

ROLE OF HIGHER EDUCATION INSTITUTIONS IN SOCIETY: CHALLENGES, TENDENCIES AND PERSPECTIVES

Academic papers

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WHAT WE KNOW ABOUT JOSEPH ALOIS SCHUMPETER IN CHERNIVTSI (1909–1911)

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Summary

The article contains information about the life and work of Joseph Alois Schumpeter, Austrian and American economist, sociologist, who was a professor at Chernivtsi University from 1909–1911. The main purposes of this research article are to analyze and clarify information about his life and work. The article systemizes information about his life and work in Chernivtsi and consists of biographical facts as well as the reviews on J. A. Schumpeter's publications. The article has four parts, Chernivtsi and University, Private life in Chernivtsi, Work and engagement in Chernivtsi, and Theorie der wirtschaftlichen Entwicklung (1911).

Keywords: Schumpeter, Chernivtsi, Theory of Economic Development (Theorie der wirtschaftlichen Entwicklung).

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Introduction

Joseph Alois Schumpeter is one of the greatest economic scientists of the last century. He highlighted one of the strong driving forces of capitalism - innovation. That is what distinguishes him from other mainstream economic scientists who have seen the economy as a system constantly drifting to steady state. He was one of the first, who realized the power of creative destruction, which truly enhances widespread changes in all fields of activities and brings the economy of society to a new level. That makes the innovation and the entrepreneur who makes it the ultimate tool for increasing the economic output of society.

The phenomenon of Joseph Schumpeter, both during his active work and nowadays, has a special place in the history of economic science and is the subject of academic debate among economists and historians, mathematicians and social scientists on one hand, and neo-classicists, Keynesianists, liberalists, marginalists, institutionalists, and Marxists on the other hand.

Being a scientist in the Austrian empire he did not really belong to in that time existed Austrian school, he always had his own scientific views, which led him to a wary dynamic career and research paths. He used to teach a number of economic courses at the University of Chernivtsi and Graz, in Japan, at Rhineland University in Germany, at Columbia and Harvard universities in the U.S., and had practical experience at the International Court at Cairo, in the socialist government of Austria after World War I and in a private bank management.

Fortunately for Schumpeter and for economic science, his mentors were able to secure a temporary job for him as an associate professor at the University of Chernivtsi. This was a relatively new school in a city of eighty-five thousand located at the eastern boundary of the empire, more than four hundred miles from Vienna. The capital of the small Habsburg "Kronland" Bukovina, Chernivtsi was in that time near the Russian and Romanian borders. It was populated mostly by Ukrainians, but with a lot of German-speaking Austrian settlers. About a third of Chernivtsi population was Jewish. This benefited to development of Chernivtsi as the important commercial hub in the far east of the Habsburg Empire.

It was in Chernivtsi University that Joseph Schumpeter wrote his masterpiece "The Theory of Economic development", which was published in Leipzig in 1912, after Schumpeter's departure from Chernivtsi to the Austrian city of Graz.

Nowadays, Schumpeter's thought becomes even more crucial to understand by economists. It helps to see not just the struggles, but also the new opportunities. It does not have the easiest or fastest solutions, but the solutions that really work and can lead the society to a better and prosperous future, based on respect and personal freedom.

The main purposes of this research article are to analyze and clarify all data about the life and work

of Joseph Alois Schumpeter, Austrian and American economist, sociologist, who was a professor at Chernivtsi University in 1909–1911. The article systematized gathering information about his life and work in Chernivtsi. The researching consist of biographic facts and descriptions as well as the reviews on J. A. Schumpeter's publications.

Main part

Chernivtsi and University

During the spring of 1909, Schumpeter lectured at the University of Vienna, and in the autumn of the same year, he advanced further in his academic career when he began to work as an associate (ausserordentlicher) professor at the University of Chernivtsi. This made him the youngest professor of economics in the country (Swedberg, 1991).

Joseph Schumpeter never liked to identify himself with any nationality, group and school; he was neither a reformer nor a supporter or opponent of capitalism or socialism, or any other economic doctrine. His path was to be an independent researcher and intellectual. Many of his biographs believe Schumpeter had complicated relations with the official academic elite of Austria and Germany, which did not want to see a violator of traditions in its ranks. That is why Joseph Schumpeter had to start his professorial career in the outlying districts of the Austro-Hungarian Empire in Chernivtsi.

Chernivtsi was in those days the capital of the Duchy of Bukovyna in the easternmost province of the Austro-Hungarian Empire. Mostly Ukrainians, Austrian settlers (mostly from Schwabia) and Jews (up to 30% of the city population) populated it. The University of Chernivtsi was quite young - it had been founded in 1875 as a Franz-Josef's Universität based on the Chernivtsi Higher Theological School. Originally, the main language of the institution was German with the exception of one Ukrainian language and literature department. During the period of Austro-Hungarian rule, the university operated three faculties: Orthodox theology, law and philosophy. At the time, the majority of the students were German-speaking Austrians and Jewish people, while Ukrainians comprised less than 20 of the student body.

The Library of Yuriy Fedkovych Chernivtsi National University founded in 1852 as the Regional public library and transformed into the University library after the founding of Chernivtsi University in 1875, in contrast to most libraries in the Austro-Hungarian monarchy and Germany, was able to avoid fires and mass misappropriation of collections during the two world wars. As a result, the funds of the library holds one of the world's largest collections of various materials concerning the personality of Joseph Schumpeter in the first quarter of the twentieth century. In particular, there are prints of scientist's publications, his reviews on the works of other leading scientists of the time, including representatives of the Austrian school (for example, his teacher Eugen von Böhm-Bawerk) and colleagues in teaching economic disciplines at Chernivtsi University (e.g. Christopher Coroama) and the documents reflecting various aspects of J. A. Schumpeter's teaching activities.

It is also worth noting that unlike other universities in Ukraine, which emerged in the nineteenth century (Kyiv, Kharkiv, Odesa) at Chernivtsi University starting from the first year of its existence (since 1875), the political economy had been taught. There was a certain "culture of teaching economics", and hence J. Schumpeter could find at Chernivtsi University an opportunity to present his scientific views, which did not fit the framework of the political economy classical school (Nikiforov, Storoschuk, 2011).





Picture 1. The University of Chernivtsi 1909 and that building today

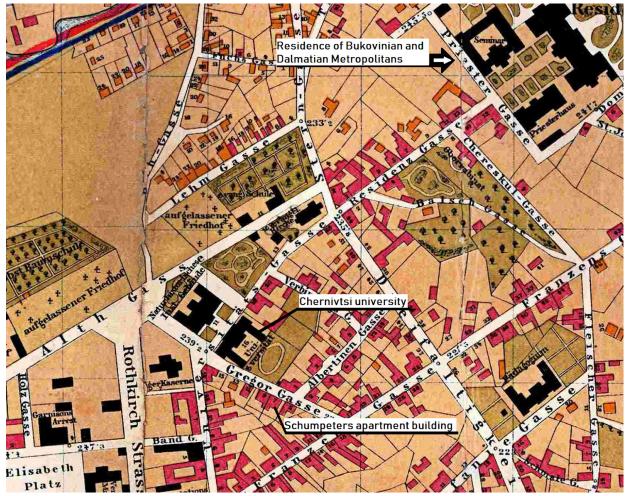
Today Yuriv Fedkovych Chernivtsi National University is a modern university with more than 19.000

students, 13 faculties/colleges and 17 campuses with 105 building units with a total area is 110.8 thousand square meters. Since 2000, when the university was awarded National status, it operates under its current name, Yuriy Fedkovych Chernivtsi National University.

By decision of Session of Council of European University Association, held in Brussels on 15 January 2009, Yuri Fedkovich Chernivtsi National University was granted full individual membership in European University Association. The architectural ensemble of the main campus of the university, the Residence of Bukovynian and Dalmatian Metropolitans is included on the list of UNESCO World Heritage Site.

Private life in Chernivtsi

Schumpeter lived in Chernivtsi on the street Gregor Gasse 7, near the University. Now it is Skovorody Street. However, in those times houses were not very large, so there were usually from 4 to 6 apartments. His neighbors, as well as colleagues, were also employed at the university as lecturers or professors. A big part of social life was at the campus, because professors not just worked together, but also met each other for collective dinner at the cantina and different interests groups at the campus buildings. It is important to mention, that the apartment, which he rented, was the property of the university, so it was allowed for him to stay as long as he was employed at the university. Therefore, in those terms, he was not a permanent citizen, but more like a guest of the university. This is one of the possible reasons why Schumpeter was not listed in City and Business Directories for Chernivtsi & Suburbs in 1909. Because usually older and married permanent professors in those times tried to acquire their own house, or flat, which would have a much bigger size and comfort (czernowitz.ehpes.com).



Picture 2. The old map of Chernivtsi with Schumpeter apartment building.

But, despite the fact that he had come to, in that time not famous university, Schumpeter soon liked his stay in Chernivtsi, and the two years that he spent there were apparently happy ones. For years afterward, he would later entertain his colleagues and friends with scandalous tales at Harvard with a string of stories about his 'extracurricular activities' in and around the city (Swedberg, 1991).

In those times, the City was very rich, but Jewish trade and Austrian investments made most of the city's wealth. The true innovation that Schumpeter wrote about was not present in the City's economic life.

Even until nowadays, Chernivtsi remains successful in commerce and trade but lacks in the entrepreneurial spirit for important innovation. Most of the innovation comes from the western world, the same as it was during the times Schumpeter lived. The fact that in the real economic life of the Chernivtsi, society has a lack of innovation, but remains very wealthy makes even harder to see the importance of innovation, what indeed is Schumpeter greatest achievement during his stay in Chernivtsi.

Another memorable event from these days was his duel with a librarian in Chernivtsi, it was between two men employed by the university. Schumpeter had arrived in Chernivtsi just weeks before. When his students complained that the librarian forbade them to check out books he had assigned, he rushed over and confronted the offender. According to that time sources, the argument escalated, and Schumpeter began to roar out insults and the librarian raised the stakes and challenged Schumpeter to a duel. For the principle of book borrowing, they were willing to risk injury. At the end of the duel, the librarian left the field with a cut on his shoulder. Schumpeter achieved his goal - the students would now get access to the books. (K. McCraw, 2007).

Work and engagement in Chernivtsi

The sixth of October in 1909, Schumpeter is appointed to the position of extraordinary Professor of political economy in Chernivtsi University. Working as a visiting professor at the Department of State and Law, at the Imperial University of Chernivtsi named after Franz Josef, Schumpeter was notable for the breadth of his research interests in economics.

Czernowitzer Angelegenheiten.

Czernowit, 6. Oftober.

Bon der Univerfität.

RB. Wien, 6. Oftober. (Tel. ber "Cz. Allg. Sig.") Die "Biener Beitung" melbet: Der Raifer ernannte ten Brivatbogenten an ber Universität in Bien Dottor Josef Soumpeter zum angerordentlichen Brofeffor fur politifche Detonomie an ber Universität in Czernowip.

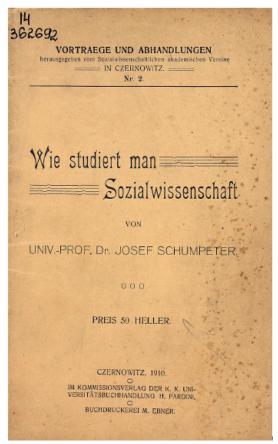
Picture 3. The announcement about the new associate (ausserordentlicher) professor at Chernivtsi University

After his arrival in Chernivtsi Schumpeter engaged in many scientific societies, one the most important was Joseph Schumpeter never linked himself to any scientific school of economic theory. Nevertheless, he greatly extended the boundaries of economic research, identified then existing interdisciplinary problems of social sciences; in his research on social and economic processes he had to consider so-called called "non-economic criteria" or factors of the economic development. 1910 – published his scientific work on "Wie studiert man Sozialwissenschaft" (Nikiforov, Storoschuk, 2011).

The first meeting of the Sociological scientific academic society began on Tuesday, 23 November, in 1909 in the afternoon after an honorary member of the society Professor Ehrlich had his foreword. Then Professor Schumpeter opened the current cycle with his speech "Formation of trusts and the national future". The meeting was held in the chamber of Commerce at Petersplatz 2 (Hedtke, 2017).

The sociological scientific academic society opened in 1910. All members of the society – students and academicians can attend the evening sessions of the society, which gives an opportunity to discuss economic issues in free communication. In order to show respect for the management of the company, it is decided that all reports will be submitted in writing to the Examination Committee for approval. University professors Erlich and Schumpeter kindly explained that the three best works would be awarded prizes and will be published at the expense of the society. He gave students a fairly extensive list of basic fundamental works, which in his opinion were necessary for the normal assimilation of the disciplines that he taught (Hedtke, 2017).

Besides teaching straight economics courses at the University of Chernivtsi, Schumpeter also lectured on various social science topics. The sheer intellectual delight that pervades lone of these lectures from czernow.tz can still be sensed by reading his excellent little pamphlet on the history of the social sciences Vergangenheit and Zukunft der Sozialwissenschaften (The Past and the Future of the Social Sciences). The students also seem to have enjoyed Schumpeter hugely, and on some, he made a lasting impression. A few days after Schumpeter s death in January 1950, his wife received a letter from a former Chernivtsi student. It was written: I still remember the good looking and elegantly dressed young man who entered our classroom to deliver his first lecture at the University of Chernivtsi and who immediately impressed us with the deepest respect for the brilliance of his delivery and the profoundness of his thought (Swedberg, 1991).



Picture 4. Book "Wie studiert man Sozialwissenschaft", published during his stay in Chernivtsi

Schumpeter's two years as a professor at Chernivtsi was obviously a good period in his life. He gave public lectures, had an extensive social life, which he later in memories entertained his fellow colleagues and friends with, but above all, it was during this period he wrote his most significant work: The Theory of Economic Development (1911). It was written outside the employment, on spare time, and unsalaried. Another significant momentum is that Chernivtsi at that time was far from the corridors of power and established dogmas in the subject. Schumpeter lived a happy life and found inspiration to proceed in new directions with his theoretical works (Sandal, 2017).

Sozialwiffenschaftlicher atab. Berein. Der sozialwissenschaftliche atabemische Berein eröffnet Montag ben 10. Jänner
b. J. mit einem Bortrag bes herrn iur. Balerian Brendzan
uber "Kooperationen und bie Agrarpolitit ber
Ruthenen" die Bereinsabende, die ausschließlich Mitgliedern
zugänglich sind, von aun ab im Bereinslota'e, Franzensgasse 3,
abgehaltest werden Die Bereinsabende sollen allen Mitgliedern
bes Bereines — Studenten und absolvierten Atademitern —
Gelegenheit geben, in freier Rede wissenschaftliche Fragen zu erörtern. Um die Bemühungen der Reservien entsprechend zu

Picture 5. Announcement from the Sociological scientific academic society

The twenty-first of November, in 1911 held a farewell lecture Schumpeter "Past and future of social science" in the social sciences Academic Association Chernivtsi. After the report, a dinner was held in the restaurant of the hotel "Black Eagle".

In 1911, Schumpeter moved to the University of Graz as a full (ordentlicher) professor in political economy. He now could add a third record to his collection: he was the youngest full professor in the empire.

During his time in Chernivtsi Schumpeter had a significant personal, career and scientific growth.

The Theory of Economic Development (Theorie der wirtschaftlichen Entwicklung 1911)

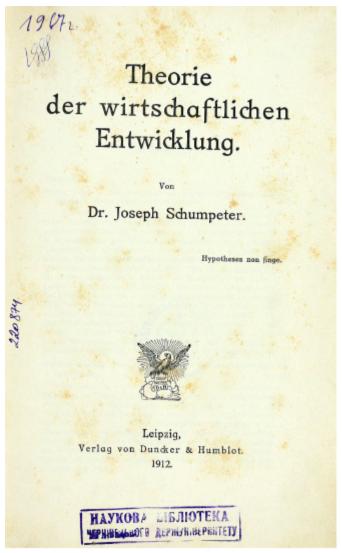
While teaching at Chernivtsi University Schumpeter's "The essence and the essence of theoretical

national economy" book was published, and perhaps, by this time the scientist's methodology in the socioeconomic studies had formed. It was in Chernivtsi University that Joseph Schumpeter wrote his first major work "The Theory of Economic Development", which was published in Leipzig in 1912, after Schumpeter's departure from Chernivtsi to the Austrian city of Graz. In this paper economic development is presented as a process of "creative destruction" that is constantly repeated appearance and loss of monopoly power by the market actors, its basis is the innovative activity of entrepreneurs. Schumpeter fearlessly elaborates the crucial role that entrepreneurs play in the real world of capitalism. In his definition, the entrepreneur is not a run-of-the-mill business executive, or even the owner or chief executive of a successful firm. The entrepreneur is "the modern type of 'captain of industry" obsessively seeking an innovative edge.

His brilliant Theory of Economic Development full of insight and originality, it set the foundation for his own analysis of capitalism and for an immense amount of research by other writers.

Whereas in his first book Schumpeter tried to radically separate international economics from other social sciences, in The Theory of Economic Development he already looks at the economic process in its context. He came to the conclusion that the 'static theory of economics cannot satisfactorily explain all the aspects of economic life.

Schumpeter begins the book by reviewing conventional economic doctrine: the hypothetical circular flow of production and consumption. This idea, first developed in the eighteenth century, describes in simple terms the way an economy works. Employers produce goods and services and pay their workers. Next, the workers, in their roles as consumers, buy these goods and services. Then the employers use the consumers' money for investment, further production, wage payments, and profits thereby starting the cycle again. The circular flow is like a constantly running river that can rise or fall slightly. But real floods or droughts do not take place, and the river can never go off its course (McCraw, 2007).



Picture 6. Theorie der wirtschaftlichen Entwicklung, 1911 (The Theory of Economic Development) written during his stay in Chernivtsi

This steady-state economy, which Schumpeter had described in his first book, reappears in The Theory of Economic Development as a starting point for his real interest: continual economic change under capitalism. Whereas his purpose in the first book had been to reconcile warring economic schools, he now broke entirely fresh ground. In his new theory, the circular flow becomes highly irregular. Floods and droughts become commonplace, and entrepreneurial adventurers routinely cut new channels into the economic landscape (McCraw, 2007).

The central role in dynamic economics, argued Schumpeter, is played by the entrepreneur, whose innovations enable him to succeed. By using a combination of productive factors (establishing a new company, finding new means of production and markets, or introducing new forms of organization etc.) the entrepreneur is able to reduce costs and make a profit. The dynamic entrepreneur, or innovator, he argued, has to own or be able to obtain the necessary productive means, for example by getting a bank loan. The use of banks was seen by Schumpeter as the main aspect of dynamic progress (Bily, Bukvaj, Klaus, 2005).

According to Schumpeter, the profit made by the innovator attracts other entrepreneurs, which results in economic growth. After a certain time, though depression sets in as the demand for loans decreases, the market becomes saturated and some of the companies file for bankruptcy. After a certain time of depression, new entrepreneurs join the industries and the circle starts all over again. This makes his theory universal for every part of the economic cycle.

Discussion

It was in Chernivtsi University that Joseph Schumpeter wrote his masterpiece "Theorie der wirtschaftlichen Entwicklung" (The Theory of Economic Development), which was published in Leipzig in 1912, after Schumpeter's departure from Chernivtsi to the Austrian city of Graz. It was created during his stay in Chernivtsi and the chances are high, that this work had never seen the world if Schumpeter had worked in any other Austrian city. It is because the volume of personal and scientific freedom, which he enjoyed in Chernivtsi, was very high for a young scientist in that time in Austria. In this paper economic development is presented as a process of "creative destruction", that is constantly repeated appearance and loss of monopoly power by the market actors, and its basis is the innovative activity of entrepreneurs. Schumpeter fearlessly elaborates the crucial role that entrepreneurs play in the real world of capitalism; nevertheless, the economic life in Chernivtsi was based on trade and commerce, instead of innovative entrepreneurship. His brilliant Theory of Economic Development is full of insight and originality; it sets the foundation for his own analysis of capitalism and for an immense amount of research by other writers. Therefore, we reached the conclusion, that the crucial role of the city and place were Schumpeter lived is not to be a perfect example of innovative entrepreneurship, but to be an excellent place for doing science and research. Feel free to generate new, better ideas, which were not possible to generate under the pressure of mainstream ideas in some bigger and established universities. Because of it, the whole economic science has benefited from Schumpeter stay exactly in Chernivtsi.

Conclusions

The article highlighted the important parts of biographies of J. Schumpeter and submits information about his two-year stay in Chernivtsi. In that way, we learn about him as a young University teacher, who in 1909 began his professorship in Chernivtsi. More information is provided that the arrival of Schumpeter on his new job, quickly enough dispelled the negative rumours that went about it. Bukovina press covering farewell of Joseph Schumpeter in Chernivtsi, showed the fact that he received outstanding fame at the University of Chernivtsi. The notes in the Newspapers showed that Schumpeter has introduced at Chernivtsi University a lot more than was possible under the mainstream pressure in Vienna. Active participation of Schumpeter in Chernivtsi sociological scientific academic society allowed him to become a co-initiator of Sociological scientific circle in The University of Chernivtsi, as evidenced by numerous of the corresponding entries in Chernivtsi public newspaper. Schumpeter's two years as a professor at Chernivtsi were obviously a good period in his life. He gave public lectures, had an extensive social life and created one of his greatest works - Theorie der wirtschaftlichen Entwicklung (The Theory of Economic Development) which was published in 1911.

References

- 1. Backhaus J. (Ed.), (2003). Joseph Alois Schumpeter Entrepreneurship, Style and Vision. Kluwer Academic Publishers. 2003
- 2. Bily J., Bukvaj F., Klaus V., (2005). Josef Alois Schumpeter (1883-1950) Economist, Politician, Social Philosopher and Humanist. Trest Town Council. 2005.
- 3. Hedtke U., (2017). Chernivtsi Affairs To Schumpeter's first professorship at the University of Chernivtsi, 1909-1911.
- 4. McCraw T., (2007). Prophet of innovation. The Belknap Press of Harvard University Press. 2007.
- 5. Nikiforov P., Storoschuk B., (2011). Joseph Alois Schumpeter. Works of the scientist and literature about him from the

collections of the Scientific library Chernivtsi national University named after Yuriy Fedkovych. Bibliographic index. Chernivtsi National University. 2011.

- 6. Sandal J.-U., (2017). In the footsteps of the early Joseph Alois Schumpeter. Sandal Institute. 2017.
- 7. Schumpeter J. A., (1942). Can capitalism survive? Creative destruction and the future of the global economy. Harper Perennial Modern Thought. 2009.
- 8. Swedberg R., (1991). Joseph A. Schumpeter his life and work. Polity Press.1991.

Anotacija

KĄ MES ŽINOME APIE DŽOZEFĄ ALOISĄ SCHUMPETERĮ IŠ ČERNOVCŲ (1909-1911)

Straipsnyje rašoma apie Juozapo Aloiso Schumpeterio, austrų ir amerikiečių ekonomisto, sociologo, kuris dirbo 1909-1911 m. Černovcų universitete, gyvenimą ir darbą. Tyrimas susideda iš keturių turinio dalių: "Černovcai ir universitetas", "Asmeninis gyvenimas Černovcuose", "Darbas ir veikla Černovcuose" ir "Ekonomikos vystymo teorija" (1911). Straipsnyje tiriamos Schumpeterio mokslinio darbo, kuris leido jam sukurti savo ekonomikos vystymo teoriją (1911 m.) gyvenant ir dirbant Černovcuose, priežastys ir šaltiniai.

Pagrindinis šio mokslinio straipsnio tikslas – išanalizuoti Juozapo Aloiso Šumpeterio, Austrijos ir Amerikos ekonomisto, sociologo, kuris 1909–1911 m. buvo Černovcų universiteto profesorius, gyvenimą ir darbą. Straipsnyje pateikiama susisteminta informacija apie jo gyvenimą ir darbą Černovcuose. Tyrimus sudaro biografiniai faktai ir aprašymai, taip pat J. A. Schumpeterio leidinių apžvalgos.

Juozapo Schumpeterio fenomenas turi ypatingą vietą ekonomikos mokslo istorijoje tiek jo aktyvaus darbo metu, tiek ir šiandien, ir yra akademinių diskusijų tiek tarp ekonomistų ir istorikų, matematikų ir sociologų, tiek ir tarp neoklasikų, keynesianistų, liberalistų, marginalistų, institucionalistų ir marxistų, tema. 1909 m. pavasarį Schumpeteris skaitė paskaitas Vienos universitete, o tų pačių metų rudenį jis tęsė savo akademinę karjerą Černovcų universiteto docentu (ausserordentlicher), kur pradėjo dirbti. Jis tapo jauniausiu šalies ekonomikos profesoriumi. Tačiau, nepaisant to, kad jis atvyko tuo metu ne į garsų universitetą, Schumpeteriui jo buvimas Černovcuose patiko, o dveji metai, kuriuos jis praleido ten, buvo akivaizdžiai laimingi. Vėliau, po metų jis linksmino savo kolegas ir draugus Harvardo mieste skandalingais pasakojimais ir istorijomis apie savo "užklasinę veiklą" mieste ir aplink jį.

Esminiai žodžiai: Schumpeteris, Černovcai, Ekonomikos vystymo teorija (Theorie der wirtschaftlichen Entwicklung).

AUKŠTŲJŲ MOKYKLŲ VAIDMUO VISUOMENĖJE: IŠŠŪKIAI, TENDENCIJOS IR PERSPEKTYVOS

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