings are not necessary in executing their tasks (Bell–Kozlowski, 2002). The goals and tasks of virtual teams do not necessarily differ from traditional teams; the basic difference is technology and physical non-proximity of the team members. The technology-mediated nature of virtual teams is present in several studies, noting that without technology teams cannot have a virtual nature (Lipnack–Stamps, 2000).

The virtual nature itself is a complex and multidimensional construct (Kupa, 2020), even if two teams use the same tools and technologies, the extent to which these are used is the deciding factor in qualifying as virtual teams. Every team that uses technology to a certain extent has a virtual nature in their operations; however a team, which uses email, but their daily operations are conducted face-to-face in the same office is not a virtual team, only a team conducting certain activities virtually. This means, that using technology does not automatically mean that a team is virtual – the geographical dispersion of members and the technology mediated nature both need to be present to qualifying as a virtual team (Berry, 2011).

The past two decades have brought significant growth in the use of virtual teams, which has been influenced by globalisation, rapid innovation and better access to infrastructure, such as internet, technology and basic needs as well. The quality of networking and collaboration technologies has improved, and the talent pool has become globally accessible (Dulebohn–Hoch, 2017). The benefits arising with virtual teams are, amongst others, flexibility, cost efficiency, better utilisation of time and space, and maximising expertise of the globally dispersed talent pool. At the same time these benefits pose several challenges to teams, such as overcoming a lack of personal connections, different cultural backgrounds, language barriers and technological issues (Kupa, 2020).

The role of the leader is to help overcome these challenges and exploit the underlying benefits and opportunities. The focus of leaders in virtual teams is performance management and team development; however due to lack of face-to-face interactions the latter – focusing on mentoring, coaching and learning functions – is difficult to perform (Bell– Kozlowski, 2002). Learning and knowledge development as part of team development is often hindered even when using various tools for communication due to distance and lack of face-to-face contact (Bosch-Sijtsema–Haapamäki, 2014). Zakaria et al. (2004) noted that learning is often facilitated by not only verbal or written communication, but by transmitting information via non-verbal clues such as voice modulations, metaphors, and storytelling, which are not always present in a virtual team's learning activities. Learning and development individually in virtual teams requires higher standards of independency than in traditional face-to face teams, which makes Self-Directed Learning more significant in virtual teams.

1.2. SELF-DIRECTED LEARNING

1.2.1. THE SDL THEORY

Self-Directed Learning became an instrument of fostering life-long learning in higher education, but the theory is significant in virtual teams as well. SDL enables individuals to identify and assess their training and learning needs, set objectives, act proactively in setting up their learning strategy, and evaluate their performance and learning outcomes. Thus, SDL is a process where individuals take the initiative to determine their learning needs, formulate their goals, identify resources and define learning strategies (Knowles, 1975).

Though SDL focuses on the individuals' independency in their learning journey, Greg (1993) and Garrison (1997) both argued that SDL should also enable cooperation and utilise the team, peers or anyone who can be considered a learning resource. SDL can be used for enhancing both private and professional knowledge irrespective of institutional, geographical or situational differences (Abdullah et al., 2008), which also confirms its importance in virtual team settings. With the rapid improvement in diverse technology, online and virtual learning tools are readily available for learners. These are frequently used in virtual teams as well.

The traits individuals should have in order to be ready for SDL learning strategies are categorised by Fisher et al. (2001) into three main domains: self-management, self-control and desire for learning. Self-management refers to the ability of the learners to identify their needs, set their goals, and allocate their energy and time to learning. Self-control refers to the independency of the SDL learners, meaning that the learner is an independent individual, capable of analysing, planning, implementing and assessing his/her learning activities independently. Desire for learning refers to the strong motivation of learners to acquire knowledge (Fisher et al., 2001).

1.2.2. SDL MEASUREMENTS

There are several instruments that have been developed to measure SDL, such as the Self-Directed Learning Readiness Scale (SDLRS) (Guglielmino, 1997), which is one of the first instruments to measure self-direction in learning and has been validated in several academic studies. One of these is the Self-Directed Learning Readiness Scale for Nursing Education (SDLRSNE) (Fisher et al., 2001), which is an adaptation of Guglielmino's SDLRS for the nursing education sector, and it has been validated in several academic studies.

Similar instruments are the Self-Directed Learning Instrument (SDLI) (Cheng et al., 2010) and the Self-Rating Scale of Self-Directed Learning (SRSSDL) (Williamson, 2007). These instruments have also been translated into various languages and adapted for different scenarios, authenticating the scientific interest for this type of measurement.

2. METHODOLOGY

2.1. RESEARCH STRATEGY AND HYPOTHESES

The purpose of the research is to provide a thorough literature review in virtual teams and SDLE studies and to conduct a confirmatory factor analysis of the SDLRSNE in virtual teams. The aim of this study is to – through statistical analysis – confirm that the same subscales are applicable in virtual teams, such as in nursing education, or if such confirmation is not possible explain the differences in the scaling. The study will also compare results in virtual teams to those in previous studies.

The SDLRSNE has been chosen to be the instrument tested as it has been validated several times and the wording of the 40 statements is simplistic enough to be understandable for those who speak English as their second language. Even though the SDLRSNE was specifically tested in nursing education, the statements have no specific references to nursing activities, thus were deemed fit to be tested in other sectors as well.

The following two hypotheses are to be tested through the research:
1. SDLRSNE as an instrument to test self-directed learning readiness is suitable to be applied in virtual teams with the same subscales.
2. The SDLR scores in virtual teams are higher compared to nursing education and other studies.

The plan of action in achieving the purpose of this research is as follows:
- Performing a critical literature review of the virtual team in SDL literature and the results of previous studies.
- Conducting a survey as per the Self-Directed Learning Readiness Scale in Nursing Education questionnaire of Fisher et al. (2001).

The research approach is sequential: explanatory research will be conducted to explain the relationship between the variables in the SDLRSNE in virtual teams, while descriptive statistics will be used to compare the scores achieved by the members of virtual teams with other studies' results. Both qualitative and quantitative methods will be used to evaluate the results of the survey (Saunders et al., 2019).

2.2. DATA COLLECTION

The critical literature review has already been performed and an excerpt of the findings has been provided in the research design. During this exercise several books, book chapters, journal papers and dissertations have been reviewed and selected.

The quantitative data collection has also been executed through a questionnaire, with demographic data also being collected for further analysis. The questionnaire was a modified Self-Directed Learning Readiness Scale, which was initially developed by Guglielmino (1977) and since then used with certain

modifications in nursing education to measure self-directed learning readiness of students (Fisher et al., 2001). Several studies (Fisher et al., 2001; Collins, 2004; Fisher–King, 2010; Senyuva–Kaya, 2014) have confirmed the validity of Fisher's modified SDLRS and the need for its wider application outside of educational institutions has also been raised.

The SDLRS as per Fisher et al. (2001) also known as SDLRSNE consists of 40 items, categorised into three subscales as follows:

Self-Management:
- I manage my time well
- I am self-disciplined
- I am organized
- I set strict time frames
- I have good management skills
- I am methodical
- I am systematic in my learning
- I set specific times for my study
- I solve problems using a plan
- I prioritize my work
- I can be trusted to pursue my own learning
- I prefer to plan my own learning
- I am confident in my ability to search out information

Desire for Learning:
- I want to learn new information
- I enjoy learning new information
- I have a need to learn
- I enjoy a challenge
- I enjoy studying
- I critically evaluate new ideas
- I like to gather the facts before I make a decision
- I like to evaluate what I do
- I am open to new ideas
- I learn from my mistakes
- I need to know why
- When presented with a problem I cannot resolve, I will ask for assistance

Self-Control:
- I prefer to set my own goals
- I like to make decisions for myself
- I am responsible for my own decisions/actions
- I am in control of my life
- I have high personal standards
- I prefer to set my own learning goals
- I evaluate my own performance

- I am logical
- I am responsible
- I have high personal expectations
- I am able to focus on a problem
- I am aware of my own limitations
- I can find out information for myself
- I have high beliefs in my abilities
- I prefer to set my own criteria on which to evaluate my performance

The questions and their suitability to be tested in the planned manner have been peer-reviewed. Based on this exercise with the involvement of a focus group of PhD students at Széchenyi István University of Győr, the questionnaire consisted of the same 40 items and subscales with the intention of measuring self-directed learning readiness in virtual teams.

The data collection from the questionnaire started the end of September 2020 and continued until the end of October. Participants were asked to evaluate the items through a five-point Likert scale to the degree that individual items reflect their own characteristics. Score 1 indicated "strongly disagree", while score 5 indicated "strongly agree". The data was collected anonymously and voluntarily.

2.3. RESEARCH ATTRIBUTES

2.3.1. TIME AND SPACE

The questionnaire is aimed at analysing the SDLRS score and fit for virtual teams currently in Hungary. This means that only those participants shall be included in the data analysis who have been working from home in Hungary or working from out-of-office locations in the current home-office-heavy work environment.

The place of data collection was Hungary, with emphasis on individuals working for companies operating in Hungary. The aim of this study is to evaluate the SDLRS in virtual teams, thus the participants have been informed to only fill out the questionnaire if they are part of either organisational or project teams.

2.3.2. LANGUAGE

The SDLRSNE questionnaire has been prepared and validated in English, and there is no official and validated Hungarian translation available. Thus, the questionnaire was circulated as per the original wording of Fisher et al. 2001.

In order to avoid misunderstandings a peer-review has been performed by a focus group to ensure that the English wording is clear and to identify any issues that require clarification. The peer-review did not find any issues and approved the application of the original wording.

2.4. DATA ANALYSIS

2.4.1. FACTOR ANALYSIS

Factor analysis is used to analyse when there is a complex phenomenon that cannot be measured via a single question. Factor analysis combines a series of questions about the same phenomenon into a single measure, i.e., factor. These factors are the observed measures of the latent phenomenon (Fricker et al., 2012).

Through factor analysis, those independent variables could be identified that comprise common underlying dimensions which help identifying the variables that are correlated with each other but are relatively independent from other data sets. Factor analysis has two types: exploratory and confirmatory. The exploratory factor analysis focuses on exploring data to find an acceptable set of factors and its goal is to discover likely factors that account for around 50% of the common variation in the observed items. Confirmatory factor analysis begins with a theory of how factors are constructed and whether this structure fits the observed data (Fricker et al., 2012).

This research will use a confirmatory factor analysis, as variables in the SDLRS instruments are chosen specifically to illustrate the underlying process indicated. In this case it will be tested whether the factor structure of self-management, desire for learning and self-control are also present in virtual teams (Hu–Bentler, 1999). Confirmatory factor analysis has been used by Fisher and King (2010) and other researchers (Collins, 2004; Chakkaravarthy et al., 2020), who have confirmed the factor structure's applicability with only minor modifications (i.e., in the case of Fisher and King's 2010 confirmation three statements had to be removed to fit the model).

2.4.2. RELIABILITY TESTING AND DESCRIPTIVE STATISTICS

As outlined by Saunders et al. (2019) in order for a questionnaire to be valid, it should not only be reliable but also consistent and internally valid. According to Mitchel (1996) there are three common approaches to test the actual reliability: test re-test, internal consistency and alternative forms. This study will calculate the internal consistency using Cronbach's alpha. The Cronbach alpha measures the consistency of responses to a subset of questions that are combined as a scale to measure a concept.

The Cronbach alpha can measure between 0 and 1. Values of or above 0.7 indicate internal consistency. The alpha coefficient has also been chosen to measure consistency in previous SDLRS studies (Fisher et al. 2001; Collins, 2004; Fisher–King, 2010; Senyuva–Kaya, 2014; Soliman–Al-shaikh, 2015, Chakkaravarthy et al., 2020) where both the total scales and the sub-scales reported a Cronbach alpha above 0.8.

Besides factor analysis, descriptive statistics will be used to compare the actual result of the SDLRS data collection with existing studies to validate the second hypothesis of the research. The descriptive statistics will also be used to draw conclusions and identify further research directions.

3. CONCLUSIONS

This paper summarized the research design of a future publication to be submitted about Self-Directed Learning attributes in virtual teams and provided a short introduction to the existing literature on virtual teams and Self-Directed Learning and its measurements. Virtual teams differ from traditional teams in their set-up, operations, dynamics, and how leaders can effectively lead these teams. Geographical differences make learning more challenging, while the proactivity and independency of the team members is a key component in their learning. Self-Directed Learning, i.e., the responsibility learners accept in their own learning and the existence of the abilities, attitudes and personality traits can be measured through the Self-Directed Learning Readiness Scales, which have been used mainly in nursing education.

The literature review on virtual teams and Self-Directed Learning and its measurements has already been performed and the SDLRSNE, as an appropriate measurement, has been chosen to be tested in the population of virtual teams in Hungary. An action plan to execute the research was provided with methodological overview on the steps to be performed to achieve the research goal. The research goal has been set up in line with the literature gap identified in previous research papers, which mostly focused on team dynamics, benefits and challenges in virtual teams, however articles on individual learning paths and learning itself are not widely present in the current academic literature.

After the short literature review, the chosen SDLRS model was summarised in this paper. The model has been peer-reviewed, the specific demographics and attributes of the participants to be used in this research have also been identified and the data collection plan has been also set-up and executed. The collected data will be evaluated through confirmatory factor analysis and descriptive statistics to test the fit of the SDLRSNE model in virtual teams and also analyse the readiness of virtual team members for Self-Directed Learning in early 2021. The confirmatory factor analysis will be used to test the fit of the SDLRSNE factor structure to virtual teams, i.e., whether the Self-Management, Self-Control and Desire for Learning are also fitting factors in the case of virtual teams. The research also focuses on comparing the SDLRS scores of members of virtual teams and the scores from previous research with the intent of proving that working in virtual teams requires higher scores.

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CASE STUDY

ZSOLT KOHUS – ZOLTÁN BARACSKAI – KATALIN CZAKÓ

The Evolution of International Collaborations in the Light of Disciplinary Interplay at Eötvös Loránd University in Budapest, Hungary – a Bibliometric Case Study

Abstract

Scientometric and bibliometric analyses, focusing exclusively on the written output of research, are well-known methods to analyse the scientific performance of researchers and higher educational institutions. However, most studies lack the analysis of the interplay between different scientific disciplines or interdisciplinary research, often associated with higher research impact. The remaining studies intend to explore the connection between major scientific outputs and interdisciplinary nature of collaboration; however, the research interest is focused on a generalized national or international environment with a focal point on individual research fields. These studies do not take into account the contribution of individual universities, higher educational institutions and research facilities. To fill this gap, the paper combined a bibliometric analysis and measured the interplay between individual scientific disciplines of the written research output of Eötvös Loránd University in Budapest, Hungary. The novelty of this paper lies in the data correction of the parameters of the published papers marked as international collaboration on the Web of Sciences database; and the subsequent longitudinal evaluation and visualisation of interdisciplinary nature of research. The presented method establishes a new, potential framework being able to measure the scientific performance of higher educational institutions and its possible relevance during their evaluation. In the practical domain, the study can stimulate an incorporation of a new approach for higher educational institutions and decision-makers to analyse the interdisciplinary nature of research of written scientific outputs, which can serve as a potential indicator of research performance.

Keywords: international collaboration, bibliometric data, interplay between disciplines, data correction of parameters, interdisciplinary nature of research

INTRODUCTION

The bibliometric analysis of research publications is an effective tool to describe the scientific performance of countries (Schubert et al., 1989), universities, research groups (Seglen–Aksnes, 2000) and individual researchers (van Raan, 2006). Moreover, it can be used to examine the knowledge interplay between and across scien-

tific disciplines (Ming et al., 2011). As the structure of science has been observed to change over time (Wray, 2015), it has driven the emergence of new forms of collaboration not only between different organisation (D'Este– Fontana, 2007; Porac et al., 2004) but also between diverse scientific fields (Liu et al., 2012).

Several papers have analysed the relationship between research performance and interdisciplinary research by bibliometric tools; however, the chosen methodological approaches as well as the source and extent of data show remarkable differences. Whilst Leahey et al. (2016) measured the impact of interdisciplinarity of scientists' research by the use of more than 32,000 papers from nearly 900 research-centre-based scientists in the U.S., Okamura (2019) used the Web of Science database to analyse more than 10,000 papers without geographical restriction. According to Yegros-Yegros et al. (2015), interdisciplinary research is not a monodimensional property, and it has a significant impact on different aspects of written research outputs.

We acknowledge that interdisciplinary research has its effects on research performance (Leahey et al., 2016; Okamura, 2019); however, there is a lack of univocal methodology capable of capturing the evolution of interplay between disciplines and its relation to the impact of individual publication. To this end, through the 15-year publication activity of Eötvös Loránd University in Budapest, Hungary, we introduce a potential method suitable for analysing interdisciplinary research manifested in research papers, its spatial and temporal evolution, as well as its relation to basic outputs of publications. Our main goal is to provide a potential tool to be used as a common measure of interdisciplinary research and its relation to publication outputs, regardless of the geographical location and type of institutions.

The paper is organized as follows: the first part discusses the relevance of bibliometric data analysis and presents a review of interdisciplinary research and international collaboration. The second section describes the used measures and methods. The third part contains the results of case study. The fourth section presents the conclusion.

1. LITERATURE REVIEW

1.1. BIBLIOMETRIC DATA AS A POTENTIAL TOOL TO EVALUATE RESEARCH COLLABORATION

Researchers' access to bibliometric databases in combination with a collaboration network analysis has enabled the identification and labelling of co-operations among organisations, researchers and scientific disciplines (Youngblood–Lahti, 2018). However, bibliometric analysis cannot capture the scientific efforts, which are not manifested in publication (Taşkın–Aydinoglu, 2015). Despite this disadvantage both Stokols et al. (2008) and Wagner et al. (2011) emphasize the use of bibliometric tools and network analysis of collaboration and interdisciplinary

research to evaluate publications and collaborative efforts of research organisations, research groups and researchers.

The bibliometric analysis in combination with a visualization software led to a science mapping approach, which can be used to capture not only different scientific domains, but also their size and connection among them (Taşk n–Aydinoglu, 2015). For example, Porter and Rafols (2009) investigated the degree of interdisciplinarity change between 1975 and 2005 over six research domains by the combination of bibliometric indicators and a science mapping visualization method. They found notable changes in how research is conducted in the given time period. Porter and Rafols (2009) conclude that science in general is becoming more interdisciplinary, but in small steps. Klavans and Boyack (2006) mapped the world-wide scientific literature and generated maps directly from the data on the relationships between the presented documents, and visualised the journal citation interactions. Ceballos et al. (2017) analysed fifteen years of publication data at a Mexican university with 2,400 researchers who produced 24,000 works in fifteen research disciplines. They found through data that the knowledge management model increased research collaboration and boosted the number of publications and citations. In addition, it has also been shown by Williams et al. (2013) that the bibliometric analysis of cross- or interdisciplinary research can be used to elucidate the relationship between scientific fields.

Thus, bibliometric analysis of the scientific performance and the interplay between different scientific disciplines can be used to understand the changes and trends of interdisciplinary research at the organizational and personal level.

1.2. THE INTERPLAY BETWEEN SCIENTIFIC DISCIPLINES AND INTERNATIONAL COLLABORATION AS INDICATORS OF RESEARCH OUTPUTS

Researcher complex problem-solving strategy can be achieved by bringing together different scientific fields (e.g. by conducting interdisciplinary research) (van Rijnsoever and Hessels, 2011). Interdisciplinarity is stimulated by a variety of funding instruments, at the university (Sá, 2008), national (Lepori et al., 2007), as well as on international levels (Bruce et al., 2004). The goal of these initiatives is not only to foster scientific collaboration among individual researchers but also to produce new knowledge by bringing together skills, techniques or concepts originating from various researchers from disparate scientific fields (van Rijnsoever–Hessels, 2011). According to Kyvik and Reymert (2017), the majority of research is undertaken in collaboration; moreover, the active participation of researchers in international networks is more likely to increase the quality of ongoing research and consequent publication productivity.

It has been shown by Matthews et al. (2009) that effective international collaboration among researchers can provide several benefits, such as reduced unnecessary duplication of research efforts, enhanced economies of scale and scope in

research teams, improved ability to exploit synergies between different capabilities and the types of instrumentations, improved knowledge transfer, enhanced skills development and recruitment, more effective work addressing global challenges, contributing to constructive international relations, stimulating foreign investment flow, and finally, facilitating access to research infrastructure. The authors also highlighted that the total publication output can reflect the fields of international research activity; however, not all international collaboration initiatives are captured by publications.

At present, one of the primary sources of information on international cooperation of researchers is bibliometric data. Besides international co-authorship, the qualitative outputs of papers as well as the involvement of scientific disciplines in papers can be used as a proxy for measuring the level and impact of international research collaboration. Nevertheless, bibliographic information by itself cannot reveal other factors relevant for international collaboration, such as input factors, motivation, drivers of research, and other projects involved in international co-operation (Wagner, 2005). Therefore, in a narrow sense, international research collaboration represents those activities which directly affect the beginning, ongoing process and completion of research projects, and can be evaluated by bibliometric approach (Jeong et al., 2014).

Another possible reason explaining the increasing international research collaboration among researchers and research groups is the growing number of scientists applying for research grants. In this highly competitive environment, the increased collaboration between researchers can contribute to greater competitiveness and specialization at the individual and organizational level (Iglič et al., 2017). However, Kyvik and Reymert (2017) found significant differences in international collaboration across different scientific fields. They have shown that researchers in humanities working "alone" have significantly more publications compared to those who work in an international network. On the other hand, social scientists, natural scientists and researchers in medicine who work in international networks have significantly more publications compared to researchers working "alone". Kyvik and Reymert (2017) conclude that participation in international networks is the most important in the natural sciences, and researchers' participation in international networks is likely to increase not only the publication activity but also the quality of research.

1.3. INTERNATIONAL COLLABORATION AND THE INTERPLAY BETWEEN SCIENTIFIC DISCIPLINES AS A POTENTIAL INDICATOR OF RESEACHER COLLABORATION AND THEIR OUTPUTS?

Besides the positive relationship between research collaboration and research output, He et al., (2009) highlighted that there is a lack of longitudinal analysis of research collaboration and subsequent research output. Moreover, as far as we know, the interplay between different scientific disciplines and its relation-

ship to international collaboration at the article level in Hungary has not been investigated. To address these identified gaps in the literature, we used the Web of Science (Wos) Core Collection database and performed longitudinal analyses of papers published through international collaboration at the Eötvös Loránd University in Budapest, Hungary between 2005 and 2019. We examined how the publication activity and therein the proportion of international collaboration have changed over time. This was followed by an analysis of the temporal profiles of major scientific disciplines and the interplay between them. The main goal of the present study is to introduce a new approach of data correction and visualisation capable of capturing the evaluation of international collaboration and interdisciplinary content of research outputs, with the potential to be extended to other higher educational institutions.

2. METHODOLOGY

The WoS is not just a catalogue of academic publications. It is a complex database with a wide range of information (Birkle et al., 2020) suitable to fulfil the requirements of our study – to evaluate the relationship between international collaboration and the interplay between scientific disciplines by the use of bibliometric data. To this end, the study started with the selection of the Hungarian model university.

Based on the WoS database search for publication activity of Hungarian universities between 2005 and 2019 we found that Eötvös Loránd University has the highest proportion of international collaboration (53.82%) compared to other Hungarian universities. It is published on www.elte.hu/en that Eötvös Loránd University (ELU) is the oldest continuously operating university in Hungary (since 1635), located in Budapest, Hungary. The mission of ELU is to preserve and increase national and universal culture and literacy, to cultivate scholarships, to pass on scientific knowledge, and to express and fulfil the substantive, long-term needs of the Hungarian society and of humanity as a whole. Nearly 30,000 students are organized into eight faculties (Faculty of Law and Political Sciences, Bárczi Gusztáv Faculty of Special Education, Faculty of Humanities, Faculty of Informatics, Faculty of Education and Psychology, Faculty of Social Sciences, Faculty of Elementary and Nursery School Teacher Training, and Faculty of Sciences) and the Institute of Business Economics. According to the Quacquarelly Symond Ranking 2020, featuring the top universities in Europe and Central Asia, ELU is the best Hungarian university with its achieved 28th ranking, based on academic and employer reputation, faculty/student ratio, the number of papers published and their online appearances, the proportion of academic staff with PhD, the citation of publications, web impact, as well as the proportion of international members and international students. Based on the 2020 Times Higher Education World University Rankings by subject, ELU has proved to be the best higher education institution in Hungary in the fields of the arts and humanities and psychology, as well as life and natural sciences. Taking into account the proportion of international collaboration, the educational and research portfo-

lio, as well as the ranking of ELU in national and international rankings, we used Eötvös Loránd University as a model university.

Figure 1 shows the three stages of WoS data analyses. During the first, data collection stage, we collected all WoS documents and publications marked as *International collaboration,* for three, five-year time periods: 2005–2009, 2010–2014 and 2015–2019. In the second, *data correction stage,* we marked each *International collaboration* paper with the corresponding OECD classification of major scientific categories: 1. Natural sciences, 2. Engineering and technology, 2. Medical and Health sciences, 4. Agricultural sciences, 5. Social sciences, 6. Humanities. In the case of multiple classification, we marked all present major disciplines. In the third, *data analysis* stage we visualised the evolution of publishing activity, domestic collaboration, and international collaboration; the publishing activity and international collaboration activity in the identified major scientific categories; and the disciplinary interplay (or interdisciplinarity) between the major scientific categories.

Figure 1 The three stages of data analysis
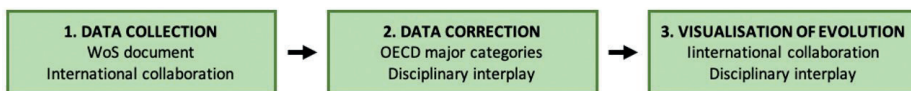
Source: Compiled by the authors

3. RESULTS

3.1. THE EVOLUTION OF INTERNATIONAL COLLABORATION AT EÖTVÖS LORÁND UNIVERSITY

In order to analyse the evolution of publication activity of Eötvös Loránd University, we used the WoS InCites database and collected the annual publication activity of the selected university in a 15-year time period between 2005 and 2019. As a first step, we extracted not only all WoS documents but also the number and proportion of papers marked as international collaboration.

Figure 2 The total, domestic and international research output of the Eötvös Loránd University indexed on WoS, between 2005 and 2019
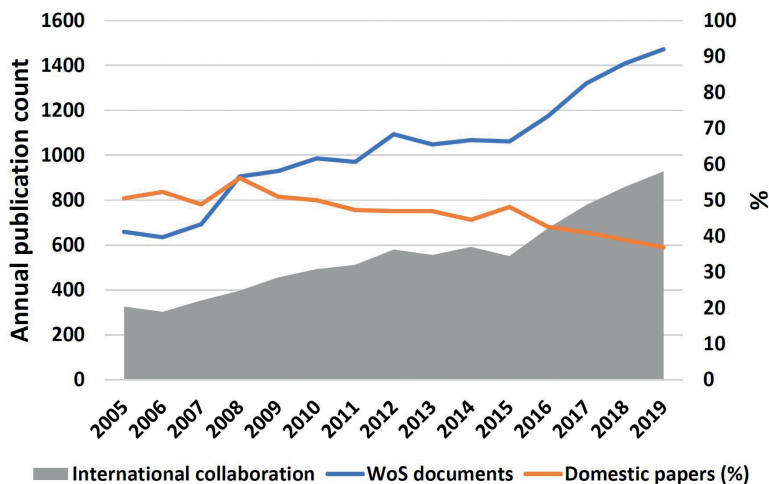
Source: Compiled by the authors. Input data source: Web of Science database

Notes: X axis shows the 15-year time period. The left-hand Y axis is the annual output of WoS documents. The continuous blue line represents the total number of papers, the grey shape refers to the number of international collaboration. The right-hand Y axis shows the percentage of domestic papers without international co-author (orange line).

According to the WoS database, a paper is marked as international collaboration when it contains one or more international co-authors. Therefore, the publication activity and international collaboration activity can be visualised and analysed quantitatively by plotting the publication results against time. Figure 2 shows that the total research output of Eötvös Loránd University has more than doubled over 15 years, from 659 papers in 2005 to 1,472 in 2019. Moreover, the international collaboration has also more than doubled, reaching the proportion of 63.11% in 2019 compared to 49.47% in 2005. This proportion was calculated as the percentage of international collaboration by the given year to the total number of WoS documents of the same year.

Our results indicate that the total increase in research outputs depends on international partnership. To support this finding, we calculated the ratio of the so-called domestic papers (without international co-authors) to all WoS documents in each year. It is also shown in Figure 2 (orange line, right Y axis) that the number of domestic papers increased from 333 to 543 between 2005 and 2019 (by 61%); however, this growth is slower compared to international collaboration, and it represents only 36.89% of all WoS documents in 2019 compared to 50.53% in 2005.

Although the total number of domestic collaborations is increasing, its proportion to all WoS documents is decreasing at the same time. Thus, the growth in research output of the last 15 years has been produced by international collaboration.

3.2. DISCIPLINE-SPECIFIC PERFORMANCE OF INTERNATIONAL COLLABORATION AT EÖTVÖS LORÁND UNIVESITY

In order to visualise the discipline-specific outputs and temporal evolution of the international collaboration at Eötvös Loránd University, first, we divided the 15-year time period into three quinquennials: 2005–2009, 2010–2014 and 2015–2019. Based on the OECD classification, we extracted publications based on the OECD categorization of six major disciplines: 1. Natural sciences, 2. Engineering and Technology, 2. Medical and Health sciences, 4. Agricultural sciences, 5. Social sciences, and 6. Humanities. To this end, we used three different parameters: 1. the time period (2005–2009, 2010–2014 or 2015–209), 2. Eötvös Loránd University as organization, and 3. the OECD categorization (1. Natural sciences, 2. Engineering and Technology, 2. Medical and Health sciences, 4. Agricultural sciences, 5. Social sciences, and 6. Humanities). This means that we performed altogether 18 searches (six different disciplines for all three time periods). We included only the papers which were marked as international collaboration.

The identification of input data to perform appropriate data search on WoS allowed us to obtain the discipline-specific number of all WoS documents, as well as the ratio of international collaboration for each time period. However, we have to highlight that the number of major OECD disciplines was not restricted to only one. Therefore, those papers, which contained two or more main scientific OECD disciplines, were grouped simultaneously into those groups, which represented their disciplinary affiliation. Quantitatively, in the three subsequent five-year time periods the number of international collaboration papers containing two or more scientific publications was 186, 452 and 516, respectively.

For the comprehensive evaluation and visualisation of discipline-specific performance of international collaboration of Eötvös Loránd University we used a radar chart. The chart has six axes (six major OECD scientific disciplines) along which we plotted the number of WoS document for three subsequent time periods: 2005–2009, 2010–2014 and 2015–2019 (Figure 3).

Figure 3 The total number of international collaborations for the six major scientific disciplines based on OECD categorization
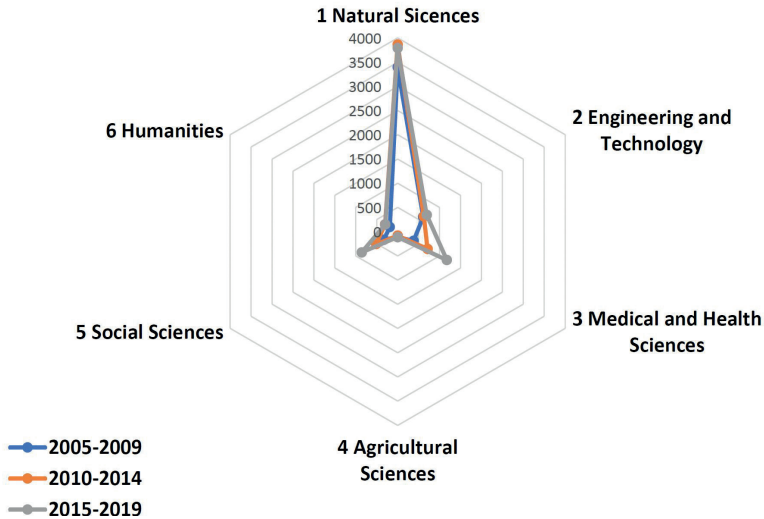
Note: Blue line 2005–2009, orange line 2010–2014, grey line 2015–2019. Note the prevalence of 1. Natural sciences
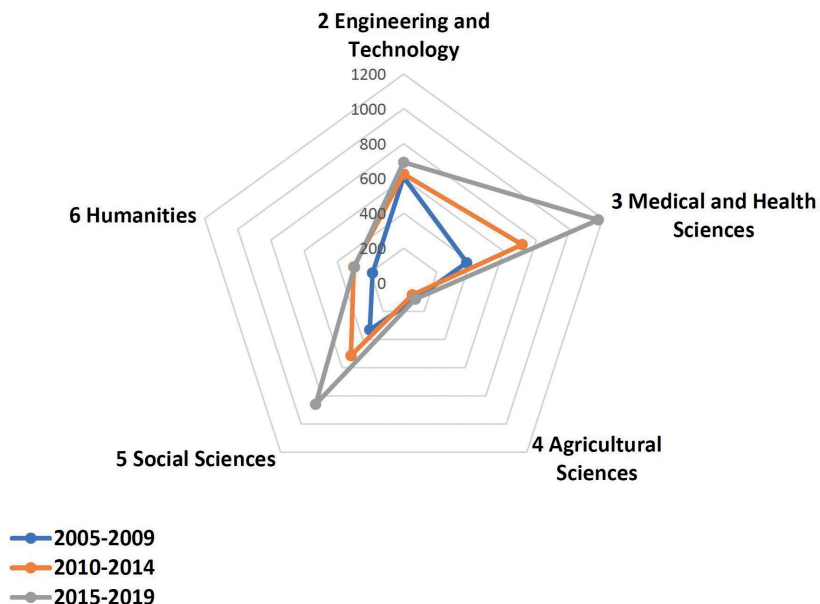
Source: Compiled by the authors. Input data source: Web of Science database

The most abundant number of papers was observed in 1 Natural sciences, reaching 3,398, 3,864 and 3,793 in the three subsequent time periods. As is shown in Figure 3, the visual representation of the high number of published papers in the research field 1. Natural sciences "covered" the results of the remaining major five disciplines. To better visualise the output of international collaboration in the remaining five major OECD categories, we cut out 1. Natural sciences category and created and another radar chart with five axes (Figure 4). In case of 2. Engineering and Technology, 4. Agricultural sciences and 6. Humanities we observed only a slight increase in the number of total international collaboration. However, in case of 3. Medical and Health sciences and 5. Social sciences the total number of international collaborations showed a more rapid growth compared to the remaining three major scientific fields.

In both cases, the number of publications increased by more than 1.8 and 1.5-fold (3. Medical and Health sciences and 5. Social sciences) between 2010–2014 compared to 2005–2009 and more than three-fold and 2.5-fold (3. Medical and Health sciences and 5. Social sciences) between 2015–2019 compared to 2005–2009. Whilst the volume of international collaboration increased in the last 15-year time period (Figure 2), the relative contribution of major scientific disciplines showed remarkable differences (Figure 3–4). These disciplinary differences are in accordance with the finding of Butler and Visser (2006), who have shown

that the research output of dissimilar research fields is not identical; moreover, the dissemination outputs are also discipline-dependent.

Figure 4 The total number of international collaboration for the five major scientific disciplines based on OECD categorization

Source: Compiled by the authors. Input data source: Web of Science database

Figure 5 The ratio of discipline-specific international collaboration and all WoS documents.
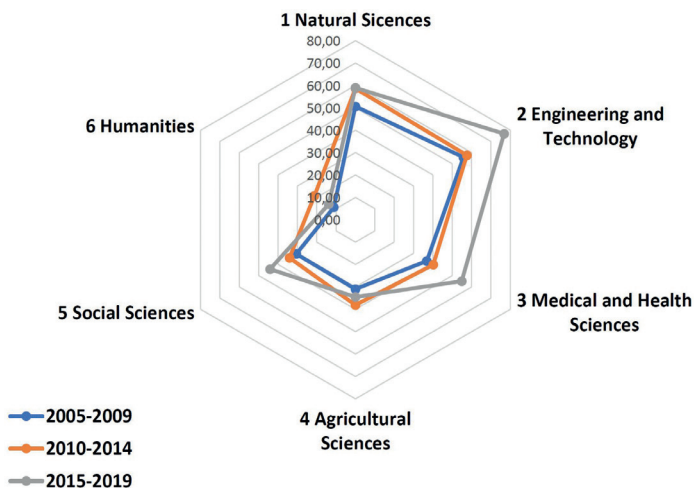
Source: Compiled by the authors. Input data source: Web of Science database

We have shown that the growth of all WoS documents is attributed to the increase of international collaboration (Figure 2). However, it is still unclear how individual scientific disciplines contribute to that increase. Therefore, for each major scientific field, we calculated the proportion of disciplinary international collaboration to all disciplinary WoS documents in all three time intervals. The results are summarized in Figure 5. We obtained a slight increase in 1. Natural sciences and 5. Social sciences compared to 2. Engineering and Technology and 3. Medical and Health Sciences, and a slight decrease in 4. Agricultural sciences and 6. Humanities. The total discipline-specific ratio of international collaboration during the whole 15-year period is as follows: 2. Engineering and Technology (63.39%), 1. Natural sciences (56.06%), 3. Medical and Health sciences (43.98%), 5. Social sciences (36.25%), 4. Agricultural sciences (34.52%) and 6. Humanities (15.41%).

In addition to the main OECD categories, we believe that a more detailed analysis of scientific fields can be used to reveal the more comprehensive contribution of individual scientific fields to the development of international collaboration. If our classification goes a step further by dividing the main OECD categories into the subsequent 42 subcategories (OECD, 2007), it could possibly allow us to refine this process. For example, the Faculty of Sciences at Eötvös Loránd University is the largest faculty of the university (the number of international publications is the most abundant in 1 Natural sciences), and its teaching and research activity is organised into more than 60 degree programs at six different institutes: the Institute of Biology, the Institute of Geography and Earth Sciences, the Institute of Environmental Studies, the Institute of Chemistry, the Institute of Mathematics, and the Institute of Physics. Thus, the more detailed analysis of results has the potential to help us understand in further detail the discipline-dependent development of international collaboration and research outputs, and to provide a quantitative framework for future qualitative analysis of the driving force behind research collaboration.

3.3. THE DISCIPLINARY INTERPLAY OF INTERNATIONAL COLLABORATION AT EÖTVÖS LORÁND UNIVERSITY

In order to visualise the interdisciplinarity of international collaborations, first of all, we extracted all WoS documents marked as international collaboration and divided them into three groups according to the year of publication: 2005–2009, 2010–2014 and 2015–2019. As a next step, for all selected papers, we identified the six major scientific disciplines based on OECD classification (OECD, 2007). To do this, we defined three input factors of search in the WoS InCite database: the first one was the time period (2005–2009, 2010–2014 and 2015–2019), the second one the organisation (Eötvös Loránd University), and the third one the research area classification (OECD classification). We obtained three datasheets (one for each time period) with all necessary information for further analysis.

Based on the OECD categorization we coupled the papers with the marked major scientific fields (the number of scientific fields for individual papers varied

between 1 and 4), enabling us to calculate the number of disciplinary interplays for each paper. Following this logic, we could narrow the analysis to publications with two or more disciplines present. In the presence of two distinct disciplines, the number of connections was 1. When the number of disciplines was 3 or 4, the number of connections was calculated for each possible unidirectional connection. For example, in case of Publication no. 270, published in 2009, three major scientific disciplines were identified (3. Medical and Health sciences, 2 Engineering and Technology, 1 Natural sciences), and the number of connections was calculated as follows: 3. Medical and Health sciences to 2 Engineering and Technology (1), 3. Medical and Health sciences to 1 Natural sciences (1), and 2 Engineering and Technology to 1 Natural sciences (1).

Figure 6 The interplay between different scientific disciplines. The six types of OECD classification-based scientific disciplines are marked by coloured circles
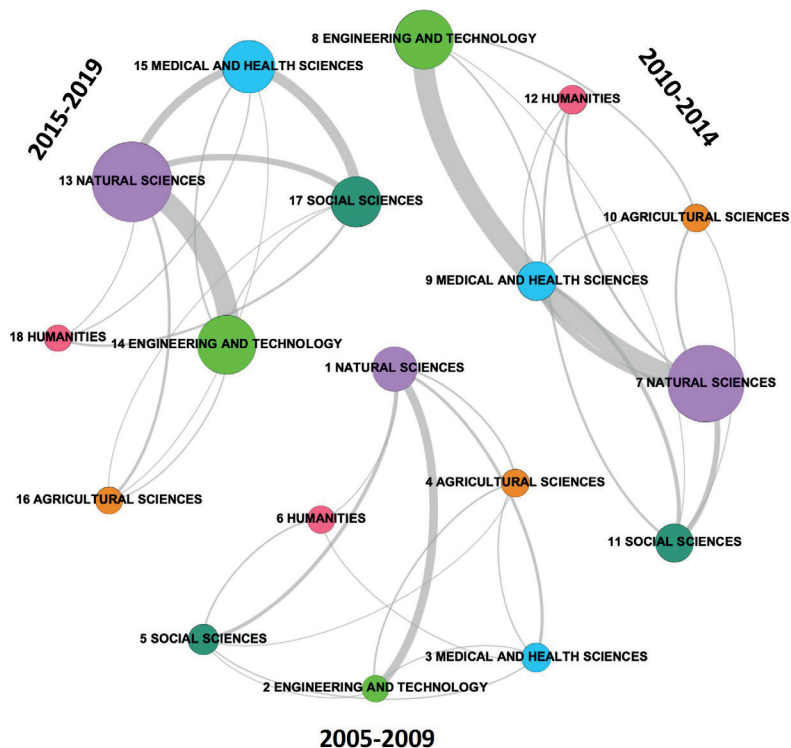
Notes: The grey curved lines represent the connection between different scientific fields. Whilst the size of circles corresponds to the contribution of the given scientific field to the number of total connections for a given time period, the thickness of grey lines represents the number of connections between different scientific fields

Source: Compiled by the authors. Input data source: Web of Science database

The identification of the main disciplines and the number of connections between them through the three different time periods allowed us to visualise the disciplinary interplay between different scientific fields, as well as the strength of connections between them (Figure 6). The total number of connections increased from 180 between 2005–2009 to 455 between 2010–2014 and to 547 between 2015–2019. Thus, in parallel with the growth of international collaboration (Figure 2), the interplay between different scientific disciplines also increased. This tendency was also seen in case of individual connection pairs. The most powerful growth was observed between 1. Natural sciences and 2. Engineering and Technology (85 – 299 – 299), 1. Natural sciences and 3. Medical and Health sciences (23 – 58 – 80), 1. Natural sciences and 4. Agricultural sciences (10 – 17 – 21), 1. Natural sciences and 5. Social sciences (30 – 52 – 62), 3. Medical and Health sciences and 5. Social sciences (5 – 35 – 108), and 5. Social sciences and 6. Humanities (8 – 16 – 17). Moreover, the contribution of individual scientific fields to the total number of connections also expanded: 1. Natural sciences (150 – 374 – 396), 2. Engineering and Technology (98 – 249 – 248), 3. Medical and Health sciences (37 – 109 – 205), 4. Agricultural sciences (25 – 34 – 28), 5. Social sciences (44 – 106 – 190), 6. Humanities (12 – 40 – 25).

Thus, with the increasing number of total research output and international collaboration the interplay between different major OECD disciplines is also growing. However, the contribution of individual major OECD scientific disciplines is changing over time. To obtain a more detailed contribution of scientific fields, the subdivision of main OECD categories into subsequent subcategories, as well as their further analysis is required. This could be a potential tool to analyse the research output of higher educational institutions both quantitatively and qualitatively.

4. CONCLUSIONS

The purpose of this case-study was to provide evidence that scientometrics and bibliometric analyses of research outputs can serve as a potential tool to provide a metrics capable of capturing the evolution of research outputs and interdisciplinary nature or research.

In this paper, our data suggest that the bibliometric data provided by the WoS database are a suitable tool to analyse and evaluate the quantity and quality of research collaborations. This research illustrates how publications focusing on international collaboration, in combination with an appropriate data correction (identification of major scientific fields and the interplay between them at individual research papers) can be a suitable tool to analyse the research outputs of universities. Our findings demonstrate a case of Eötvös Loránd University in Budapest, Hungary, in which the temporal evaluation of international collaboration boosted scientific performance (Figure 2).

The research was complemented by a longitudinal analysis of major scientific fields (Figures 3–5) and the interplay between them (Figure 6). Our results

show that with increasing international collaboration, the contribution of individual scientific disciplines also reveals a growing tendency albeit in a discipline-dependent manner. Moreover, the interplay between various scientific fields has also increased measurably.

Based on our data we suggest that a longitudinal bibliometric comparison of publications with the appropriate data collection and data correction is a suitable tool to measure and evaluate the research outcomes of higher educational institutions both quantitatively and qualitatively. The international collaboration characteristics as well as the interplay between scientific disciplines are promising variables, which have the potential to be incorporated into the evaluation process of research collaboration and their outcomes.

Nevertheless, the use of bibliometric data should be used cautiously, as the proportion of publication captured by databases may be incomplete and scientific discipline-dependent (Matthews et al., 2009). For example, it has been shown by Butler and Visser (2006) that the proportion of total research collaboration output in WoS ranged from 90% in chemistry down to 6% in law. It is important to recognise that research fields vary in the extent and type of international collaboration and research dissemination. It should be considered that the coverage of WoS is not universal for all scientific fields; moreover, the dissemination of research and international research output differs according to the type of research.

Our study has shown that even in the presence of research field differences, the integration of interplay between disciplines and its longitudinal analysis is a suitable tool to describe the extent of the international collaborations which were manifested in a form of publication captured by the WoS database. In order to understand other forms of international collaboration and their dissemination outputs, a considerable amount of additional analysis needs to be undertaken. Our pilot study suggests that integration of the outputs of international collaboration (publication) and interdisciplinarity (interplay between major OECD disciplines) can cover the quality of cooperation to some extent, but the study needs to be extended by analysis capturing field-specific characteristics, as well as by the interplay between the "minor" scientific disciplines. The main six OECD categories are subdivided into additional 42 subcategories, which may suggest a more robust application of bibliometric performance. Moreover, the expansion of analysis with other quantitative and qualitative indicators of research outputs (the number of citations, the impact factor of journals, the number of authors, their research field, the H-Index, and the driving force beyond research cooperation) is particularly desirable for all disciplines, including also the fields where publications/journals are not the most important means for disseminating research.

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INFORMING STUDY

TAMÁS SNEIDER

Transdisciplinary Problem Solving: A new Approach for Validating Existing Literature

Abstract

The goal of this study is to present a model to validate pieces of literature in social studies that rely on the concept of transdisciplinarity. The study aims to answer the following question: how can researchers and practitioners validate existing transdisciplinary literature in social studies in an efficient and effective way? The method used in this paper is to build a conceptual model in a knowledge-based system (KBS), which is based on the if-then rules between the values of the attributes identified during the knowledge acquisition process. The model is first introduced and then it is applied to a set of papers incorporating transdisciplinarity in social studies. It is shown that with the help of the model, it is possible to efficiently and effectively validate the group of sample articles and assess their value in a potential transdisciplinary research project.

Keywords: transdisciplinarity, knowledge-based system, problem solving

INTRODUCTION

The goal of this paper is to present a conceptual model that is built in the Doctus knowledge-based expert system and serves to validate pieces of academic literature – journal articles, book chapters, conference papers – that incorporate and rely on the concept of transdisciplinarity.

Recent economic and social challenges require new approaches to problem solving, and transdisciplinarity is one of these new approaches. It is an emerging concept that started to draw more attention recently from academics, policymakers and other practitioners. However, transdisciplinarity is not a unified and universally well-defined concept, as there is an abundance of interpretations of transdisciplinarity, and for those who engage in some form of transdisciplinary research or problem solving, it is difficult to find the right conceptual foundations. Such researchers need tools to evaluate the different views and use-cases of transdisciplinarity that can be found in the literature. It is an important delineation of this paper that the focus is on social studies, and thus problems that belong entirely or mostly to the realm of the natural sciences are out of the scope of this paper.

In the first section of the paper the concept of transdisciplinarity is introduced. This is meant to be an introduction only, serving to provide context to the model that is going to follow. For a comprehensive review on the concept and applications

of transdisciplinarity, see for example Bernstein (2015). The second section introduces the tool that was used for model-building: the Doctus knowledge-based expert system. The model is described in detail in the third section, which is followed by discussing the novelty that is provided by this work, as well as its limitations.

1. TRANSDISCIPLINARITY

In social studies researchers are looking for tentative solutions to problems, as defined by Karl Popper (2002). This means that propositions are created and critically examined with an attempt to eliminate errors, and this leads to theories that in turn generate new problems. However, this does not mean that a problem can only have one solution in one discipline. A problem draws interest from many angles – for example unethical behavior in business can be observed from an economic, sociological, psychological, and several other perspectives. Such multifaceted problems have called for approaches that span over the boundaries of traditional academic disciplines. This can lead to multidisciplinary, interdisciplinary and transdisciplinary approaches. Several descriptions have been provided to differentiate between these approaches but the one that provides the most readily available understanding is a metaphor originally presented by Basarab Nicolescu and referenced by Baracskai and Dörfler (2017). In this metaphor disciplines are represented by birds in their cages. A mono-disciplinary approach is depicted by one bird in one cage. The single bird observes the problem space outside from its cage, and this results in a distorted and partial representation. However, this fact remains hidden for the bird inside the cage due to its lack of any meta-knowledge. Multidisciplinarity is represented by allowing more birds in their cages to observe the problem-space. The birds even communicate their observations to each other; however, this results in a complicated, but not complex view, as the songs of the birds are mostly incommensurable due to their different ontological, epistemological and methodological axioms. Interdisciplinarity arises when a bird is brought from its own cage to that of another bird. They share ideas, concepts and/or methods, and if the work is of high quality, the result can be meaningful knowledge creation that is more complex and less complicated. Still, the incommensurable aspects between the host and the guest bird may not be resolved and the limitation of the cage is still present. Transdisciplinary inquiry is represented by opening the cages and letting the birds fly outside. Most of them will probably choose to return to their cages, but some might learn songs from other birds perfectly and contribute to knowledge creation 'in the no man's land between cages'. Such knowledge can be fully complex without being complicated.

Transdisciplinary, thus, means not only going across but also going beyond disciplines (Klein, 2009). The concept was first used by Jean Piaget (1972), but it was later fully conceptualized by Basarab Nicolescu (2002). The conceptual framework of transdisciplinarity not only rests on the proposition of multiple levels of reality and the axiom of the included middle (Nicolescu, 2014), but it also inte-

grates the concepts of complexity (Cilliers–Nicolescu, 2012), knowledge integration (Hoffmann et al., 2017), and problem solving in the lifeworld (Hirsch Hadorn et al., 2008). Mono-disciplinary research looks only at one level of reality, where the axiom of the excluded middle holds, i.e., something cannot be 'A' and 'non-A' at the same time. Transdisciplinary research, on the other hand, can incorporate multiple levels of reality, and this allows for the possibility of what Nicolescu (2002) calls 'T', or the 'hidden third', that is the synthesis of 'A' and 'non-A'. This does not invalidate mono-disciplinary logic, only constrains its validity. This can be demonstrated with an example from physics: Newtonian physics worked well with the logic of the excluded middle but when it came to quantum physics and elementary particles, physicists realized that different logical rules applied there, since, using the terminology of Nicolescu, they were looking at a different level of reality. Social studies, in general, have not been doing so well in terms of overcoming a constrained, single-level view of reality. In this domain, there is still an overwhelming dominance of what Hayek has called scientism (Hayek, 1942), i.e., the imitation of the natural sciences through the use of tools and methods to create objective and detached knowledge. In contrast to this, a transdisciplinary approach to social inquiry acknowledges the inherent subjectivity of all phenomena that involve social entities, such as individuals, organizations, and societies.

Transdisciplinary approaches have been used to assess various societal questions and problems, such as climate change adaptation (Siebenhüner, 2018), urban development (Schauppenlehner-Kloyber–Penker, 2015), health equity in vulnerable communities (Reddy et al., 2018), responsible leadership in business (Gröschl–Gabaldon, 2018) and many others. Thus, those who engage in transdisciplinary inquiry can now find, – on top of the theoretical foundations – an abundance of applications and interpretations in the scientific literature. But how can researchers or practitioners validate these pieces in the available literature? A conceptual model for the validation is presented in the subsequent parts of this paper that is built on the use of the Doctus knowledge-based expert system. Before discussing the model, however, an introduction into knowledge-based systems, and specifically the tool used for building the model follows.

2. DOCTUS KNOWLEDGE-BASED EXPERT SYSTEM

The number of scholarly research articles was estimated to have passed 50 million in 2009 (Jinha, 2010) and it might have easily multiplied since then. Looking at the main concept of this paper, a search for the keywords 'transdisciplinarity' and 'transdisciplinary' on Google Scholar yielded 42,200 and 262,000 results respectively. Trying to read even a small fraction of these would not only be highly inefficient and impractical, but it is just humanly impossible. Anyone, therefore, who aims to acquire knowledge on transdisciplinarity from academic literature, needs to make key decisions on what to read. After narrowing down the scope of possibilities through the use of additional keywords or filtering for the date of

publication, it is likely that the researcher arrives to a set of articles that seem to meet the first criteria of what is worth at least looking into. After this point, it is largely based on the judgement of the individual researcher or the members of the research team, if the shortlisted articles are carefully read, cited in the output of the research, used in practical scenarios, and/or integrated into the transdisciplinary problem solving process. The key term here is judgement, and an important question is that how such judgement can be understood and supported. This is exactly what a knowledge-based expert system can do.

Supporting decisions with the help of computational tools has been around for a long time, but unlike typical operational research tools, expert systems support human reasoning instead of calculating a purely quantitative result (Velencei et al., 2014). The Doctus knowledge-based system (KBS) can be described as a form of artificial intelligence using 'if…then' rules to represent the symbolic knowledge of human experts. KBS is built on a shell, i.e., a software tool that allows humans to enter input, but its essence is the knowledge base of the human expert who uses the software to symbolize knowledge that is used in the decision-making process (Velencei et al., 2014). Baracskai et al. (2005) distinguish three types of decisions: (i) reflex decisions, where no deliberate thought process is present before making the decision; (ii) routine decisions that are repetitive and mostly follow programmable rules; and (iii) original decisions, where the circumstances are unique, and the decision is made based on complex cognitive schemata. Original decisions and even routine decisions to some extent require tacit knowledge (Polanyi, 1966) that cannot be expressed in explicit terms. The symbolic logic of the Doctus KBS remains very close to this nature of expert knowledge, as it does not force the user to quantify preferences. For example, a researcher can tell about an article whether its scope is narrow or broad without being able to assign numbers to this judgement. "Into the symbolic knowledge base of an expert system we can put the knowledge in form as we talk or think about it." (Baracskai et al., 2005, 61) This allows for transparency and the possibility of continuous fine-tuning.

How does the decision-making support work, if there is no quantification? How can the use of KBS add value to human deliberation? This happens through organizing expert knowledge into a systematic framework, eliminating potential contradictions, and getting rid of factors that turn out to be irrelevant. By creating a knowledge base, expert knowledge is organized into an explicit form. It is important to highlight, though, that this does not mean that tacit knowledge can be fully converted into explicit knowledge, as principally all human knowledge is rooted in the tacit dimension (Polanyi, 1966). Certain aspects of the expert knowledge are lost but this is a trade-off, which is required to be able to build up the deductive reasoning process in KBS. Through the knowledge acquisition process the 'if…then' rules are formulated (Baracskai et al., 2005), and any possible contradictions can be eliminated at this stage. One might think that experts are not prone to paradoxical and flawed thinking, but this is clearly not the case as discussed by Handy (1994), and therefore it is important to overcome this obstacle

during the preparation of the decision-making process. Finally, KBS can support the decision-maker by finding the criteria that are truly relevant for the decision. Initially, the decision-maker might have many attributes in mind that can influence the decision, but as the rules are built up, it is likely that several attributes become redundant and the set of relevant attributes is reduced, making the decision-making process more transparent and easier to reproduce, when needed.

The Doctus KBS can be used to support business decisions, but it can also be used for supporting decisions in the transdisciplinary research process. An important novelty of this paper lies in presenting how this tool can be used to validate accessible knowledge on transdisciplinarity from academic literature. The next section describes how the conceptual model for this purpose was built in the Doctus KBS.

3. CONCEPTUAL MODEL

Creating a model in the Doctus KBS starts with setting up the attributes for rule-based reasoning. The attributes and the rules for this model were determined based on expert judgement with the goal of validating if a scholarly article can contribute to transdisciplinary problem-solving process. The expert judgments were gathered through personal discussions and an iterative process of documenting and continuously improving the model.

The three main pillars of the presented model are (1) applicability, (2) congruence and (3) academic relevance. Applicability describes how the knowledge acquired from an article can be applied in problem solving. Applicability is divided into three building blocks: (i) the level of reality observed (Nicolescu, 2014); (ii) the type of learning that can be achieved (Nicolescu, 2002); and (iii) the conclusion of the article. Congruence refers to how closely the contents of the article are matching the learning needs for the current project. It is comprised of (i) the definition of transdisciplinarity, and the (ii) research method that is used in the specific piece. Academic relevance looks at how accomplished the paper at hand is, and it is based on (i) the number of citations, and (ii) the year of publication. The three main judgment points lead to a final paper evaluation. The rule-based graph depicting these attributes in KBS are presented on figure 1.

Figure 1 Rule-based graph
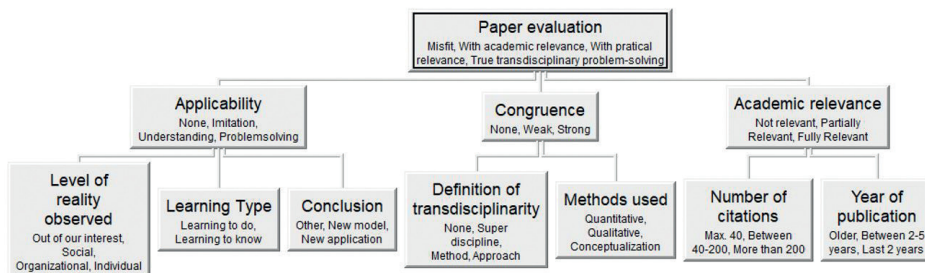
Source: Own construction in Doctus KBS

The three main attributes and their component parts reflect the aspirations of the decision-maker (Velencei, 2019)"title":"New Human-Machine Relations Request a New Paradigm: Understanding Artificial Intelligence","type":"paper-conference"},"uris":["http://www.mendeley.com/documents/?uuid=37523a8b-ed5f-4ba7-a212-61831a0e4c0e"]}],"mendeley":{"formattedCitation":"(Velencei, 2019, in this case the researcher who is looking for valuable pieces in the literature. Based on how much they fulfil the aspirations, the attributes have outcome values that can be assigned to each article. When filling the knowledge base with content, the researcher assigns the values of all lowest level attributes, for example, if the conclusion of an article is (i) a new model; (ii) a new application of some existing model or tool; or (iii) something else, or if the methods used in the reported research project are (i) quantitative; (ii) qualitative; or (iii) a form of conceptualization. The values for the attributes are defined on an ordinal scale, for instance the number of citations is the least favourable, if it is not higher than 40, it is in the middle when between 40 and 200, and it is the most favourable when it is above 200. Some of the attributes are based on objective descriptive data, such as the year of publication, while others require judgments that contain a level of subjectivity (e.g., learning type); this is not only allowed, but necessary to reflect the process of human deliberation.

The values of the lower level attributes are then ordered to a set of rules that define the attributes on the next level. As discussed in the previous section, these rules are not quantified, but follow an 'if... then' logic. Verbally, such a rule can be defined as follows: 'If the paper defines transdisciplinarity as an approach and it presents a form of conceptualization, it is strongly congruent with the purposes of the transdisciplinary research project.' When all rules are defined on this level, another ruleset is defined to reach the values of paper evaluation. For example: 'If the applicability lies in imitation, there is a strong congruence, and the paper has partial academic relevance, the final paper evaluation will be that it provides practical relevance. Such rules are defined for all attributes in the Doctus KBS and

through the process of reduction (Baracskai et al., 2005), tables are created that visualize the logically purified ruleset for each aspiration. An example of this is shown in Table 1 through the rules of academic relevance.

Table 1 Rules of Academic Relevance

	Number of citations	Year of publication	Academic relevance
	Max. 40	.. Between 2-5 year	Not relevant
	Max. 40	Last 2 years	Partially Relevant
	Between 40-200	.. Between 2-5 year	Partially Relevant
	Between 40-200 ..	Last 2 years	Fully Relevant
	More than 200	*	Fully Relevant

Source: Own construction in Doctus KBS

The rows of the ruleset can be read as follows: If the number of citations is 'maximum 40' and the year of publication is 'between 2-5 years' old or worse (i.e., older than 5 years), the academic relevance of the paper is classified as 'not relevant'; if the number of citations is 'maximum 40' but the year of publication is 'last 2 years', then the article is 'partially relevant'; and so on.

To apply this model, a literature search has been conducted with the aim of finding relevant articles. Google Scholar and ScienceDirect databases have been used to search for the keywords 'transdisciplinary' and 'transdisciplinarity'. The year of publication was used as a filter to include only the results that have been published in the last ten years, as the aim was to evaluate contemporary works. Where it was possible, a filter was implied to search for articles in the domain of social studies and exclude natural sciences. Finally, 61 academic journal articles have been selected this way for the evaluation process. The data for the year of publication and the number citations was collected using Google Scholar, applicable as of September 2019. The abstract, the introduction and the conclusion sections of each article were read, and further sections or the complete papers were read where it was necessary to make a confident judgment for the remaining attributes.

After the data was entered into the Doctus KBS, and the deductive reasoning process was run, 11 articles came out as 'misfits'; 6 articles 'with academic relevance'; 32 articles 'with practical relevance'; and 12 articles as 'true transdisciplinary problem solving'. To illustrate the results, the values for two articles are shown on Table 2.

Table 2 Values assigned to the articles with the IDs 10 and 25

ID	Level of reality observed	Learning Type	Conclusion	Definition of transdisciplinarity	Methods used	Number of citations	Year of publication
10	Social	Learning to know	New model	Approach	Conceptualization	More than 200	Older
25	Organizational	Learning to do	New application	Approach	Conceptualization	Max. 40	Last 2 years

ID	Academic relevance	Applicability	Congruence	Paper evaluation
10	Fully Relevant	Understanding	Strong	With pratical relevance
25	Partially Relevant	Problem-solving	Strong	True transdisciplinary problemsolving

Source: Own construction in Doctus KBS

For the article with ID 10, the level of reality was judged to be 'social', the learning type as 'learning to know', the conclusion was a 'new model', transdisciplinarity was defined as an 'approach', 'conceptualization' was used as a method, it has been cited more than 200 times and was published more than 5 years ago. When applying the rules, it came out that this article was 'fully relevant' from an academic perspective, it had an applicability in 'understanding', and it showed 'strong' congruence with the learning needs for the research problem. As a result, the paper is evaluated as one 'with practical relevance'. Due to the different values of the lower level attributes, the paper with the ID 25 was 'partially relevant' from an academic perspective, it had an applicability in 'problem solving' and a strong 'congruence', thus it was evaluated as 'true transdisciplinary problem solving'.

4. DISCUSSION

Transdisciplinary problem solving is still relatively underutilized in social studies, but it is gaining popularity as more and more academic researchers realize that solving real life problems requires more than finding a gap in existing academic literature and designing a research project that fills that gap. Still, academic literature can provide help in guiding transdisciplinary inquiry but the inquirer needs to be conscious and selective about the added value of papers that rely on transdisciplinarity. The presented model should serve as a support in this process as it provides a new way of selecting and processing the available academic literature on transdisciplinarity. The novelty is provided not only through the new combination of elements to assess a transdisciplinary research report but also through the use of a knowledge-based expert system.

The use of KBS allows the inquirer to utilize their expert knowledge in an ordered and efficient manner. With this approach, human deliberation remains the most important process in reaching a decision or an evaluation, but the shell of KBS guides the expert through the elimination of potential contradictions and the reduction of logically unnecessary criteria. This paper has presented how a model was built and used for evaluating papers with rule-based reasoning, but the Doctus KBS also supports case-based reasoning, through which it is possible to find out the relevant aspirations of the decision-maker, once the decision outcomes are known (Baracskai et al., 2014).

As also highlighted earlier, the use of KBS system provides transparency and the possibility of continuous improvement. The presented model can be used 'as-is' by a researcher or a research team embarking on transdisciplinary problem-solving project, but it can also be customized, extended, or reduced to fit more specific purposes. Problem-solvers with very similar aspirations to those experts who were involved in the creation of this model might find it useful in this exact form, while others with different aspirations might wish to change some of the attributes, or add new ones. If researchers decide to set up different rules, they might receive different evaluations even for the same set of papers, but this is

natural as different aspirations can and should lead to different evaluations and decisions. This can all be supported with KBS and the approach of model-building that was presented in this paper.

For this reason, this paper may serve not only as a presentation of a new model in itself, but also as a guide for setting up similar models for evaluating academic literature for research projects in general. In order to build a model for the systematic and purposive evaluation of literature, one must start with a defined area of interest, such as transdisciplinarity in social studies, as in the case of the presented model. After this, the aspirations of the researcher or the research team need to be clarified and the attributes and rules in KBS need to be set up accordingly. The best source of this is expert knowledge, which, as discussed earlier, cannot be fully converted to explicit knowledge but it can be organized into a system of symbolic logical rules. This may happen through interviews, focus groups, workshops or brainstorming sessions. Once the initial model in KBS is set up, it should be tested on a sample of articles, similar to how the presented model was tested. The results need to be checked, together with the experts who were involved with building the model for the purpose of validation. The requirement at this stage is not that the evaluations fit the 'gut instincts' of the experts, but that they do not contain any contradictions. The size of the sample required for such a test can vary based on the chosen area of interest; it should be large enough to contain several of each of the final evaluation possibilities, but still practical enough to work with for testing purposes. For the case of transdisciplinary literature in social studies, 61 articles were deemed as a satisfactory sample size, in some cases it might be a somewhat less, while in other cases up to 100 articles may be more appropriate.

The limitations of the presented model and the approach also need to be addressed. The model is based on expert knowledge of several collaborators with experience from different fields and a solid conceptual understanding of transdisciplinarity. Although efforts were made to validate the findings, this type of inquiry inevitably leaves some room for human fallibility that may stem from individual factors, such as cognitive biases (Kahneman, 2011), or group level factors, such as groupthink (Janis, 1971). However, no scientific inquiry is completely devoid of these burdens, and the validation of the model relied on principles that are generally accepted in the scientific community, such as peer reviews. As for the approach that was presented, it can be applied flexibly, but also only with limitations. For example, if the number of attributes is greatly expanded and all or most of them remain relevant after building up the rules (e.g., several dozens) the required effort of assessing papers becomes very high, therefore the whole process might lose much of its efficiency. Just as with any other tool, trade-offs are required for optimal application.

5. CONCLUSION

This paper has presented a novel approach for validating existing pieces of transdisciplinary literature. Transdisciplinarity provides a new perspective for knowledge creation, and despite being outside of the mainstream academic approaches to research, a vast amount of literature has already been generated that build on the concept of transdisciplinary problem solving. Reading even a small fraction of this would be highly inefficient and impractical; therefore, those who aim to acquire knowledge on transdisciplinarity from the academic literature need to make key decisions on what to read and what to build on in their own research. The presented model, which was built with the use of the Doctus knowledge-based expert system, offers support in this process. The Doctus KBS is a form of artificial intelligence that uses 'if...then' rules to represent the symbolic knowledge of human experts. With this tool, it is possible to build a model that represents the aspirations and the decision making criteria of the researcher or research team, and with the help of such a model pieces of academic literature can be assessed and validated.

In this paper a specific model has been built, using the knowledge and expertise of experienced researchers. The attributes that were used in the model rely on foundational concepts of transdisciplinarity, such as the multiple levels of reality, as well as on highly practical measures, such the number of academic citations of an article. The logical rules connecting the attributes were described, as this provides the backbone of the validation process. With the help of the finalized model, it was possible to assess and validate 61 journal articles and decide if they were (i) misfits for a transdisciplinary study; (ii) if they had academic relevance; (iii) if they had practical relevance; (iv) or if they were applicable for true transdisciplinary problem solving. As a result of this, the literature review process can become more efficient and effective for a potential transdisciplinary research project.

The model can be applied in the form as it is described here, but perhaps more importantly, the approach that was used for building the model can be adopted and used as it fits best the purposes of any transdisciplinary problem-solving project. The method of using KBS for validating literature of any kind can be even further explored, but this is out of the scope of this paper. However, the description of the approach and the method that was used here might serve as a starting point for this further exploration.

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GREETINGS

RECHNITZER JÁNOS PROFESSZOR ÚR KÖSZÖNTÉSE

Prof. Dr. Rechnitzer János, a Széchenyi István Egyetem volt rektorhelyettese, a Kautz Gyula Gazdaságtudományi Kar volt dékánja, a Regionális- és Gazdaságtudományi Doktori Iskola alapítója és volt vezetője, a Tér-Gazdaság-Ember folyóirat szerkesztőbizottsági elnöke 2020 őszén nyugdíjba vonult. Professzor Úr továbbra is aktívan közreműködik az Egyetem és a Kar életében, aktívan kutat és oktat, illetve segíti a folyóirat munkáját. Munkásságáról Lados Mihály Tanszék-vezető Docens Úr írt egy összefoglalót, melyet megosztunk a Tisztelt Olvasókkal ezúton is kifejezve a Kar köszönetét Professzor Úrnak többévtizedes áldozatos munkájáért. Ahogy Lados Tanár Úr írja, Professzor Úr „szakmai tevékenysége nyugdíjba vonulását követően is fontos számunkra", így ezen gondolatok mentén az alábbi James Allan idézettel kívánok Professzor Úrnak még sok szép szakmai sikert!

„Minden nagy teljesítmény egy álommal kezdődik. A tölgyfa alszik a makkban, a madárka vár a tojásban, és a lélek látomásában egy ébredező angyal mozdul. Az álmok a valóság magjai."

Reisinger Adrienn
főszerkesztő

PROF. DR. RECHNITZER JÁNOS LAUDÁCIÓ

Dr. Rechnitzer János közgazdász, a hazai regionális tudomány létrejöttének, az MTA tudományrendszerében való megjelenésének egyik megalapozója, iskola teremtője, meghatározó személyisége, akinek a kutatásai a területi input-output vizsgálatától indultak, majd az innováció területi kutatásán, a térségi tervezés módszertani megalapozásán, a területi politika és annak intézményrendszerének értékelésén át a területi tőke és a kreatív gazdaságvizsgálatáig ívelnek.

Dr. Rechnitzer János 1952. június 5-én született Héderváron, 1975-ben diplomázott okl. közgazdászként a Pécsi Janus Pannonius Tudományegyetem Közgazdaságtudományi karán, majd ugyanabban az évben kezdte meg kutatói pályafutását Pécsen az MTA Dunántúli Tudományos Intézetében. A szervezet 1984-ben Enyedi György akadémikus vezetésével MTA Regionális Kutatások Központja néven területi hálózat kialakítását kezdte meg, mely során 1986-ban Rechnitzer Jánost kérte fel a Győrben alakuló új osztály vezetésére és kiépítésére. Irányításával a fiatal osztály gyors növekedésnek indult, 1992-ben a szombathelyi csoportjának megalakulásával párhuzamosan a győri osztály intézetté alakult. 2000-ben Székesfehérváron alakított kutatócsoportot.

Az akadémiai kutatási környezetben és a felsőoktatásban való jelenléte évtizedek óta összefonódik. 29 éve kapcsolódik a Széchenyi István Egyetem és jogelődje tevékenységéhez tanszékvezetőként, majd dékánként, rektorhelyettesként, doktori iskola alapítóként és doktori iskola vezetőként. Az MTA Regionális Tudományi Bizottság egyik alapítója, majd alelnöke, 1997 és 2008, illetve 2015 és 2017 között pedig elnöke. A tudományág szakmai szervezetének a Magyar Regionális Tudományi Társaságnak alapító tagja (2002), majd elnöke 2011 és 2017 között.

A tudományos pályán való előrehaladását tekintve 1978-ban a Janus Pannonius Tudományegyetemen egyetemi doktori (közgazdaság-tudomány), 1985-ben kandidátusi (MTA, közgazdaság-tudomány), 1995-ben akadémiai doktori fokozatot szerzett (MTA, földrajztudomány), 1999-ben habilitált a Pécsi Tudományegyetemen (közgazdaságtan). Egyetemi tanári kinevezését 2000-ben nyerte el. Négy alkalommal jelölték az MTA tagjának.

Már a győri osztály induló éveiben törekedett arra, hogy az intézet kutatási eredményei megjelenjenek a felsőoktatásban, amelyre a Széchenyi István Főiskola egyetemmé válási stratégiája kertében nyílott lehetőség. Az 1991-ben frissen alakult Közgazdasági Fakultásnak szüksége volt meghirdethető szakirányokra. A Főiskola és az MTA RKK közötti együttműködés keretében Rechnitzer János vezetésével megalakult a Regionális Tudományi Tanszék, amely az általuk gondozott településgazdász képzést indította el a kutatóintézet által művelt kutatási területek tantárgyi lefedésével. A Széchenyi István Egyetem megalakulását követően Rechnitzer János a Közszolgálati alapszak és a Regionális és Környezetgazdaságtan mesterszak képzési rendszerének kidolgozója. Ugyaneb-

ben az időszakban a Közgazdasági- és Jogi Kar első dékánja, majd az önálló Gazdaságtudományi Kar első dékánja. Ezt követően 2008-tól 2014-ig az egyetem általános és tudományos rektorhelyettese. Az egyetem első, még a jogtudományokkal közös doktori iskolájának, majd az önálló Regionális- és Gazdaságtudományi Doktori Iskola alapítója és alapításuktól kezdve azok vezetője. Alapításától kezdve tagja a kari és az egyetemi Doktori Tanácsnak és a Habilitációs Bizottságnak.

Az 1990-es évek közepétől számos hazai felsőoktatási intézmény vendégoktatójaként honosította meg a regionális tudományhoz kapcsolódó tantárgyak – elsősorban a regionális gazdaságtan és a regionális politika – integrálását a különböző képzési rendszerekbe. Az elmúlt évtizedben pedig több hazai doktori iskola – ELTE, Szegedi Tudományegyetem, Pécsi Tudományegyetem – kéri fel előadások, kurzusok tartására.

Az akadémiai környezetben eddig 7 alkalommal nyert el önálló OTKA/NKFIH pályázatot és vezetett számos kormányzati, döntően a területfejlesztéshez kapcsolódó kutatást. Az 1990-es évek közepén a területi tervezés módszertani kidolgozásának egyik alakítója és számos megyei és regionális területfejlesztési koncepció és program készítésének a vezetője. Az egyetemi környezetben a legutóbbi évtizedben több nagyléptékű kutatás elindítója és vezetője, melyek közül kiemelkedik a Győri Ipari Körzet kutatás, amelybe a kar szinte minden oktatóját képes volt bevonni. A három éves kutatás eredményei egy monográfia sorozatban jelentek meg az Unversitas-Győr Nonprofit Kft. gondozásában.

Hazai és nemzetközi tudományos tevékenysége egyaránt figyelemre méltó. Tudományos munkásságát mutatja a 444 tudományos közlemény, amelyből 72 jelent meg idegen nyelven. A 101 folyóirat cikk melett 21 önálló monográfiát és 145 könyvrészletet jegyez. Szerkesztőként 35 könyv kapcsolható a nevéhez. Mindezekre 2557 független hivatkozással rendelkezik. Összes közleményeinek teljes hivatkozási száma pedig 3273. Kiemelkedő a Hirsch indexe 21-es értékkel.

Tudományszervező szerepét mutatja, hogy a regionális tudomány hazai szakfolyóiratának a Tér és Társadalomnak a főszerkesztője volt 1994 és 2010 között. Jelenleg is több hazai és nemzetközi tudományos folyóirat szerkesztő bizottságának tagja. A kar gondozásában megjelenő Tér-Gazdaság-Ember c. folyóirat Szerkesztőbizottságának elnöke.

A korábban jelzetteken túl iskolateremtő tevékenységét, a tudományos utánpótlás nevelésében betöltött kiemelkedő szerepét jelzi, hogy eddig 29 doktorandusza szerzett fokozatot (közülük 8 esetben volt társ-témavezető). Jelenleg pedig 9 doktorandusza van a fokozatszerzési eljárás folyamatában (közülük 7 esetben társ-témavezető). Doktori iskolai tevékenysége jelentősen hozzájárult a Széchenyi István Egyetem tudományos és vezetői utánpótlásának alakulásához. Fokozatot szerzett doktoranduszai közül többen napjainkban a Széchenyi István Egyetem különböző szintű vezetői (7 fő), illetve oktatói (11 fő).

A tudományhoz kapcsolódó szakpolitikai és társadalmi tevékenységei közül kiemelkedik, hogy 1995 és 2001 között az MTA Akadémiai Intézetek Kutatótanács Társadalomtudományi Kuratórium tagja volt. Aktív szerepet töltött be a Veszp-

rémi Akadémiai Bizottságban (VEAB) a Területfejlesztési Bizottság létrehozásával, vezetésével, majd több cikluson keresztül a VEAB alelnöke volt 1996 és 2005 között. Az egyetemi szférát tekintve 2000-től 2003-ig a Magyar Akkreditációs Bizottságnak alelnöki posztját töltötte be. 2016 óta az Enyedi György Regionális Tudományi Alapítvány kuratóriumi elnöke.

Szakmai, közéleti tevékenységéért az MTA 1979-ben Akadémiai Ifjúsági Díjban, a Magyar Földrajzi Társaság 1992-ben Pro Geográfia díjban, Győr-Moson-Sopron Megyei Önkormányzata 1994-ben Széchenyi Ferenc Tudományos Díjban részesítette. 2004-ben a Pro Régió Díj, 2009-ben a Magyar Köztársasági Érdemrend Lovagkeresztje és a Pro Renovanda Cultura Deák Ferenc Kutatói Díj kitüntetettje. 2014-ben Győr Város Díszpolgára címben, 2017-ben Akadémiai Díjban részesült.

Szakmai tevékenysége nyugdíjba vonulását követően is fontos számunkra.

Győr, 2020. szeptember 11.

Dr. Lados Mihály
tanszékvezető egyetemi docens

GREETINGS FOR PROFESSOR JÁNOS RECHNITZER

Prof. Dr. János Rechnitzer, former vice-rector of Széchenyi István University, former dean of Kautz Gyula Faculty of Economics, founder and head of the Doctoral School of Regional- and Business Administration Sciences, chairman of Tér-Gazdaság-Ember Journal retired in the autumn of 2020. The professor shall continue to participate in the life of the university and the faculty as he is actively researching, teaching and supporting the work of the journal. Regarding his career, Dr. Mihály Lados, associate professor and head of department, wrote a laudation, which will be shared with our honoured readers, to express the acknowledgement of our faculty to Professor Rechnitzer for his devoted work over the decades. As Mihály Lados writes, Professor Rechnitzer's professional activity is important for us even after his retirement. Along with these thoughts of James Allen, I wish Professor Rechnitzer every success in his career:

"The greatest achievement was at first and for a time a dream. The oak sleeps in the acorn; the bird waits in the egg; and in the highest vision of the soul a waking angel stirs. Dreams are the seedlings of reality."

Adrienn Reisinger
Editor in Chief

LAUDATION IN HONOUR OF
PROF. DR. JÁNOS RECHNITZER DSC.

Dr. János Rechnitzer, economist, is not only one of the introducers of Regional Science in Hungary and a promoter of the representation of the discipline among the scientific branches of the Hungarian Academy of Sciences (MTA), but he is also the founder and most prominent character of this scientific school. His research activities originate in the examination of territorial input-output and his works have spanned territorial research of innovation, methodology of regional planning, and the evaluation of regional policy and its institutional system for the research of the territorial capital and creative economy.

Dr János Rechnitzer was born on 5th June, 1952, in Hédervár, he graduated as a qualified economist in 1975 from the Faculty of Economics of Janus Pannonius University of Pécs and in the same year he started his research career at the Transdanubian Research Institute of the Hungarian Academy, Pécs. Under the leadership of academician György Enyedi, the organisation started to develop a regional network called the Centre for Regional Studies of the Hungarian Academy of Sciences in 1984 and in the course of this period, in 1986, he called upon János Rechnitzer to establish and manage the new department of the institute in Győr. The new department started to develop rapidly under his leadership and in line with the foundation of his group in Szombathely, the Győr Department was transformed into an institute in 1992. In 2000 he established a research group in Székesfehérvár.

His presence in the academic research environment and in higher education has been entwined for decades. He has been attached to the operation of Széchenyi István University and its legal predecessor for 29 years as Head of Department and later as Dean, Vice-Rector, founder of the Doctoral School, and as the Head of the Doctoral School. He was one of the founders and then the Vice-Chairman of the Regional Science Committee of the Hungarian Academy of Sciences and between 1997 and 2008 and between 2015 and 2017 he served as the Chairman. He was one of the founding members (2002) and later, between 2011 and 2017, President of the Hungarian Regional Science Association, the professional association of the discipline.

In regard to progress in his scientific career he was awarded University Doctorate (Economic Science) at Janus Pannonius University in 1978, Candidate's Degree in 1985 (MTA, Economic Science), Academic Doctorate in 1995 (MTA, Geographic Science) and he was habilitated (Economics) at the University of Pécs in 1999. He was appointed as University Professor in 2000. He has been nominated as a Member of the Hungarian Academy of Sciences four times.

His endeavours led him to represent the research results of the institute in higher education in the early years of the Győr department, which was possible within the framework of the transformation strategy of Széchenyi István College to become a university. The Faculty of Economics, which was newly established

in 1991, needed to announce specializations. In the framework of the cooperation between the College and MTA RKK (CRS HAS – Centre of Regional Studies for the Hungarian Academy of Sciences), the Department of Regional Studies and Public Policy was founded under the leadership of János Rechnitzer. The urban economist course was launched by the department to cover the subject areas that correspond to the research fields examined by the research institute. After the establishment of Széchenyi István University, János Rechnitzer developed the training system of the Public Governance BA course and the Regional and Environmental Economic Studies MA course. In this same period, he became the first Dean of the Faculty of Economics and Law and then he became the first Dean of the independent Faculty of Economics. Subsequently, between 2008 and 2014 he was the General and Scientific Vice-Rector of the university. He was the founder and director of the first Doctoral School of the University, which at the time still incorporated Law and Political Sciences, later he established the independent Doctoral School of Regional and Economic Sciences and has been the Head of the Doctoral Schools since their initial operation. Since its foundation he has been a Member of the Faculty and University Doctoral Council and the Habilitation Committee.

From the mid-1990s, as a guest lecturer at several higher education institutions in Hungary, he introduced university programmes that are related to regional sciences – first of all Regional Economics and Public Policy - and integrated them into various training systems. In the last ten years he has been invited to give lectures and courses at various Hungarian doctoral schools – ELTE, the University of Szeged and the University of Pécs.

He has won 7 independent OTKA/NKFIH applications so far in the academic environment and he has led a number of governmental research projects that are related mainly to regional development. In the mid-1990s he was one of the founders of the methodological development of spatial planning and he was the leader of the elaboration of several county and regional concepts and programs of regional development. In the last decade he has launched and headed several large-scale research projects in the university environment. One outstanding project is the Research Programme of the Győr Industrial District in which he managed to involve almost all the teachers of the faculty. The results of the three-year research project were published in a series of monographies under the editorship of Universitas Győr Nonprofit Kft.

His scientific activity has been remarkable not only in Hungary but on an international scale as well. The significance of his achievements has been reflected in 444 scientific publications out of which 72 were published in a foreign language. Apart from 101 articles in scientific journals he has recorded 21 independent monographies and 145 book excerpts. The editorial work of 35 books can be attributed to his name. Regarding all these works 2,557 independent references can be assigned to him. The total number of references of all his publications is 3,273. His Hirsh index is outstanding with the value of 21.

His prominent role as a scientific manager is proved by the fact that between 1994 and 2010 he was the general editor of "Tér és Társadalom" ("Space and Society"), the Hungarian journal of Regional Science. He is currently a Member of the Editorial Board of various Hungarian and international scientific journals. He is the Chairman of the Editorial Board of the journal titled "Tér-Gazdaság-Ember" ("Space-Economy-Society"), which is being published under the editorship of the faculty.

In addition to his distinguished activities outlined above, his role as an outstanding founder of the scientific school and as an educator of the new generation of scientists, is indicated by the fact that 29 of his doctoral students have already obtained their degrees (he was the associate supervisor in 8 cases). The promotion of 9 of his doctoral students is due currently (he is the associate supervisor for 7 of them). His work at the Doctoral School has contributed a lot to the establishment of the scientific and managerial staff of Széchenyi István University. Many of his earlier doctoral students, who have been awarded the PhD degree, are presently working at various levels in the management of Széchenyi István University (7 colleagues) or teach as lecturers (11 colleagues).

An outstanding example of his social policy activities related to science is the fact that between 1996 and 2005 he was a Member of the Advisory Board of Social Sciences of the Council of the Research Institutes of the Hungarian Academy of Sciences. He had an active role in the Veszprém Regional Committee of the Hungarian Academy of Sciences (VEAB) as the founder and Chair of the Regional Development Committee and then he was functioning as the Vice-President of VEAB for several cycles between 1996 and 2005. As far as the academic area is concerned he held the position of Vice-President of the Hungarian Accreditation Committee from 2000 to 2003. He has been acting as the Chairman of the Advisory Board of the György Enyedi Regional Science Foundation since 2016.

To honour his professional and public activities he was awarded the Junior Scientists' Award of the Hungarian Academy of Sciences in 1979, the Pro Geographia Prize of the Hungarian Geographical Association in 1992, the Széchenyi Ferenc Scientific Award of the Győr-Moson-Sopron County Government in 1994. He was awarded the Pro Regio Award in 2004, the Knight's Cross of the Order of Merit of the Republic of Hungary and the Pro Renovanda Cultura Deák Ferenc Researcher Award in 2009. In 2014 he received the title of Honorary Citizen of the City of Győr and he was honoured with the Academic Award in 2017.

His professional activity will be of great importance for us subsequent to his retirement.

Győr, 11th September 2020

Dr. Lados Mihály
Head of Department
Associate Professor

AUTHORS

DR. BARACSKAI, ZOLTÁN, PHD: associate professor, Széchenyi István University, Kautz Gyula Faculty of Business and Economics, Department of Leadership and Organisational Communication, E-mail: baracskai.zoltan@sze.hu

Zoltán Baracskai is teaching at several universities in Hungary, Croatia, Bosnia and Romania. His interest is focused on mindset of decision maker. He has written 19 books and 100+ conference and journal papers on these topics. Zoltán with his team, developed the Doctus knowledge-based expert system shell to support executive decision takers and he conducted 100+ consultancy projects where decision support was provided using Doctus and worked on many of these as a knowledge engineer. Over the last few decades he designed a dozen postgraduate schools and degree courses.

DR. CZAKÓ, KATALIN, PHD: assistant professor, Széchenyi István University, Kautz Gyula Faculty of Business and Economics, Department of International and Theoretical Economics, E-mail: ckatalin@sze.hu

Katalin Czakó's research is focused on innovative teaching and entrepreneurial ecosystems of universities. She got her PhD in regional sciences. She is a program manager of scientific and teaching projects such as doctoral program is business administration and transdisciplinarity and centre for cooperation of higher education and industry. In the past 5 years Katalin wrote 100+ articles, conference papers and book chapters in her research topic.

GIBÁRTI, SÁRA: PhD Student, Doctoral Programme of Political Science, Interdisciplinary Doctoral School, Faculty of Humanities and Social Sciences, University of Pécs, E-mail: gibarti.sara@pte.hu

Sára Gibárti is a PhD Student at Doctoral Programme of Political Science, University of Pécs. Her PhD research deals with theories and practices of international aid, methods of international food assistance and paradigm shifts in international development and humanitarian aid practices. As a case study, she analyses the role of the United Nations in assisting refugees residing in Turkey.

DR. KAZINCZY, ESZTER, PHD: assistant professor, Széchenyi István University, E-mail: kazinczy.eszter@gmail.com

Eszter Kazinczy holds a PhD in Economics from the Corvinus University of Budapest. She worked as an external expert at the research institute of ICEG EC. Then she continued her work at OTP Bank's Private Banking Department as a Subsidi-

ary expert. She participated in a half year research program at the European Central Bank on South-East Europe's banking sector. Currently she is an assistant professor at the Széchenyi István University.

DR. KELLER, VERONIKA, PHD: associate professor, Széchenyi István University, Department of Marketing and Management, E-mail: kellerv@sze.hu

Veronika Keller received a PhD degree in management and business administration sciences in 2010 at the Széchenyi István University, Doctoral School of Regional- and Business Administration Sciences. She has been working at Széchenyi István University since 2006 and currently she is an associate professor. She teaches marketing communication, international marketing and marketing research. She regularly participates at international marketing conferences, especially the ones organized by IPNM (International Association on Public and Nonprofit Marketing). The number of her publications is over 90 and the number of book chapters, articles and conference papers written in English is 32. Her field of research is the analysis of health behavior from a marketing perspective. She conducts researches connected to eating styles, meat consumption, plant based diet and healthy lifestyle.

KOHUS, ZSOLT: PhD Student, Széchenyi István University, Doctoral School of Regional- and Business Administration Sciences, SzEEDSM Doctoral Program, E-mail: zsolt.kohus@gmail.com

Zsolt Kohus works as an innovation manager at the Center of Innovation of the Eötvös Loránd University in Budapest, Hungary. He is responsible for the development of university-industry relations at several levels of collaboration, including teaching, research and commercialization activities. In parallel, Zsolt is a PhD student at the Széchenyi István University in Győr, Hungary, focusing on entrepreneurial universities, university-industry relations and the impact of research collaborations incorporating scientific disciplines from different research fields.

KUPA, KRISZTINA: PhD Student, SzEEDSM Doctoral Program In Business Administration Sciences, Doctoral School of Regional- and Business Administration Sciences, Széchenyi István University; Tax Project Manager, BP BSC Ltd. Email: kupa.krisztina@gmail.com

Krisztina Kupa is a PhD Student at the SzEEDSM Doctoral Program at Széchenyi István University and works as a tax project manager at BP's Budapest business services centre. Krisztina had various roles in taxation and during her career she worked with diverse multicultural and multinational teams in several taxation projects. Her research interests are virtual teams and team dynamics, with special emphasis on team development and performance management.

PROF. DR. MAKÓ, CSABA, DSC: professor emeritus, National University of Public Services, Faculty of Governance and International Studies; research project coordinator, Centre of Social Sciences Budapest, E-mail: mako.csaba@tk.mta.hu

Csaba Makó is specialized in studies on organizational and technological innovations, learning organization and in their institutional embeddedness in an international comparative perspective. He received Academic Doctors' Title in Sociology (1983). Presently, he has a position as a Prof.em.Dr. at National Public Service University (NPSU) and research project coordinator at the Centre for Social Sciences (Eötvös Loránd Research Network). Among others, he was a visiting professor and guest researcher at Paris Diderot University, Montreal University, Manchester Business School, Trento University, University Autonoma Barcelona, Hitotsubashi University (Tokyo), Glasgow and Strathclyde Universities, etc.

PAP, JÓZSEF: PhD student, Széchenyi István University, Doctoral School of Regional- and Business Administration Sciences; global strategic procurement manager of logistics, Nokia Solutions and Networks, E-mail: pap.jozsef@sze.hu

József Pap is a PhD student in the SzEEDSM program of the Doctoral School of Regional- and Business Administration Sciences at Széchenyi István University, he has a Master's degree in Economics from Széchenyi István University, and he is an MIT SLOAN School of Management alumni. He is a member of the Crowdwork21 EU research project, his transdisciplinary research approach stems from platform economy, AI, and algorithmic management. Besides his studies, he is a Global Strategic Procurement Manager of Warehousing and Packaging at Nokia Solutions and Networks.

SNEIDER, TAMÁS: PhD candidate, Széchenyi István University, Doctoral School of Regional- and Business Administration Sciences, human resources information system analyst, Roche Services (Europe) Ltd., E-mail: sneider.tamas@sze.hu

Tamás Sneider earned a bachelor's degree at Corvinus University in international business in 2014, a master's degree at Óbuda University in business development in 2018, and he has seven years of experience in human resources systems and process management. He is currently a PhD candidate in the SZEEDSM Doctoral Program in Business Administration Sciences at Széchenyi István University, and his research topic is unethical behavior in organization. He has published several conference papers on this topic, and he is committed to a transdisciplinary approach in his research.

VELLAYIL VARKEY, JOMON: graduated marketing master student, Szechenyi István University, Department of Marketing and Management, E-mail: vjomonv@gmail.com

Jomon Vellayil Varkey received his bachelor degree in business administration in 2012 at Annamalai University in India. He has just graduated with master degree in marketing from Szechenyi István University. He wrote his thesis about 'Consumer Attitude Towards E-Advertising'.

REVIEWERS

Minerva baglya csak a beálló alkonnyal kezdi meg röptét.
(G. W. F. Hegel)