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Journal of TNOiK. Founded by Karol Adamiecki in 1926

przegląd organizacji

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PRZEGLĄD ORGANIZACJI W 2021 ROKU
ORGANIZATION REVIEW IN 2021

Szanowni Autorzy i Czytelnicy Przeglądu Organizacji

Zakończył się rok 2020, który pod wszelkimi względami był wyjątkowo ciężki dla wszystkich mieszkańców naszego globu z uwagi na pandemię COVID-19, która pojawiła się na początku roku i w bardzo krótkim czasie rozprzestrzeniła się po całym świecie. W jej wyniku do tej pory zachorowało ponad sto milionów ludzi, a zmarło ponad dwa miliony. Niestety, tempo zachorowań wciąż utrzymuje się na wysokim poziomie, pojawiają się nowe mutacje koronawirusa. Świat z niecierpliwością czeka na dostawy szczepionek, na które popyt – jak na razie – zdecydowanie przekracza globalne możliwości produkcyjne.

Dear Authors and Readers of Organization Review

The year 2020 is over. This year was in many respects extremely difficult for the whole global population due to the pandemic of COVID-19, which started at the beginning of the year and soon spread all over the world. It has infected over one hundred million of people so far and over two million have died. Unfortunately, the rate of contractions still remains high and new mutations of the coronavirus are emerging. The word has been impatiently waiting for deliveries of the vaccines, the demand for which definitely exceeds the global production capacity.

W wyniku COVID-19 nastąpiło załamanie wielu sektorów światowej gospodarki (takich jak przewozy lotnicze czy szeroko rozumiane sektory: wystawienniczy i turystyczny), zaś proces globalizacji uległ znacznemu spowolnieniu. Do końca 2020 r. nie udało się opanować tej epidemii. Powszechne jest przekonanie, że na trwałe zmieni ona charakter współpracy międzynarodowej. Wiele wskazuje na to, że 2021 r., podobnie jak rok ubiegły, będzie okresem walki z koronawirusem, a głównym problemem gospodarki światowej będzie stagnacja.

Miniony rok był też bardzo trudny dla całego zespołu redakcyjnego Przeglądu Organizacji. Jednak dzięki ogromnemu zaangażowaniu redaktorów – moich znakomitych współpracowników – i wsparciu Prezydium Zarządu Głównego Towarzystwa Naukowego Organizacji i Kierownictwa (TNOiK), a przede wszystkim profesora Leszka Kiełtyki udało nam się wydawać co miesiąc kolejne numery naszego czasopisma.

Nadal, co szczególnie należy podkreślić, Przegląd Organizacji jest jednym z najczęściej cytowanych polskojęzycznych czasopism naukowych. Jest to głównie zasługa naszych Autorów i wiernych Czytelników promujących miesięcznik w pracy dydaktycznej oraz działalności naukowej.

W ubiegłym roku znacznie usprawniliśmy proces wydawniczy czasopisma i wdrożyliśmy zupełnie nową platformę komunikacji pomiędzy autorami, recenzentami artykułów oraz zespołem redakcyjnym. Na stronie internetowej Przeglądu Organizacji są aktualnie dostępne wszystkie numery archiwalne, począwszy od 1990 r., co stanowi wyjątek wśród czasopism naukowych publikowanych w naszym kraju. Dodam do tego, że udoskonaliliśmy stronę internetową, proponując dwujęzyczność (jęz. polski i angielski). Wdrożyliśmy też nową platformę komunikacji pomiędzy autorami publikacji.

Pomimo pandemii, zgodnie z kilkuletnią tradycją, udało nam się na naszych łamach promować kolejne polskie uczelnie i przeprowadzić rozmowy z nowo wybranymi rektorami: profesorem Stanisławem Mazurem z Uniwersytetu Ekonomicznego w Krakowie i doktorem Konradem Janowskim z Akademii Ekonomiczno-Humanistycznej w Warszawie. Ponadto zamieściliśmy materiały promocyjne tych uczelni. W bieżącym roku również planujemy prezentację kolejnych polskich uczelni i rozpoczynamy od wywiadu z profesorem Piotrem Wachowiakiem, rektorem Szkoły Głównej Handlowej w Warszawie oraz promocji współpracy tejże uczelni ze stanem Nevada, w tym programów realizowanych we współpracy ze Szkołą Biznesu Uniwersytetu Nevady w Reno.

Ponadto zamierzamy zamieszczać informacje ukazujące działalność poszczególnych oddziałów TNOiK. Będziemy również publikować komunikaty i wszelkie inne informacje o ważnych konferencjach naukowych oraz zamieszczać recenzje dotyczące wydawnictw z dyscypliny zarządzania.

Naszym celem w dalszym ciągu jest dbanie o to, aby Przegląd Organizacji był udostępniany dla jak największej rzeszy Autorów i Czytelników.

The surge of COVID-19 has led to a collapse of a numerous sectors of the world's economy (such as air services or widely understood sectors: exhibitions and tourism), and the process of globalisation has experienced a serious slowdown. The pandemic was not curbed until the end of 2020. There is a strong conviction that it will permanently change the nature of international collaboration. It is highly likely that 2021, similarly to the previous year, will be the period of fighting the coronavirus, and the primary concern of the global economy will be sluggishness.

The past year was also extremely difficult for the whole editorial team of Organization Review. However, thanks to the commitment of the editors – my outstanding collaborators and the support of the Presidium of the Main Board of the Scientific Society for Organization and Management (TNOiK), and first of all Professor Leszek Kiełtyka, we managed to publish each month a new issue of our periodical.

Still, which needs to be particularly stressed, Organization Review is one of the most frequently cited Polish scientific journals. The credit for this deserve our authors and regular readers who promote the journal in didactic work and scientific activity.

In the past year we considerably improved the process of publishing the journal and we implemented a brand-new communication platform between authors, article reviewers and the editorial team. On the Organization Review's website you can now find all the archive issues beginning from 1990, which is an exception among the scientific journals published in our country. Additionally, we have improved the website introducing bilingualism (Polish and English). We have also introduced a new communication platform among the authors of articles.

Despite the pandemic, following our tradition, we have been successfully promoting in our journal next Polish universities and interview newly-elected Rectors: Professor Stanisław Mazur of the Cracow University of Economics and Konrad Jankowski, PhD, of the University of Economics and Human Sciences in Warsaw. We have also published promotional materials of these universities. This year we are planning to present next Polish universities and we begin with the interview with Professor Piotr Wachowiak, Rector of the SGH Warsaw School of Economics and promoting the collaboration of this university with the Nevada state, including programmes carried out in collaboration with the University of Nevada. Reno – College of Business.

We are also going to publish information showcasing the operations of particular branches of TNOiK. We will publish announcements and other information related to important scientific conferences and present reviews of publishing house in the discipline of management.

The goal that we are going to purse is to ensure that Organization Review is made available to the largest possible number of authors and readers.

Z satysfakcją pragnę dodać, że bardzo aktywnie działamy w zakresie indeksowania naszego miesięcznika w bazach referencyjnych, m.in. w: BazEkon, IC Journals Master List, EBSCO, CEON oraz InfoBase Index, w którym współczynnik IBI 2019 dla czasopisma Przegląd Organizacji wynosi 1,5. Podejmujemy również intensywne starania zaistnienia w najważniejszych światowych bazach. W pierwszej połowie 2020 roku przesłaliśmy formularz zgłoszeniowy do bazy Web of Science oraz ERIH+. Aktualnie czekamy na odpowiedzi, ale mając świadomość jakości artykułów przesyłanych do naszej redakcji przez Autorów, żywimy głęboką nadzieję, że w najbliższym czasie nasze wnioski zostaną pozytywnie zweryfikowane.

Podobnie jak w poprzednich latach również i w tym roku będziemy utrzymywać ścisłe związki z Komitetem Organizacji Zarządzania Polskiej Akademii Nauk, publikując na łamach naszego miesięcznika komunikaty i inne informacje o działalności tego gremium.

Z inicjatywy profesor Ewy Bojar – przewodniczącej Głównej Rady Naukowej Towarzystwa Naukowego Organizacji i Kierownictwa powstał projekt pod nazwą „Środowiska naukowe, Mistrzowie, współpracownicy i ich uczniowie. Przeszłość, teraźniejszość i przyszłość nauk o zarządzaniu". Mam głębokie przekonanie, że projekt sformułowany w zarysie przez Panią Profesor zachęci przedstawicieli nauk o zarządzaniu, reprezentujących środowiska naukowe z całej Polski, do przybliżenia sylwetek naukowych swoich Mistrzów, oddania hołdu swoim nauczycielom i mentorom, zarówno tym, którzy już odeszli, jak i tym, którzy aktualnie przyczyniają się do rozwoju dyscypliny nauk o zarządzaniu. Przegląd Organizacji obejmie patronatem medialnym tę cenną dla całego środowiska inicjatywę.

Pragnę podkreślić, iż Przegląd Organizacji jest aktualnie jedynym ogólnopolskim tytułem naukowym w dyscyplinie nauk o zarządzaniu wydawanym co miesiąc. Czasopismo to odgrywa ogromną rolę w promocji polskiej nauki o zarządzaniu zarówno w kraju, jak i za granicą oraz w udostępnianiu światowych osiągnięć z tej dyscypliny polskim naukowcom. Miesięcznik ten jest bowiem na polskim rynku wydawniczym bardzo cenionym pismem naukowym i znajduje się w czołówce najczęściej cytowanych polskojęzycznych czasopism naukowych.

Jestem głęboko przekonany, że dzięki zaangażowaniu całego zespołu redakcyjnego oraz naszym znakomitym Autorom uda nam się utrzymać czołową pozycję na rynku krajowym oraz wzmocnić pozycję na rynku międzynarodowym.

Życzę całemu zespołowi redakcyjnemu oraz Autorom i Czytelnikom Przeglądu Organizacji przede wszystkim zdrowia i wszelkiej pomyślności w Nowym 2021 Roku.

Stanisław Brzeziński
Redaktor Naczelny

It is with great satisfaction that I would like to add that we have been highly active with regard to indexing our journal in reference databases, among others, BazEkon, IC Journals Master List, EBSCO, CEON and InfoBase Index, where the IBI 2019 coefficient for Organization Review amounts to 1.5. We are also undertaking intense efforts to make our appearance in the most important world databases. In the first half of 2020 we sent the application form to Web of Science and ERIH+. Presently, we are waiting for the reply, yet being aware of the quality of the articles sent to our editorial team by the authors, we are deeply convinced that in the near future the applications will be verified positively.

As in previous years also this year we will maintain close relationships with the Management Organisation Committee of the Polish Academy of Sciences, publishing in our journal announcements and other information concerning the activities of this body.

On the initiative of Professor Ewa Bojar, President of the Main Scientific Board of the Scientific Society for Organisation and Management a new project has been established which is called "Scientific Circles, Masters, Collaborators and Their Students. Past, Present and Future of Management Studies". I strongly believe that the project formulated by Professor Ewa Bojar will encourage the representatives of management sciences from the whole of Poland to present scientific profiles of their Masters, pay tribute to their teachers and mentors, both the ones who have passed away as well as currently contribute to the development of the discipline of management sciences. Organization Review will provide media patronage for this inspiring for the whole scientific community initiative.

I would like to stress the fact that Organization Review is currently the only national scientific periodical in the discipline of management sciences that is published monthly. This journal plays a tremendous role in promoting Polish management sciences both at home and abroad and making the global achievements of this discipline available to Polish scientists. Our journal is a renowned scientific periodical on the Polish publishing market and is in the vanguard of the top cited scientific periodicals published in Polish.

I am firmly convinced that thanks to the commitment of the whole editorial team and our outstanding authors we will maintain our leading position on the domestic market and strengthen our position on the international one.

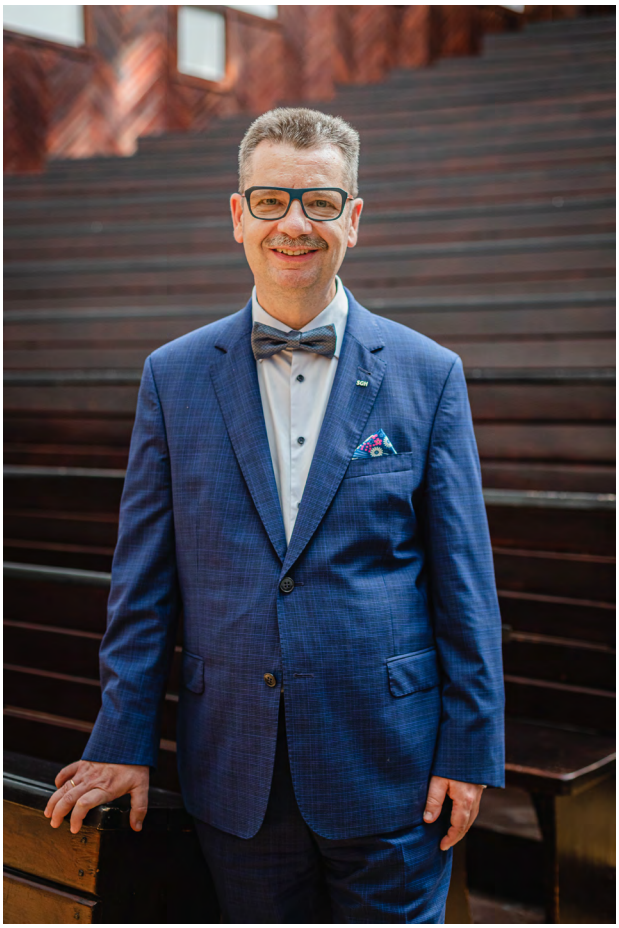
I wish the whole editorial team as well as Authors and Readers of Organization Review above all health and every success in the New Year 2021.

Stanisław Brzeziński
Editor-in-Chief

CHALLENGES AND GOALS OF THE SGH WARSAW SCHOOL OF ECONOMICS IN THE 2020-2024 TERM OF OFFICE

Conversation of the Editor-in-Chief of the Organization Review Stanisław Brzeziński with the Rector of the SGH Warsaw School of Economics Piotr Wachowiak

Professor Stanisław Brzeziński



Professor Piotr Wachowiak

Stanisław Brzeziński (SB): Professor Piotr Wachowiak – on September 1st, 2020 you took over as rector of one of the most distinguished Polish universities. Could you provide our readers with a brief summary of the basic assumptions of your university's development programme for the next four years?

Piotr Wachowiak (PW): In the upcoming four years, I want to shift our focus to five strategic areas for the SGH Warsaw School of Economics – scientific potential, innovative teaching methods, friendly work environment, sustainable development and integration of the University's academic community. I would like to make this plan a reality in the 2020–2024 term of office, with ample help and support from my colleagues and the entire SGH community.

Speaking of developing the scientific potential of the SGH, the goal I would like to pursue is its internationalisation. Our University carries our research in unique areas, and I would like to see them become a part of the global world of science; and it would be great if our young academic staff could benefit from this process as well. That is why I want to open up new opportunities for establishing research cooperation with centres belonging to the network of strategic scientific partners of the SGH. We are currently launching a scientific

mentorship programme, developing a support scheming for students' research activities, as well as strengthening the international activity of the Doctoral School by launching English-language courses.

SB: It seems that this issue is interlinked with innovative teaching methods. What actions are you planning in this area?

PW: Modern teaching methods are the second of the key areas in our new strategy, the one that requires continuous improvement of the curricula so that they meet the needs of the rapidly changing economy and society to the highest possible extent. I often remind everybody that people are the most valuable asset in every institution; which is why I decided to put creating a friendly working environment among the five key strategic areas as one of its most important aspects.

Our university is open and sensitive to the situation in our surroundings. Guided by the principles of social responsibility, we want to focus even more on its sustainable development and growth. One thing I would like to highlight is the fact that SGH is not merely a university – it is also a unique community, and like any other community, this one also needs to be nurtured. I want to foster excellent relationships between our academic staff, students, doctoral candidates and alumni. I want them to grow even stronger, to build a fully integrated academic community.

SB: The novel coronavirus pandemic, which has been going on for a year, definitely affected nearly all areas of life. What impact has it had and continues to have on the university and its operations?

PW: After the pandemic broke out in Poland, we were one of the first universities that announced remote and online classes. Since the SGH offers lectures, practicals, seminars and conversation classes, remote teaching did not have a negative impact on their quality. We achieve the same learning outcomes as in the full-time mode.

This pandemic is just as good an opportunity to make changes as any other difficult situation. What is more, I personally believe that everyone and every institution should respond and adapt to the changing conditions and circumstances. Online postgraduate courses, improving staff expertise in remote teaching, helping students who cannot afford proper equipment to take part in the courses, organising hybrid teaching rooms – suddenly, we had to face all of these challenges and in my opinion we managed to navigate this new situation successfully.

These days, we focus on what is going to happen after the pandemic ends, even though we cannot know when it actually ends. Nobody knows how long it will take to shift from remote classes back to normal. That is why we collaborate with our business partners: to ensure that our curricula and course offering fully meet the needs of the labour market. We are working to identify what additional competencies we will need to equip our students with due to these new circumstances, so that they are even more prepared even to tackle the challenges posed by the labour market. Our courses and curricula are tailored to the needs and conditions of the market – but you do not have to take my word for it, just take a look at job search times and salaries of our alumni.

SB: In early 2020, you were re-elected to the Committee on Organizational and Management Sciences of the Polish Academy of Sciences for the 2020–2023 term of office. A couple of months later, on the 20th of May, you were appointed its vice-chairman during the first plenary meeting. What role does the Committee play in the development of management sciences in Poland.

PW: My role in the Committee is a great honour for me, since it comprises professors selected by the scientific community, representing management and quality sciences. All of them are eminent scholars with significant achievements in the field of management. The Committee is tasked with undertaking any and all actions to develop the discipline it represents. As such, one of its key tasks is to analyse and constantly evaluate the current state of the art, as well as to issue expert opinions and statements on Polish scientific policy, in particular on the directions of development and research priorities in the area of management. The Committee initiates research, establishes scientific centres, and evaluates research programmes, as well as the scopes of activities of scientific institutions. It is also encumbered with disseminating research results and introducing them into social and economic practice. One of its other key tasks concerns initiating and leading cooperation with international and foreign organisations and scientific centres.

SB: In recent years, the SGH Warsaw School of Economics has been one of the top Polish universities in terms of internationalisation. What steps need to be taken to further boost SGH's position as the leader in university internationalisation?

PW: As I have mentioned earlier, we have excellent research and academic staff, and we should do our utmost to promote their studies – which in many cases are unique in Europe and even worldwide. That is why we plan to take measures to facilitate engaging in international cooperation for everybody – our staff, doctoral candidates, and students. What is more, we need to focus on building formal and informal research networks to boost our position and enable an even better start in applying for EU-funded and international projects, which we would like to take part in more often. We are also approaching the issue of developing a scientific strategy – or as some might call it, a scientific policy for our University. The ownership for this strategy lies with Professor Agnieszka Chłoń-Domińczak, who is highly experienced in conducting international scientific studies.

The SGH strategy, which is currently undergoing development, will specify and define key directions of research development and the key research areas of our University. We strive to become an integral part of the scientific system in Europe and worldwide. We are committed to engaging in more international research projects, and we want to lead them as well.

SB: What actions are you going to take during your term of office to further boost SGH's position in major national and world ranking lists, and to obtain prestigious accreditations?

PW: International accreditations are one of key strategic priorities pursued by the SGH Warsaw School of Economics, since they attest to the fact that our university belongs among the ranks of elite business schools worldwide – not only in Poland or Europe. We work with the best organisations in the world, including EFMD, AACSB, CEEMAN and AMBA, and we are particularly proud of AMBA and CEEMAN accreditations. What is more, we have highly advanced projects underway concerning key AACSB and EQUIS accreditations, and we need to bear in mind that they are both institutional in nature, which means that in all our accreditation projects, we have to make sure that every area of our University's operation is compliant with the standards and best practices of the accrediting institutions.

We are glad that we can make our University better. For example, by conducting self-evaluation processes as part of accreditation projects, we learn more about how our actions shape up compared to the suggestions raised by the accrediting bodies. Another important thing to note is that international accreditations attest to the high standing of our University, letting us put an even stronger emphasis on positioning the SGH among top economic universities in the world.

SB: This issue of Przegląd Organizacji is dedicated to the cooperation between SGH and the State of Nevada – as such, it will also be read by American audiences. What caused this cooperation between SGH and the University of Nevada, Reno, as well as with the state evolved to become strategic?

PW: Our cooperation with the state of Nevada is special as unlike our other university contacts it involves the state as a whole. In addition to our strategic partner, the University of Nevada, Reno, we also work with state institutions, led by the Nevada Governor's Office of Economic Development.

I would also like to point out that in 2017, I initiated the process that ultimately led to the creation of the position of Rector's Plenipotentiary for Cooperation with the State of Nevada at SGH WSE, which was assumed by Professor Paweł Pietrasieński. The Plenipotentiary is responsible for coordinating the University's interaction with educational, research, and governmental institutions of the State of Nevada, including initiating contacts between its leadership and counterparts on the U.S. side. The Plenipotentiary also handles joint initiatives, in particular student and academic exchanges, implementation of research projects, as well as exchange of best practices in the area of teaching entrepreneurship and acceleration of academic start-ups.

His work resulted in the organisation of two Polish Business and Innovation Weeks in Nevada in 2017 and 2019, respectively. It is worth pointing out that the Polish delegation during the latest edition of the event was headed by the Rector of SGH, and the Week was officially opened by the President of the Republic of Poland.

SB: How did SGH establish a relationship with the state of Nevada?

PW: In October 2017, the SGH Warsaw School of Economics and Nevada's leading university – the University of Nevada, Reno (UNR) signed an agreement concerning multifaceted cooperation concerning joint scientific research, promoting entrepreneurship and exchange of good practices related to the development and growth of student start-ups. The signing was accompanied by the first-ever Nevada Day held at the SGH. The event's guest of honour was the Governor of Nevada Brian Sandoval, who is now the president of UNR. I recently had an opportunity to meet President Sandoval online. During the meeting we talked about the main directions of cooperation and planned schemes based on grant funds over the course of the upcoming few years.

The strategic nature of this cooperation between our universities is reflected in the terms of the "New Economy Lab" grant awarded by the Polish National Agency for Academic Exchange, which led to two Scientific Symposia held in Reno and Warsaw, devoted to cooperation in the areas of economic growth, public policy and development of entrepreneurship. Dozens of researchers from Warsaw and Nevada took part in conference, research and exchange programmes, and the cooperation also covers academic start-ups on both sides of the Atlantic, which could take advantage of the Bootcamp and Demo Day held in Warsaw in 2019 and 2020. A joint scientific monograph has also been published, and meanwhile we are working on another collective publication. What is more, today I have the honour of opening the special issue of Przegląd Organizacji, devoted in its entirety to cooperation between SGH and the state of Nevada.

We also run a blog in cooperation with the College of Business at the University of Nevada, Reno on global entrepreneurship and public policy – I think all readers of Przegląd Organizacji should give it a visit. (https://www.unr.edu/business/international/blog).

SB: Thank you very much Rector Wachowiak for such an extraordinary conversation.

UNIVERSITY RANKING AS A QUALITY OF EDUCATION OFFER MEASURE

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Introduction

The aim of the present study is to present the possibilities of analysing the quality of education at Polish universities based on the data related to graduates, in particular, information about the remuneration and experience of unemployment. The data are collected and provided by the Polish Graduate Tracking System (https://ela.nauka.gov.pl/en). The author claims that these data indicate the quality of education and may be used to conduct internal university analyses as well as to draw conclusions for the tertiary education system. It can be used especially to create a ranking presenting how well the graduates are prepared to start their career after finalising higher education.

The introduction discusses problems related to the measurement of education quality, the next section refers to the determinants of conclusions based on the data collected in the system and is followed by an example of ranking of higher education institutions.

The problem of education quality in the tertiary education first appeared in Poland together with the growing popularity of this sort of education in the early 1990s. Due to a growing number of people aspiring to obtain university education, and consequently a rise in the number of education providing institutions, there was a need to create tools to compare these institutions. The candidates themselves as well as their families financing the studies searched for some information directly at universities or in the media to assess and choose the university. Students sought to confirm their right choice, but they also looked, more consciously now than before when they were candidates, for a place to continue studying. And on the part of employers, there was a need to make a preliminary appraisal or preselection of a candidate for the job. University authorities sought to confirm the appropriateness of their performance and to make a comparison with the results achieved by the competitors on the tertiary education market. Such a "demand", formalised to a varying degree, created "supply" in the form of rankings but also gave rise to institutions evaluating the education quality and credibility of new offers. Naturally, there are also universities which need information about external (objective) appraisal of their performance, as the use of this information in order to improve their didactic offer for the needs of the labour market, the economy and the society is included in their missions and strategies.

The measurement of quality may also give rise to rankings and ratings informing many stakeholders about the results of comparing the data on different kind of tertiary education institutions. A rating or evaluation may constitute a basis for the distribution of financial funds among universities or their units. The measurement of quality is also related to the accreditation perceived as granting educational rights (referred to as the *ex ante* accreditation) as well as the evaluation of education quality (referred to as the *ex post* accreditation). In the systems in which accreditation does not only serve marketing purposes but affects decisions made by the authorities (for example the removal of rights to follow a negative quality appraisal or refusal to grant the rights in the case of a negative opinion of a respective body), the accreditation, or to be more specific its criteria, may have a considerable impact on university management.

Apparently, in practice, the very definition of quality is losing its significance; instead the criteria used by quality appraising institutions are becoming more important[1]. On the other hand, however, it is possible to indicate measures which determine the quality, or at least have an impact on it; for example, the statistical data of activities related to acquisition of grants from the National Science Centre. It is also possible to indicate measures describing the effects of education, and consequently its quality. The system which monitors careers of university graduates is an important example in this area. And it is this system, or to be more precise, the potential conclusions to be drawn from the data included in it that the present study is devoted to.

The careers of graduates as a source of data

One of the sources of information which may be used in the analysis of university programmes (assumed effects of education) is the Polish Graduate Tracking System (ELA, ELA System). The data included in the reports generated by ELA concern presently, i.e. beginning of the year 2021, the students who graduated in the years 2014–2018. The major source of information comes from the Social Insurance Institution (ZUS) and from the POLon system[2]. Due to the exogenous character of the data with regard to universities, the conclusions drawn from

the analysis may be interpreted differently than in the case of surveys based on questionnaires conducted by universities. It is assumed that data on graduates from each year would be kept for five years after the graduation.

The objects of analyses to be conducted on the basis of the data gathered in the ELA system are groups of graduates of a specific field of study who graduated from a selected faculty at the analysed university. In order to protect personal data, the analyses do not present results of groups of graduates below ten.

The data on university programmes in the ELA system are aggregated in such a way that they form joint information on the graduates of a given university.

It should be noted that the Social Insurance Institution (ZUS) register does not include contracts for specific tasks, contracts of mandate, contracts concluded abroad or work without a contract. The data may not include people insured in the Agricultural Social Insurance Fund (KRUS)[3]. What is more, the ZUS data do not include the information on the job done. It is not known then whether or not the undertaken job is compliant with the completed studies. It seems, however, that in the case of the fields of study characterised by the shortest job seeking time or the highest remuneration, it may be assumed that the jobs done by the graduates are compliant with their education (Rocki, 2017).

An important factor which makes the conclusions more credible is the information included in ELA reports about the share of graduates registered in ZUS. This information should have an impact on the choice of specific groups of graduates for comparison.

The system of monitoring economic fates of graduates allows to generate (download) reports on the programmes (the information in this case will be of a given field name) or universities (in this instance the data will relate to all programmes run by particular organizational units of a university), as well as to download tables containing the data[4].

Thus, the data on graduates' careers indicate the effects of education quality and may be used in internal university analyses, in tertiary education market analyses as well as for the proposals for the system of tertiary education. An example of such an analysis will be presented in the next section of the study.

In the context of further analysis, it should be stressed that between students of each class in the same year there are de facto differences in the field pertaining to type of studies (stationary and non-stationary), having or not having professional experience (before or during studying) and in case of two-cycle studies also because of level of studies (bachelor and master)[5]. It seems obvious that there are different reasons for which people decide to take up stationary and non-stationary studies[6]. The reasons for taking up non-stationary studies can be both combining studies with work as well as no more places available (numerus fixus – due to no more subsidiaries from the State). Moreover, studying and working at the same time can have its financial explanation, but also substantive ones (if it is necessary to get a diploma required by an employer or if there is a will to upgrade qualifications). This diversity has a clear influence on the situation of graduates on the labour market.

Apart from the above-mentioned example reasons for which candidates decide to take studies of a given type, there are also different methods of recruitment (for instance in public universities it is usually more challenging to become a student of stationary than non-stationary programmes). Apart from that, also the possibility to go for practice work or students exchange has also an influence on this choice. This on the other hand has also an influence on when students can finalise their studies.

Rankings of universities

From the perspective of a higher education institution a ranking is an important way of providing information on the situation of individual players on the higher education market as compared against other participants, according to the accepted principles and criteria. Rankings need to be set apart from evaluations, certifications, ratings and accreditations, although these may be used as a basis for rankings or become factors in them.

A ranking, in the light of a popular and widely recognised yet informal definition, is a systematic way of providing information on some objects pursuant to a given criterion or set of criteria. Authors behind the rankings of higher education institutions usually like to highlight that their purpose is to identify an institution which lines up the highest in terms of a particular understanding of quality. Reputation, power of appeal, assets, elites, high quality education, top notch faculty – these are the most frequent characteristics used to describe the winners of such rankings.

It seems that the goals of all of those who conduct evaluations, ratings, accreditations, and rankings of universities remain similar. The most frequently and explicitly quoted role of evaluations, accreditations and rankings of educational institutions is enhancing the actions resulting in increased quality of education processes. This has become, not only in Poland, the consequence of the pervading mass education and rise of the education market. Public relations have become of paramount importance to any university. The ongoing demographic and potential changes, as well as the implementation of corresponding legislative regulations mean that the value of image and brand are vital for the survival and success of any educational institution.

The purpose of rankings is to collect, verify and pool the data (various types of information), as well as to process and announce them to the wide public. Authors of these rankings often mention university candidates and their parents as the most interested parties. However, keen recipients of ranking data can also be found among employers and the educational institutions themselves. For candidates and their families, rankings are a source of information about how the universities, their units and the offered curricula are positioned against other entities of the same type. Occasionally, rankings can inform on what the odds of admission to a particular institution are. For employers, the results of a ranking may provide a premise for searching for potential employees. For university

bodies, in turn, ranking results provide information on the perceived strengths and weaknesses of the institution, and thus may become a quality improvement tool. The significance of rankings and their popularity gave rise to the establishment of a new code of good practice in this field (Barron, 2006).

Generally, the starting point for creating a ranking is defining the criteria, the ways of measuring them and the methods of calculation, allowing to arrive at a particular sequence of objects involved in the ranking (Guarino et al., 2005; Merisotis, Sadlak, 2005; Liu, Cheng, 2005). Farther on in the paper the source of data and the resulting criterion will be presented, formally speaking: a meta-criterion structured as a function using several criteria.

Data used for the ranking

A source of data for the proposed ranking is the ELA System – the nationwide system of monitoring economic fates of graduates.

The data included in the analyses were pertained to the graduates of the second cycle programmes and long cycle Master programmes of the year 2018 of various universities because the majority of graduates of first cycle programmes (63%, see: Zając et al., 2018, pp. 194) continue education. In the group of graduates defined according to these criteria, 266 groups of graduates of the second cycle programmes (12914 people in total, and 121840 registered in ZUS) and 72 groups of the long cycle Master programmes (19840 people, 17960 in ZUS) were studied[7]. The data adopted for analysis (aggregated at the university level) do not allow for identification of graduates from various modes of study. As a result, the fates of both full-time and part-time programmes graduates have been described jointly[8].

The proposed ranking criterion

The purpose of ranking higher education institutions is to appoint "the best" one. In most cases ranking authors will be searching a set of factors which, when combined in an aggregate function, can produce the right sequence of the studied institutions. If we assume that "the best" university is the one that offers the highest quality education, we should be looking for a set of factors able to define this quality. The quality of university programmes results from the composition, engagement and competencies of the academic faculty, the quality and scope of the research conducted, the comprehensiveness, quality, structure, and style of curricula delivery, the university infrastructure, the functioning of the study support systems as well as the efficiency of the internal quality ensuring system. All of them combined constitute a set of variables which in soft modelling (Wold, 1980) are known as the forming indicators. On the other hand, there are also reflecting indicators which define the effects of the programme "quality". These are the data pooled in the ELA system such as the average time spent seeking the first job, average number of months during which graduates were registered as unemployed, share of unemployed graduates, average monthly wages etc. However, the synthetic characteristics determining graduate fates on the job market in the ELA system are:

WWB – relative unemployment index, calculated in such a way that an individual unemployment risk proportion to the average registered unemployment in the district of abode (or districts if the place of abode has been changed) is established for individual graduates in the time period of the study. The value of the index presented in ELA reports amounts to an average of these proportions. Unemployment risk in the ELA system has been defined as an average percentage of the number of months after the month of obtaining a degree during which graduates remained registered as unemployed;

WWZ – relative wage index, calculated by establishing for each graduate a proportion of his average wages to average wages in the district (districts) of abode in the time period of the study. The value of the index included in ELA report equals the average of these proportions.

WWB and WWZ in a synthetic manner characterise the fates of graduates as they, irrelevant of the field, profile or mode of study and the profession pursued after obtaining a degree, indicate graduates' preparedness to compete on the job market and, on the other hand, express the market valuation put on graduates by employers. Graduates' successes on the job market in terms of short time of searching for a job after obtaining a degree and high wages stem from the fact that the university offers and delivers university programmes meeting the needs of the society and the economy. Indirectly, it also implies that the university is able to efficiently cooperate with employers on improving study programmes and conduct scientific research conducive to such improvement. It may thus be assumed that WWB and WWZ synthetically characterise the quality of university activity and can be used as criterion components in the ranking.

According to the definitions:

- WWB is more valuable when it is closer to zero, the values below 1 signify that the unemployment risk of a given university graduates is lower than average. A zero value of WWB means that none of the graduates in the study period registered as unemployed. The construction and definition of WWB implies that this index is an inhibitor. Converting it into a stimulus meant modifying its value:

$$\mathbf{modyfWWB_i = WWB_{max} - WWB_i}$$

  where $modyfWWB_i$ – is a modified value of the relative unemployment index for a given i-university, WWB_i – is the original value of the index, WWB_{max} – is a maximum value of the index in the set of the analysed universities;
- WWZ is the more valuable, the higher it gets, so it is a stimulus. Values higher than 1 signify that the wages of a given university graduates are higher than average.

The preliminary idea of the ranking used the multiplication of WWZ and modified WWB, however, data analysis shows that less numerous graduate groups can find their first jobs relatively faster. For this reason, it was proposed to correct the multiplication with a logarithm of the number of graduates registered in ZUS[9].

Thus, the meta-criterion of the ranking is a feature defined as a multiplication:

$$K_i = WWZ_i * modyfWWB_i * \ln(N_i * ZUS_i)$$

where N_i – is the number of graduates of a given cycle of a given university, ZUS_i – is the share of graduates of this cycle of a given university registered in ZUS.

Results

This part of the article will present fundamental results of the ranking for long cycle Master programmes and second cycle programmes[10].

Two rankings will be presented separately for public[11] and private institutions accordingly both to the comment which can be found in note 6 referring to differences in rules of acting of public and not public universities in Poland, and also, analysis presented in Zając, Jasiński, Bożykowski (2018).

The graph presented in the Figure 1 metacriteria values for public universities are presented on the left and private universities on the right.

In the tables: N – stands for the number of graduates, PwZUS – for a fraction of graduates who registered in ZUS in %, WWB – the value of a relative unemployment index, WWZ – the value of a relative wage index, being the data from the ELA system.

Table 1 presents the order of public universities which results from abovementioned metacriteria. It consists of data regarding 30 from 167 public universities with highest metacriteria values. Apart from one case (point 25) it all regards the second cycle program.

Technical and economic universities appear dominant among the top universities offering second cycle programmes. In the top 30 universities, there are 12 technical universities (including military and fire service), and all five public economic universities. Classic multi faculties universities are practically only in the third tenth of the presented ranking. It could be concluded that more specialised universities, such as technical and economical ones respond better to the needs of the labour market when it comes to graduates.

It its worth mentioning that in the top of the presented ranking there is only one university which offers a long cycle program: 25th place – Medical University of Lodz.

What is characteristic of the labour market for graduates of universities from the last places is that it includes church and fine arts institutions as well as universities offering a long cycle.

It should be noted that among the universities listed in Table 1, the graduates of only four of them have had earnings higher than the average of their districts of abode within the first year after graduation. At the same time, in few cases it was more risky for the graduates to suffer from unemployment than it is pointed out in average data for their place of living.

Because in many cases public institutions (especially all classic universities) offer both second and long cycle, they appear in the ranking in two positions (for example University of Warsaw is 11th with the second cycle and 47th with the long cycle and Jagiellonian University is 19th and 43rd).

The analysis of the ranking results demonstrates that employers value more absolvents of the second cycle as it is easier for the institutions to apply changes to better address the labour market needs. At the same time, a significant

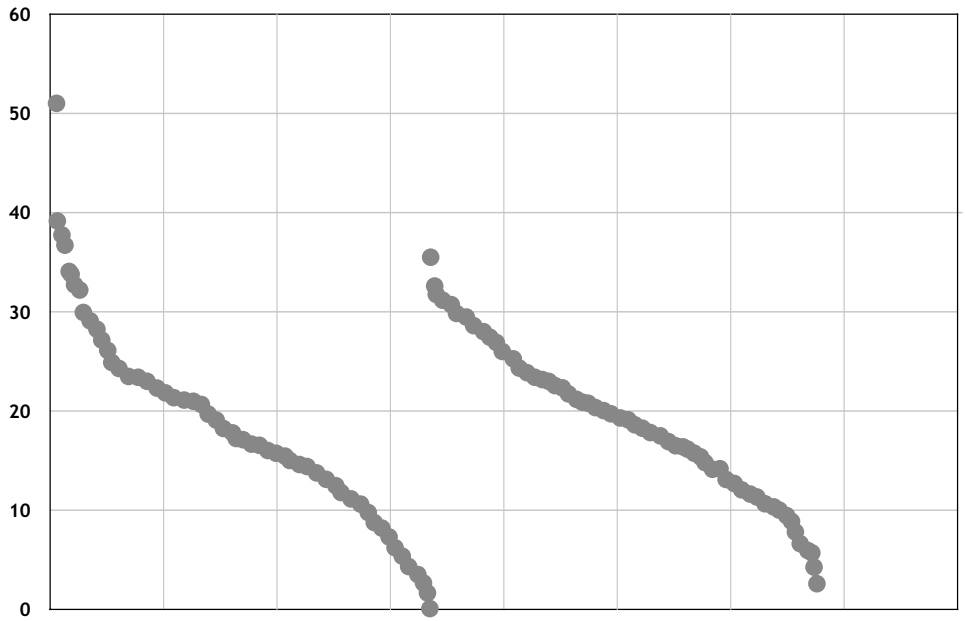

Figure 1. Metacriteria values for both types of Universities
Source: data from ELA system and own calculations

Table 1. 30 top universities in the public university ranking[12]

No.	Name	N	PwZUS	WWB	WWZ
1	SGH Warsaw School of Economics	1693	95.04%	0.27	1.3
2	Warsaw University of Technology	2883	93.24%	0.51	0.98
3	AGH University of Science and Technology	3484	94.72%	0.83	0.98
4	Wrocław University of Science and Technology	3229	94.70%	0.7	0.96
5	Poznan University of Technology	2291	95.90%	0.76	0.99
6	Police Academy in Szczytno	489	98.98%	0.48	1.08
7	Gdańsk University of Technology	1996	93.44%	0.76	0.93
8	Wrocław University of Economics	1587	96.47%	0.74	0.95
9	Cracow University of Economics	2735	93.09%	0.78	0.87
10	Lodz University of Technology	1439	95.41%	0.79	0.94
11	University of Warsaw	4079	91.74%	0.63	0.79
12	Silesian University of Technology	2501	97.28%	0.91	0.88
13	Warsaw University of Life Sciences – SGGW	2022	94.71%	0.7	0.81
14	Poznań University of Economics and Business	1520	96.18%	0.65	0.82
15	Main School of Fire Service	219	99.09%	0.48	1.07
16	Medical University of Warsaw (second cycle)	635	98.11%	0.32	0.86
17	Military University of Technology	640	97.03%	0.65	0.91
18	Cracow University of Technology	2211	95.75%	1.1	0.82
19	Jagiellonian University	3208	89.18%	0.95	0.76
20	Cracow University of Economics	1331	97.22%	0.79	0.79
21	University of Applied Sciences in Nysa	38	100.00%	0	1.33
22	University of Lodz	3349	95.85%	0.97	0.72
23	University of Science and Technology in Bydgoszcz	605	96.36%	0.87	0.88
24	University of Gdansk	2689	95.76%	0.88	0.7
25	Medical University of Lodz (long cycle)	798	92.73%	0.16	0.7
26	Adam Mickiewicz University	3094	94.83%	1.02	0.68
27	Nicolaus Copernicus University	2117	95.80%	0.87	0.67
28	Medical University of Poznan (second cycle)	578	97.75%	0.57	0.75
29	West Pomeranian University of Technology	827	95.65%	1.03	0.78
30	University of Zielona Gora	964	96.58%	0.97	0.75

Source: data from ELA system and own calculations

part of students of the second cycle are already alumni of another faculty (also on another university). This may lead to a conclusion that employers prefer graduates with better experience and wider horizons.

It is worth mentioning that in the first third of the ranking there are both institutions with very small number of alumni (38 people from University of Applied Sciences in Nysa, which within the second cycle offers architecture and nurse studies) as well as the biggest Polish universities (University of Warsaw with 4079 the second cycle alumni and 878 the long cycle alumni or Jagiellonian University with 3208 graduates from the second cycle and 1434 from the long cycle.

It should be added that alumni of the second cycle conducted by medical universities are in better positions after the first year on the labour market than the long cycle alumni. However, this is the result of the system in which medical doctors are employed. For alumni who are three years after getting the diploma the situation is different as it was described in Rocki (2019).

Table 2. 30 top universities in the private university ranking

No.	Name	N	PwZUS	WWB	WWZ
1	Higher School of Strategic Planning in Dąbrowa Górnicza	175	98.31%	0.09	1.25
2	Collegium Masoviense	154	98.72%	0.07	1.17
3	Wyższa Szkoła Biznesu i Przedsiębiorczości w Ostrowcu Świętokrzyskim	261	98.49%	0.3	1.08
4	University of Information Technology and Management in Warsaw	111	96.52%	0.61	1.35
5	Elbląg University of Humanities and Economics	293	98.65%	0.16	1.02
6	Kozminsky University	368	71.73%	0.28	1
7	WSB University Poznań (Wyższa Szkoła Bankowa)	1120	97.99%	0.58	0.88
8	WSB University Wrocław (Wyższa Szkoła Bankowa)	1321	95.31%	0.71	0.88
9	University of Humanities and Ecomics in Lodz	458	93.66%	0.42	0.97
10	Wyższa Szkoła Umiejętności Społecznych w Poznaniu	141	99.30%	0	1.11
11	University of Medical Sciences in Legnica	107	99.07%	0	1.15
12	Polonia University	74	83.15%	0.01	1.25
13	Wyższa Szkoła Nauk Stosowanych w Rudzie Śląskiej	27	100.00%	0	1.62
14	University of Social Sciences	1652	93.65%	0.65	0.81
15	Lipinski University	359	98.90%	0.61	1.01
16	Poznan School of Logistics	381	98.45%	0.43	0.96
17	Enviromental Management University in Tuchola	25	100.00%	0.22	1.7
18	SWPS University	1199	95.84%	1.03	0.9
19	WSB University Torun (Wyższa Szkoła Bankowa)	620	98.73%	0.58	0.89
20	WSB University Gdańsk (Wyższa Szkoła Bankowa)	748	97.91%	0.45	0.84
21	Helena Chodkowska University of Technology and Economics	448	95.12%	0.47	0.9
22	Lazarski University	166	72.49%	0.4	1.06
23	University of Economics and Human Sciences in Warsaw	281	73.95%	0.36	0.95
24	WSB University (Wyższa Szkoła Biznesu)	527	93.61%	0.53	0.88
25	Cuiavian University in Wloclawek	210	99.06%	0.38	1
26	University of Economics and Innovation	651	95.74%	0.76	0.88
27	University of Business in Wroclaw	57	86.36%	0.18	1.25
28	Wyższa Szkoła Informatyki Stosowanej i Zarządzania w Warszawie	77	90.59%	0.72	1.29
29	Wyższa Szkoła Gospodarki Krajowej w Kutnie	97	97.00%	0.38	1.13
30	Warsaw School of Computer Science	29	100.00%	0	1.43

Source: data from ELA system and own calculations

In the top of the ranking of private institutions[13] there are also universities offering the second cycle. Among first 30 institutions there is only SWPS University (18th place) conducting the long cycle program on two faculties: law and psychology.

Table 2 presents the order of private universities. It consists of data regarding 30 out of 171 private universities with the highest metacriteria values.

It should be mentioned that in case of private universities it is often difficult to define their profile, as they conduct several different faculties (for example finance and nurse studies). For this reason, in the analysis we cannot take into consideration only names of the institutions. For instance, a medical university are Higher School of Strategic Planning in Dąbrowa Górnicza and Collegium Masoviense. Third in ranking Wyższa Szkoła Biznesu i Przedsiębiorczości offers economy and pedagogy but also nurse program.

In addition to the previous comment, it can be noted that in case of top of the ranking there are the universities that offer medical and economic programs.

It can be observed that alumni of private institutions more often than alumni of public institutions get higher than average renumerations than in their place of living (indicator of WWZ value higher than 1). This is connected with the fact that in the majority of cases students of those universities are working and studying.

In comparison with public universities (despite those which are presented in the table) the private ones have fewer alumni. For 30 universities with the lowest values of metacriteria only 4 have more than 100 alumni and in the majority of cases they offer the long-term cycle.

At the end of the presentation of the ranking result it is worth noting that in the first thirty institutions only Jagiellonian University has less than 90% of alumni registered in ZUS (89.18%). In case of private universities, it is less than 90% (but not less than 70%). That is caused by the fact that there are students from other countries who go back to their home countries after graduation[14].

Conclusions

It is noteworthy that applying a metacriterion and exogenous data makes the results certainly more objective. Many popular rankings use data from surveys carried out by universities which are difficult to verify, but using specific features in rankings encourages quality improvements in particular measures (values of forming indicators) in order to attain a better ranking position. In the proposed ranking, synthetic and holistic characteristics which define the effects of the university activity have been accounted for, so attaining a higher position in the ranking will be a potential effect of multiple improvement processes relating to these activities.

In particular, the proposed ranking indicates a possibility to measure the quality of education. This can be done by monitoring the alumni on the labour market on the basis of data from ZUS which was a goal of this study. It should be stressed that the presented ranking is objective only considering the proposed criterium. However, the results can be a starting point to conduct further, deeper analysis.

Certainly, the conclusions from the ELA reports are not and cannot be the only basis to formulate opinions on the quality of education. It is worth comparing them with inspection reports and education quality assessment made by Polish Accreditation Commission (PKA)[15] as these reports include extensive information about teaching staff, infrastructure or international cooperation. Consequently, such an analysis may give rise to corrections, improvement or liquidation of the field of study, which was not positively perceived by employers. These analyses may be particularly interesting due to the comparison of the graduates' careers with the declarations of universities on the cooperation with employers in the course of creating a study programme for an atypical field of study.

To recap, the presented results of calculations seem to indicate that the job market has a higher appreciation of graduates in technical and economic programmes than of those in "general university" or "life sciences" fields. However, it should be kept in mind that technical and economic programmes are also run at classical universities (practically also other types of universities), but it is actually the graduates of the universities whose key mission is "reflected" in their name, that offer programmes which are highly valued by the labour market. At such universities, when they strive to deliver on their mission, scientific research may be better applied to improve academic curricula due to the natural synergy of both processes. A wide scope of scientific research correlated with real economic processes helps refine academic curricula. This kind of research usually arises from intense and efficient collaboration with the social and economic environment, which consequently impacts on the creation of the curricula. All of this increases the quality of tuition and attracts recognition of the job market.

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Endnotes

1) For instance in so called Shanghai ranking (ARWU) quality of education is measured taking into account only the number of Nobel prices winners among the graduates (Liu Nian Cai, Cheng Ying, 2007).
2) POL-on is an integrated system (a repository) of data on the Polish tertiary education gathering data on universities, including data on the students and staff: https://www.polon.nauka.gov.pl/siec-polon
3) KRUS – the Agricultural Social Insurance Fund: an alternative system of social insurance for farmers: https://www.krus.gov.pl/en/
4) For communities of fewer than 10 persons reports are not generated, and for sub-sets of fewer than 3 persons the numerical data are not presented.
5) In the ELA system there are three "levels" ("cycles") of studies: first cycle, second cycle and long cycle studies.
6) Comment for readers from other countries than Poland: in Polish public universities not more than half of students can pay their fee. Basic activities of those universities are financed by the State budget. In private universities as a rule all of the students pay the fee. Most of the time students who pay the fee work, and the universities organise the lectures during weekends – this type of studies are called non-stationary (part – time). Studies that take place on weekdays are called stationary studies (full time). The minister responsible for higher education decides which faculties are organised as long cycle master's degree.
At the moment those faculties are: medical analysis, pharmacy, physiotherapy, medical, dental, preschool education, basic and special education, law, veterinary. Psychology, theology and artistic faculties can be organized as long cycle master's degree.
For all other faculties division for stationary studies (full time) and non-stationary (part time) applies. Due to the abovementioned differences in financing the studies are the reason why students preferably go for stationary studies at

public universities. This on the other hand causes that there are more students than places available and as a result of that only the best candidates are accepted. This is why private universities have fewer candidates than places they can offer. There is no need to have any recruitment process and usually it is enough to just register for studies and pay the fee.

7) The year group of 2018 represents jointly 324542 people.

8) According to the studies (Rocki, 2018; 2020) graduates of part-time programmes occupy a relatively more advantageous position on the job market as they usually continue working while studying. It particularly may be true for non-public universities where part-time programmes prevail. For the same reason, joint study of both part-time and full-time graduates affects (overstates) the presented results of non-public universities.

11) Applying the logarithm is in line with the Weber-Fechner law (Mourao, 2012): at universities the impact of the number of students on the quality of studying is lower for high numbers of people studying. Practically, the result of the ranking is not closely correlated with the number of students, although the number of students does affect the market situation of graduates of a given university.

9) In Rocki (2019) there are results of ranking for class 2014 presented. They were based on the data about labour market for graduates three years after graduation.

10) Church universities are financed on the same grounds as public ones (but on different legal basis) therefore they were also taken into account as public ones (Duda, 2012)

11) The table includes English names from University web site.

12) If there is no English name on the University's web site, a Polish name is used.

13) As an example: at Kozminski University 28.27% graduates are not registered in ZUS. According to the data from http://www.studyinpoland.pl/en/ in 2017 among 65793 students from abroad there was 35584 from Ukraine and 5119 from Belarus (in total 61.87%).

14) https://www.pka.edu.pl/en/home-page/, as well as: https://www.pka.edu.pl/en/database-of-the-assessed-higher-education-institutions-units-and-programmes/

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Ranking uczelni jako miernik jakości oferty edukacyjnej

Streszczenie

Przedstawione wyniki obliczeń wskazują na to, że rynek pracy lepiej wycenia absolwentów programów studiów technicznych i ekonomicznych niż „ogólnouniwersyteckich" i „przyrodniczych". Trzeba jednak zauważyć, że kierunki techniczne i ekonomiczne są prowadzone także w klasycznych uniwersytetach (praktycznie we wszystkich typach uczelni). Jednak to absolwenci uczelni, których zasadnicza misja jest odzwierciedlona w ich nazwie, są lepiej wyceniani przez rynek pracy. W takich uczelniach badania naukowe powiązane z potrzebami gospodarki dają lepsze podstawy do tworzenia programów studiów. Takie badania zazwyczaj wynikają z intensywnej i efektywnej współpracy uczelni z otoczeniem gospodarczym, która także sprzyja tworzeniu lepszych programów studiów. Wszystko to wpływa na jakość kształcenia i losy absolwentów na rynku pracy.

Słowa kluczowe

rynek pracy, ranking uczelni wyższych, doskonalenie programów studiów

BENEFITS FOR BUSINESS SCHOOLS FROM TOP INTERNATIONAL ACCREDITATIONS. LESSONS-LEARNED FROM AACSB AND EQUIS PROJECTS

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Introduction

International accreditations of business schools have been an important topic on the agenda of leaders of higher education institutions for years. There are many accreditation frameworks functioning in the world; some of them have a global reach and importance (like AACSB and EQUIS), some are regional (like CEEMAN in Central and Eastern Europe). There are also national accreditation bodies (i.e., Polish Accreditation Committee – PKA – in Poland).

The purpose of this paper is to discuss how business schools may benefit from being involved in international accreditation, no matter if the school is within an initial accreditation process, i.e., before the accreditation label is awarded, or afterwards, when the school is making necessary efforts to maintain the accreditation.

This paper consists of three parts. The first one is devoted to presentations of some discussions in the literature, which highlight AACSB and EQUIS accreditations as context and inspiration for best practice. In the second part, accreditation frameworks of two major global business school accreditations, i.e., AACSB and EQUIS, are briefly summarised. Leadership of business schools can be inspired by standards of accreditation bodies, which are also presented in this paper, but also by other documents, which altogether constitute accreditation body of knowledge (reports, research papers, white papers, etc.). In the third part, some lessons-learned and experience related to how business schools may positively change as a result of being involved in accreditation processes are mentioned.

With this paper, we formulate a thesis that top accreditations of business schools allow for significant improvements in the functioning of the school in practically all areas, from high level domain, like strategy, through research and teaching, up to all operational and financial processes.

Best practice regarding business schools in the context of accreditation frameworks

Accreditation processes are considered as sort of frameworks, which allow for structuring all operational processes of higher education institutions and benchmarking against the best practice. As Zammuto (2008, p. 260) claims: „Business school accreditation is a quality assurance scheme that certifies that accredited schools have the structures and processes in place necessary to meet their stated objectives and continually improve performance. Such quality standards can be used by organisations to differentiate themselves from competition".

The benefits of AACSB and EQUIS accreditation have been widely discussed in scholarly literature. Generally speaking, the value added by accreditation systems stems from three main, and often inter-related, areas (Urgel, 2007, p. 77): „(1) assessment of the quality of the school based on several criteria, with reference to a more or less explicit standard; (2) enhanced brand recognition and appreciation derived from being granted a merit or distinctive accreditation label; and (3) advice and actions contributing to the actual improvement of the school".

Business accreditations were launched in the USA before they became popular in Europe and in other parts of the world. Zhao and Frerran (2016, p. 53) remind that „the largest business accreditation agency, the AACSB, was founded in 1916 and is currently headquartered in Tampa, Florida. Formerly known as American Association of Collegiate Schools of Business, AACSB has gone through a series of name changes as it continues to adapt to the changing needs of the higher education industry".

Trapnell (2007, pp. 67–68) discusses benefits related to AACSB accreditation, not only for a higher education institution itself, but also for numerous internal and external stakeholders: „AACSB International accreditation is a public statement that business schools are committed to being relevant, responsive and committed to quality. It can be a major differentiating attribute for a business school that wishes to compete in the global market of management education. The accreditation process demands that business school leaders, faculty and other key stakeholders are responsive to the needs of business, and that the standards and supporting processes provide mechanisms for implementing appropriate strategic actions in a time of dynamic change".

He claims, also, inter alia, that „(...) clear benefits accrue to institutions earning AACSB accreditation. From an external viewpoint, earning an internationally recognised accreditation informs other schools and external stakeholders (i.e., employers, prospective and current faculty and students) about the educational quality derived

from being held accountable for international standards through peer review and self-assessment processes" (Trapnell, 2007, p. 67). In Table 1 below, a summary of benefits related to the AACSB accreditation as of Trapnell has been summarised.

Table 1. Selected benefits of AACSB accreditation for different stakeholders

Prospective / current students	Higher probability of success, decision criterion by narrowing the landscape of management education, assurance of great educational resources and future employment opportunities.
Prospective employer	Guarantee that school provides access to the best talent, AACSB label assists firms in selecting schools from which to recruit.
Prospective / current faculty	Important recognition of the quality of institution with which faculty members want to be associated; strengthens reputation within discipline by meeting high standards for faculty performance.

Source: author's own compilation based on Trapnell, 2007

AACSB competes with EQUIS. Together with AMBA, which is the accreditation label related to MBA programmes, the three form the so-called triple crown of best accreditations of business schools. As Urgel argues, „ (…) EQUIS has decided to focus on top international schools. Therefore, the focus is certainly narrow. EQUIS first rejects those schools that are not international and then those that do not have at least a well-developed domestic reputation. (…) This means that EQUIS schools receive the value added of being challenged not just to fulfil basic expectations on EQUIS quality dimensions but that of being assessed against the standards of quality that prevail in the best international institutions all over the world" (Urgel, 2007, p. 80).

He adds that: „In addition to the benefits provided to a school by a professional assessment through a meaningful quality framework against challenging standards, any accreditation provides a seal or label that differentiates the school from its peers at the national or international level. This differentiation, if adequate, drives the school to more widespread recognition and to greater appreciation of its brand name" (Urgel, 2007, p. 80). One should comment that accreditation bodies try to develop the best possible reputation and recognition all across the world. EQUIS was developed by European Foundation for Management Development in Europe, whereas AACSB in the USA, but now, in the third decade of the 21st century, both of them are global frameworks.

Urgel (2007, p. 81) presents more on the EQUIS label in his paper: „EQUIS's main objective is to contribute to substantial improvement of the business schools involved in the accreditation process. By substantial improvement EQUIS means not just significant improvement but improvement of the substance or essence of the school. EQUIS accelerates quality improvement not only for individual business schools but also for entire national educational systems that see how their business schools may be denied EQUIS accreditation due to the restrictions imposed by the systems themselves on the ability of schools to compete internationally".

Business schools these days are not only attracted by top accreditation frameworks *per se*. The future of higher education is a hot topic not only in scholarly literature and higher education magazines, which are full of inspirations and suggestions later considered in deans' offices across the world. Also, governments, think-tanks or NGOs pay a lot of attention to this topic.

Guillotin and Mangemetin (2015, p. 344) state for instance that „Internationalisation is seen as imperative. However, it remains ambiguous as the demand for global managers remains limited, while domestic markets dominate and need managers with international capabilities". He adds also: „The globalisation strategy supposes the ability to attract global managers of multinational companies and to train them on a regular basis to be able to create a network of global managers. It also supposes the ability to give them a global experience" (Guillotin, Mangementin, 2015, p. 353).

Effective leadership seems also to be perceived as an important feature of top higher education institutions. As we know, leaders are those individuals in organisations that are able to make others willingly follow them. Leaders are able to take their organisations through the times of crisis and change. They do shape organisational culture. As Thomas and Thomas (2011, p. 537) remind, „Change (…) requires an organisational culture embracing openness to change, continuous learning, speed and entrepreneurialism. However, change involves uncertainty and is frequently unsettling: for some it represents a loss, and a period of mourning may follow. One of the important tasks facing any leader is how to frame these changes". A lot of responsibility is therefore associated with leadership.

Importance of rankings accreditations is emphasised by Noorda (2011, p. 520), who claims the following: „Business schools, whether located inside or adjacent to universities, show to all academic colleagues the key value of rankings and accreditation. There are indeed important lessons to be learned by other schools, not only in terms of marketing and reputation management. Solid rankings do help students to make better choices and do stimulate them to become successful graduates. Serious rankings are also key material for benchmarking. Learning from peers and cooperating with them are not only essential in research. They are just as valuable in teaching and learning". Rankings are particularly important for those higher education institutions that want to develop internationally, or even globally.

Business schools are functioning in the context of capitalism crises. There is a lot of doubt regarding how they may respond. „The feeling is spreading that the current business school model needs fundamental changes, if business schools want to be a provider of solutions to the multi-faceted global crises we are facing and thereby regain their legitimacy. These changes will need to be equally radical as they are foreseen for business and the economic system as a whole" (Dyllick, 2015, p. 17). In other words, there are recommendations being formulated these days

that business schools should rather not only focus on the financial side of their business model, but they should place their societal impact at the very core of their strategies.

Cornuel and Hommel (2015, p. 7), also in this context, promote the idea of responsible management education. „RME will have a lasting and substantive impact on management education only if it becomes part of business schools' institutional DNA. More specifically, RME needs to evolve into a broadly accepted institutional objective rather than something that shapes business schools' behaviour as an institutional constraint or as part of „window dressing". This trend has been well accepted by business schools worldwide. SGH Warsaw School of Economics may be given as one of examples as this HEI is member of Sustainable Development Goals Accord.

Contribution of business education to global welfare is discussed as well: „Business schools have the potential to act as change agents, helping to improve lives. Good business schools impart competencies that are relevant to the effective management not only of businesses but also of facilities and services in the public, and not-for-profit sectors. Among these are leadership, teamwork, strategic foresight and strategizing and sound business planning. These schools emphasise experiential learning, local case studies, participant centred pedagogy, teamwork, networking and independent thinking. They hone problem-solving skills, the ability systematically to appraise major challenges, quickly" (Pfefferman, 2016, p. 866). It is worth mentioning in this context that Pfefferman is a founder of Global Business Scholl Network, which is an association of business schools founded „because the developing world needs more effective and responsible leaders, managers, and entrepreneurs"[1].

So much is said about the importance of top-class research in business schools. Scholars make efforts to publish findings of their research projects in top-tier peer-revied journals. However, some raise scepticism about the effectiveness of this process. De Onzono and Carmona (2016, pp. 854–865), for instance, claim interestingly that relevance of research is an elusive concept. „There are concerns expressed over the lack of relevance of managerial research, which have brought about re-examinations of the social positioning of business schools. Some authors claim that research should be assessed on the basis of joint goals of understanding and use. (...) some research was purely driven by a quest for understanding without an attempt to find a specific use, as was the case with Bohr's discovery of the structure of the atom. Furthermore, other researchers undertook projects with the sole purpose of developing applied uses, such as Edison's invention of the phonograph" (De Onzono, Carmona, 2016, p. 857). Having said that, our intention is to stimulate some discussion about necessary improvement of the research process.

It should be noted that the literature review as presented in this paper is brief when compared to a vivid and multifaceted discussion of scholars and professionals commenting on business schools' best practice in the context of major accreditation frameworks. The author decided to present only some topics, but they could be further expanded in other papers. Undoubtedly, business schools have a very meaningful role to play in societies these days. Future will show how they responded to the challenges which are faced by humanity. It seems that we will be seeing more business school involved in shaping responsible future leaders for the world.

Philosophy of AACSB and EQUIS: core values, guiding principles, standards, and frameworks

Both AACSB and EFMD communicate all most importance documents regarding their flagship accreditations on websites[2]. In this part of our paper, we focus on very general information regarding AACSB and EQUIS frameworks. We have chosen AACSB and EQUIS for point of reference in this paper, because they are regarded as top global institutional accreditations of business schools.

As noted down in AACSB (2018, p. 2), „the fundamental purpose of AACSB accreditation is to encourage business schools to hold themselves accountable for improving business practice through scholarly education and impactful intellectual contributions. AACSB achieves this purpose by defining a set of criteria and standards, coordinating peer review and consultation, and recognising high-quality business schools that meet the standards and participate in the process."

Adherence to Core AACSB values and guiding principles are key to assess whether a business school is eligible for the accreditation process. They may be regarded as a kind of a philosophical foundation of the accreditation. The following core values and guiding principles of AACSB are defined (see Table 2 below).

Like AACSB, EQUIS is a leading global accreditation system. According to the information on EFMD website, EQUIS accreditation claims to be „the most comprehensive institutional accreditation system for business and management schools. It is acknowledged worldwide by potential students, faculty, employers, corporate clients and the media, often being a pre-requisite for entry to rankings". Similarly to AACSB, EQUIS accreditation ensures a rigorous quality control, benchmarking your school against international standards in terms of governance, programmes, students, faculty, research, internationalisation, ethics, responsibility and sustainability, as well as engagement with the world of practice".

As other institutional accreditations, it covers all business schools' activities, including degree and non-degree programmes, knowledge generation and contribution to the community. EQUIS „considers the great diversity of national cultures and educational systems around the world" and „recognises that it is essential to understand the particularities of the local context in every assessment process".

Below, we present Figure 1 developed by EFMD to showcase the EQUIS process conceptual framework. „The EQUIS evaluation considers each component of the framework and the inter-relationships between them. Standards have been developed for each component".

Table 2. Philosophy of AACSB business accreditation – 10 guiding principles

1. Ethics and Integrity	The school encourages and supports ethical behaviour and integrity by students, faculty, administrators, and staff in all its activities. The school is expected to have appropriate policies and procedures that attest to a strong emphasis on ethical behaviour as well as a mechanism for identifying and remediating behaviour by those associated with the conduct of the business school. It is expected that internal disputes between students and faculty or faculty and administration are dealt with at the school level (…).
2. Societal Impact	Societal impact as an expectation of all accredited schools reflects AACSB's vision that business education is a force for good in society and makes a positive contribution to society (…). This includes an expectation that the school explicates its intended strategies to effect a positive impact on society, that the school's curriculum contains some components relating to societal impact, that the school's intellectual contributions portfolio contains some contributions focused on societal impact, and that the school is fostering and promoting curriculum and/or curricular activities that seek to make a positive societal impact.
3. Mission-Driven Focus	AACSB accreditation focuses on outcomes achieved through mission-related activities of the institution. As part of maintaining a robust strategic plan, each school identifies its specific mission, strategies, and expected outcomes. The school, then, is evaluated by peers against its stated mission to determine if its activities are aligned with its stated mission.
4. Peer Review	The peer review process is a defining characteristic of AACSB accreditation. Peer review is characterised by professional judgment, collegiality, and a commitment to AACSB's guiding principles. Because the accreditation standards are more principles-based than rules-based, more subjectivity is introduced into the peer review process. Consequently, the experience and training of the peer review team members is critical, which is why they are required to participate in formal training. Schools are strongly encouraged to establish and maintain clear and constant communication with the peer review team and share materials early so that any areas of substantive difference can be discussed prior to the visit.
5. Continuous Improvement	The school demonstrates a commitment to a culture of continuous improvement that yields high-quality outcomes. Consistency of performance over time and stability of oversight of the accredited school or unit is a key element of continuous improvement.
6. Collegiality	The school maintains a collegiate environment. Mutual respect, collaboration, and trust are pursued to enable the business school to promote a positive culture that is supportive of the school's strategic mission and goals, faculty development, learner success, and thought leadership. The school promotes shared governance and active participation by a cross-section of faculty in university and college service.
7. Agility	The school maintains a future-oriented mindset, with an eye to the knowledge, skills, and abilities needed by both faculty and learners, and adjusts curriculum content and faculty skill sets where trends in business education, employer feedback, and best practices clearly emerge.
8. Global Mindset	The curriculum imbues the understanding of other cultures and values, and learners are educated on the global nature of business and the importance of understanding global trends. The school fosters sensitivity toward a greater understanding and acceptance of cultural differences and global perspectives. Graduates should be prepared to pursue business careers in a diverse global context. Students should be exposed to cultural practices different than their own.
9. Diversity and Inclusion	Diversity in people and ideas enhances the educational experience and encourages excellence in every business education program. At the same time, diversity is a culturally-embedded concept rooted in historical and cultural traditions, legislative and regulatory concepts, ethnicity, gender, socioeconomic conditions, religious practices, and individual and shared experiences. (…) The school fosters awareness, understanding, acceptance, and respect for diverse viewpoints related to current and emerging issues.
10. Continued Adherence to AACSB Guiding Principles and Business Standards	The school demonstrates continued adherence to accreditation standards and guiding principles and provides timely, accurate information in support of each accreditation review. Schools acknowledge the timeline to complete the initial accreditation process. Schools agree to a peer review visit. Schools acknowledge that AACSB may at any time request a review if questions arise concerning a school's educational quality, financial resources, or other issues. Significant ethical breaches of conduct within the school may also result in an off-cycle peer review, or board action, as deemed necessary (…).

Source: author's own compilation (excerpt) based on AACSB 2020, pp. 15–17

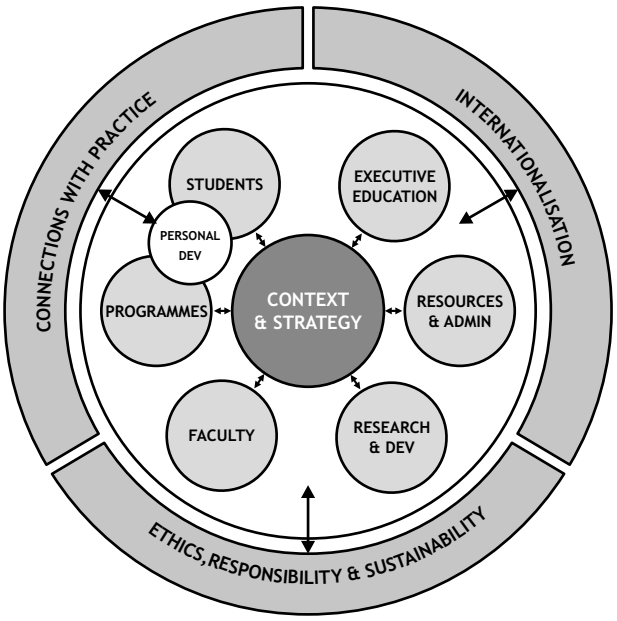
Chosen lessons-learned and take-aways from accreditation journeys

Business schools that seriously think about their future, should take accreditation standards as important benchmark. Some education managers may think that compliance with standards does not allow for a proper level of flexibility at the same time, which is not true. In fact, both AACSB and EQUIS standards allow for adjusting and interpreting standards so that they could fit well with contexts of particular business schools[3]. It should also be noted that proper consideration of all accreditation standards within institutional accreditations may be regarded as a sort of double-check whether a particular higher education institution is governed properly, particularly in all areas.

Strategy is regarded within both AACSB and EQUIS accreditations as crucial (AACSB – standard 1, EQUIS – standard 1). Strategy is or should be the most important aspect for any organisation: be it profit of not-for-profit, public or private, small or big, start-up or incumbent, etc. Strategy maybe defined as a plan where organisation reflects on how it would look like in the future (vision), how it would serve its stakeholders (mission), what specific goals will be achieved (strategic goals), what values are shared by those associated with the organisation (managers, employees, vendors, customers), etc.

Business schools may ask themselves the following important questions in this strategic context: „Are we a business school for a particular city? Particular country? Continent? Or the world as a whole?" Such questions are extremely powerful. I remember the interview with the recently appointed president of Harvard University, prof. Larry Bacow, who

claims that Harvard is solving biggest world's problems. Top business schools or – more generally: HEIs – are out there for the whole world. Oxbridge, UCL, MIT, Harvard or Stanford belong to this elite.



Global recognition – „EQUIS provides you with a seal of excellence for the whole business school as well as a significant differentiation point in the increasingly competitive business education landscape".
International benchmarking – „You can take advantage of international comparison and benchmarking through the process of evaluation by an international peer review team, including a senior corporate practitioner".
Strategic advice – „EQUIS offers you strategic guidance for quality improvement and future development of your institution and all its activities, to keep you up to date in a rapidly changing global landscape".
Learning community – „Being accredited makes you part of a vibrant community of mutual learning and sharing good practice with business schools coming from different higher-education systems".

Figure 1. Conceptual Framework and Benefits of EQUIS Accreditation

Source: author's compilation based on EFMD Global (2020) and www.efmd.org

Accreditations are rather prescriptive in terms of suggestions regarding strategy. For instance, strategies of business schools must be distinctive in terms of mission and vision, for instance. Schools should develop some unique ways of how they want to position themselves on the higher education market. Business schools could also consider a suggestion of probably the biggest management guru, Peter Drucker, who claimed that organisations really improve only when competing with the best. It exactly means that business schools should compete with the best in their class.

Top accreditations also consider the programme portfolio (EQUIS – standard 2, AACSB – standard 4, and – partly – standards 5, 6 and 7). Accreditation bodies do not only pay attention to what the programme portfolio includes in terms of up-to-date and diverse teaching opportunities for prospective learners, but they also pay attention as to necessary changes to the curriculum, or how are HEIs making sure the intended learning outcomes / goals and objectives are achieved (AoL – Assurance of Learning).

In the context of the programme portfolio, business schools have to answer internally a question regarding their key customers. Do they want to attract mostly local learners, or maybe students from the whole country, region (Europe, for instance), or from the whole world? This example shows how the accreditation areas regarding programmes is linked to the area regarding students (EQUIS – standard 3, AACSB – parts of standards 5, 6 and 7, mostly). Consequently, top business schools, regardless of their location tend to communicate via their websites and other modern marketing channels in English, which is a lingua franca of current times. Sometimes communication in domestic language is parallelly maintained.

Of course, such dilemmas are not just purely technical questions. If a school focuses mostly on domestic prospective learners, then the English communication channels might not be of top priority. On the other hand, however, each HEI is embedded in its particular context. Sometimes local or national impact zones are consciously chosen by the leadership and academic community of a given school.

Accreditations allow for reflection on what pedagogies should be adopted within the teaching process. It is not only a challenge related to modern and sophisticated technology, which could be used in classrooms. Business schools have obviously faced also a huge challenge related to the outbreak of the pandemic and its consequences as teaching methods have to be adapted to the new environment.

Some HEIs have adopted flipped classroom approach (i.e., SGH Warsaw School of Economics for some courses); some have implemented hybrid teaching with some learners in the physical premises (i.e., Hult Business School) and some online at the same time; some schools try to take advantage of new opportunities and develop more life-long learning programs and flexible access to teaching products at any time (so called liquid learning – i.e., IE University).

For top international accreditations, the internationalisation dimension is also of huge importance. Naturally, this is a very broad topic. Relatively few business schools are proud of high global recognition, with majority of HEIs competing intensively to become more recognisable internationally. AACSB and EQUIS labels allow for attracting more international students.

In terms of strategy, the role of Advisory Boards of business schools seems to be of growing importance. „The Board is there to provide a challenge to the Dean, challenge to the strategy and really invigorate relevance for the Business School. It helps them develop a greater breadth and depth of insight to feed into the programmes they are constructing and the way that they're actually delivering." Rather than wishing to be part of a tick-box exercise or 'sitting on the school mantelpiece, a board member's ability to give effective advice very much reflects the level of challenge a dean is prepared to accept and how close the board is allowed to get to a 'warts and all' understanding of the school" (*Business School Advisory Boards*, 2021).

Latest inspirations from Global Focus and BizEd magazines

The EQUIS framework emphasises the internationalisation in a lot of dimensions. „More than twenty years of accreditation experience drawn from across the world has clearly demonstrated that there is no *'one best model'* for internationalising a business school. Rather there are a variety of successful strategies, depending on the scope, size, resources and location of a school" (Osbaldeston, Kudrnova-Lovera, 2021).

„Some large graduate schools have focused on developing programmes in a single location where everything is designed from an international perspective – curriculum, faculty, students, research agenda, etc. – such that the national base is largely irrelevant to their operations. These schools have developed a truly international community where no single nationality predominates. Others, perhaps originally based in a single European location, chose a different path, establishing a subsequent *'sister'* school in a different geographical region" (Osbaldeston, Kudrnova-Lovera, 2021).

Another topic, which has been very widely promoted by EFMD for years now is related to impact of the school. Aprea and Edinger-Schons (2021) note the following: „Today we are facing urgent sustainability issues like climate change, species extinction, or food and water scarcity which threaten no less than our very existence as humanity. Despite some reductions in CO_2 emissions, recent statistics reveal that the first months of the COVID-19 pandemic aggravated many pre-existing sustainability issues defined in the UN Sustainable Development Goals (SDGs). Even for goals where positive development was observed previously, e.g., child mortality, the worldwide lockdowns have led to a deterioration of the situation due to lack of access to basic goods and services like clean drinking water, food, or medical services.". A big question is how business schools will be coping with those issues.

„For higher education institutions, the topic of sustainability education has consequently gained in relevance, and business schools are no exception. There are academics actively engaged not only in researching solutions to real-world issues around sustainable development, but also designing and piloting new teaching formats to empower and motivate the leaders of tomorrow to be proactive change makers who will create sustainable and resilient economies and societies" (Aprea, Edinger-Schons, 2021).

In order to collect some inspiration for business schools, we have also compiled in this paper how AACSB has been putting emphasis of certain key topics on the agenda recently. Below, we present all key topics from 2020 issues of BizEd magazine (Table 3).

The last issue of AACSB's BizEd focuses on the topic of experiential learning, which may be defined in the following way: „Experiential learning is the application of theory and academic content to real-world experiences, either within the classroom, within the community, or within the workplace, which advances program or course-based learning outcomes that are specifically focused on employability skills. Experiential learning requires the student not only to engage in the experience activity, but also requires them to reflect upon their learning and how their skills learned through their academic studies can be applied beyond the classroom" (Carleton University, 2021).

The Covid-19 pandemic is – however – making changes in terms of how experiential learning may be conducted in business schools. Below, we present what happened to the MBA programme at University of Illinois at Urbana-Champaign: „Prior to March 2020, we had planned seven to eight immersion experiences for our iMBA program in locations such as Ireland, Brazil, Germany, Los Angeles, and New York City. COVID forced us to cancel all of them. Companies in our fee-based program cancelled or postponed projects, putting a strain on our staff and operations. In response, in October, we held our first virtual Brazil immersion experience for our iMBA students. We lengthened the time of the immersion from one week to three weeks. With the help of our partner Campus B – a company based in São Paulo, Brazil, that helps schools facilitate international internship experiences for students – we matched 31 iMBA students with 15 students located in cities throughout Brazil" (Allen, 2020).

Table 3. Key topics on 2020 AACSB BizEd agenda

No.	Topic	Subtitle - Explanation
Jan–Feb 2020	Prepare for Disruption	Technology's Future Remains a „Black Box" of Possibilities Offering Both Promise and Peril. Will Business Graduates Be Prepared for Whatever It Holds?
Mar–Apr 2020	Inclusive Cultures	Educators From Across The Industry Describe The Many Paths Their Schools Are Taking To Enrich Campus Diversity
May–Jun 2020	Strength in Numbers	As The Business Education Market Grows More Complex, B-Schools Find They Can Achieve More By Banding Together
Jul–Aug 2020	The Path Forward	As A Global Crisis Reshapes Higher Education, Business Schools Find New Ways To Teach, Collaborate, And Create Community
Sep 2020	Clearing the Way for Adult Learners	Serving the Growing Market of Non-traditional and Adult Learners
Oct 2020	People at the Core	Developing Leaders for the Complex Environment
Nov–Dec 2020	Experiential Learning in a COVID World	Expanding Experiential Learning in Business Education

Source: author's own compilation based on: https://bized.aacsb.edu/

Concluding remarks

Undoubtedly, AACSB and EQUIS accreditations are the two most important institutional accreditation frameworks for business schools. Top business schools across the world are already proud of obtaining this label or are running initial accreditation processes, preparing to achieve them. Benchmarking against the standards of most respected accreditations is a unique opportunity to reflect on best practice of top higher education institutions.

Research carried out when preparing this paper and author's experience related to coordination of AACSB and EQUIS accreditation projects for SGH Warsaw School of Economics allows for drawing the main conclusions.

Undoubtedly, the most important lesson learned is the one related to how both accreditation frameworks emphasise the role of accreditations standards in guiding business schools going forward. Within the standards, the most important role is attachment to strategy.

Vision and mission of a business school should be distinctive. Business schools must be mission-driven; all activities and processes happening in any higher education institution (related to programmes, faculty, research, students, teaching including assurance of learning, executive education, projects, etc.) should be aligned to mission.

Finally, accreditations emphasise the necessity for business schools to become active members of the international community of top higher education institutions. Inspirations from top business schools include – inter alia – a global mindset and international dimension, responsibility to all stakeholders, cooperation with business and bold innovations in terms of pedagogy during the Covid-19 pandemic.

As institutional accreditations cover all processes carried out by business schools, the inspirations of AACSB and EFMD are very meaningful and should be considered carefully. Naturally, there is a certain level of flexibility for business schools to interpret standards and adjust them in a wise way to their particular contexts.

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Endnotes

1) www.gbsn.org/purpose/why.
2) www.aacsb.edu, www.efmd.org. Author of this paper advises readers to study more on this topic in documents attached on websites mentioned above, as standards and other accreditation documents are presented there *in extenso*.
3) Author of the paper serves as Director for AACSB and EQUIS Accreditation Projects at SGH Warsaw School of Economics. In this part of the paper, some experience and inspirations as collected throughout initial accreditation processes were reflected on.

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Korzyści dla szkół biznesu z najważniejszych międzynarodowych akredytacji. Wnioski z realizacji projektów AACSB i EQUIS

Streszczenie

W artykule zastosowano połączenie podejścia eksploracyjnego i deskryptywnego w procesie badawczym. W ramach podejścia eksploracyjnego autor stara się położyć podwaliny pod późniejsze, bardziej szczegółowe badania dotyczące korzyści i inspiracji najważniejszych akredytacji szkół biznesu. Artykuł zawiera również elementy podejścia deskryptywnego, jako że przedstawiono odwołania do pewnych rzeczywistych informacji dotyczących doświadczeń szkół biznesu zebranych w czasie realizacji projektów akredytacyjnych. Największym ograniczeniem tego artykułu jest wąsko zarysowany zakres badań. W przyszłości, autor planuje rozwinąć podjęte w tym artykule badania, odrębnie dla akredytacji EQUIS i akredytacji AACSB. Artykuł może być wartościowy dla przedstawicieli kierownictwa szkół biznesu, ponieważ zaprezentowano w nim ważne elementy filozofii najważniejszych akredytacji, a także przedstawiono wybrane inspiracje i najlepsze praktyki oraz wnioski wynikające z realizacji projektów akredytacyjnych.

Słowa kluczowe

szkoły biznesu, akredytacje, AACSB, EQUIS, standardy, inspiracja

ENTREPRENEURSHIP AND REGIONAL GROWTH REGIMES IN THE UNITED STATES

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Introduction

Which types of firms drive growth in regional economies over time, and in particular, employment growth? Should policy makers interested in promoting jobs focus on enabling economic policies for start-ups, or should policy be focused on supporting large, established firms? These questions have been central research areas in public, industrial, and regional economics. Decker et al. (2014) emphasize the importance of young firms. They report that half of gross job creation in the United States is due to high-growth businesses, which are disproportionately young, and that start-ups account for a fifth of US gross job creation. Audretsch and Fritsch (2002) provide an important contribution to answering the questions posed above from a regional economics perspective by using data from 74 regions in Germany for the 1980s and 1990s. We follow the lead of this paper and take the regional analysis to data for the United States from 1980 to 2014.

There are at least two competing theories for engines of growth within an economy, as described already by Schumpeter (1942). First, there is the concept of creative destruction. In this model growth is created by new firms as they disrupt markets, grow new businesses and displace older, less innovative firms. In the second model established firms are able to leverage their size and expertise from producing to innovate, reduce cost and grow the economy. In this model producing goods allows firms to learn by doing and innovating.

It is possible for both models to be accurate in some circumstances depending on the agreement on value of an idea between an innovator and a firm. For example, if both a firm and an innovator value an idea the same, then the firms' resources and scale will be deployed to develop the idea. Thus, innovation will be driven by large, established firms. However, a disagreement between innovators and firms as to the value of an innovation idea may induce the innovator to use this idea to start a new firm. If the large firm valued the idea appropriately, the new enterprise would fail. However, if the innovator is correct, the new enterprise will eventually disrupt the market and potentially displace the older firm (Audretsch, Fritsch, 2002). Large firms can contribute to the development of startup firms by the quality of the knowledge they transfer to spin-outs, the capital endowments they provide to start-up firms, and the number of innovative ideas they underutilized (Agarwal et al., 2004; 2007; Shane, Stuart, 2002).

If these models are extended to regions, then they pose several questions for policy makers. First, does the evidence support that employment growth can be accomplished through both models? If the answer is yes, then does one model versus another have larger impacts on labor in the region? The answers to these questions are key to policy makers interested in supporting economic development in their regions.

These research questions have been examined in several contexts. Some evidence suggests that both the type of region (urban versus rural) as well as the type of firm growth can impact job growth. For example, Mueller et al. (2007) find that the type of firm growth impacts job growth in lagging

periods. The impact varies based on characteristics of the region in which new firms are founded (van Stel, Suddle, 2007). Baptista et al. (2007) also find that new firm type is important in their study of growth dynamics in Portugal. Delfmann and Koster (2016) report that even in regions facing declining populations, new firm start-ups have a positive impact on employment growth.

The question of economic growth and regional development in the United States was examined by Acs and Armington (2004). They focus on the knowledge spillover effects in US cities and their surrounding labor market areas and find that a new firm's growth and knowledge spillover effects are important for employment growth rates.

Extending the model of innovation to regions as opposed to specific firms or industries requires the classification of regimes based on some characteristics of the economies being studied. Audretsch and Fritsch (2002) propose four regime classifications based on two primary criteria. First, they compare firm creation and destruction in an area to identify what type of innovation is happening (start-ups or established firm innovation). Second, they rank areas by their job growth[1].

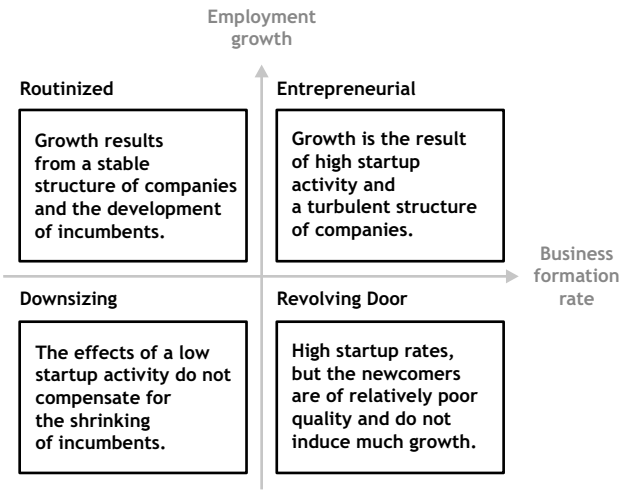

Figure 1. Regional growth regime characteristics

Figure 1 illustrates the concept. An entrepreneurial regime in a region is characterized by high business formation and employment growth rates. A routinized regime is characterized by a low business formation rate and a high employment growth rate. A region with a high business formation rate and a low employment growth rate exhibits a large amount of churn in the area's economy and finds itself in the revolving door regime. A downsizing regime characterizes a region experiencing low business formation and employment growth rates.

Audretsch and Fritsch (2002) use six metrics for classification. These metrics are the start-up rate, the closure rate, the turbulence rate, the net entry rate, the volatility rate, and the employment change over the period. All rates are calculated by taking the number of start-ups etc. in a period and region and dividing by the total labor force in that region at the start of the period (Audretsch, Fritsch, 1994). The turbulence rate is calculated in a similar manner with the numerator defined as the number of start-ups plus the number of closures. The volatility rate is defined as the turbulence minus net entry (Audretsch, Fritsch, 2002). It reflects the degree of turbulence when not taking into account the change in the number of firms. We calculate these metrics to compare the four regional growth regimes in the United States during three decades.

Comparing the classification of German regions over two time periods (the 1980s and 1990s), Audretsch and Fritsch (2002) find that entrepreneurial and downsizing regimes seem to be „attractor" states while routinized and revolving door regimes represent transitional states. Using a Markov chain model, they estimate steady state regime distributions as 37 percent entrepreneurial, 37 percent downsizing, 13 percent revolving door, and 13 percent routinized. The authors conclude that growth can be achieved through support of both established regimes and a more volatile growth regime focused on start-up creation. While both regimes can result in growth and positive employment change, there is some concern that the routinized regime is a transitional state and below a threshold for new start-ups growth is not seeded for future periods resulting in the region transitioning from high growth to a low growth downsizing regime.

In this paper, we investigate regional growth regimes in the fifty US states from 1980 through 2014 using similar methods like Audretsch and Fritsch (2002). We categorize states by their business formation rate and employment growth rate in a given period of time and distinguish between the four regimes depicted in Figure 1: the routinized, entrepreneurial, downsizing, and revolving door regimes. To analyze the associations between business formation rates and employment growth rates over space and time, we provide heat maps, scatter plots and results from regression analysis.

The remainder of this paper is organized as follows. In Section 2, we discuss the dataset we created using the Business Dynamics Statistics (US Census Bureau, 2020) and provide an overview of the methods used. We describe the growth regimes of each state from the 1980s through 2014 in Section 3. In Section 4, we analyze the relationship between start-up rates and employment growth using both cross-sectional and panel data analysis from 1980–2009. We summarize our results with our conclusion in the final section.

Data and research methods

We use the Business Dynamics Statistics (BDS) dataset published by the US Census Bureau (2020) for our analysis. This dataset covers state level as well as metro, nonmetro, and MSA data at an annual frequency from 1977 to 2014. The data is derived by the Federal Statistical Research Data Centers and based on the Longitudinal Business Database. Two key advantages of the BSD are particularly important for our analysis: first, it is precise because it is based on firms tracked by the Census Bureau's business registry in the United States, and second, we are able to observe three and a half decades of firm dynamics.

The dataset is organized by state and provides data on both firms and jobs by year. We utilize three full decades between 1980 and 2009 for our tables and regression analyses. Additionally, we present graphs based on the most recent years available in the data (2010–2014). Examples

of firm data are the rate of firm creation, firm deaths, and number of firms. Employment metrics such as job creation, job loss, and total number of jobs in the region are tracked.

We use the approach described by Audretsch and Fritsch (1994) for defining entry and exit variables as well as firm and job creation and destruction. Under this approach entry/exit rates are normalized by the size of employment in the region. The start-up rate is defined as new establishments divided by employment. The growth rate is defined as new jobs created, less jobs destroyed, normalized by employment. The closure rate is defined as firm deaths normalized by employment. The volatility rate is defined as the sum of new establishments and firm deaths less the absolute value of their difference, normalized by employment. Turbulence is defined as the sum of firm entries and deaths normalized by employment. The net entry rate is defined as new firm entries less firm deaths normalized by employment. Population estimates were obtained from the US Census Bureau and were used to calculate population density.

We define an entrepreneurial regime as a region with higher than the median start-up and employment growth rates. A routinized regime is characterized by a lower than median start-up rate with a higher than median employment growth rate. A region with a higher than median start-up rate and lower than median employment growth rate finds itself in the revolving door regime. A downsizing regime is identified as a region experiencing lower than median start-up and employment growth rates. Table 1 shows the median start-up and employment growth rates across states for each decade[2].

To analyze the associations between start-up rates and employment growth rates over states and decades, we provide heat maps and scatter plots of states by decades, descriptive statistics of states in each decade by the regional growth regime they are in, and transition matrices showing how states move between regional growth regimes. Finally, we apply OLS regression analysis in order to estimate the relationship between the regional start-up rate and employment growth rate controlling for other factors (see below for details). We use Stata version 15 and Python version 3.6 for the analysis.

Growth Regimes in US States, 1980-2014

Figures 2, 3, 4, and 5 show the categorization of each state into one of the four regional growth regimes defined above in the three and a half decades between 1980 and 2014. We find that regimes in the United States are spatially clustered. In the 1980s large sections of the Southwest including California are in an entrepreneurial state while there is a band running from Texas through Montana that is revolving door. The Midwest states including Illinois, Indiana, Michigan, Missouri, and Ohio, are in a downsizing regime, while most of the East Coast is in a routinized regime. Leading into the 1990s, we see the expansion of the entrepreneurial states to most of the western half of the US while more of the eastern US and Midwest transition into downsizing regimes. By the 2000s, we observe a similar clustering, despite South Carolina, Georgia, and New York transition to a revolving door regime. In 2010–2014, North Carolina, home of the Research Triangle, moves from the downsizing regime to the revolving door one, and New York transitions from the revolving door to the entrepreneurial, while some of the entrepreneurial states of the western half of the United States move to the revolving door regime.

Figures 6, 7, 8, and 9 represent scatterplots that show the employment growth and start-up growth for each state in each decade. We also show fitted regression lines. Interestingly, there was no association between start-up growth and employment growth in the 1980s, but a clear positive relationship between start-up growth and employment growth in the 1990s and 2000s. This suggests that start-up growth has become more relevant for job growth over time, consistent with a transition from a managed society to a more entrepreneurial society (Audretsch, 2009). However, in 2010–2014, after the Great Recession, the slope becomes less steep, and it remains to be seen how the strength of the association continues to develop.

It is interesting to compare California and Massachusetts, as Silicon Valley and Route 128 have been two of the leading innovative regions in the United States. California moved from the entrepreneurial regime in the 1980s to the revolving door regime in the 1990s and then back to the entrepreneurial regime in 2000–2014. Massachusetts transitioned from the routinized regime in the 1980s to the downsizing regime in the 1990s and 2000s and then back to the routinized regime in 2000–2014. Saxenian (1994) describes a policy difference between the states that might have contributed to the different developments: California implemented policies that allowed high competition among firms, whereas Massachusetts relied on policies that allowed firms to protect their innovations from spilling over[3]. The observation that California was in the revolving door regime in the 1990s could be explained by this decade being a seeding time in the state, as older chip and hardware companies began to give way to the growth in software businesses that dominated the Californian economy in both the late 1990s and 2000s.

Table 1. Median Start-up and Employment Growth Rate

Decade	1980s	1990s	2000s	2010-2014
Start-up Rate	0.86%	0.72%	0.64%	0.54%
Employment Growth Rate	1.89%	2.31%	0.82%	1.18%

Notes: The start-up rate is defined as the number of new establishments divided by employment. The employment growth rate is measured as the net change in jobs (new jobs less job destruction) divided by employment in each state, following Audretsch and Fritsch (1994)

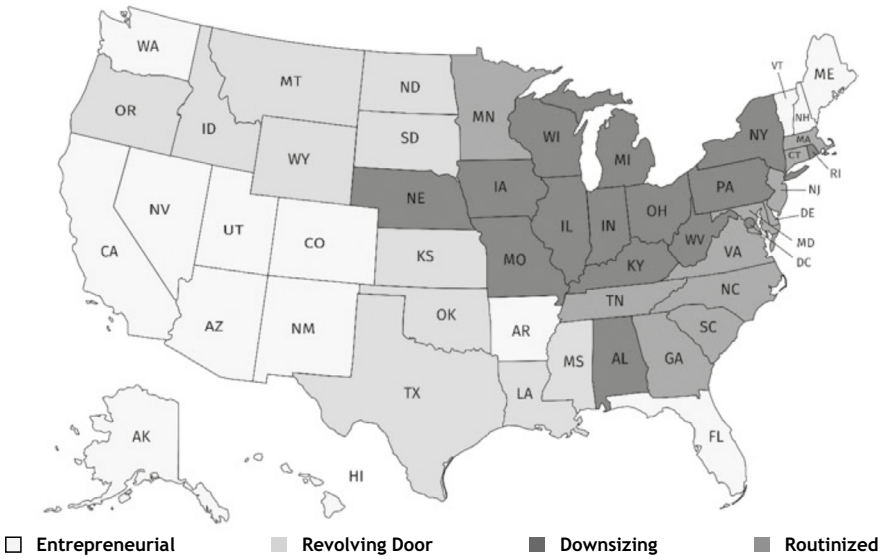

Figure 2. Growth Regimes in 1980s
Source: own calculations based on the Business Dynamics Statistics (US Census Bureau, 2020)

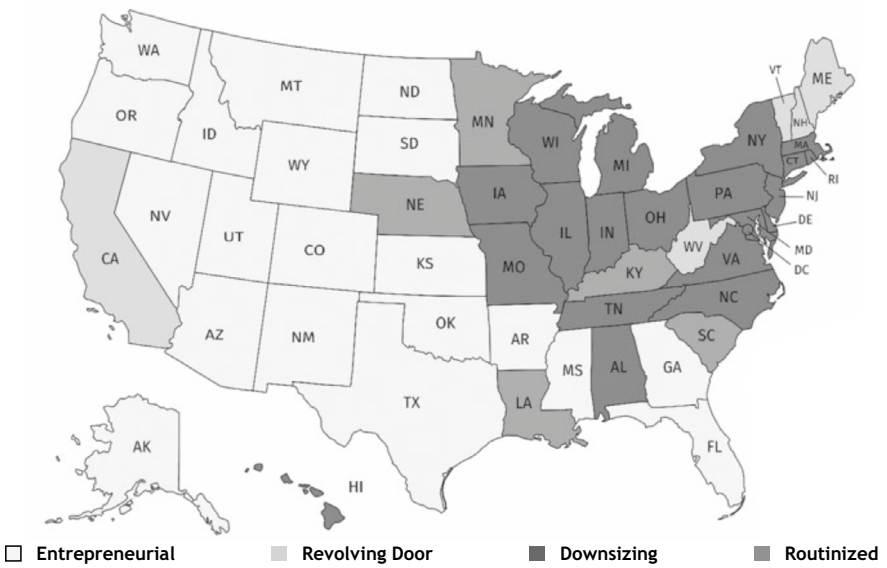

Figure 3. Growth Regimes in 1990s
Source: own calculations based on the Business Dynamics Statistics (US Census Bureau, 2020)

New York's high-tech job growth in the 2000s might be the reason for the state's transition into the revolving door regime from being in the downsizing regime before, and then on to the entrepreneurial regime in 2010–2014 (Marr et al., 2012). During the 2000s, tech companies advanced, and several older industries, including finance, were severely disrupted by technology (electronic exchanges, high-frequency trading, etc.). The Midwest, the center of industrial production in the United States, shows a consistent downsizing regime throughout the three and a half decades.

Notably, many of the rural areas transitioned to entrepreneurial regimes over the 35-year period. Audretsch and Fritsch (2002) found a similar result for Germany during the 1980s and 1990s. We cannot control our data for industry type due to lack of industry class start-up data at the state level which makes it difficult to isolate the cause for this transition. Many of these regions experienced booms in natural resource mining (both precious metals and fracking for oil) during this period which may have driven the growth of new establishments. This could be related to the downsizing experienced in locations like Pennsylvania and West Virginia as cheap natural gas displaced coal as a preferred fuel source for power plants.

In Table 2 we show some of the mean characteristics of each of the four regional growth regimes in each decade. Notably we find that neither high start-up rates nor high turbulence rates are sufficient to generate growth individually in US states, consistent with the results of Audretsch and Fritsch (2002) for Germany. This is significant, as it shows that Schumpeter's model of creative destruction cannot solely predict high growth in employment. We find that the converse is true as well. Low start-up rates or low turbulence also do not guarantee high employment growth. These points indicate that both of Schumpeter's models of growth

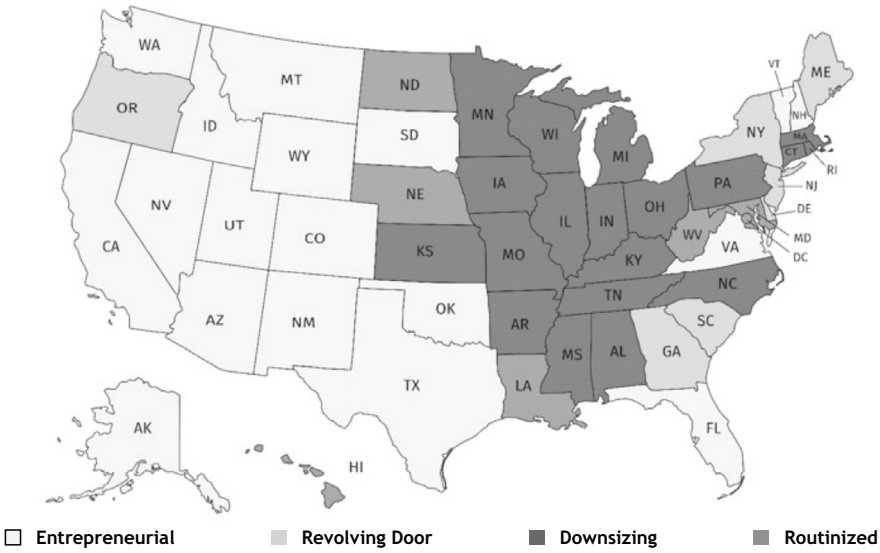

Figure 4. Growth Regimes in 2000s
Source: own calculations based on the Business Dynamics Statistics (US Census Bureau, 2020)

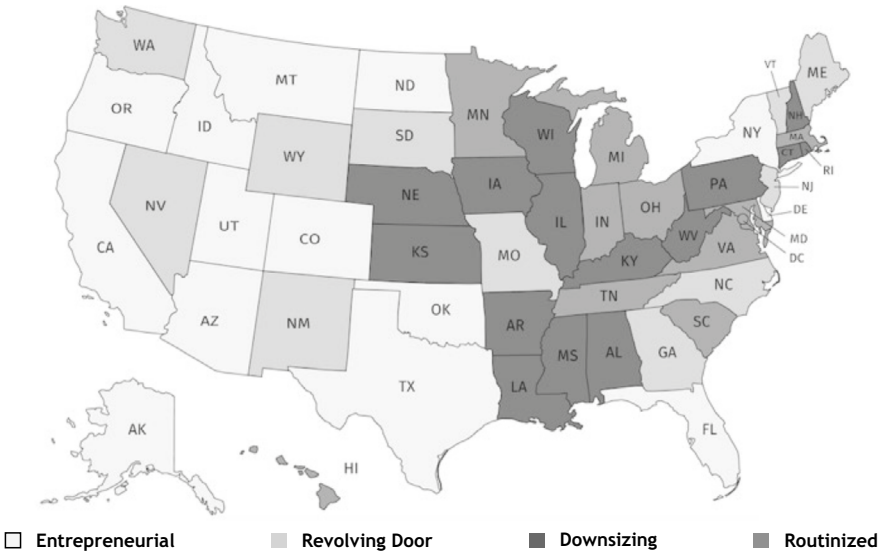

Figure 5. Growth Regimes in 2010–2014
Source: own calculations based on the Business Dynamics Statistics (US Census Bureau, 2020)

and innovation may be applicable; growth can be driven by established enterprises and by start-ups through creative destruction.

Changes of Growth Regimes in the United States over Time

Table 3 provides the numbers of US states that transition from one growth regime to another between the 1980s and 1990s (left panel) and between the 1990s and 2000s (right panel). We find that there are transition states and attractor states in the growth regimes, in line with Audretsch and Fritsch (2002). The downsizing and entrepreneurial regimes both appear to be attractor states, meaning that when a state moves into this type of regime it has a tendency to stay there. The routinized and revolving door regimes both appear to be transition states, as indicated by large shares of the states in these regimes transitioning out. Interestingly, this dynamics appears to hold across both decade-to-decade transitions we measure.

While both routinized and revolving door regimes are transitionary, they appear to lead to different steady state regimes. The destination regimes that the states in the transitionary regime move to are shown in Table 4. States in the routinized regime transition to the downsizing regime over 80 percent of the time (conditional on transitioning), whereas states in the revolving door regime overwhelmingly transition to the entrepreneurial regime. Thus, a region in the routinized regime is at risk of transitioning to the downsizing regime from one decade to the next. This gived grounds for concern as once an area is in the downsizing regime it does not seem to transition back out of it.

In Table 5, we show the estimates for the association of start-up rates and the employment growth rate using regression analysis. Like Audretsch and Fritsch (2002), we add a control variable for population density. The purpose of

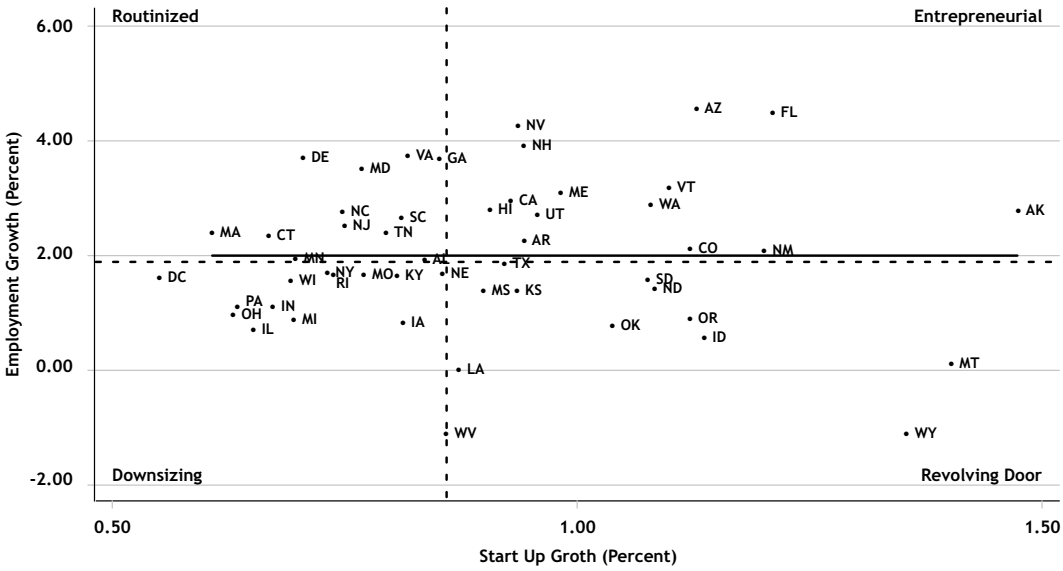

Figure 6. State Regime Measures 1980s
Source: own calculations based on the Business Dynamics Statistics (US Census Bureau, 2020)

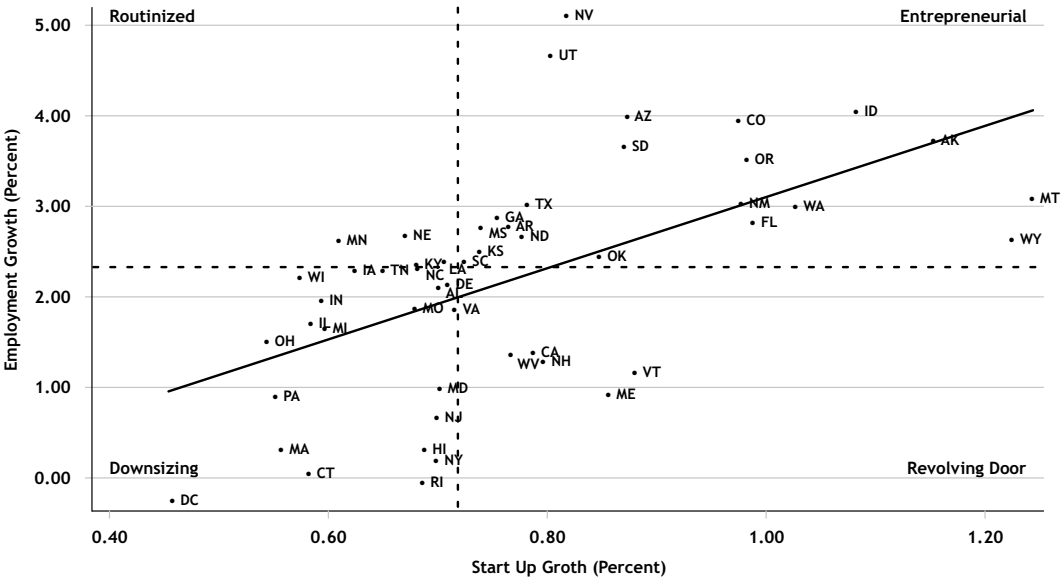

Figure 7. State Regime Measures 1990s
Source: own calculations based on the Business Dynamics Statistics (US Census Bureau, 2020)

this variable is to account for several factors such as wages, knowledge spillover effects, and housing costs. We also include year fixed effects to control for the business cycle and other time-varying factors that affect all states.

First, we run three cross-sectional regressions: one for each decade. In these regressions, we use the decade average of the annual employment growth rates (job creation minus job destruction normalized by employment) for each state as our dependent variable and the average start-up rate in the decade and population density as the regressors. Population density is measured using the starting population for the decade in thousands of people per square mile in each state. We find the results for the United States to be similar to the Audretsch and Fritsch (2002) report for Germany. In the 1980s, the association of the start-up rate with employment growth is not significantly different from zero. However, in the 1990s and 2000s there is a positive and significant relationship between the start-up rate and growth, confirming our finding from the scatter plots above[4].

Finally, we pool annual data from the three decades and estimate a regression including both state and year fixed effects (with standard errors clustered at the state level). In this regression, we use the annual log difference in employment as our dependent variable. In this estimation, we use indicator variables for each decade and interact those variables with the annual start-up rate. We find similar results to the cross-sectional regressions with a significantly larger positive association of the start-up rate with employment growth (last column of the Table 5).

Despite including both state and year fixed effects, we cannot infer causality from these regressions due to potential endogeneity between start-up rates and employment growth. Employment growth could lead to start-up opportunities as a regional economy grows. Moreover,

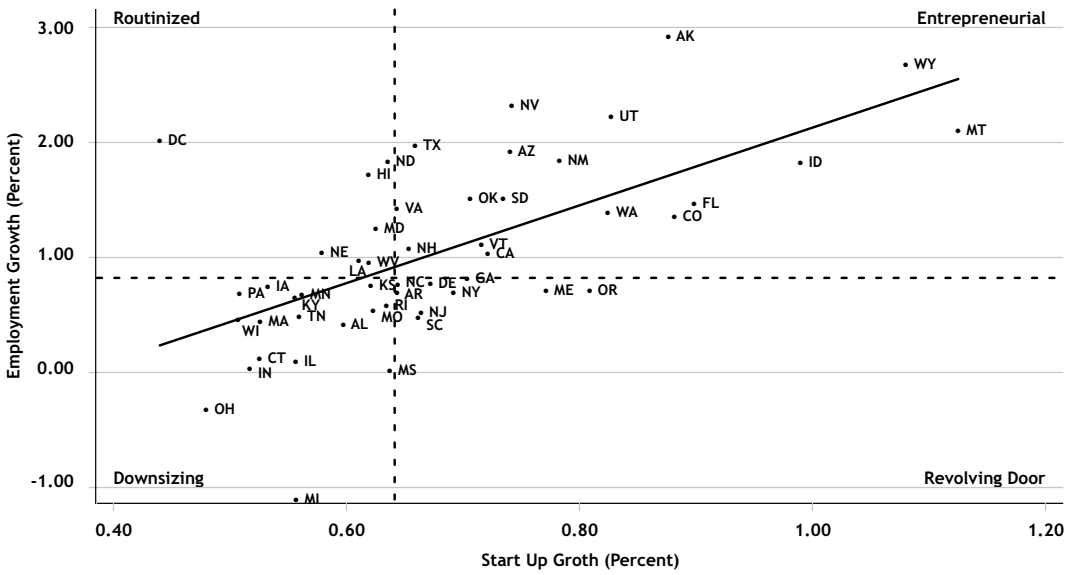

Figure 8. State Regime Measures 2000s
Source: own calculations based on the Business Dynamics Statistics (US Census Bureau, 2020)

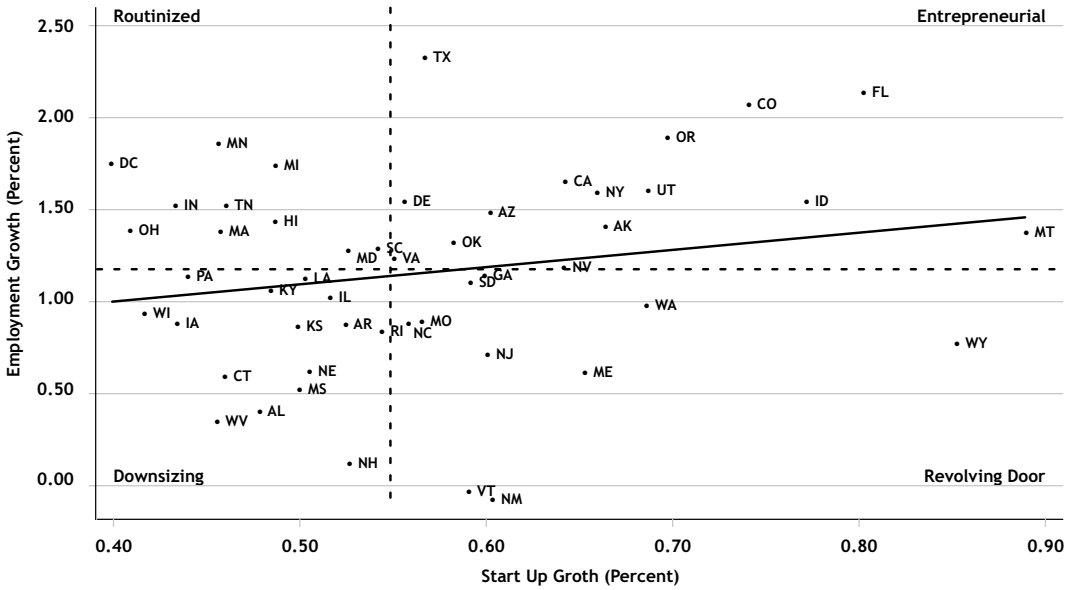

Figure 9. State Regime Measures 2010-2014
Source: own calculations based on the Business Dynamics Statistics (US Census Bureau, 2020)

unobserved state-specific time-variant factors could impact both start-up rates and employment growth. That said, the finding that the association between start-up rates and employment growth became stronger over time, while controlling for state and time fixed effects, points to an increasingly important role of business formation that deserves further research.

Conclusions

We investigate growth regimes in the fifty US states from 1980 through 2014 using methods proposed by Audretsch and Fritsch (2002). We find that the association of the start-up rate with employment growth changed over the time periods. There was no apparent link between start-up rates and employment growth in the 1980s but a positive relationship between start-up rates and employment growth in the 1990s, 2000s, and 2010–2014. Our results for the United States parallel the results reported by Audretsch and Fritsch (2002) for Germany in the 1980s and 1990s.

We document growth regime distributions for the US states in all four periods. We find strong spatial clustering of regime types in the states during all periods. We also observe that the downsizing and entrepreneurial regimes appear to be attractor states, whereas the routinized and revolving door regimes appear to be transitionary states, consistent with Audretsch and Fritsch (2002). The attractor regimes are characterized by the relatively long periods of time that many states remain in those regimes. In contrast, about half of the states in the transitionary regimes transition to a different regime by the next decade. The revolving door regime is a transitionary state that mostly leads to the entrepreneurial regime, which is one of the attractor states.

Table 2. Characteristics of Growth Regimes

Region Type	Start-up	Closure	Volatility	Turbulence	Growth	Number
A:1980s						
Entrepreneurial	0.103	0.056	0.112	0.158	0.294	14
Revolving	0.107	0.063	0.126	0.171	0.093	11
Routinized	0.075	0.037	0.074	0.112	0.267	11
Downsizing	0.073	0.041	0.082	0.114	0.157	15
B:1990s						
Entrepreneurial	0.087	0.047	0.095	0.134	0.301	20
Revolving	0.079	0.047	0.095	0.127	0.128	5
Routinized	0.068	0.038	0.076	0.106	0.238	5
Downsizing	0.065	0.035	0.071	0.101	0.165	21
C:2000s						
Entrepreneurial	0.076	0.041	0.083	0.117	0.166	18
Revolving	0.069	0.040	0.081	0.108	0.071	7
Routinized	0.061	0.033	0.067	0.096	0.126	7
Downsizing	0.055	0.032	0.065	0.088	0.04	19

Notes: States in each decade are categorized into the four regional growth regimes by determining whether the start-up rate and the employment growth rate were above or below the median (see text). The start-up rate is defined as the number of new establishments divided by employment. The closure rate is firm deaths divided by employment. The volatility rate is new establishments plus firm deaths less the absolute difference between new establishments and firm deaths, normalized by employment. The turbulence rate is new establishments plus firm deaths normalized by employment. Growth is the employment growth rate, defined as job creation minus job destruction normalized by employment. Number is the number of states (+ Washington, DC) in the decade classified into each regional growth regime

Table 3. Transitions Over Time by Regime Type

	1980s-1990s		1990s-2000s	
	Number	Transition	Number	Transition
Downsizing	15	3	21	7
Entrepreneurial	14	5	20	6
Routinized	11	9	5	3
Revolving	11	11	5	4

Table 4. Transitionary Regimes to Steady State Probabilities

Regime	Entrepreneurial	Downsizing	Revolving	Routinized
Routinized	8.33%	83.33%	8.33%	N/A
Revolving	86.67%	0	N/A	13.33%

The routinized regime is a transitionary state as well, but primarily leads to the downsizing regime, the other attractor state.

This suggests important policy implications. If policy makers focus their development efforts on supporting existing establishments, the state may see strong employment growth for several years only to transition to a downsizing regime thereafter. While existing firms may generate employment growth over the medium term, there may be a lack of innovation, which puts the routinized regime at risk of moving to downsizing in the long run with negative effects on employment growth. This could imply incentive problems from a political economy perspective. If regional policy makers support economic development with existing establishments, they may experience growth in the short-term. They will be incentivized to do so due to the electoral cycle. However, it appears that there may be long-term negative growth impacts to pursuing this path to job growth in an area. Overall, the results support the view that policy makers should consider programs that enable and promote regional start-up activity, which may support employment growth in the region in the long run. There is an opportunity to refine this research avenue in the future by adding information on the regional policy and business environment such as data on taxes, labor market regulation, unionization, competition policy, and institutions of higher education.

Table 5. Regression analysis

	1980s	1990s	2000s	Fixed Effects
Start-up rate	0.3683 (1.0424)	2.1692 (0.7473)***	3.5780 (0.5773)**	3.6356 (0.9607)***
Population density	0.0812 (0.0972)	-0.0276 (0.0054)***	-0.0049 (0.0033)	-0.2457 (0.0519)***
1990s				-0.0076 (0.0080)
2000s				-0.0295 (0.8194)***
Start-up rate x 1990s				4.4109 (0.8194)***
Start-up rate x 2000s				4.2459 (1.060)***
Constant	0.1565 (0.1048)	0.0100 (0.0063)	-0.0132 (0.0042)***	0.0169 (0.0085)**
Observations	50	50	50	1500
Groups				50
R^2	0.0148	0.53	0.49	0.10
R^2 within				0.54
R^2 between				0.19

Standard errors are in parentheses. Stars (***/**/*) indicate significance at the 1%/5%/10% levels. The dependent variable for the first three rows is the decade average of the employment growth rate for each state, and the annual log difference in employment in the last column.

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Endnotes

1) This concept of regional growth regimes, focusing on innovation and employment growth, is different from growth regimes in developing countries (Kar et al., 2013) and the model of the city as a growth machine (Logan et al., 1997).
2) We obtain these medians by first calculating the decade averages within each state and then the median across states.
3) As a result, according to Saxenian (1994), the total market value of firms rose by $25 billion in California but only $1 billion in Massachusetts from 1986 to 1990.
4) The difference is that we control for population density and year fixed effects here.

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Entrepreneurship and Regional Growth Regimes in the United States

Summary

We investigate regional growth regimes in the US states from 1980 to 2014. Based on start-up rates and employment growth as suggested by Audretsch and Fritsch (2002), we classify states into routinized, entrepreneurial, revolving door, and downsizing regimes. The results indicate that there was no significant association between start-up rates and employment growth in the 1980s, but a positive relationship in the 1990s, 2000s, and 2010s. Further, we document that the entrepreneurial and the downsizing regimes are attractor regimes that tend to stick, whereas the routinized and revolving door regimes are transitionary regimes. Importantly, states in the routinized regime predominantly move to the downsizing regime, suggesting that an over-reliance on established companies relative to start-ups in the state may threaten employment growth in the long run.

Keywords

entrepreneurship, employment growth, region

ECONOMIC AND SOCIAL IMPLICATIONS FOR COVID-19 POLICIES: LESSONS LEARNED FROM SPANISH INFLUENZA AND OTHER DISEASE OUTBREAKS IN HISTORY

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Introduction

Estimates on Spanish flu suggest that 500 million individuals worldwide were infected by the virus, and that 50–100 million people died in the aftermath of an infection between 1918 and 1920 (the majority of the victims of the Spanish flu were healthy young people in the age interval 15–40, which apparently makes it different from COVID-19).

The conventional approach in economic costs' estimation of Spanish influenza (focusing on mortality rates and costs directly associated with it to researched economies) underestimates the true economic costs of infectious diseases of epidemic proportions which are highly transmissible and for which there is no vaccine. The experience from these previous disease outbreaks provides valuable information on how to think about the implications of COVID-19.

A 2019 joint report from the World Health Organization and the World Bank estimates the impact of such a pandemic upwards, bringing the total cost to 2.2–4.8% of global GDP meaning 3 trillion US dollars (Global Preparedness Monitoring Board, 2019). Economic losses estimations are considerably higher for XXI century pandemic events to compare to those extrapolated from the Spanish flue's data.

Given a highly mobile and connected society, any future influenza pandemic is likely to be more severe in its reach, and perhaps in its virulence, than the 1918 influenza. Mitigating a pandemic will require cooperation and planning by all levels of government and the private sector. Public education on flu mitigation is necessary. A multi-faceted crisis will require monetary, fiscal and health policy responses.

Now faced with the COVID-19 pandemic, many medical professionals and government officials are looking at the Spanish flu to anticipate the impacts of the coronavirus on economic and social costs.

The article's goal is to prove that the experience from previous disease outbreaks provides valuable information on how to think about the economic and social implications of COVID-19.

The additional goal is to extrapolate macroeconomic effects and estimate direct and indirect costs of a pandemic based on major disease outbreaks in history with special emphasis on the Spanish influenza including its first and second wave. In addition to the above, the article will focus in part on tourism and entertainment as those sectors were mostly affected by SARS & H1N1 and are suffering the most during COVID-19.

The purpose of the presented literature review is to place each work in the context of its contribution to use its findings to build a set of recommendation on COVID-19 policies for national and local governments and their respective agencies responsible for economic and social areas.

The author decided to use an integrative review (Snyder, 2019, pp. 333–339) as a research method with the aim to assess and synthesize the literature on the Spanish flu and other outbreaks' economic and social costs to enable new perspectives to emerge as recommendations for COVID-19 pandemic policies.

The purpose of using an integrative review method is to overview the knowledge base, to critically review what we know about costs of pandemic events focusing on lessons learned from the Spanish influenza and extrapolating the acquired knowledge to the current pandemic event.

Economic and social impact

The Spanish influenza of 1918–1919 was the largest world pandemic in the past century, causing 50–100 million deaths worldwide and 675,000 deaths in the United States (Schelden, 2020).

The world was hit by three pandemics in the 20th century: the Spanish influenza in 1918, the Asian influenza in 1957 and the Hong Kong influenza in 1968. Of these the Spanish flu was by far the most severe (two major pandemic catastrophes in the history were Black Death in the mid-14th century and the Spanish influenza in 1918–1919). However, there is little consensus on their economic results which depend crucially on the models used and on the availability of data (although the literature on the Black Death is substantial, researchers have not reached firm conclusions concerning its long-run effects).

The fear of the 1918–1919 Spanish influenza, as the „deadliest plague in history," with its extreme severity and gravity of clinical symptoms, is still present in the research and general community. Direct and indirect economic costs of illness are often the subject of the health economics studies on the burden of disease. The conventional approach uses information on deaths (mortality) and illness that prevents work (morbidity) to estimate the loss of future income due to death and disability. Losses of time and income by careers and direct expenditure on medical care and supporting services are added to obtain the estimate of the economic costs associated with the disease. This conventional approach underestimates the true economic costs of infectious diseases of epidemic proportions which are highly transmissible and for which there is no vaccine (e.g. HIV/AIDS, SARS and pandemic influenza). The experience from these previous disease outbreaks provides valuable information on how to think about the implications of COVID-19 (McKibbin, Fernando, 2020).

The Spanish influenza pandemic led to a significant increase in poverty rates; there is also strong evidence that capital returns were negatively related to the pandemic (Karlsson et al., 2013). The total value of losses (including lost income – through reductions in the size of the labour force and productivity, increases in absenteeism and, importantly, as the result of individual and social measures that interrupt transmission, but disrupt economic activity – and the intrinsic cost of elevated mortality) incurred by a severe global influenza pandemic (such as the 1918 pandemic), could reach about $500 billion per year, i.e. about 0.6% of global income (the expected number of influenza-pandemic-related deaths is about 720 000 per year).

Research results present losses much higher than those found in studies limited to income losses (Delivorias, Scholtz, 2020). Income losses have been estimated to represent between 15% and 50% of the total economic losses associated with a severe pandemic and a mild pandemic, respectively (in previous studies income losses were estimated to be about 16% of total pandemic related costs) – meaning that in less-mortality pandemic events income losses can account up to 50% of total losses (and that could be a case of COVID-19).

For poverty there is a strong and positive effect, which seems to have appeared only once, the epidemic receded in 1920 (11 per cent estimated growth of poverty). On the other hand – the pandemic appears to have increased regional employment rates in the industrial sector. This finding clearly suggests that the pandemic led to a significant reduction in average worker quality (as the production output did not increase); in this way, the study provides evidence that heterogeneity of the labour force needs to be taken into account when analysing the effects of a pandemic (Karlsson et al., 2013).

The long-term effects of the Spanish flu went well beyond the immediate demographic losses that it caused. Much research has been conducted into its consequences for the health of survivors, fewer studies exist on the way in which experiencing the Spanish flu shaped individual behaviour and human societies at large.

Recent studies argue that major crises can have long lasting effects on individual behaviour (Aassvea et al., 2020). Experiencing the pandemic likely had permanent consequences in terms of individuals' social trust. Findings suggest that lower social trust was passed on to the descendants of the survivors of the Spanish flu who migrated to the US. As trust is a crucial factor for long-term economic development, the research offers a new angle from which to assess current health threats. The analyses suggest that experiencing the Spanish flu and the associated condition of social disruption and generalised mistrust had permanent consequences on

individual behaviour in terms of lower social trust. These mutated individual social traits were inherited by descendants. Therefore, major pandemics should be added to this list of trust-reducing catastrophes.

Processes of this kind might also have been triggered by other major mortality crises of the past, which would include the medieval Black Death and the severe Cholera pandemics of the nineteenth century. Any forecasting of their future performance should account for the lasting damage to social trust, which has elsewhere been shown to have pivotal impact on the quality of institutions. This feature might be relevant for the African sub-Saharan countries which have been affected by Ebola in recent years, and maybe also for the parts of East Asia affected by the current epidemic of COVID-19.

Tourism & entertainment as the sectors most affected by SARS & H1N1

The 2003 severe acute respiratory syndrome (SARS) epidemic was the first epidemic of the XXI century to pose a threat to global health and generate considerable panic across the globe. During the period of a few months there were dramatic reductions in air travel and tourism, and leisure and/or hospitality services in the areas affected by SARS (Noy, Shields, 2019).

The economic consequences of the SARS epidemic can be delineated into direct and indirect impacts. Direct impacts included lost income and output due to death and symptomatic illness, as well as increased health-care costs. Indirect costs arise from aggregate behavioural changes driven by the public's perception of the outbreak – the economic impacts on the tourism, transportation, and leisure industries can all be classified as indirect economic impacts of the SARS epidemic.

These losses were driven by public avoidance, which contributed to a disproportionate aggregate disease prevention cost. This has led to concerns that an outbreak exhibiting higher mortality rates could result in a catastrophic impact on the global economy caused by even more drastic behavioural responses.

The SARS epidemic did cause temporary but significant indirect economic losses through behavioural changes, when millions of individuals sought to avoid becoming infected by the virus. These behavioural changes were driven by individuals' subjective judgments about the risk of contraction and death from SARS. Its outbreak generated substantial attention and panic internationally. One reflection of this panic was the early economic projections on the impact of SARS, which generally predicted losses to be greater than what eventually transpired. During the height of the epidemic international visitor arrivals fell dramatically in China, Hong Kong, Singapore and Taiwan that had the most SARS cases and resulted in an estimated gross domestic product (GDP) loss amounting to $13 billion. These losses, however, did not affect any of these economies for more than a couple of quarters.

The SARS epidemic, specifically, differed from the usual pattern of the cost of epidemics, as the majority of economic losses arose from the uncoordinated efforts of millions of individuals seeking to avoid infection; this manifested in significant changes to consumer behaviour due to individual subjective probability judgments about the risk of contraction and resulted in a significant portion of GDP loss attributed to mass avoidance of perceived exposure. In all the SARS affected economies, domestic consumption of leisure activities, local and international transport, and tourism, were the most significantly affected sectors. However, much of this consumption was postponed rather than cancelled, so some of the economic activity was only displaced temporarily.

That said, the irrecoverable losses to the tourism sector in Beijing alone were estimated to amount to around $1.4 billion, or 300 times the direct cost of medical treatment for SARS cases in the city. International visitor arrivals to Hong Kong dropped by 65% compared to the previous year's figure during April and airlines consequently began cancelling flights; between March and April 2003, total arrivals of visitors fell by 63% from 1,347,386 visitors to 493,667; daily arrivals plummeted from an average of around 27,500 passengers to roughly 5,000 passengers per day at the end of April. The reduction in tourism had a significant impact on hotel occupancy rates in Hong Kong, which fell dramatically between April and June to an average of 25%, from around 80% in the previous months.

Economic implication of an epidemic is that travel and tourism to regions affected by outbreaks are likely to decline (Delivorias, Scholz, 2020):

- economic impact to the Mexican tourism sector of the H1N1 influenza pandemic, by examining tourist arrivals: due to the virus, Mexico lost almost one million overseas visitors, which is estimated to have resulted in losses of around US$ 2.8 billion (this extended over a five-month period, mostly because of the slow return of European travellers to the country);
- similarly, the economic impact of the 2015 Middle East respiratory syndrome coronavirus (MERS) outbreak on the Republic of Korea's tourism-related industries finds that the relatively brief outbreak was associated with 2.1 million fewer non-citizen visitors, which corresponds to about US$ 2.6 billion in lost tourism revenue;
- the impact of SARS to domestic tourism earnings, losses reached US$ 3.5 billion in China and US$ 1.7 billion in Malaysia.

During the SARS epidemic, information or the lack thereof, was key for the evolution of the epidemic; preventing the spread of inaccurate or biased information, and the active and transparent reporting of timely and accurate data, which is consistently and constantly being monitored, should always be prioritised; available clear and visible information can guide individual responses and potentially can act to minimise transmission pathways and subsequent economic losses.

Second wave and importance of social distancing

The second wave of the influenza is considered to have fallen within the autumn of 1918 and was the most widespread, as well as deadliest, of the three waves. For the US, it was this wave that reintroduced the Spanish flu and

caused the most damage to its citizens. On a global scale, the second wave spread the virus to new places, even to Africa and indigenous communities whose contact with contagious Western countries were minimal trading relationships. When the third wave eventually hit, it especially impacted areas affected by the first wave but avoided the second, while many areas that experienced the second wave were not as impacted by the third (Radusin, 2012, p. 917).

The second wave of the Spanish flu hit the world with an evolved strain that was more contagious and virulent (Fottrell, 2020). While the first wave mostly infected and took the lives of the elderly, the second wave disproportionately affected young people—about half of the deaths of the pandemic ended up being amongst those in between the ages of 20 and 40 (Hagemann, 2020). As the pandemic coincided with the end of WWI, understanding of its spread is greatly related to the movement of military troops in the summer and fall. Where the troops went, they brought the virus with them. In the US, for example, while some soldiers were returning home, even more were going off to Europe to end the war in August and September. The public was unwilling to isolate and instead continued to support the war effort with demonstrations that furthered the virus's spread. Intimate contact amongst families and public events both contributed to the extent of the outbreak (Hagemann, 2020).

Philadelphia was amongst the American cities that failed to practice social distancing at the start of the second wave, serving as a cautionary example of the capabilities of a contagious virus in public spaces. On September 28, 1919, the city held a parade to raise funds for WWI efforts attended by 200,000 people. The decision to hold such an event, however, was made with the knowledge of returned cases, yet the mayor felt a quarantine would only instil panic throughout the city. Consequently, the Spanish flu hit Philadelphia rapidly: within three days after the parade all beds of all the city's 31 hospitals were filled, within the week 2,600 Philadelphians died from contracting the virus, and by the following week the death toll rose to 5,600. On October 3 the government shut down the city in response to the outbreak, closing schools, churches, and other public spaces. That closure, however, did little to alleviate the overwhelmed hospitals, and even morgues, which were ill equipped to be dealing with so many patients (Davis, 2018).

The case of San Francisco during the Spanish flu is similarly a testament to the importance of social distancing and the imposition of restrictions for public health. When the flu first came to the city in the fall of 1918, their government acted quickly to contain the virus. On October 18, schools and public places such as movie theaters were closed, mass gatherings and public dancing were prohibited, and masks were required to be worn in public. By October 25, 1918, the city hit its peak with over 500 cases and 94 deaths on that day. Their numbers began to decrease after then and the city was quick to remove its restrictions. By November 21, the city fully reopened (Canales, 2020).

By early December 1918, however, the virus was reimported into San Francisco. Having already lifted restrictions, city officials were unable to maintain the same level of compliance from citizens they saw through the initial lockdown during this „second hump." On January 17, 1919, the government mandated masks to be worn in public again, but that was met with resistance and even protests. The second wave caused the death toll to almost double—from 1,857 deaths in November to 3,213 by the end of February. While San Francisco served as an example during the first wave, the city was one of the few to experience a second hump and became one of the most impacted in the US with a death rate of 673 for every 100,000 (Canales, 2020).

The same phenomenon happened in St. Louis and Denver, which also had reopened their cities prematurely out of concern for the economy. For these two cities though, the second hump was especially deadlier than the first. Like San Francisco, when the second hump hit the local governments had to reimpose their initial restrictions. By not maintaining them the appropriate amount the first time, however, St. Louis' and Denver's total time of lockdown was double than that of other cities, like New York, which had kept their restrictions longer based on health and safety, not the economy (Blodget, Plotz, 2020).

From September through November of 1918, the death rate from the Spanish flu skyrocketed. In the United States alone, 195,000 Americans died from the Spanish flu in just the month of October. And unlike a normal seasonal flu, which mostly claims victims among the very young and very old, the second wave of the Spanish flu exhibited what's called a „W curve"—high numbers of deaths among the young and old, but also a huge spike in the middle composed of otherwise healthy 25 – to 35-year-olds in the prime of their life.

Studies affirm that social distancing, at the forefront of non-pharmaceutical interventions, during the Spanish flu pandemic were not the cause of the adverse effects on the economy. Areas more severely impacted by the virus subsequently experienced a more severe economic decline compared to the economies in areas less impacted by the flu. In the US, higher mortality rates had a negative association with economic activity, thus revealing that social distancing and related measures are not responsible for economic damage but the virus itself is (Roos, 2020).

Furthermore, cities that instituted early and extensive non-pharmaceutical interventions actually saw a relative increase in the economic activity after the pandemic. This is important because it reveals early and rigid non-pharmaceutical interventions in anticipation of a second wave can mitigate both the economic and public health related consequences of the pandemic (Correia, Lucky, 2020).

It has to be stressed that the rapid spread of the Spanish flu in the fall of 1918 was at least partially to blame on public health officials unwilling to impose quarantines during wartime. Measures of quarantine, closing places of mass gatherings, and wearing face masks were used during the Spanish flu pandemic.

Estimates for next pandemic events

In case of new pandemic event comparable to that of the Spanish influenza, GDP loss in Europe will be ranging between 2 and 4 per cent. Those results are in line with recent studies that explore the macroeconomic effects of a pandemic for other countries and regions. Their estimate of the macroeconomic cost of a pandemic in Europe is high, as they have

investigated a rather severe medical scenario with a mortality rate higher than that of the Spanish influenza in Europe in 1918–1920. Estimated macroeconomic effects of a future pandemic are roughly of the same size as those of a major recession (Jonung, Roeger, 2006).

The estimates of the annual probabilities of pandemics are the following (Fan et al., 2016):

- Expected pandemic deaths exceed 700,000 per year worldwide with an associated annual mortality cost of estimated at $490 billion; expected income loss at $80 billion per year and hence the inclusive cost to be $570 billion per year or 0.7% of global income (range: 0.4–1.0%);
- For moderately severe pandemics about 40% of inclusive cost results from income loss. For severe pandemics this fraction declines to 12%: the intrinsic cost of elevated mortality becomes completely dominant.

A 1918-severity pandemic might reduce the global GDP by about 5% and that the disruptive effects of avoiding infection would account for about 60% of that total (according to the World Bank). In an extreme scenario it would lead to income losses of over 12% of GNI worldwide and over 50% in some developing countries. The expected number of pandemic deaths per year is 720,000 (subject to major uncertainty). The expected annual inclusive cost that results for the world is $570 billion or 0.7% of global income.

The inclusive cost of a pandemic is the sum of its adverse impact on income and of the intrinsic cost of premature mortality and illness. Income losses are only a small fraction of inclusive costs (about 12%) for severe pandemics but a much larger 40% of inclusive costs for moderately severe pandemics (this probably will be the case of COVID-19). Significant macroeconomic after-effects of the pandemics persist for about 40 years, with real rates of return substantially depressed with a shift to greater precautionary savings. Labour scarcity (if high mortality rate would occur) may elevate wages.

On the other hand – pandemics are followed by sustained periods – over multiple decades – with depressed investment opportunities, possibly due to excess capital per unit of surviving labour, and/or heightened desires to save (unfortunately – higher levels of private savings may hurt the whole leisure industry), possibly due to an increase in precautionary saving or a rebuilding of depleted wealth (Òscar et al., 2020).

The information provided in the prominent publications on the 1918 influenza pandemic are used to formulate a list of the likely economic effects of a modern-day influenza pandemic and possible ways to mitigate the severity of any future pandemic (Garrett, 2007, p. 2):

- Given the positive correlation between population density and influenza mortalities, cities are likely to have greater mortality rates than rural areas;
- Urban dwellers are likely to have, on average, better physical access to quality health care, though nearly 19 percent of the city population in the United States has no health coverage compared with only 14 percent of the rural population;
- Health care is irrelevant unless there are systems in place to ensure that an influenza pandemic will not knock out health-care provision and prevent the rapid disposal of the dead in the cities (as it did in Philadelphia, which was exacerbated by medical leaves during World War I). If medical staff succumbs to the influenza and facilities are overwhelmed, the duration and severity of the pandemic will be increased;
- Local quarantines would likely hurt businesses in the short run. Employees would likely be laid off. To prevent spread, quarantines would have to be complete (i.e., no activity allowed outside of the home). Partial quarantines, such as closing schools and churches but not public transportation or restaurants (as done in Philadelphia, St. Louis and Washington, D.C.) would do little to stop the spread of influenza;
- Some businesses could suffer revenue losses in excess of 50 percent. Others, such as those providing health services and products, may experience an increase in business (unless a full quarantine exists). If the pandemic causes a shortage of employees, there could be a temporary increase in wages for remaining employees in some industries. This is less likely than in 1918, however, given the greater mobility of workers that exists today;
- Local preparedness by health departments and hospitals, volunteer services (e.g., Red Cross) and private businesses, and responsible actions of the population are likely to mitigate the effects of a modern-day influenza pandemic.

A range of policy responses will be required both in the short term as well as in the coming years (McKibbin, Fernando, 2020). In the short term, central banks and Treasuries need to make sure that disrupted economies continue to function while the disease outbreak continues. In the face of real and financial stress, there is a critical role for governments. While cutting interest rates is a possible response for central banks, the shock is not only a demand management problem but a multi-faceted crisis that will require monetary, fiscal and health policy responses. Quarantining affected people and reducing large scale social interaction is an effective response. Wide dissemination of good hygiene practices can be a low cost and highly effective response that can reduce the extent of contagion and therefore reduce the social and economic cost.

The longer-term responses are even more important. Despite the potential loss of life and the possible large-scale disruption to a large number of people, many governments have been reluctant to invest sufficiently in their health care systems. The idea that any country can be an island in an integrated global economy is proven wrong by the latest outbreak of COVID-19. Global cooperation, especially in the sphere of public health and economic development, is essential. All major countries need to participate actively. It is too late to act once the disease has taken hold in many other countries and attempt to close borders once a pandemic has started.

The outbreak of COVID-19 shows that if diseases are generated in poor countries due to overcrowding, poor public health and interaction with wild animals, these diseases can kill people of any socioeconomic group in any society. There needs to be vastly more investment in public health and development in the richest but also, and especially, in the poorest countries.

Conclusions

The influenza of 1918 was short-lived but had a permanent influence on consumer behaviours. Society as a whole recovered from the 1918 influenza quickly, but individuals who were affected by the influenza changed their way as consumers forever.

Given our highly mobile and connected society, any future influenza pandemic is likely to be more severe in its reach, and perhaps in its virulence, than the 1918 influenza despite improvements in health care over the past 90 years. Mitigating a pandemic will require cooperation and planning by all levels of government and the private sector.

Extrapolating the presented research finding, because of COVID-19 we will face the lasting damage to social trust, also to government institutions, and drastic changes in human behaviours which will have their impact on consumers' buying decisions favouring basic necessities and services and delaying decisions on non-essential ones including services and entertainment. Losses in those industries will be disproportionally higher to compare to other sectors of the economy.

Assuming that citizens want the government to mitigate an influenza outbreak, there should be concern about government's readiness and ability to protect citizens from a pandemic. Public education on flu mitigation, a greater reliance on charitable and volunteer organisations, and a dose of personal responsibility may be the best ways to protect citizens in the event of a future influenza pandemic.

According to the identified research if medical staff and facilities are overwhelmed, the duration and severity of the pandemic will be increased. Short-time anti-crisis investments should be made to strengthen hospitals' infrastructure. The scale of costs might be avoided by greater investment in public health systems – those actions are urgently needed. To prevent spread, quarantines would have to be complete (partial quarantines would do little to stop the spread of influenza). US cities that instituted early and extensive non-pharmaceutical interventions – like obligatory social distancing – actually saw a relative increase in economic activity after the pandemic.

Most studies indicate the expected long-term changes in the behaviour of consumers and investors increasing precautionary saving or a rebuilding of depleted wealth which will put at risk the entertainment/hospitality sectors. Countries where the tourism sector is important should be designing policies that can minimise the impact on this vulnerable sector, should an epidemic occur. The research has shown that tourism and hospitality recorded the majority of the economic losses in the SARS epidemic. And a very similar situation repeats itself during COVID-19 calling for a continuation of the research presented in this article.

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Ekonomiczne i społeczne implikacje dla polityk COVID-19: wnioski wynikające z grypy hiszpanki oraz innych pandemii w historii

Streszczenie

Konwencjonalne podejście do szacowania kosztów ekonomicznych pandemii grypy hiszpanki nie uwzględnia rzeczywistych kosztów ekonomicznych chorób zakaźnych o rozmiarach epidemii, które są wysoce zaraźliwe. Doświadczenia z tych poprzednich pandemii dostarczają cennych informacji o tym, jak myśleć o konsekwencjach COVID-19.
Celem artykułu jest wykazanie, że doświadczenia z największych epidemii chorób w historii dostarczają cennych informacji dotyczących COVID-19 oraz szacowania bezpośrednich i pośrednich kosztów pandemii. Łagodzenie pandemii będzie wymagało współpracy i planowania na wszystkich szczeblach rządowych oraz sektora prywatnego. Po doświadczeniach związanych z grypą hiszpanką pojawiają się wątpliwości co do gotowości rządów i ich zdolności do ochrony obywateli przed pandemią. Edukacja publiczna na temat łagodzenia skutków pandemii oraz większe oparcie na organizacjach charytatywnych i wolontariacie mogą być najlepszymi sposobami ochrony obywateli na wypadek przyszłych wydarzeń pandemicznych. Większość badań wskazuje na długoterminowe zmiany w zachowaniu konsumentów i inwestorów, w szczególności zwiększanie oszczędności kosztem inwestycji i wydatków konsumpcyjnych, co zwłaszcza zagrozi sektorowi rozrywki/hotelarstwa. Kraje, w których sektor turystyczny jest ważny, powinny opracowywać polityki minimalizujące wpływ na ten wrażliwy sektor w przypadku wystąpienia epidemii.

Słowa kluczowe

koszty ekonomiczne, grypa hiszpanka, COVID-19, zachowania konsumenckie

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Introduction

Consumers are taking an increasingly active role in their healthcare decision making, and healthcare systems realize the need to improve the way in which health risks are communicated to the public. Risk communications affect consumer choice in a variety of health contexts, such as when evaluating immunizations, whether to undergo invasive health screenings and procedures, choosing adequate insurance coverage, deciding on genetic counseling, or when considering participation in medical research. In each of these contexts, policy makers and healthcare professionals face the problem of how to communicate health risks to the public. This problem is exacerbated by the fact that information can be interpreted differently depending on the format in which it is presented (Tversky, Kahneman, 1981).

Risk perception, in particular, has been found to vary based on the format used to express probabilistic information (for a review see, Visschers et al., 2009). Health risks are typically communicated to the public using numeric expressions. In particular, health risks are often presented using the 1 in X probability format (e.g. 1 in 5). Leonhardt and Keller (2018, pp. 760–761) collected vaccine information sheets provided to the public by the Centers for Disease Control and Preven-

tion in the United States (CDC). They found that side effect probabilities were reported for 77% of the listed side effects, and of these cases, 91% used the 1 in X probability format. This finding is problematic from a public policy perspective given that many people find it difficult to comprehend probabilities expressed in strictly numeric formats.

In this article we review research suggesting the use of risk graphics as a way to increase the public's comprehension of health risks. In explaining these findings, we build on general evaluability theory to identify a process by which risk graphics might increase probability comprehension and lower risk perception. In particular, we note the typical inverse relationship between outcome severities and outcome probabilities and posit that risk graphics lead to higher comprehension and lower overall risk perception by facilitating perceived differentiation between outcome probabilities. We conclude by discussing the limitations of using risk graphics to represent very small probabilities, and we suggest Quick Response (QR) codes as a possible solution.

Using risk graphics to express probabilities

Risk graphics have been found to help consumers evaluate probabilities (for a review, see Ancker et al., 2006). Unlike numeric information which requires learned skills, motivation, and cognitive resources for accurate interpretation, graphical information exploits unlearned, intuitive, and automatic visual processing and may lower the cognitive effort needed for evaluation (Ancker et al., 2006, p. 608). Many different graphical formats, such as pie charts, bar graphs, and pictographs have been used for conveying probabilistic information (Ancker et al., 2006, pp. 610–616; Visschers et al., 2009, pp. 269–271). Of these formats, pictographs are most commonly used in healthcare since they are arguably the best graphical format for increasing the evaluability of probabilities (Hawley et al., 2008). In addition, pictographs can be easily created using various graphical software packages, as shown in Figure 1.

Single versus multiple risk options

Research on pictographs has largely focused on single rather than multiple risk options. However, health-related decision making typically involves the consideration of multiple risks (e.g. possible side effects from a medication). Helping to overcome this limitation, Leonhardt and Keller (2018, pp. 759–766) tested whether the presence of pictographs affects the perceived risk of single versus multiple risk options. They showed participants an ostensible vaccine information sheet (similar to those offered by the CDC) that listed one or four possible side effects. Conditions also varied based on whether pictographs were included alongside numeric 1 in X probability information (e.g. 1 in 5). They found that whether pictographs affected probability comprehension and risk perception depended on whether they were used to illustrate a single risk (1 side effect) or multiple risks (4 side effects). In the single risk condition, they did not find pictographs to significantly affect probability comprehension nor risk perception. However, in the multiple risk condition, the presence of pictographs alongside the numeric probability information increased probability comprehension and lowered the overall perceived risk of the vaccine. Their results suggest that pictographs are especially helpful in improving probability comprehension when the public is presented with multiple risk options. Their results also suggest that the inclusion of pictographs alongside numeric probability information may have the ability to lower the public's risk perception in the context of health-related judgment and decision making.

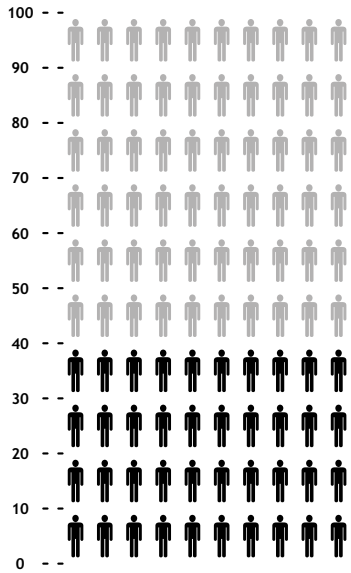

Figure 1. An example of a pictograph illustrating a 40 in 100 outcome probability
Source: The figure was created using a free online tool made available by the Center for Bioethics and Social Sciences in Medicine at the University of Michigan, USA, which is available here: http://www.iconarray.com/

General evaluability theory

To understand the results of Leonhardt and Keller (2018) and how probability format might affect risk perceptions of multiple risk options, it is helpful to consider work on general evaluability theory (Hsee, Zhang, 2010). General evaluability theory suggests that sensitivity to the value of an attribute depends on the evaluability of the attribute, and evaluability is typically higher for categorical than for incremental attributes (Hsee, Zhang, 2010, pp. 345–347). In health-related decision making, outcome types of varying severities are categorical attributes, while outcome probabilities are incremental attributes. For example, a side effect symptom (e.g. mild fever) is a categorical attribute, while a side effect probability (e.g. 1 in 5) is an incremental attribute.

General evaluability theory identified the effects of categorical and incremental attributes on evaluation using an experimental paradigm involving joint and separate evaluation modes (Hsee, 1996, pp. 247–249). In a joint evaluation mode, more than one option is presented for evaluation, whereas in a separate evaluation mode only one option is presented for evaluation. Using this paradigm, the evaluability of incremental attributes and their influence

on evaluation has been found to increase in joint versus separate evaluation modes. Joint evaluation is thought to enhance the evaluability of incremental attributes because it allows for incremental attributes to be compared across multiple options. This comparison is thought to increases the decision maker's sensitivity to the value of incremental (vs. categorical) attributes. In turn, this is thought to increase the influence of incremental attributes on the evaluation of an option (Hsee, 1996, pp. 249–251).

Joint versus separate evaluation modes

Evidence for the moderating effect of evaluation mode on attribute evaluability comes from research that finds preference for options to reverse or attenuate when options are presented in joint versus separate evaluation modes. For example, Zikmund-Fisher et al. (2004, pp. 143–146) asked participants to evaluate physicians in joint and separate evaluation modes. In the separate evaluation mode, participants evaluated only one physician who was either a Harvard educated physician that had performed 80 surgeries, or a University of Iowa educated physician that had performed 300 surgeries. In the joint evaluation mode, participants evaluated both physicians simultaneously. They found that participants evaluated the Harvard educated and less experienced physician more favorably in the separate evaluation mode but evaluated the University of Iowa educated and more experienced physician more favorably in the joint evaluation condition. The results suggest that in the separate evaluation mode people base their evaluations on categorical attributes (e.g. where the physician was educated) more so than incremental attributes (e.g. the number of surgeries performed by the physician). On the other hand, the results suggest that in the joint evaluation mode people base their evaluations on incremental attributes more so than categorical attributes. These findings offer insights for understanding how the public perceives health communications involving multiple risk options.

General evaluability theory and risk perception

Based on general evaluability theory, the influence of a health option's incremental and categorical attributes on risk perception should depend on the evaluability of these attributes. When the evaluability of an incremental attribute (e.g. side effect probability) is low, risk perception should be determined more by the desirability the categorical attribute (e.g. side effect symptom). On the other hand, when the evaluability of an incremental attribute is high, risk perception should be determined more by the desirability of the incremental attribute (e.g. side effect probability). The separate and joint evaluation modes used to support general evaluability theory can be likened to the public's evaluation of single and multiple risks options, respectively.

Single risk options are similar to the single evaluation mode. With a single risk option, only a single incremental attribute (e.g. side effect probability) and its associated categorical attribute (e.g. side effect symptom) are presented to the decision maker. For example, a single risk health option could involve a medication that if taken has a 1 in 100 chance of causing insomnia. Based on general evaluability theory, decision makers will base their evaluation of this medication on the perceived severity of the possible side effect symptom (insomnia) more than on its probability of occurrence (1 in 100). This is thought to be the case because an outcome probability is more difficult to evaluate in isolation relative to an outcome severity.

On the other hand, multiple risk options can be likened to the joint evaluation mode. With a multiple risk option, several incremental attributes (e.g. side effect probabilities) and their associated categorical attributes (e.g. side effect symptoms) are presented simultaneously to the decision maker. For example, a multiple risk health option could involve a medication with four possible side effects: a 1 in 5 chance of headache, a 1 in 10 chance of fever, a 1 in 20 chance of insomnia, and a 1 in 100 chance of vomiting. According to the general evaluability theory, because there are several incremental attributes or probabilities presented simultaneously, the evaluability of the outcome probabilities will increase. As a result, outcome probabilities will have a greater influence on the overall evaluation of the choice option.

Thus, drawing from the general evaluability theory, outcome probabilities may have a greater influence on the public's evaluation choice options when they have multiple risks rather than a single risk. The general evaluability theory, however, does not provide direction on how an increase in the evaluability of outcome probabilities will affect the perceived risk of multiple risk options. In other words, outcome probabilities should be easier to evaluate in the case of multiple risk options; however, it is unclear whether this will increase or decrease risk perception.

Evaluability of outcome probabilities

We propose that an increase in the evaluability of outcome probabilities will typically result in multiple risk options being perceived as less risky. We argue for this idea based on the assumption that an increase in the evaluability of outcome probabilities will result in unique probabilities being perceived as more distinct rather than similar. For example, we assume that the perceived difference between outcome probabilities, such as 1 in 100 and 1 in 50, will increase as the evaluability of outcome probabilities increases. On the other hand, when evaluability is low, outcome probabilities will be perceived as more similar. Given this basic assumption, support for our hypothesis comes from the naturally occurring relationship between a multiple risk health option's outcome probabilities and outcome severities and previous research on pictographs.

In the context of health-related decision making, the public is typically confronted with multiple risk health options in which outcome severities are inversely related to outcome probabilities. For example, in the context of medication risks, the probability of a severe side effect is typically lesser than that of a mild side effect. This inverse relationship was observed by Leonhardt and Keller (2018, p. 760) in their review of vaccine information sheets provided to the public by the CDC. The CDC classifies side effects in terms of severity, and more severe side effects are typically classified

as having a lower probability of occurrence than more severe side effects. Given this natural relationship between outcome severities and outcome probabilities in health contexts, an increase in the evaluability of outcome probabilities could lessen risk perception as a result of increasing the perceived difference between probabilities.

To illustrate this idea, consider a multiple risk option with two risks: a 50% chance of losing 10 dollars or else nothing, followed by a 10% chance of losing 50 dollars or else nothing. The expected loss for each separate risk is a loss of 5 dollars. Assuming independence between these risks, this option's total expected loss is 10 dollars. However, this option's perceived expected loss can increase when outcome probabilities are perceived as more similar. For instance, consider a case in which a decision maker perceives no difference between outcome probabilities and instead perceives both probabilities to be near the average of the two probabilities. In the case of our earlier example the average of the two probabilities is 30%. Given this assumption, the subjectively perceived expected loss for each of the two risks is now a loss of 3 dollars and a loss of 15 dollars. Assuming independence, the multiple risk option's total subjective expected loss is now 18 dollars.

The scenario illustrates how a lack of differentiation between outcome probabilities could result in higher perceived risk when there is an inverse relationship between outcome probabilities and outcome severities. When outcome probabilities were perceived as more similar, the option's subjective expected loss increased from 10 dollars to 18 dollars. Notably, the proposed scenario assumes that when outcome probabilities are perceived as more similar, they will each be perceived as closer to the mean of an option's outcome probabilities. Empirical research lends support for this assumption. Previous research suggests that pictographs can increase the evaluability of outcome probabilities and may increase the perceived difference between probabilities (Garcia-Retamero et al., 2010, pp. 674–680).

Pictographs and the evaluability of multiple probabilities

In line with previous work on pictographs, Leonhardt and Keller (2018, p. 762–764) found evidence to suggest that pictographs increase the perceived difference between outcome probabilities. In the absence of pictographs, they found that participants overestimated the likelihood of the least probable (and also most severe) side effect. Overestimation of the likelihood of the least probable side effect should result in the least probable outcome being perceived as more similar to the option's other outcome probabilities. However, in the presence of pictographs, participants showed more accurate comprehension of outcome probabilities. In turn, this resulted in the least probable outcome being perceived as less similar to the other outcome probabilities. Though not tested directly by Leonhardt and Keller (2018) this increase in the perceived difference between outcome probabilities is presumably what caused participants to have lower overall risk perceptions of the multiple risk option when pictographs were present versus absent.

This discussion supports our original assertion that as the evaluability of outcome probabilities increases, the perceived risk of health-related multiple risk options will decrease. Support for this idea comes from the typical inverse relationship between outcome severities and outcome probabilities in health contexts and from prior research on the ability of pictographs to increase the perceived difference between outcome probabilities. Based on this reasoning, policy makers and health professionals are encouraged to develop ways to help the public differentiate between outcome probabilities. Risk graphics, and in particular pictographs, provide one way to help the public differentiate between probabilities. However, their application is not without challenges. To promote further exploration, we discuss some of the limitations in using pictographs and highlight opportunities for future research.

The problem of small probabilities

Given that smaller probabilities are typically associated with more severe outcomes, helping consumers comprehend the unlikeliness of severe outcomes may help in reducing the public's fear of beneficial medications and treatments. However, there are graphical limitations in using pictographs to represent small probabilities. Because pictographs require visual space to represent a probability, the ability of a pictograph to represent small probabilities such as 1 in 10,000 is problematic. Such space constraints may be less problematic online than with traditional print communications; however, even online communications have limitations, such as screen size. Currently, there is a lack of research on how to visually depict small probabilities (i.e. less than 1%). Some progress has been made (e.g. magnifying glass scale; Ancker et al., 2006, p. 613); however, additional innovative graphical risk formats are needed to visually depict small probabilities to the public.

A QR solution?

Quick Response (QR) codes may provide an innovative way in which small probabilities could be displayed to the public. Providing QR codes in public health communications would also allow the public to access the most-current health-related information via the Internet. QR codes allow up to 3,000 characters to be stored in a small two-dimensional bar code, and virtually all QR codes contain a web URL, which can be natively scanned by the camera app on an Android or iOS device. By scanning a small QR code, such as the one shown in Figure 2, any risk or other information about a product can be explained on a website. If it is important for information to be available without an Internet connection, the 12N barcode standard, part of the MH10.8.2 standard, allows large amounts of information to be stored within the QR code, which can be accessed without requiring an Internet connection. However, as more characters are stored in a QR code, the number of pixels in the code increases, and the physical size of the printed QR code must be increased.

Using QR codes probabilities could be depicted to consumers on webpages thereby greatly increasing the space available to illustrate small probabilities relative to the printed materials typically used to communicate health-related risks (e.g. pamphlets, flyers, drug labels). Drug labels,

for instance, are very small, with many important pieces of information vying for this limited area. A small QR code can direct the consumer to literally unlimited quantities of information, via the Internet. Using a QR code, health consumers can have access to not only visualizations of health risks but also the most up-to-date health information about a drug, treatment, or medical protocol that is accessible in multiple languages.

Figure 2. This QR code directs consumers to information about Aspirin provided by the U.S. National Library of Medicine
Source: This Quick Response (QR) code was created using freely available software available from the QR Code Generator here: https://www.the-qrcode-generator.com/

The QR code in Figure 2, for example, directs users to a webpage about Aspirin provided by the U.S. National Library of Medicine. In particular, the QR code in Figure 2 stores a shortened web address (URL), http://12n.io/3f-4h5s. When a user goes to that link, they are automatically forwarded to a much longer URL at the US National Library of Medicine. There are two advantages to this approach. Firstly, the 12n.io address is much shorter, and therefore can use a smaller QR code. Secondly, if the US National Library of Medicine re-organizes its webpages, or renames its files, the forwarding instructions at the 12n.io address can be changed so that the old QR code still takes users to the new location of the information. In addition, should there be a drug recall or changes in the usage recommendations, this information can be updated on the website that is linked to the QR code, without any need to re-issue QR codes, update QR codes, or any other printed communications about the product that have already been distributed to health consumers.

Proxy decision making

There is also opportunity for future research to assess how pictographs affect choices when decision makers are choosing on the behalf of others. When choosing for others, decision makers have been found to avoid responsibility for outcomes (Leonhardt et al., 2011, pp. 407–411). Being responsible for outcomes, especially negative outcomes affecting others, is a risk to decision makers because it increases the possibility of experiencing negative feelings such as guilt and self-blame. Research suggests that when making such emotional decisions, decision makers tend to focus on outcome severities over outcome probabilities (Loewenstein et al., 2001, pp. 274–280). Pictographs may help proxy decision makers focus on outcome probabilities in addition to outcome severities. In turn, this may decrease their risk aversion when choosing for others. Given that important medical decisions are often made on behalf of others, this is a worthwhile area of inquiry.

Additional health and policy contexts

Research is also needed to extend previous work on pictographs in the health domain to other consumer contexts. As we have outlined, pictographs may be a useful tool for increasing the evaluability of incremental attributes and their influence on consumer judgment and decision making. The presence of pictographs may facilitate better consumer and societal decision making by increasing the evaluability and influence of otherwise difficult, yet important, incremental attributes, such as miles per gallon, number of calories, grams of fat, kilowatt hours, interest rate, credit score, medication dosage amount, and time. By using pictographs to illustrate incremental attributes between options, such as the miles per gallon between two automobiles, consumers may be better able to compare their options and make better choices for themselves and society.

Conclusion

In this article we have discussed the inherent problems in presenting probabilities in strictly numeric formats when communicating health risks to the public. In turn, we reviewed research suggesting that risk graphics, when presented alongside numeric information, can help the public better evaluate health-related probabilities. We then considered a psychological process by which risk graphics might affect the public's perception of jointly-presented probabilities. Our process explanation builds on the general evaluability theory and the observation that the public is often confronted with health risks in which outcome severities are inversely related to outcome probabilities. Accordingly, we have posited that risk graphics allow for greater perceived differentiation between outcome probabilities, thereby facilitating higher comprehension and lower risk perception of health risk options, such as medications and vaccines. Finally, we have noted limitations in using risk graphics for health communications, and we highlighted opportunities for future research. In particular, we have identified QR code technology as a potential solution to the problem of graphically depicting very small probabilities.

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Communicating Health Risks to the Public

Summary

Health risks, such as the probability of experiencing a side effect from a medication, are typically communicated numerically. However, presenting risks in strictly numeric formats is problematic considering that the public often experiences difficulty in comprehending strictly numeric probabilities. To help overcome this problem, Leonhardt and Keller (2018) tested the efficacy of using pictographs to visually present probabilistic information to health consumers. They found that the addition of pictographs alongside numeric probability information increased probability comprehension and lessened the perceived risk of a multiple risk health option. Here, we review relevant work on probability format and build on the general evaluability theory to posit why pictographs may result in lower risk perceptions of multiple risk options. We discuss current limitations in our understanding of how the public perceives multiple risk options, and we highlight opportunities for future research. For instance, we introduce Quick Response (QR) codes as a potential tool to help consumers view health risks in multiple formats on the Internet.

Keywords

health, communication, probability, risk

UNIVERSITY OF NEVADA, RENO COLLEGE OF BUSINESS INTERNATIONAL ACTIVITIES AND THE NEVADA GLOBAL BUSINESS AND ECONOMICS LAB (NVGLOBE-L)

Mehmet S. Tosun

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www.przegladorganizacji.pl

The University of Nevada, Reno (UNR) College of Business is continuing with its international programs and activities despite the COVID-19 pandemic. While the pandemic has led to a pause in some of our programs, such as the faculty-led study abroad programs, and international student and faculty exchange, we have still been able to carry on a number of international activities on many fronts. Thanks to the vid-

eo conferencing technology that has become popular around the world, we were able to hold many formal and informal meetings with our international partners and also had exploratory meetings with a number of potential partners to discuss future agreements. There are already three new partnerships that are in progress. We are also preparing for the 3rd UNR College of Business – SGH Warsaw School of Economics Joint Symposium, which will take place virtually on April 22–23, 2021.

We realized quickly that it is easy and convenient to have communication and exchange of ideas in a virtual environment. Our new international business blog series is a perfect example of that. This new initiative came out of a discussion with our partner SGH Warsaw School of Economics. We started the blog series soon after that meeting with the first blog posted on May 29, 2020. Since then, we have posted 10 blogs on our international programs website with contributions from faculty and staff from UNR, SGH and the University of Ljubljana, which is another international partner of the UNR College of Business[1]. The topics ranged from an overview of international education in the United States to the impact of COVID-19 on students and internationalization of universities. The blog posts had more than 14,000 page views in 2020, which shows the visibility of the series not just in the U.S. but internationally as well.

Virtual internships were another area of progress during the pandemic. A lot of businesses and government agencies decided to move their internship programs online instead of canceling them altogether. We had two students, an international business major and an economics major, who started their virtual internships at the Nevada Governor's Office of Economic Development (GOED) International Trade Division last summer[2]. We are very pleased to see that they will continue their internships in 2021. There is no doubt that this also strengthened our connection with GOED, which we see as our strategic partner in our international programs.

We had to suspend our faculty-led study abroad programs in 2020 but that gave us an opportunity to review our programs, prepare new guidelines and entertain new proposals in different locations. We are hoping to restart all programs next year with possible addition of new programs and restructuring of some existing programs.

Finally, I would like to mention particularly a new initiative, which I think will add significantly to the research environment in the college with the involvement of both faculty and students, and help with the internationalization of our college and university. The Nevada Global Business and Economics Lab (NVGLOBE-L) was announced in the Europe-Nevada Global Summit in Croatia on March 6, 2020 right before the World Health Organization (WHO) declared the COVID-19 a pandemic on March 11, 2020. The Summit was organized by the Nevada Governor's Office of Economic Development (GOED) and was part of an extensive trade mission from Nevada to four countries in Europe including (in the order of visits) Poland, Slovenia, Croatia and the Czech Republic. After a delay due to the pandemic, it was formally launched in Fall 2020.

The goal of NVGLOBE-L is to involve faculty and students in research projects. Students are hired to work in those projects as research associates. The projects are typically short term but some could be longer term depending on funding support. The projects may also involve faculty and students from outside the university, particularly from our partner universities. The lab started with research related to tax policy analysis, which led to a Tax Policy Working Group. Some of the work from this group was featured in a webinar on October 8, 2020, which was organized jointly with the Governance Global Solutions Practice in the World Bank. The title of the webinar was "The Role of Local Governments in COVID-19 Response: Case Studies from Vietnam, Nepal, Poland, Switzerland," and involved two faculty and two students (one undergraduate and one graduate) from our college and other scholars including a Lead Public Sector Specialist from the World Bank, a former UNR Economics PhD student, and a Professor from the SGH Warsaw School of Economics. A second working group, Global Entrepreneurship and Public Policy, is being formed in collaboration with the International Trade Division of GOED. We plan to have joint events and projects between NVGLOBE-L and our international partners including the "New Economy Lab" founded by the SGH Warsaw School of Economics.

NVGLOBE-L also started a Distinguished Lecture Series in Spring 2021, which will feature speakers with international reputations in policy research and practice. The lectures will be on real world issues with policy relevance and will definitely help with the visibility of our new lab and international programs[3].

Professor of Economics Mehmet S. Tosun
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UNR College of Business

Endnotes

1) You can find more information on our blog series and all blog posts at https://www.unr.edu/business/international/blog
2) These internships and our students were featured in our university news outlet Nevada Today https://www.unr.edu/nevada-today/news/2020/goed-internships
3) You can find the upcoming lectures on our website https://www.unr.edu/business/international/nvglobe-l/distinguished-lecture-series

NEVADA GLOBAL PLATFORM AS A TOOL TO ACCELERATE FOREIGN HIGH-GROWTH VENTURES IN THE UNITED STATES

Paweł Pietrasieński

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Introduction

Nevada's economic development diversification depends on the strengths and activities of locally-grown companies as well as on those coming from outside of the state, including foreign firms. The geographic distribution of foreign innovative companies entering the US market is irregular. The study by the European Commission on Transatlantic Dynamics on New High Growth Innovative Firms (Onetti, 2016), which focuses on the growing phenomenon of dual companies, i.e., high-tech startup companies present in both markets: European (as the first phase of their market expansion) and American (as the second internationalization phase), shows that the US is the typical destination for 83% of European dual companies, and among them over a half chose the Silicon Valley.

Successful entrepreneurial clusters are geared toward globally scalable companies that are inclined to radical, not incremental, innovation. This is certainly the case with Silicon Valley and the opportunity for Nevada to bring scalable foreign high-tech companies to the Silver State. Because the US is the final destination of a clear majority of European high-tech companies looking for market and financing opportunities (in most cases they cannot scale up domestically and are forced to launch their products in the US where they have a much greater chance of gaining faster traction and revenues), successes in building awareness around Nevada's priority sectors and high-quality mentoring services associated with them have been redirecting the influx of selected companies to the Silver State.

Leveraging and enhancing existing local capabilities is critical for regions to be global innovation hubs. Many cluster strategies fail when they attempt to engineer an entire new cluster. A more effective approach is to build upon and enhance existing Nevada capabilities and sources of comparative advantage to compete with other US states and countries.

Nevada Global Concept

The overall objective of the Nevada Global platform is to promote Nevada as an entry point to the U.S. market for international companies, which introduces additional foreign direct investment into regional economy, new jobs, and higher wages. Through the program, participants are connected to a wealth of resources, mentors, and partners. The primary goal of the platform is to position Nevada as a competitive soft-landing site that will capture companies interested in entering the U.S. market through the so called a "dual model".

The European Commission's data confirm that dual companies have been able to raise more capital compared to companies that followed a more local growth path (Onetti, 2016). It means that they have a much greater chance of gaining faster traction and revenues resulting in the above average wages offered to local employees.

The Nevada Global (NVG) program started in 2018 and has been gaining momentum ever since. Through the NVG platform, GOED helps to boost Nevada's presence internationally, while promoting Foreign Direct Investment opportunities, and generating export growth for Nevada companies. The program is based on international partnerships with foreign regional authorities and their business agencies. Each foreign partner works with the division to administer a highly competitive selection process where foreign companies compete for selection to travel to Nevada and participate in the mentoring program. GOED plans an inclusive program that highlights Nevada and connects the companies to a wealth of resources. The participants get an opportunity for exclusive tours and mentoring from experts in multiple sectors. The programs have been so successful because of the strong international and local Nevada partnerships.

Nevada has entered into agreements with several governments and economic development institutions, agreeing to cooperate on building such a recruiting platform. For example, Nevada has entered into agreements with the Marshal's Office of Lublin creating the Nevada Lubelskie Acceleration Bridge. This strong partnership supports the efforts of Polish companies coming to Nevada and supporting Nevada's local partners to expand to Europe and visit Poland.

Major international partners of the program include: Polish Institute of Aviation, already mentioned Lubelskie Region as well as Mazowieckie Marshal Office, National Center for Research & Development and SGH Warsaw School of Economics. They have and will continue to sponsor some of Nevada's top mentors to travel to Poland to participate in the mentoring at the Bootcamp and Demo Day. Nevada Global has international partners in Central and Eastern Europe and expansion plans aimed at Slovenia, Croatia, Turkey, Japan, Korea, India, Australia, and Taiwan among other countries.

Since the program launched in 2018, 15 participants are registered in Nevada, 5 participants are now members of the Chambers of Commerce in Nevada, and four companies have or are in the process of relocating and moving to Nevada. Seven groups of companies visited Nevada to participate in the program during the months of October 2019 through January 2020 (COVID-19 halted next groups to visit Nevada). Each program has been customized to meet the specific objectives of each group of participants. The participants come from all different sectors that could contribute to the growth and diversification in Nevada.

Partnership-Based Platform in Nevada

Currently the program has 28 partners statewide and keeps on building Nevada's community (more on this in: Tosun, Pietrasienski, 2019):

- Adams Hub, Carson City.
- Biz Assembly Platinum.
- Black Fire Innovation.
- College of Business at the University of Nevada, Reno.
- Consulate of Poland, Las Vegas.
- Economic Development Authority of Western Nevada (EDAWN).
- FundNV.
- Governor's Office of Workforce Innovation (WINN).
- Henderson Chamber of Commerce.
- Innovate Vegas.
- International Gaming Institute (IGI), University of Nevada, Las Vegas.
- Las Vegas Global Economic Alliance (LVGEA).
- Vegas Chamber of Commerce.
- Nevada Center for Applied Research.
- Nevada Department of Business and Industry.
- Nevada Industry Excellence (NVIE).
- Nevada Innovation Center, LLC.
- Nevada Institute for Autonomous Systems (NIAS).
- Nevada Small Business Development Center (SBDC).
- Northeastern Nevada Regional Development Authority (NNRDA).
- Northern Nevada Development Authority (NNDA).
- Ozmen Center for Entrepreneurship, University of Nevada, Reno.
- Reno Sparks Chamber of Commerce.
- Rob Roy's Innevation Center Powered by Switch.
- StartUpNV.
- Reno Innevation Center Powered by Switch.
- WaterStart.
- Work in Progress, Las Vegas.

One of the most difficult aspects of acceleration programs is selecting the most promising companies from the group of early-stage firms. The Nevada Global (NVG) platform closely collaborates with professional business support organizations in foreign countries to ensure that only the most promising companies are selected, with the potential for the highest probability of success in Nevada.

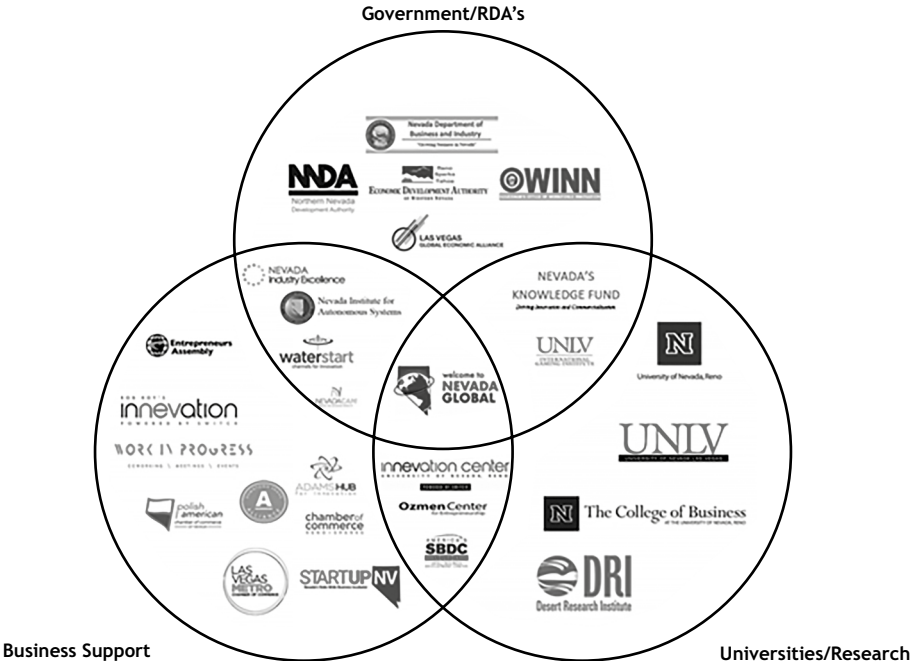

Figure 1. Partnerships between Government, Business Support & Academic Entities in NVG platform
Source: Nevada Governor's Office of Economic Development

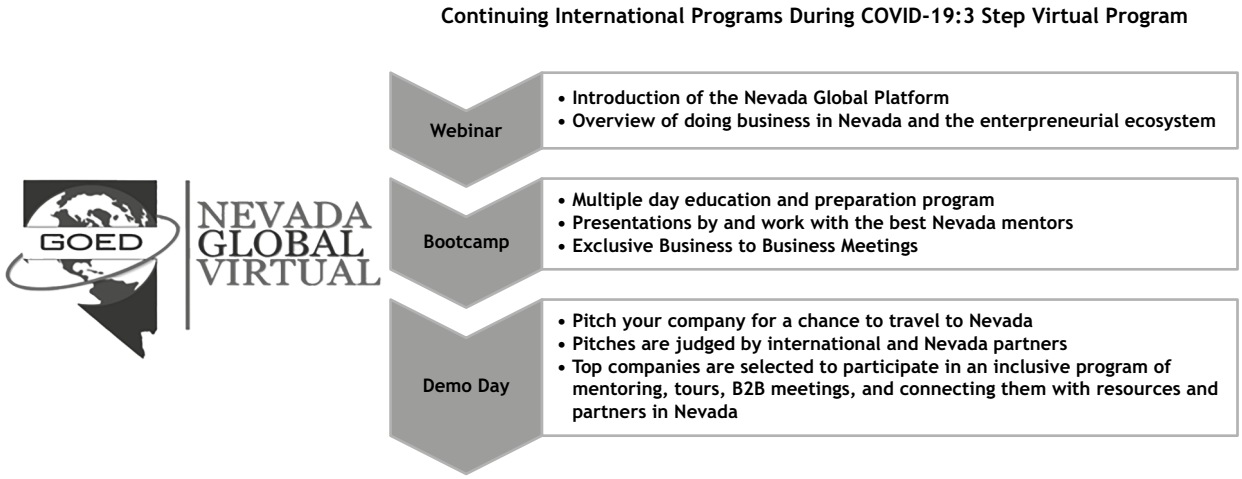

Figure 2. Phases of Nevada Global Virtual Program
Source: Nevada Governor's Office of Economic Development

The Nevada Global program is based on international partnerships with foreign regional authorities and their business agencies. Each foreign partner works with the division to administer a highly competitive selection process where foreign companies compete for selection to travel to Nevada and participate in the mentoring program. The foreign partners accept and assess applications from companies to participate in the program. They then administer a Bootcamp for training and preparations for the top twenty companies. After the Bootcamp, the companies participate in a Demo Day where the companies present their pitches to be judged by a panel of Polish and Nevada judges. After calculating the judging scores, the top ten companies are selected to participate in the program in Nevada.

Due to the COVID-19 pandemic and related travel restrictions, a decision was made to move the Nevada Global platform to the virtual sphere. The phased character of the program is based on introductory webinars, which also include pre-selection of candidates. Those who meet the preconditions go to the so-called Bootcamp, where they "virtually" meet with American mentors. At such an on-line grouping, they are being prepared to present themselves to potential investors and business partners. The culmination of the virtual part of the program is an e-Demo Day, during which the presented companies are assessed by the jurors in terms of their preparation for internationalization and chances for a successful entering the American market, as well as the scalability of the business formula they present. The highest rated ventures join a cohort of companies going to Nevada for a typically 1–2 weeks acceleration program covering the North and South part of the state.

Final thoughts

As an innovative business acceleration platform, Nevada Global platform emphasizes the key role of the influx of entrepreneurs to Nevada, while acknowledging the catalytic role that can be played within the program by mature technology corporations from the Silver State in attracting the most promising startups and eventually entering into some forms of collaboration with them.

However, it needs to be emphasized that the impact of the NVG platform in Nevada has been broader. It affects college students (opportunities for part-time jobs within the project as well as employment opportunities in NVG companies as graduates); faculty as they are involved in the project as mentors, entrepreneurship lecturers, researchers; local companies having an opportunity to collaborate with high-growth foreign firms, form joint-ventures, alliances, etc.; and Nevada's leading innovation-focused and co-working institutions as the NVG participants are proving their technologies and business solutions.

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GLOBALIZATION OF STUDENT ENTREPRENEURSHIP IN THE CONTEXT OF SGH-UNR PARTNERSHIP WITHIN „NEW ECONOMY LAB PROJECT"

Marcin Wojtysiak-Kotlarski

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SGH Warsaw School of Economics is a leading higher education institution in Central and Eastern Europe with a strong economics and business profile. The University was founded in 1906 as Poland's first university of commerce. For many years, SGH has been setting highest standards in terms of research and teaching. SGH as higher education institution is proud of its unquestioned reputation. Over the last 30 years, SGH has experienced a period of rapid transformation and growth, consistently improving its policies and processes. Currently SGH Warsaw School of economics is a well-established, high-quality higher education institution with a strong reputation in Poland and beyond. This has already been confirmed by numerous rankings and international accreditations, including AMBA and CEEMAN, and accreditations granted by the Polish Accreditation Committee (PKA).

According to its mission, „SGH Warsaw School of Economics is an innovative university of economics and business, which develops intellectual potential and creates leaders in response to the challenges of the future. It is an influential center for academic research, new ideas and initiatives undertaken by the academic community and alumni, as well as by business representatives, NGOs and public administration. As an autonomous and socially responsible university, SGH promotes ethical attitudes through its teaching, research and social engagement activities". The motto of SGH is the following: „SGH shapes the leaders".

The University of Nevada, Reno's College of Business is the premier provider of business education in the region. The College prepares students to become competitive, ethical and innovative business professionals in order to drive economic development and improve quality of life for all citizens of the State of Nevada. They continue to be an increasingly influential driver of economic development in the State of Nevada. Since 2007, Dean Gregory Mosier has helped shape the College into a nationally-recognized center for business knowledge and information. The strength of the college is its people. At Nevada's College of Business, the faculty and staff are what has earned the college is impressive reputation. Experts with years of industry, research and academic experience take pride in preparing the next generation to be leaders and innovators in business.

The mission of the college is the following: „The College of Business inspires, engages, and educates innovative change-makers through excellence in research, teaching, and outreach. We drive economic vitality and improve quality of life in our communities".

The history of SGH and UNR partnership has already a relatively long history. It started under the leadership of SGH Rector, prof. Tomasz Szapiro and UNR Dean, prof. Greg Mosier. On SGH side, the collaboration was further developed in subsequent Rector terms of prof. Marek Rocki and prof. Piotr Wachowiak. The importance of SGH-UNR collaboration was further strengthened by SGH with the appointment of Rector's Plenipotentiary for the Collaboration with the State of Nevada, prof. Paweł Pietrasieński.

„New Economy Lab" project – supported by National Agency for Academic Exchange – is the biggest project at SGH Warsaw School of Economics regarding collaboration with international higher education institutions. SGH won this grant to develop and maintain relations with important international partners. SGH's collaboration with The College of Business, University of Nevada, Reno, is the biggest part of „New Economy Lab" in terms of budget. Prof. Marcin Wojtysiak-Kotlarski serves as head of „New Economy Lab".

SGH and UNR partnership is developed under the following main topic: "Strengthening the links between SGH Warsaw School of Economics and The College of Business, University of Nevada, Reno – in pursuit of a truly international environment". The goals of this project are ambitious. Although, as mentioned before, SGH Warsaw School of Economics has been developing partnership with The College of Business, University of Nevada, Reno for some years already, within „New Economy Lab" project, the partnership is further developed and strengthened under two major pillars of activities: (1) research cooperation; and (2) globalization of student entrepreneurship.

The scope of the project is the following. As far as research partnership is concerned, SGH and UNR focus on: (1) organization of research symposia & workshops, both in Warsaw, Poland and in Reno, Nevada – symposia & workshops group dozens of scholars from both high education institutions, (2) development of research projects and publications, (3) application for new grants to further strengthen the partnership in the future.

One should mention that so far SGH, with assistance of professors from The College of Business, UNR, in partnership with Warsaw Stock Exchange and The Office of the Marshal of the Mazowieckie Voivodeship, won the Gospostrateg III grant, which is aimed to transform Mazovia Region into accelerator of global companies. SGH professors, on the other hand, assisted UNR in developing grant application to National Science Foundation in the USA. Long-term goal

is to develop an interdisciplinary research center, which will specialize in student entrepreneurship in the global context.

As far as globalization of student partnership is concerned, SGH and UNR have launched exchange programs for student startups. At SGH, we developed Warsaw-Reno Startup Lab. At UNR, Sontag Entrepreneurship Competition has started partnering with „New Economy Lab". So far – inter alia – students from UNR have had an opportunity to discover startup ecosystem in Warsaw, Poland. It is planned that students from SGH will encounter the same opportunity in Reno.

The long-term goal is to further strengthen and develop cooperation in the domain of entrepreneurship, acceleration of companies with growth potential and global business.

We are proud that already numerous key milestones have been achieved within „New Economy Lab". In December 2018, 1st Joint Research Symposium & Workshop in The College of Business, UNR, Reno, Nevada took place. This was the first, big research event organized by SGH and UNR. The event was organized under the following topic: „Entrepreneurship, Economic Development and Public Policy – in search of synergies".

Globalization of student entrepreneurship also was on the agenda of the partnership. In Spring 2019, Sontag Entrepreneurship Competition took place. Mentoring of startups from Reno was also carried out by expert from Poland. In May – June 2019, 1st Bootcamp and Demo Day within Warsaw-Reno Startup Lab was carried out. Startups from Warsaw were proud to receive meaningful mentoring by experts from Nevada and Poland. At SGH, more than 150 students applied for the Lab. Macov and Spontime were startups mostly appreciated by the jury. Spontime startup proposed a social media app focused on arranging real-time meetings of users. Macov introduced world-class sophisticated shoes, which can be customized by customers.

In October 2019, 2nd Joint Research Symposium & Workshop took place in SGH Warsaw School of Economics. The topic of the discussions was the following: „Entrepreneurship, Economic Development and Public Policy – how can Poland help and inspire Nevada, how can Nevada help and inspire Poland". Concurrently with the symposium, acceleration week for startups from Nevada in Warsaw startup ecosystem took place.

On 4–5th March 2020, 2nd Warsaw-Reno Startup Lab started with Bootcamp. Again, mentoring of startups from Warsaw by experts from Nevada and Poland took place. This project was then disrupted by the global Covid-19 pandemic. Demo Day was postponed and could be organized on July 7–8th, 2020. Instise, Doxychain and Mimmi startups won the event. More than 100 students from SGH took part in the competition.

It was planned that 3rd Joint Research Symposium & Workshop would take place in The College of Business, University of Nevada, Reno in October 2020, but this plan was disrupted by the pandemic. With the vaccination processes accelerating now both in the USA and in Poland, chances are that the event would take place during late fall 2021. This would be accompanied by the acceleration week for startups from Poland in Reno startup ecosystem.

With the context of Covid-19 pandemic, SGH and The College of Business UNR decided that in April 2021, 1st SGH-UNR Webinar will take place. This is an additional event organized by „New Economy Lab" project to promote the idea of joint research and collaboration. Undoubtedly, the event will help in strengthening SGH_UNR partnership!

Associate Professor Marcin Wojtysiak-Kotlarski, Ph.D.
SGH Warsaw School of Economics

PRZEDSIĘBIORSTWO W BIZNESIE MIĘDZYNARODOWYM. ASPEKTY EKONOMICZNE, FINANSOWE I MENEDŻERSKIE AN ENTERPRISE IN INTERNATIONAL BUSINESS. ECONOMIC, FINANCIAL AND MANAGERIAL ASPECTS

MARIAN GORYNIA

Wydawnictwo Naukowe PWN, Warszawa 2021

This book, in a way, has its origins in the pandemic. It was during the period of lockdown that I felt a need to conduct an overview of my previous works [...], *not only those written last year but also my works in earlier years"* – this statement concludes Olga Tokarczuk's (Nobel, 2018) latest book, a beautiful and profound work entitled *Czuły narrator* (Kraków 2020, p. 292). This statement can apply to Professor Marian Gorynia's monograph – „*the offspring of the pandemic*", written at the time of the 2020 lockdown, affecting the economy and closing public spaces for meetings and debates, the period of formal restrictions imposed on business life and social activity on a global scale. This atmosphere is reflected in the last chapter (39) of the monograph.

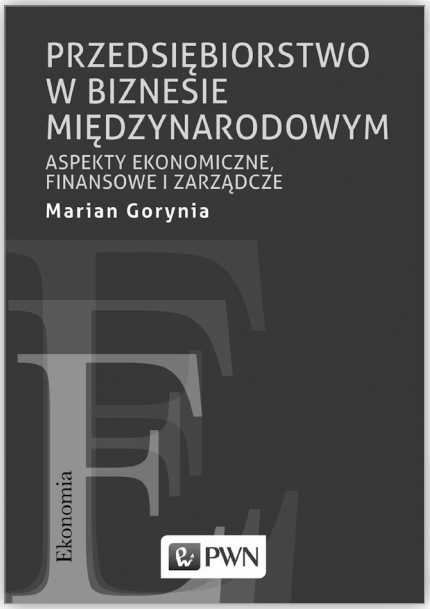
Traditional reviews usually start with presenting the author's profile, which is not necessary here, considering professor Gorynia's extensive and multidimensional scientific,

organsational, and social activities in the Polish and international environment, as well as his outstanding position in the world of science and scientific institutions.

Marian Gorynia's book is an interesting monograph, presenting a new multidimensional approach to *an enterprise in international business.* This new dimension is based on the concept of the book itself, its objectives, format, and structure. The book comprises 7 parts, 40 chapters and a very extensive bibliography (24 pages long). The Author aspired not only to present the basic elements of "a course in international corporate management", but he also intended to propose a philosophical and methodological framework for analysing international business. The key paradigm of this framework is corporate internationalisation. It is based on an integrated approach to all economic disciplines which, according to OECD classification, comprise one common discipline *Economics and Business*, and according to ASJC – two separate disciplines: *Business, Management and Accounting,* and *Economics, Econometrics and Finance* (including 15 specific disciplines). I regard professor Gorynia's approach to be interesting and inspiring. Business internationalisation, both passive and active, and its specific paradigms presented in chapter 7, is *signum temporis* of the contemporary world, and it poses a significant challenge for science and business practice. An attempt to create a broad and well-aimed picture of international business and to present it as an integrated entity from the perspective of disciplines and schools of research (chapter 3) is a significant characteristic of Gorynia's monograph. The work also presents in-depth analyses in the area of particular disciplines as well as a broader interdisciplinary approach. It is reflected in the Author's approach to international business – from the perspective of international economics and its research prospects: globalisation, anti-globalisation and deglobalisation, as well as in the context of regionalism, meso economics, FDI theory, international trade etc. The profound and probing character of the Author's reasoning is reflected in his findings and description of the key elements of foreign trade theory as well as in its multidimensional evaluation. It is based on a classical approach to the origin and development of *international economic relations* and international business, and an in-depth analysis of contemporary trends in international exchange and international division of labour. I wish to stress that the Author's considerations focus on *an international enterprise* and its broad range of objectives, development strategies and economic account requirements. The last factor, i.e. effective performance as a distinctive element of the identity of economic sciences and business practices of all enterprises, is given special attention in the monograph. It is a significant characteristic of the work, explicitly expressed in the subtitle: *economic, financial, and managerial aspects.*

In my view, the value of M. Gorynia's work can be attributed to several factors.

The Author presents his considerations in the context of contemporary international economics and international management. He places the category of international business on the borderline between these two areas. This category comprises an enterprise along with its international expansion strategic goals as well as the international or global sector (or, to use M. Porter's and G. Yip's terminology – *industry*)



along with its characteristics and identity: size and structure of demand, inter-sector competition mechanisms, the threat of new entries, effectiveness standards and expectations (*cost factors*), as well as the impact of formal *government factors* (including transnational institutions) and *industry factors*, and challenges posed by the macro – and microeconomic environment in the context of various trends of globalisation (part II, chapters 5 and 6).

The Author's *analytical scheme* of the problems of international business, including global competition mechanisms, based on a critical analysis and a creative adaptation of M. Porter's model and G. Yip's approach, although disputable in some of its parts, is deserving of recognition. It creates a clear methodological perspective for research studies of an enterprise – a participant as well as a creator of the international sector.

The issues related to an international enterprise and international business, in their broad perspective and various aspects of the *definientia* of these categories, are discussed in four chapters in part I of M. Gorynia's work and two chapters in part III. These fragments constitute a remarkable discourse, providing insights into the complexity and multidimensional character of the two key categories discussed in the monograph. Suffice to say that M. Gorynia does not treat the identity of an international enterprise merely as a set of characteristics but also as a process of an international company's internationalisation and expansion. Also, the author presents an in-depth and critical analysis of the concepts proposed by such researchers as Pitelis, Sugden, Ietto-Gilles, Forsgren, and Casson. As a result, readers are provided with a set of information as well as with its processing and evaluation. It leads to a worthwhile overview and assessment of *contemporary corporate internationalization theories* (chapter 9). The Author stresses the significance of sequence and network models, the concepts of international entrepreneurship, and the internationalisation of a special type of *born global* companies. The author's analyses and narration are based on the perspective of knowledge and key competences

(C. K. Prahalad, G. Hamel), knowledge management and learning, including organisational learning.

The presentation of the profile of an international enterprise is a basis for an in-depth analysis of a company's international expansion strategy. M. Gorynia rightly states that world literatures devotes most attention to this issue in international business analyses. The monograph undertakes other significant issues, and this approach is highly deserving of recognition, constituting an extensive part of the monograph: three parts (IV, V, and VI, pp. 209–410). It provides a profound insight into the fundamental conditions of expansion strategies, and presents a detailed analysis of the major characteristics of entry strategies, the strategies of a company's presence in foreign markets, and procedures for choosing an expansion strategy. The typologies of expansion strategies point to various approaches to possible foreign market entry strategies and their financial, organisational and managerial aspects. Special cognitive value can be attributed to the annex to part V, which presents the cases of the possible use of transaction costs theory in analysing and assessing foreign trade agency. It is a valuable contribution to theoretical considerations, which is significant both from a cognitive and practical perspective for enterprises relying on direct export as a foreign market expansion strategy. In my view, part VI of the book constitutes its significant value – it presents models, principles and various approaches related to the choice of an entry strategy. The Author presents them in the basic context of internationalisation – its particular stages, and market and sector development. The in-depth analysis is rightly supplemented by the presentation of the issue of multi-criteria choices, including models and procedures developed by Root, Strathclyde, Stonehouse, Hamill, Campbell, and Purdie.

The monograph is concluded by part VII, which presents an analysis of the normative aspects of internationalisation. I wish to stress three issues. Firstly, the author presents the effects of internationalisation in a very original and inspiring way. It is reflected in his approach – the presentation of *a map of opportunities* for cooperation with foreign markets, a map of *theoretical explanations,* and a map of *recommendations for economic policies* (chapter 37). The theme of *recommendations* is continued in chapter 38, presenting internationalisation prospects for Polish enterprises. They are explicitly practical in character and they refer to the previous chapters and theoretical and methodological research. The concretisation of recommendations is explained in the considerations presented in chapter 39. It contains (reference to O. Tokarczuk's statement cited at the beginning of this review) *ad hoc reflections,* expressed by the author in the context of internationalisation in the period of the 2020 Covid-19 pandemic. He poses very significant questions – *will the pandemic kill globalisation,* and how will the world cope with this threat? Stressing the gravity of the situation, I share the Author's hope for an optimistic scenario.

In conclusion, I wish to state that Professor Marian Gorynia's work is a significant and valuable publication. It makes a major contribution to research studies in *international business*, accurately identifying the *economic, financial and managerial aspects of international corporate management.* Along with previous works, it confirms the Author's thorough knowledge about and fascination with issues related to *international business.* The work is a valuable monograph, setting high standards for scientific work and research in international business at macro, meso and micro levels. Moreover, it makes a significant contribution to the integration of the content and methodology of the sub-disciplines of economic sciences. With respect to both aspects, the author raises a number of important questions concerning the presence of enterprises in international and global markets, offering his individual and interesting answers. He stimulates a discussion and encourages readers to express their own thoughts. All these factors confirm a significant value of Professor Marian Gorynia's monograph.

The monograph creates a theoretical framework for *international business.* I encourage PWN Scientific Publishers to take advantage of the Author's valuable recommendations regarding a company's path of international expansion. The publication of M. Gorynia's monograph in English provides an opportunity for its international and global success.

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STUDIES REALIZED BY MANAGEMENT INSTITUTE, MANAGEMENT AND FINANCIAL COLLEGE

START-UP INSPIRATION LAB

New, exclusive, unique, on a global scale, Start-up Inspiration Lab postgraduate studies - Start-ups: The Inspiration Laboratory aims to provide the audience crucial and most up-to-date inspirations resulting from the practice of the world's most famous start-ups. Studies distinguish great exposure of the audience to the knowledge of a wide group of the best professionals in the market, who create substantive programs and constitute a hard core of teaching staff.

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- management staff and specialists to corporate innovations,
- management staff business accelerators and incubators,
- representatives of state and local government administration which are responsible for development and innovations

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- A complete change of mindset towards respect for the culture and system of values shared in the most famous start-up ecosystems in the world, mainly in the Dolina Krzemowa
- Gaining the newest and completion knowledge and inspirations on the functioning of the world of start-ups in a global perspective.
- Access to the best practitioners and world representatives of the world of science, not only from the Polish start-up environment / networking.
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- Business models, competition strategies and development strategies in start-ups
- The practice of unicorns - case studies
- Personalities of the modern world of start-ups: entrepreneurs, investors, mentors
- Characteristics of the largest start-up clusters in the world
- The world of start-ups and the world of corporations, CVC - corporate venture capital
- Creative industries,, design and cooperation between the world of business and art
- Social media and modern marketing in the Internet
- 4 mentoring sessions

OPINION ABOUT STUDIES

The basic principle that we follow at the PZU Group's Innovation Laboratory is „say less, do more". As banal as it sounds, very often in the world of business and science we have a problem with focusing on practice and activities generating added value. I am very happy that SGH is launching studies that will also focus as much as possible on the practical side of generating, testing and implementing innovations.

Marcin Kurczab,
Innovation Director, PZU SA

MORE INFORMATIONS: www.sgh.waw.pl/pssli phone number: +48 604 783 782

Nevada Global Business and Economics Lab (NVGLOBE-L)

About NVGLOBE-L

The vision of the UNR College of Business is "to be a premier business school that produces research and graduates that enable economic vitality and inspire positive change in Nevada and the world."

The College of Business international programs are designed to build a global perspective in business and economics education. Our goal is to support the College by facilitating international faculty and student exchange programs, research collaborations, joint research symposia, study abroad programs, professional internships, international competitions, and other global outreach activities.

To help with the college vision and our internationalization efforts, we launched a new research lab.

The Nevada Global Business and Economics Lab (NVGLOBE-L) is a policy-oriented lab, which focuses on applied research in business and economics.

NVGLOBE-L brings together students and faculty from the University of Nevada, Reno and our international partner universities in joint research projects.

Student Research Associates learn about a variety of international topics, conduct research and have the opportunity to work with faculty, students and other staff from UNR and our partner universities and institutions.

UNIVERSITY OF NEVADA, RENO
NVGLOBE-L
Nevada Global Business and Economics Lab

The College of Business
AT THE UNIVERSITY OF NEVADA, RENO

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