The Uses and Disuses of Doctoral Degrees in the Social Sciences and the Humanities: The Case of Hungary

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Abstract

This study offers a contribution to our existing knowledge of the impacts of Hungarian social science and humanities PhDs on the graduates themselves and on their own personal and social environments. We employ new empirical findings—gained from an e-survey and from structured interviews—in an attempt to understand and explain impacts and lacks. Empirical analysis allowed us to identify certain differences in terms of usefulness in several respects, such as the specific sector of employment, mobility or the actual level of impact. The PhD education process and the degree itself have a more positive impact on personal satisfaction and on an individual’s career than on the employing organisation. A PhD degree in Social Sciences and Humanities (SSH) fields seems to generate more in the way of benefit and impact in the academic field than in non-academic jobs—a difference which reflects on the academic orientation of Hungarian PhD education. All stakeholders need to devote further major efforts into developing the “dual” form of PhD education, so clearly benefitting the whole of the Hungarian economy and society.

Keywords

Hungary – Impact – Social Sciences and Humanities – Survey and interview of doctoral holders
Arabic

حالة المجر: الفائدة من عدمها من رسائل الدكتوراه في العلوم الاجتماعية والإنسانية

تساهم هذه الدراسة في معرفتنا الحالية بتأثير رسائل الدكتوراه المجرية في العلوم الاجتماعية والإنسانية على الخريجين أنفسهم وعلى بيئتهم الشخصية والاجتماعية. استخدمنا في هاته الدراسة نتائج تجريبية جديدة من مسح استقصائي إلكتروني ومقابلات منتظمة لمحاولة فهم الآثار والنقاص وشرحها. مكننا التحليل التجريبي من تحديد بعض الاختلافات في الفائدة في عدة جوانب، مثل القطاع الخاص للعمل، أو التنقل، أو المستوى الفعلي للتأثير. إن عملية التعليم في الدكتوراه والشهادة في حد ذاتها تخلق آثارًا أكثر إيجابية على الراضي الشخص عند الفرد مستقبلة مقارنة بالتأثير على المؤسسة التي توظفه، يبدو أن شهادة الدكتوراه في ميادين العلوم الاجتماعية والعلوم الإنسانية تولد في المجال الأكاديمي فوائد وتأثير أكثر من تلك التي تولدها في الوظائف غير الأكاديمية – وهو الفرق الذي يعكس التوجه الأكاديمي للتعليم الدكتوراه المجر. لابد من دبل المزيد من الجهود المهمة من قبل كل أصحاب المصلحة لتطوير الشكل "المزدوج" من تعليم الدكتوراه، والذي يقيد بوضوح الاقتصاد المجري والمجتمع ككل.

تأثير العلوم الاجتماعية وال الإنسانية، مسح ومقابلة طلاب الدكتوراه، المجر: الكلمات المفتاح

Chinese

社会科学和人文科学博士学位的使用和废弃: 纳牙利案例

摘要

这项研究为我们对匈牙利社会科学和人文科学博士学位对毕业生自身及其个人和社会环境的影响的现有知识做出了贡献。我们试图利用从电子调查和结构式访谈中所获得的新的经验发现理解和解释影响和不足。经验分析使我们能够从几个方面确定在用处方面的一致差异，比如特定的就业部门、流动性和实际影响水平。博士教育过程和博士学位本身对个人满意度和职业生涯的影响要大于对雇用组织的影响。在 SSH领域博士学位似乎比非学术工作更能带来学术领域的利益和影响——这种差异反映了匈牙利博士学位教育的学术取向。所有利益相关者都需要付出更大的努力来发展博士学位的“双重”形式，从而使整个匈牙利经济和社会受益。

关键词

影响力，社会科学和人文科学，博士学位持有人的调查和访谈，匈牙利
French

Usages et désavantages des diplômes de doctorats en sciences sociales et humaines : cas de la Hongrie

Résumé

Cette étude apporte une contribution à notre connaissance actuelle des impacts des diplômes de doctorat hongrois en sciences sociales et humaines sur les diplômés eux-mêmes et sur leur propre environnement personnel et social. Nous utilisons de nouvelles découvertes empiriques – tirées d’une enquête en ligne et d’entretiens structurés – en vue de comprendre et d’expliquer les impacts et les insuffisances. L’analyse empirique nous a permis d’identifier certaines différences en termes d’utilité à plusieurs égards, comme le secteur spécifique de l’emploi, la mobilité ou le niveau réel d’impact. Le processus de formation doctorale et le diplôme lui-même ont un impact plus positif sur la satisfaction personnelle et sur la carrière de l’individu que sur l’employeur. Un doctorat dans les sciences sociales et humaines semble générer plus d’avantages et d’impact à l’université qu’ailleurs – une différence qui reflète l’orientation académique de la formation doctorale hongroise. Toutes les parties prennantes doivent consacrer de nouveaux efforts importants au développement de la « double forme » des études doctorales, bénéficiant ainsi clairement à l’ensemble de l’économie et de la société hongroises.

Mots-clés

Impact – sciences sociales et humaines – enquête et entretien auprès des doctorants – Hongrie
Portuguese

O Uso e Desuso dos Títulos de Doutorado em Ciências Sociais e Humanidades: o caso da Hungria

Resumo

Este estudo oferece uma contribuição ao conhecimento existente sobre os impactos dos cursos de doutorado húngaros nas áreas de ciências sociais e ciências humanas sobre os graduados e seus próprios ambientes pessoais e sociais. Usamos novas descobertas empíricas – obtidas de uma pesquisa on-line e de entrevistas estruturadas – na tentativa de compreender e explicar impactos e carências. A análise empírica nos permitiu identificar diferenças relacionadas ao setor específico de emprego, à mobilidade ou o nível de impacto real.

Os cursos de doutorado e o diploma em si têm um impacto mais positivo na satisfação pessoal e profissional de um indivíduo do que para as organizações empregadoras. Um diploma de doutorado nas áreas de ciências sociais e ciências humanas aparenta gerar mais benefício e impacto no campo acadêmico do que em trabalhos não-acadêmicos – uma diferença que reflete na orientação acadêmica dos cursos de doutorado húngaros. Todas as partes interessadas precisam dedicar mais esforços no desenvolvimento na forma ‘dupla’ de educação PhD, claramente beneficiando toda a economia e sociedade Húngara.

Palavras-chave

Impacto – ciências sociais e humanidades – pesquisa e entrevistas com doutores – Hungria.
Лазло Шконка, Аннамариа Инзельт

Значимость докторских степеней в области социальных и гуманитарных наук: опыт Венгрии

Аннотация

Настоящее исследование нацелено на исследование обладателей докторских степеней в сфере социальных и гуманитарных наук и их личного и социального окружения. Мы использовали новые эмпирические данные, полученные путем проведения опроса в электронном виде, а также структурированных интервью, в целях разъяснения преимуществ и недостатков наличия степеней. Эмпирический анализ позволил нам идентифицировать определенные различия в контексте значимости докторских степеней, учитывающие сферу деятельности, мобильность и фактическую степень влияния. Наличие опыта обучения в аспирантуре и само по себе получение степени оказывает более положительное влияние на персональную удовлетворенность и карьеру, чем на организацию-работодателя. Докторская степень в сфере социальных и гуманитарных наук обеспечивает больше дополнительных преимуществ в случае работы в академической сфере, чем в других отраслях. Эта разница отражает академическую направленность высшего образования в Венгрии. Все участники должны прикладывать значительные усилия для развития двухсторонней аспирантуры, создавая преимущества тем самым для венгерской экономики и общества.

Ключевые слова

Влияние – социальные и гуманитарные науки – исследование и интервью с обладателями докторских степеней – Венгрия
Spanish

El uso y desuso de los títulos de doctorado en ciencias sociales y humanidades: El caso de Hungría

Resumen

Este estudio ofrece una contribución a nuestro conocimiento existente sobre los impactos de los doctorados en ciencias sociales y humanidades de Hungría en los propios graduados y en sus propios entornos personales y sociales. Empleamos nuevos resultados empíricos obtenidos de una encuesta electrónica y de entrevistas estructuradas. Hemos podido identificar así ciertas diferencias en términos de utilidad en varios aspectos, como el empleo, la movilidad laboral, y nivel de impacto real. El proceso educativo del doctorado y el título en sí tienen un impacto más positivo en la satisfacción personal y en la carrera del individuo que en la organización empleadora. Un doctorado en esos campos parece generar más beneficios e impacto en el campo académico que en trabajos no académicos, precisamente porque el doctorado húngaro está orientado a producir docentes. Sugerimos aquí, que las partes involucradas en el diseño de educación doctoral hagan esfuerzos para desarrollar una orientación “dual” en la educación doctoral, incrementando así los efectos positivos para la economía y sociedad húngaras.

Palabras-clave

Impacto – Ciencias Sociales y Humanidades – Investigación y Entrevistas con Los Doctores – Hungría

1 Introduction

There exists a strong belief that a scientific background will not only benefit individuals, but also drive science, innovation and the economy. A country with a strong cadre of advanced degree holders is usually considered to be a development asset (Etzkowitz and Muller 2000). Traditionally, PhDs were educated for scientific jobs and employed in the academic field. We can assume
that, in the age of the knowledge economy, a PhD is no longer an apprenticeship in science for academia, but to develop scientific thinking, which benefits other sectors also. The shift in potential demand for PhDs is a great challenge for countries such as Hungary, where PhDs still trained for academic jobs and where the majority of PhDs are still employed in that sector. Only around 10% of the PhD graduates are employed at business R&D organisations (Inzelt and Csonka 2018; HCSO 2019). As the world opens up for doctoral graduates, so the topic of their actual “usefulness” or their impact on their own narrower or broader environment comes to the forefront of interest.¹

Differences in the nature of academic disciplines have influenced the way in which “usefulness” can be achieved in terms of impact, and the term “impact” itself has many different interpretations in both narrow and broad contexts. Further, from the basic perspective of usefulness, there are differences among disciplines depending on whether they belong to the “hard” or “soft” sciences (Parker 2008). Policy-makers, business associations are often dissatisfied with the performance of their national education system. These kinds of decision makers are also often assuming that the Social Sciences and the Humanities (SSH) fields of education and research (“soft sciences”) are less important for economic growth than Science, Technology, Engineering and Mathematics (STEM) or the Medical Sciences (“hard sciences”). At least this is one of the reasons behind many STEM preferred education and science, technology policies in Hungary and many other countries too. However, the studies focusing on PhDs in SSH highlight the evidence that they are increasingly important, not only for humanity in general, but also for an innovative society (Belfiore 2014; Benneworth 2014).

Today’s state-of-the-art literature usually focuses on the main questions of the impact of research on broader society (Matt et al. 2016), whilst this study investigates the impact of a PhD degree. The job market opportunities for SSH PhDs are less advantageous than for STEM PhDs, which may be linked to the perceived “usefulness” of these degrees. A recent OECD survey (CDH) confirmed that graduates in the humanities face the highest level of unemployment in most of the countries studied, whilst those in the social sciences also face higher-than-average rates among PhDs. (Auriol 2010; Auriol et al. 2013).

¹ This article owes its existence to the EU’s 7th FP-funded project mapping the population, careers, mobility and impacts of advanced research degree graduates in the social sciences and humanities (in short: POCARIM). Thirteen countries participated in this project, including Hungary. See more at: http://www.salford.ac.uk/nmsw/research/research-projects/pocarim-home.
The chances of obtaining an academic job—the dream career for many—are slim. They must also consider the difficulties in obtaining a suitable permanent position and the alternatives of a lower-level position or of a temporary (as opposed to a permanent) contract.

We still know little about the impact of PhD degrees on the individuals concerned, nor their impact on their employing organisations or on society in general. Knowledge concerning these various impacts and their influencing factors are important for individuals as well as for policy makers, not least since obtaining a PhD degree is a long and expensive process for both the individual and society, thus making the utility value of this heavy investment a serious question for all concerned. This study, therefore, focuses on a number of related issues whilst investigating the impact of ssh PhDs in Hungary. Our main research questions were the followings:

− What are the main impacts of the PhD degree on an individual's career in Hungary? In other words, does the investment ensure a stronger position on the job market or better career prospects for a PhD degree holder? What effect does a PhD degree have on personal satisfaction?
− What are the main impacts of ssh PhDs on employing organisations in both the academic and non-academic sectors in Hungary?

All kinds of impact are influenced by a variety of factors. This study attempts to identify the most important of these at the different levels of impact.

The article is organised as follows. The second section reviews the relevant strands of international literature on the impact of PhD degree holders and on related topics. In this respect, of course, the difficulty of studying the impact of ssh PhDs originates from a shortage of relevant measures and from disciplinary specificities. The third section sets the topic into the Hungarian context, in which the characteristics of the national environment strongly influence the impacts of graduates. The fourth section touches briefly on research methodology and describes the main features of the Hungarian sample, and deals with the different forms of the usefulness of ssh PhDs by discussing their impacts at various levels. The statistical analysis identifies some key influencing factors and interview-based descriptions provide complementary information on types of impact and on the reasons if impacts are visible. The final section draws some conclusions and offers a number of policy recommendations.

The POCARIM study has included questions about the benefits of ssh PhDs for the society on local, national and global level, too. The responses on the impact on society were inconclusive therefore this study does not deal with them.
The Theoretical Context of the Impact of Doctoral Graduates

The scientific literature on academic impact is very broad by definition and by the purposes of impact assessment. (Morton 2015) Our approach is very close to the OECD-DAC definition which states that impact is “any long-term effect, whether intended, unintended, positive, negative, direct or indirect”. A large part of academic impact literature provides quantitative measures such as citation of articles and patent citation (Moed et al. 2004) while other studies often concentrate on research “quality” or on the broader term of research impact including social, cultural, environmental and economic returns. (Donovan 2011) The narrow concept of economic return and the wider one of social value are discussed by scholars and in official political literature (for a short summary, see Molas-Gallart 2015.) The wider concept, going beyond the narrow focus on economic return, is crucial to understand the contributions of SSH to society. Mainstream literature, however, focuses on the impact on the broader society (Donovan, 2011) whilst this study concentrates on the PhD degree. The rather few attempts to measure the impact of SSH PhD graduates also underline that regularly used impact indicators, such as intellectual property rights are not adequate to capture the full impact of SSH for the society. Despite these deficiencies in the research efforts so far there are rather few countries putting emphasis on the analysis of this topic (e.g. Reale et al. 2014; AHRC 2009).

The academic literature focusing on the specificities of scientific disciplines—from the point of view of their impact—have identified significant differences between SSH and STEM fields. A recent OECD study (2019) highlighted that the contributions of social scientists to their environment is more difficult to assess because it might be more indirect, without immediate application and more difficult to capture than in the case of STEM fields. SSH graduates’ role is most obvious in economic sectors like services, S&T activities, trade, finances and education but not deniable also in sectors like manufacturing or ICT. Further difficulties of measuring the impact of SSH research lies in that the impact may relate to social, environmental or cultural benefits related to activities of public bodies, non-profit organisations or other community groups. (Parker 2008; Looseley 2011; Hazelkorn et al. 2013; Benneworth and Jongbloed 2009; AUBR 2010) A general weakness of studies in this field is...
the shortage of relevant measures which is more problematic in the SSH field (Grant et al. 2009; Aubr 2010; Huang and Chang 2008; Molas-Gallart 2015; Benneworth 2015; Parker 2008).

The various research impact assessment methods (such as SIAMPI, PVM, impact pathway) address some forms of impact differently as Matt et al. 2016 summarizes. Typical scholarly impact—such as publication in high impact journals, citations, editorial and referring for prestigious national or international journals—are highly evaluated by PhDs working in the academic sector and the impact can also be seen in teaching (such as in developing new curricula, new educational methods and new teaching materials) (Aubr 2010, Hazelkorn et al. 2013). The specificity of these kinds of SSH modes of action is that they do not generate an immediate impact—say, within 1–2 years (Hérubel and Buchanan 1993; Glaenzel and Schoepflin, 1999; Hicks 1999; Huang and Chang 2008). As Morton (2015) concludes, the main difficulties of research impact assessment lie in the timing and attributes of and variety of contexts in which the impact should be investigated.

The impact of SSH PhDs on society may take the form of providing evidences for policy-making, the translating of knowledge into cost-effective, practical, policy and knowledge-based interventions, initiating positive changes to people's life, social innovation, supporting informed public debate and contributing to social improvements. (Aubr 2010; Hazelkorn et al. 2013) Literature devotes attention to PhD graduates career pathways. Many studies are investigating how PhDs scientific performance are influencing their research career. (Horta and Santos 2016; Kwan 2013) Recently the most important debated issue relates to job market opportunities for PhDs in knowledge economy. Majority of doctoral programmes are still in academic fields but in several countries doctoral programmes are opening toward professional fields, with emerging dual characteristics that has not yet occurred in Hungary. The structure of demand for PhDs is changing and may be foreseen increasing demand from non-academic sector. (Mangematin 2000; Fritsch and Krabel 2012; Paolo and Mañé 2016; Garcia-Quevedo et.al. 2012; Santos et al. 2016; Neumann and Tan 2011). An international career path is also an important issue for a PhD career.

There have been attempts to explore the impact of PhD education on personal satisfaction or career development (e.g. Burgess and Wellington 2010). The actual influences can vary quite widely, depending on various features of PhD education. This line of investigation emphasises, among other things, the differences stemming from the mode of PhD graduation or its generic purpose. If the PhD courses prepare students mainly for academic research, the graduates often have difficulties obtaining value from their degree in the private or public sector (Mangematin 2000: 122). Adapting research skills to the new
environment and to the different problems is difficult due to the limited flexibility of graduates and education systems. The way of thinking is also a problem among PhD graduates trained for academic jobs since they have a better understanding of impacts originating in research and education than elsewhere. Some authors also investigate the relationship between the content and quality of the PhD education and the career opportunities, based on an evaluation by PhD graduates (e.g. Campostrini 2011).

3 The Hungarian Context of ssh Doctoral Graduates

In 2012 there were 26 universities or similar institutions in Hungary, of which 18 operated a doctoral school in at least one of the ssh subfields. During the period 2000–2012, relevant for this research, the proportion of graduates in the humanities declined from 25% to 20% while the proportion of Social Science graduates lay between 13% and 19%. After 2012 the graduates’ proportion in the humanities further fell to 14% and in the Social Sciences fell to 16%.

A PhD degree is not only a personal target for individuals, but has also become a requirement for employment in some professions. In Hungary, ssh PhD education serves mainly the interest of the academic sector. The majority of Hungarian PhD students are entering the PhD system within 1–2 years of obtaining their MSc. The PhD degree is an important condition for employment in the academic sector and a prerequisite for climbing up the career ladder. Under these conditions an ssh PhD degree is beneficial for those who are planning a career in the academic world and a less obvious choice for those heading towards the non-academic world.

In the non-academic sphere there are some organisations where a PhD degree is compulsory for some positions. In knowledge-based economies both central and local government, the health sector, social welfare institutions, the business sector and NGOs may actively look for PhD holders. Hungary has not yet reached that level of development towards the knowledge-based economy

4 More details on the sample and career paths in Inzelt and Csonka 2014 and 2017.
5 Systematic nation-wide records on the annual awarding of PhD degrees have been available since 2007 when the Hungarian Doctoral Council (ODT) was established and made responsible for the records. They tried to collect relevant data for previous years but not all HEIs could provide accurate retrospective reports.
6 Academic sector means Higher Education (HE) and public research organisations (PROS).
7 Relevant laws: Law on Hungarian Academy of Sciences (HAS) XL/1994 & The Law on Higher Education (CXXXIX/2005).
8 Regular statistics hardly covers such groups.
therefore there is only weak pull effect for PhDs from non-academic sectors. The SSH PhDs mainly find employment in the background organisations of ministries and governmental agencies, at museums, at market research organisations or outside Hungary at various international organisations. Although statistics are not available as to how many SSH PhDs are employed in non-research jobs where their degree is useful, we expect that the number is low. This assumption is supported by interviews with employers and head-hunters. (Inzelt and Csonka, 2016). Businesses in Hungary are quite reluctant to attract PhDs in SSH. We could not find any advertisements for recruiting SSH PhDs.

Nevertheless, a survey-based study observed that state and regional administration were creating some demand for PhDs in the Social Sciences (Fábri 2008). A pilot statistical survey on post-doctoral careers (employing OECD CDH survey) produced interesting additional results. The business sector is creating demand for SSH graduates in a very few sectors, such as in software development for linguistics, consultancy firms for economists as financial advisors, risk-analysers and business advisors. (KSH 2011; Mosoniné and Horváth 2012; Pálinkó 2013; Horváth 2014).

The limited demand for a few SSH fields and a miniscule demand for others may have effects on the impacts of SSH graduates on employing organisation and on the whole economy.

4 Research Methodology and Key Features of the Hungarian Sample

The metrics used in most state-of-the-art literature (scientometrics, patent data, STI indicators) would not be relevant for investigating our topic, and so this research relies more on the self-evaluation of the PhD degree holders themselves, leaving more room for their interpretation of impact. The empirical research is based on a mixed approach employing an e-survey and face-to-face structured interviews. The period involved was 2012–2013 for surveying and interviewing. In Hungary, there have been 13861 SSH PhD graduates in the target period of 2000–2012 and the project was able to identify the e-mail address of 1109 which was the sample size. The survey has been answered by 245 SSH PhD graduates, but three semi filled questionnaires were dropped as these were too incomplete. The response rate was 22%. From e-survey findings the
article focuses on impacts and takes into account other collected responses in the analysis as background information, explanatory or potentially influencing factors. The 25 interviewees were chosen from 242 e-survey respondents who had expressed their willingness to be interviewed. The face-to-face and phone interviews were carried out either in Hungarian or in English as preferred by those interviewed.

Whilst the e-survey clarified the general and typical character of the impacts, the additional value of the interviews was to help us to understand better what respondents include in the rather vague term ‘impact’ in different contexts. The selection of interviewees followed a random approach where the main aim was to ensure that representatives of various disciplines and sectors of employment are included.

5 Sample Characteristics

In Hungary, eight ‘high performer’ universities with SSH doctoral school(s) were selected for the POCARIM e-survey. Since the country’s intellectual assets are concentrated in Central Hungary, 4 institutions are located in and around the capital. The 4 others are located in four different regions.

Due to the relatively short history of the current three-level degree system, it is not surprising that only 11% of respondents obtained their degree between 2001 and 2007 and the remaining 89% between 2008 and 2012. By age group, the vast majority belong to a young generation (76% were born after 1970) which means that individuals have had limited working experience. These features influence the impact- which might be lower than that of their older or senior counterparts. From 242 respondents 60% belongs to the social sciences, 35% to the humanities and the rest to multidisciplinary studies. The proportion of female respondents was higher than males in the social sciences (57%) and a little lower in the humanities (48%).

One further feature worth mentioning here is that three-quarters of PhDs in the humanities and roughly two thirds of those in the Social Sciences work in the academic field reflecting the academic-orientation of the Hungarian PhD education mentioned in the previous section. In public administration, as well as in the business sector, nearly 10% of Social Sciences doctorates are employed and the humanities are less in demand in both. There is, in fact, only one type of non-academic activity in which doctorates in the humanities outnumber

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10 The proportion of PhDs graduating before 2007 might be a little higher in reality, but the records and availability of email addresses were limited for that period.
those from the social sciences, and that is general education. The sectorial divide influences the impact of PhDs in relation to their satisfaction and career.

6 The Impact of Hungarian SSH Doctorates

This article investigates the impacts of PhDs at two different levels. (1) The individual’s career and personal satisfaction—to learn what the respondents think when they evaluate the impact of their degree on their own personal capabilities and career; and (2) The impact of doctorates on the organisations they are working for.

A very simple statistical analysis—using the weighted average of aggregated responses—highlights the common features of the PhDs’ deliberation at different levels. Table 1 summarizes the average value of impact by type, using the aggregated responses from the e-survey.

### Table 1

| Type                      | Social sciences | Humanities | SSH together |
|---------------------------|-----------------|------------|--------------|
| Impact of PhD degree on   |                 |            |              |
| – Personal satisfaction   | 1.43            | 1.36       | 1.40         |
| – Personal career         | 1.30            | 1.25       | 1.29         |
| Impact on                 |                 |            |              |
| – Employer organisation   | 1.25            | 1.09       | 1.19         |

Source: Compilation by the authors from POCARIM survey

Notes:
1. Graduates with multidisciplinary degree are included in the “Total” numbers.
2. Here and other impact tables to calculate the average the following formula was used:

\[
\frac{(X_1 \times 2) + (X_2 \times 1) + (X_3 \times 0) + (X_4 \times (-1))}{X_1 + X_2 + X_3 + X_4}
\]

11 The self-assessment of the SSH PhDs’ impact and the influence of various factors is based on their categorisation (attached weights in brackets): negative (-1), neutral (0), beneficial (1) and very beneficial (2).
A common feature of the PhDs’ deliberation on impact was that it is more positive (“beneficial”) for an individual’s career, personal satisfaction than for the employing organisations in both fields of science. The average impact on a personal career is positive but a little less than on satisfaction. It is worth to mention some variables that may have big influence on the respondents’ perception on impacts. Those respondents feel the strongest impact of a PhD degree on their personal careers who are able to spend more time on research and regularly collaborate with international partners in their daily work or through short international visits. On the other hand, those who have to spend more time on non-professional tasks (administration etc.) perceive a less positive impact on their careers. Interestingly, medium or long-term international mobility do not seem to influence the perception. The case of how respondents judge the impact on personal satisfaction is a little stronger than on the career and seems to be linked to labour market opportunities. Not surprisingly, those respondents who have not experienced unemployment judge the impact of their degree more positively (Inzelt and Csonka 2017).

According to the evaluation of PhDs, their impact on employing organisation is slightly above the threshold of benefit in humanities, whilst the social sciences are more positive. Looking at the PhD degree’s impact on the employer organisation has strengthened the importance of job properties. It emerged that the job-related variable “current working time spent on research” shows strong positive correlation with the impact on employing organisation. Also significantly but negatively correlated with the impact is “current working time spent on others [tasks]” and on a weaker significance level “time spent at current employer”. These data may suggest that those who are able to spend more time on research—and not burdened with other duties—in their job believe they have a more positive impact on their organisations than others. On the other hand, time spent on other activities negatively correlate with impact. This may be the result of a typical academic standpoint that somebody has the most impact with research activities. There are further small differences in impact evaluation when we investigate scientific background and sector of employment. Social scientist PhDs seem to believe their impact on their employer is slightly more beneficial than human scientists believe. If we would like to further differentiate their impact in the public and private sector we run into the problem of data scarcity. In the few scientific disciplines where we have respondents from both public and private sectors, it seems that both in social science and in the humanities, PhDs believe their impact in the public sector is more beneficial than in the private sector.

The PhD degree's impact on personal satisfaction and career may also be influenced by many factors such as the field of science, quality of degree,
length of time since graduation, career path and various activities in which PhDs are involved. Based on the survey responses, it seems there is no major difference across disciplines. PhD graduates had from their education more or less what they expected (if they expected anything). Generally, graduates in the social sciences are slightly more satisfied than in the humanities because of slightly better job opportunities and incomes.

Relying mainly on the survey interviews, this article tries to explain in more detail the potential reasons for impact perceptions on the personal and on the employer’s level. The investigation goes beyond quantifiable indicators and looks at the role of some non-quantifiable factors using descriptive statistics, and interviews. The extracts from interviews are grouped by employer sector and indicate the fields of the PhDs.

By year of graduation the earlier graduates are less satisfied (average value is 1.2) than those who obtained their degree more recently (average values are between 1.3 and 1.6 for the years 2008–2012).

Based on the analysed international surveys (such as Auriol 2010; National Science Foundation 2015; OECD 2019), we may assume that the sector and the type of organisation where the PhDs are working have a strong influence on their satisfaction with their personal career. Since Hungarian SSH PhD schools are preparing for academic careers, the PhDs employed by the academic sector feel more beneficial impact on their own career than those employed in non-academic sectors.

Let us present the personal satisfaction by academic and by policy-related activities (Table 2). The expected impact is potentially influenced by various factors.

Table 2 clearly highlights the overwhelming positive impact of academic activities on personal satisfaction. Since most Hungarian respondents belong to the academic world (mainly to HEIs) it is not surprising that 94% of PhDs found their personal satisfaction reflected in publication and 89% judged the teaching has positive impact on their personal satisfaction. Two thirds of Hungarian respondents have a positive impact on their satisfaction if they are participating on conferences, supervising students and managing projects although opportunities are still limited for participating in high-level conferences. The reasons are not only financial, but the still weak international embeddedness “inherited” from previous generations. The different impacts of academic and policy-related activities on personal satisfaction clearly show the weak connection between the academic and public spheres. The low proportion of positive impact on policy-related activities (between 15–28%) may be explained by the limited interest of policy-makers in new knowledge and science-based advisory services.
The uses and disuses of doctoral degrees in the social science

The impact of a PhD degree on both personal satisfaction and career are influenced by the location from where PhDs obtained their degree. This might relate to job market opportunities. Personal satisfaction was lower in the central region (including the capital) of Hungary than in the countryside. Because of Hungarian economic structure the Hungarian countryside may offer less job opportunities for PhD graduates than the central region but in those smaller communities graduates may feel that their degree is a significant achievement conferring personal status.
PhDs have evaluated their studying process as useful since it has broadened their horizons in various ways, such as research practice, building up professional relationships, international experience. Research practice during the education process developed new skills and capabilities, broadened horizons in terms of ways of thinking. An important advantage of the PhD degree is access to research projects, which opens up new opportunities to build professional relationships, to join professional networks. Targeted higher qualifications offer good prospects for obtaining or keeping their jobs in the academic sphere.

The PhDs interviewed who are working in non-academic sectors sharply distinguished the positive impact of accumulated knowledge, skills and capabilities during tertiary education and the neutral impact of the final degree on their career and personal recognition. gives some examples of the differences among the PhDs interviewed in non-academic employment sectors.

**Box 1: PhD graduates’ opinions by employment sector**

| Sector                        | PhDs opinion                                                                 |
|-------------------------------|-----------------------------------------------------------------------------|
| Business sector               | ◯ 01Eco: “The degree itself was not (a positive impact), but the process was. In this sense, it was useful in many respects. It gave me an insight into international studies when I made brief trips abroad. ... It really broadened my perspective compared to friends of mine who started working right after master degree.” |
| Public administration         | ◯ 09Law: “Whilst I was doing my PhD at the university I also worked for the European Commission through the Hungarian ministry. My involvement as an expert during my PhD process produced later an invitation to a permanent job at the Ministry, basically on the same topic.” |
| Private non-profit sector     | ◯ 24Psy: “I think that the PhD process itself teaches you a way of thinking and sets up a network of professional contacts, both of which can be very beneficial later on. It teaches you a type of logical thinking, including project management. So I think... my doctoral studies also helped me to be able to set up a school. I believe that PhD studies come with a large degree of discipline and require lot of perseverance ... there’s no immediate result.” |

Note: See the list of SSH subfields’ abbreviation in Annex 1
From the point of personal satisfaction the impact of a PhD degree is positive on employability. PhDs have better chances on the job market than master or bachelor degree holders even if they cannot work in degree relevant jobs.

A very beneficial impact on personal satisfaction for some PhDs is social prestige, whilst for a few others it is important that they follow the family model, even if they do not wish for an academic career. Another interesting factor is that the PhD degree offers personal happiness for those who are targeting the business sphere. The PhD process and contacts with the academic circle replace missing intellectual challenges in practice. (See Box 2) In these cases the PhD has an important impact on personal satisfaction although none in respect of career. The opportunities for knowledge transfer that is an important function of fresh graduates is also questionable.

The most important benefits of the PhD degree for the career are, currently, the capabilities, skills and knowledge which the students acquire during their education. This prepares them to become a better employee than their counterparts who have had no such education.

**Box 2: SSH doctorates’ view on the role of their degree in their career**

**Business sector**

- **23Pol**: “a PhD means you have prestige which was also important for me. I think, particularly, in the world of Hungarian political analytics this is a significant aspect, I mean to be aware of the scientific background as well. ... I think in a society like ours that suffers from lordolatry, its objective criteria are always more important than they should be.”

- **16Eco**: “when I started the PhD, I also started to work. At that time I was already quite sure that my main focus will be on business ... I knew that business is not as challenging intellectually. I had a degree, and I could teach part-time in the university and do my business next to it.”

- **17His**: “I do not think that my PhD influences my carrier. It was just a hobby for me ... accomplishing the dream that I had as a child. Everyone in my family has a doctorate.”
7 The Impact of Doctorates on Employers

The PhDs job immediately after graduation and their later potential job mobility provides some information on how PhDs’ knowledge in SSH may be utilized by their environment in various sectors. The flow of PhDs from university to various sectors is an important channel of knowledge transfer, and may have crucial impact on employing sectors and organisations.

The nature and extent of the impact on the PhDs’ employing organisation is strongly linked to the sector of employment. By their first job 52% of PhDs were employed by HE sector, 15% by government sector and 18% by business sector. People working in their desired profession may be more positive about the impact of the PhD degree on their employing organisation than the others. Using the available dataset it was possible to look at how the sector and type of organisation and various other characteristics might influence the strength of the perceived PhDs’ impact on their employer. Table 3 highlights the differences in the distribution of respondent by impact category for three variables.

| Sector of current job | Organisation of current job | Total income per year |
|-----------------------|-----------------------------|-----------------------|
|                       | Public | Private | HE | GOV | BUS | −10k | 10–20k | 20+k |

| Strength of impact | Nr. of cases | Deviation from distribution of all respondents (percentage points) |
|--------------------|--------------|---------------------------------------------------------------|
| All respondents’ distribution (%) | 242 | 83.1 | 11.6 | 71.5 | 9.1 | 7.0 | 52.1 | 24.0 | 17.8 |
| Very beneficial | 89 | +4.5 | -4.9 | +17.3 | -6.9 | -4.8 | +5.2 | -2.7 | -4.3 |
| Beneficial | 112 | +1.7 | 0 | -3.6 | +2.5 | +0.1 | -1.2 | +1.9 | +2.7 |
| Neutral and negative | 40 | -15.6 | +10.9 | -29.0 | +8.4 | +10.5 | -17.1 | +1.0 | +2.2 |

Note: The table excludes no response/not applicable responses. Therefore the result is not always exactly 100%.
PhDs are typically in their current position for a longer time, meaning they entered their position before graduation. The current job sector seems to have a modest influence on the perception of impact. Compared to the general distribution of respondents, there are almost 5 percentage points (pp) more doctorates among those working in the public sector who regard their PhD as very beneficial for their organisation. At the same time, there are almost 5pp fewer (than total average) respondents claiming a very beneficial impact among those working in the private sector. The divergence from the general distribution is less strong among those who are feeling a beneficial impact. It is notable that there are 16pp fewer respondents working in the public sphere and 11pp more working in the private sphere among those who see a neutral or negative impact on their employer organisation.

One fifth of the respondents (51 PhDs) changed their job before or after obtaining their PhD at least once. Whilst 75% of the immobile worked in the academic sector, only 53% of the mobile were employed there. An individual’s thinking concerning the issue of mobility is influenced by the level of satisfaction with the current actual job and the expected impact on his/her personal career which a change would cause. The most frequent changes (55%) have occurred within a sector. This means mobiles, whether from public or private Higher Education Institutions (HEIs), who wish to continue their activities and change simply to find a better position or a permanent instead of a temporary job. In the case of the public sector, inner mobility might be illusory: the restructuring of public administration (frequent in Hungary) might have changed the organisation over the heads of the employees. The sectorial divide and mobility influence the impact of PhDs in relation to their employers and flow of knowledge from academic sector to others.

There are even larger differences looking at the respondents by the type of their organisation. Again comparing them to the general distribution, there are 17pp more people working in HE among the respondents who feel a very beneficial impact for their organisation. At the same time there are 7pp fewer working in the government and 5pp less working in business organisations. These data support experiences from the interviews suggesting that people in HE and in the institutes of HAS find better utilisation (or at least feel so) of their degree than elsewhere.

The information by income level of the respondents shows a conflicting picture. Among the respondents feeling the very beneficial impact of their PhD, those from the lowest income level are somewhat over-represented (+5pp compared to the general distribution) and people from the highest income category are under-represented (-4pp). Respondents reporting a beneficial impact are distributed very similarly to the general pattern. This data must not be
interpreted as people earning less are having the most impact on their employing organisation; the result is far more closely related to the fact that people are generally worse paid if working in public HE than those who are venturing on a career in the business sector. At the same time, it is rather the people in public HE who are feeling a very beneficial impact of their PhDs compared to those employed in the business sector.

Practically all those interviewed who worked in the academic field emphasized the importance of their teaching activities and publications—both of which have a significant impact on the organisation. In terms of activities beyond teaching and research, involvement in organisational improvements (such as managing doctoral schools and developing the international relations of their faculty) is also regarded as being among the beneficial/very beneficial impacts. Box 3 shows some judgements from interviews.

**Box 3: Examples of PhD graduates’ impact on employing organisation**

| Academic sector | 06Eco: “The international contacts of our faculty are becoming more active at institutional level thanks to my personal contacts. ... the impact is more in teaching; I see improvement in individual students who develop into PhD students, or from beginners to experts.” |
|-----------------| 12Law: “I think that I am in a position which has a good deal of impact on those around me. Through my activities organising the doctoral school, my teaching, and my organisational work at the faculty—these are all a central part of my work and of my life.” |

Another influencing factor of the PhDs’ impact is job opportunities. The PhDs might be employed in knowledge demanding jobs with certain skills or in a lower-level position. In the latter case her/his impact on employers or the society as a whole will be far more limited.

Since non-academic employers do not specifically demand doctorates in Hungary, this attitude is influencing the impacts of SSH PhDs on their employers. Compared to knowledge-intensive academic positions where PhDs can naturally utilise their skills and competences for the benefit of the employing organisation the situation is much less positive in non-academic positions.
PhDs working at various background offices of governmental administration still reported the positive impact of their experiences, skills and abilities acquired during the PhD education. They can assist in decision making and support other people's work in the organisation (extracted from interviews 07Hum, 09Law, 10Hist). PhDs working in governmental administration reported that their degree was not rewarded and they could not recognise any impacts out of it (03Eco, 07Hum, 15Eco).

Most PhDs interviewed who work in business organisations had a degree in economics from different doctoral schools. According to the evaluation of those working in the financial sector, their PhD degree had a positive impact on their career (and personal satisfaction) and on their employer. Their common experience is that the accumulated knowledge (advanced statistical methods, capabilities for analysis from different sources, software building) during their courses and dissertation writing, proved very useful. Some of them can combine their practical work with teaching activities and applied scientific publications which increase their general impact. (Extracted from interviews: 01Eco, 16Eco, and 18Eco).

Some PhDs working in other spheres of business were less positive on the usefulness of a PhD degree which is not fully recognized by companies: their degree was not adequately rewarded by their employer and PhDs felt they did not have any impact on the organisation (01Eco, 09Law, 16Eco, 24Psy).

There are two sides to the coin: PhDs in Hungary are educated for academic jobs and there is limited demand for highly educated people in non-academic sectors. Consequently, there are very few non-academic organisations which see the PhD as an important asset of their employees.

8 Conclusion

PhD education and graduates are regarded as one of the important pillars of the knowledge-economy. The interviews clearly highlighted the fact that PhDs in non-academic jobs (at governmental agencies, background organisations or in business) felt that, if their degree was at all useful, it was only partly so. In these cases, there were limited opportunities for utilizing PhDs knowledge.

This article has investigated the impact of an SSH PhD degree, and how the PhDs’ accumulated new knowledge is really utilised at various levels.

The empirical findings demonstrated that the earning of a PhD degree brings personal satisfaction, irrespective of whether it is viewed as a professional challenge, as a necessity to keep a (typically academic) position, to realise a family dream or as hobby.
The PhD degree's impact on a personal career is rather mixed. The degree serves as proof of ability. Since the Hungarian PhD education is still designed to provide new supplies of teachers for the academic sector (or for research jobs in academic or other sectors) it is not a surprise if PhDs can obtain or retain their jobs in the academic sphere, then positive impact is present. More difficult is to evaluate whether the investment by the individual and society ensures better positions on the job market and better career opportunities. There are some signs of positive impact, but those opportunities are influenced by many other factors such as the general economic situation, the financial condition of potential employers, the international embeddedness of leading professors, or departments. The broad assessment of impact is slightly better in respect of personal satisfaction than of a personal career. This may be related to the fact that some graduates have to leave their desired career path or feel that their knowledge is not fully utilised when they have to deal with tasks other than research in a large part of their daily work.

Outside the academic sector, the PhD training process has a more positive impact on a career than the degree itself. The process provides much valuable experience, skill and knowledge – which can be useful to their employers. A PhD degree is not a selection criterion to be employed in business organisations, state administration and other non-academic jobs, since huge part of non-academic sector has not matured enough for absorbing SSH PhDs knowledge. However, PhDs can use their accumulated skills and capabilities in many knowledge-demanding jobs in non-academic sector.

Concerning the impact on the PhDs’ employing organisation, whether in the academic or non-academic sector, shows a dual situation. Graduates employed in the Higher Education sector believe that they have more beneficial impact on their organisation than those working in the private business sector or for the government. At the same time, people working in business may not expect such rewards, although they can still utilise their advanced—albeit not required by the employer—knowledge for the benefit of their organisation. In the small segment of business organisations, the SSH PhDs have a positive impact on the quality of performance and on upgrading business knowledge. Up-to-date knowledge of PhDs could be more useful if business organisations were interested in employing advanced management techniques, devoting attention to social responsibility, responsible research and innovation.

In Hungary, where public administration is not yet especially hungry for SSH doctors, this is limiting the organisational inner capabilities for strategy formulation, for employing intelligent policy-making tools and for acquiring external knowledge. Knowledge transfer through PhDs is also important for business sector and NGOs. The government may launch initiatives for these sectors to upgrade their capabilities for employing PhDs similarly to
competitors in advanced countries. Certainly, the present academic oriented PhD education has to devote attention to the potential need for capabilities in non-academic jobs, complementing or modifying teaching curricula and implementing dual education. All of these suggested changes do not mean devaluation of academic jobs for PhDs. It has to offer good career opportunities to bright PhDs in the academic sector. The regular inflow of fresh graduates is important to avoid an ageing academic population and the emigration of the most talented.

On the one hand education policy is in favour of PhD education but wants to modify the importance of the various fields of science. The tool was trying to increase STEM graduates and to significantly cut back state-funded masters graduation in SSH and seriously limit the number of scholarships for SSH PhDs in recent years. At the same time, academic job opportunities have been shrinking despite some good schemes for attracting young talent with international experience. Several issues demanding SSH knowledge—big social challenges—as well as employing contemporary policy-making tools—fact-based policy—making, evaluation, investigating responsibility of science and innovation, developing new indicators for emerging fields—are hardly present at governmental organisations. In such circumstances it is not surprising the actual demand is limited for SSH PhDs and those who are working in the governmental sphere rarely feel a positive impact from their work and the proper utilisation of their knowledge. However, we think Hungary must face these issues soon and the availability of PhD graduates can help address the emerging tasks. Employing SSH PhDs in public administration can assist communication between the governmental and academic spheres. This can contribute to an appreciation of the advantages of the PhD degree and a recognition of the potential benefits of employing PhD degree holders.

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**Annexes**

**Annex 1**  List of abbreviation of SSH subfields used for the interviews

| Abbreviation | Description       |
|--------------|-------------------|
| Eco          | Economics and Business |
| Soc          | Sociology         |
| Etn          | Ethnology         |
| Lin          | Linguistics       |
| Hum          | Humanities        |
| Law          | Law               |
| His          | History           |
| Reg          | Regional economics|
| Mlt          | Multidisciplinary |
| Scw          | Social work       |
| Pol          | Politology        |
| Psy          | Psychology        |
| Oss          | other social sciences |
| Ohu          | other humanities  |
| Edu          | educational sciences |
| Art          | Arts              |
| Phi          | Philosophy, ethics and religion |
| Arc          | Archaeology       |

**Annex 2**  Outline of the POCARIM questionnaire and details of the section ‘Impacts’

| Modules of the e-survey questionnaire |
|--------------------------------------|
| **General information on PhD** (disciplines, year and country of PhD awarded, the name of the awarding institution, year and country of previous degree) |
| **Current employment status** |
| **The main reason not in paid work** |
| **Current (and past) employment** (sector, type of organisation, country, time-length in that job, type of contract, mode of position funded, full-time or part-time, other paid activity (hours spent) total working hours per week, share of time between activities, annual income, jobs after PhD) |
| Impact by areas, activities |
|----------------------------|
| **Personal information** (nationality, usual country of residence, gender, year of birth, number of children, spouse/partner) |
| **Additional** (comments, readiness for interview, contact details) |

**Impact**

One of the aims of our study is to understand the broader impact of the work of PhD holders from the social sciences and humanities.

**Question 78:** Please indicate in the table below the impacts of your PhD in the following areas:

| **Personal satisfaction** |  |
|--------------------------|--|
| **Your career** |  |
| **Organisations you work/worked for** |  |
| **Local society** |  |
| **Your country** |  |
| **Global society** |  |

| [Very beneficial] |  |
| [Beneficial] |  |
| [Neutral] |  |
| [Negative] |  |

**Question 79:** Which of the following have you done since completing your PhD?

- I have given interviews in media (radio, TV, newspapers)
- I have developed innovative products
- I have been a board member/volunteer/advisor in an NGO
- I have been a board member in a company
- I have participated in societal or political committees
- I have taught students
- I have advised to policy-actors on the local, regional, national or international level
I have participated in policy-relevant conferences or events
I have published textbooks, monographs, articles, books
I have taken part in in knowledge transfer activities
I have managed/coordinated projects
I have supervised graduate or PhD students

[Yes]  
[No]

Question 80: Please state any other activities related to your PhD that you think were relevant in terms of their value and impact for society.

[three empty spaces, open-ended question]

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