
ARTÍCULOS DOCTRINALES / ARTICLES

**THE ORIGINS OF TEACHING ACCOUNTING IN RUSSIAN
UNIVERSITIES: LECTURER AND RESEARCHER STEPAN USOV
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Abstract: The authors of the paper explore the life and professional activity of Stepan Mikhailovich Usov (1797-1859), as well as his views on the theory and practical implementation of new accounting techniques in agriculture. Usov was a talented researcher, an expert in agricultural sciences, political economy, history, and the publisher and editor of a number of Russian magazines. He worked hard all his life to disseminate knowledge about progressive technologies of agronomy and farm bookkeeping. Usov became one of the first lecturers in accounting, which he taught at St. Petersburg University in 1836 and this is in the focus of the study. Based on the Actor-network theory of Bruno Latour (ANT), the authors contribute to the previous literature within biographical studies and accounting education by identifying Usov's role in the development of Russian accounting as a mediator in the network of educational institutions, which transformed accounting into a university discipline.

Keywords: *accounting history, accounting education, Stepan Usov, Russia, 19th century*

“There are officers in St Petersburg who form some kind of middle class within its society...They enjoy chatting about literature...They do not miss a single public lecture, be it about bookkeeping or even forestry.”
Gogol (2014:38-39)

LOS ORÍGENES DE LA ENSEÑANZA DE CONTABILIDAD EN LAS UNIVERSIDADES DE RUSIA: PROFESOR E INVESTIGADOR STEPAN USOV (1797-1859)

Resumen: Los autores del artículo exploran la vida y la actividad profesional de Stepan Mikhailovich Usov (1797-1859), así como sus puntos de vista sobre la teoría y la implementación práctica de las nuevas técnicas contables en la agricultura. Usov era un investigador talentoso, experto en ciencias agrícolas, economía política, historia y editor y editor de varias revistas rusas. Trabajó duro toda su vida para difundir conocimientos sobre tecnologías progresivas de agronomía y contabilidad agrícola. Usov se convirtió en uno de los primeros profesores de contabilidad, que enseñó en la Universidad de San Petersburgo en 1836 y este es el foco del estudio. Basado en la teoría Actor-red de Bruno Latour (ANT), los autores contribuyen a la literatura previa dentro de los estudios biográficos y la educación contable al identificar el papel de Usov en el desarrollo de la contabilidad rusa como mediador en la red de instituciones educativas, que transformó la contabilidad en una disciplina universitaria.

Palabras clave: *historia contable, educación contable, Stepan Usov, Rusia, siglo XIX.*

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1 Introduction

Accounting historians study accounting not only as a set of professional skills, but also as a social practice (Carnegie et al., 2020). Society ensures its functioning through various social institutions; one of the most important is education. The structure and development of education have a huge impact on the diffusion of innovation and best practices (Carnegie & Williams, 2001; Rodrigues et al., 2004; Smirnova et al., 1996). Lazzini et al. (2018) argued that the development and distribution of any system of knowledge are profoundly influenced by the structure of the education system.

The history of accounting education in Russia began in 1721, when bookkeeping appeared as a topic in the curricula of arithmetic schools at the order of Peter the Great (Karelskaia & Zuga, 2014). There were no schools for professional training of bookkeepers in Russia at the time, so government bodies had difficulty recruiting competent employees. Many bookkeepers did not even have a primary education; they could carry out only routine procedures, mechanically copying previous records. The educational reforms implemented during the reign of Empress Catherine II (1762-1796) stimulated the emergence of a whole generation of enthusiasts striving to make everyday life in Russia more enlightened and comfortable. They wanted to learn very much, and, having received education, they began to perform activities aimed at spreading knowledge among Russian citizens. The output of these activities was that starting in the first half of the 19th century, accounting began to be taught in Russian universities.

In this paper, we explore the life and professional activity of Stepan Mikhailovich Usov (1797-1859), as well as his views on the theory and practical implementation of new accounting techniques in agriculture. Usov represented a new generation of people shaped by the

democratic reforms of Catherine the Great, who actively participated in Russian social life. A son of a serf who later received his freedom, Usov became a university professor and an official of the Agriculture Department of the Russian Ministry of State Property.

Usov worked hard all his life to disseminate knowledge about progressive technologies of agronomy and farm bookkeeping. He became known as an innovator within accounting education and one of the first lecturers in accounting, which he taught at St. Petersburg University in 1836. In his lectures, Usov advocated not only for mastering advanced accounting techniques and their implementation in practice, but also for the idea that accounting was a science necessary to cultivate the Russian elites, thus fostering a sense of responsibility for the nation's economic prosperity.

Our purpose is to analyse Usov's role in the development of Russian accounting at the beginning of the 19th century. To accomplish this task, we relied on actor-network theory (ANT), developed by scholar Bruno Latour (1996, 2005). This sociological theory examines the networks of relationships between various human and non-human subjects in society, in which the activity of actors leads to the expansion of the networks, as well as to the dissemination and diffusion of innovation.

We continue the tradition of biographical studies in accounting history (Bedford & Zigler, 1975; Cinquini & Marelli, 2002; Clarke, 2005; Dickson, 2007; Edwards 1994; Nikitin, 1996, 2001; Quattrone, 1994; Reinstein et al., 2008; Romeo & Rigsby, 2008; Sargiacomo et al., 2012). Some researchers analyse the contribution of prominent teachers and university lecturers in the development of accounting theory and practice (Bloom, 2009; Sangster & Scataglinibeghitar, 2010; Sangster et al., 2014). For biographical studies of Russian accounting scholars, the number of such publications is insignificant (Dmitriev, 2003; *In Memoriam*, 2011; Kuter et al., 2019; Lvova & Lvova, 2018; Sokolov, 2015, 2018). Until now, researchers have not paid due attention to the life and professional activities of the prominent Russian scientist and statesman Stepan Usov. We seek to address this omission. We contribute to the previous literature within biographical studies and accounting education by identifying Usov's role in the development of Russian accounting as a mediator in the network of educational institutions, which transformed accounting into a university discipline.

The structure of the paper is as follows: we discuss the theoretical framework of the research in the next section, followed by our findings on Usov's role in the dissemination of new ideas in agriculture, his innovations in accounting theory and practice, and his activity aimed at making accounting into an academic discipline in Russian higher education institutions. Concluding remarks complete the paper.

2 Theoretical framework

Actor-network theory (ANT) is a theoretical, methodological approach to social theory where everything in the social and natural worlds exists in constantly shifting networks of relationships. Networks can be an important source for the dissemination of ideas and the diffusion of new practices, both on the level of the individual organisation and in a broader sense. ANT makes use of some of the simplest properties of nets and then adds to them an **actor** that does some work; the addition of this ontological ingredient deeply modifies the net (Latour, 1996:372). A network in mathematics or in engineering is something that is traced or inscribed by some other entity (e.g., the mathematician, the engineer). An actor network is an entity that performs tracing and inscribing itself. It is not a tool in the hands of others, especially of human planners or designers. This essential feature was created by adding an actor as a new element (Latour, 1996:375). What are the functions of these nets? As Latour wrote (1996:377), they are *'the attribution of human, unhuman, nonhuman, inhuman, characteristics; the distribution of*

properties among these entities; the connections established between them; the circulation entailed by these attributions, distributions and connections; the transformation of those attributions, distributions and connections, of the many elements that circulates and of the few ways through which they are sent'.

Some researchers of accounting history have exploited ANT to explain accounting changes. Yamey (1981) called the participants of these change processes '*actors*' and Parker (1999) called them '*agents of change*'. Some scholars (Innes and Mitchel, 1990; Cobb, Helliard and Innes, 1995) argued that major developments in organisational structure and accounting systems require '*motivators, catalysts and facilitators*'. Boyns and Edwards (2013) used a modified approach and described the roles of '*actuators*' and '*implementers*' in the process of disseminating innovation.

In our paper, we use the classification of actors created by Latour (1996). He divide all actors into '*intermediaries*' and '*mediators*'. The distinction between intermediaries and mediators is key to ANT sociology. Intermediaries are entities that transport the force of some other entity more or less without transformation, and so are of little interest to us. Mediators are entities that multiply differences and thus should be the focus of this study. Their outputs cannot be predicted by their inputs. Their activity is often described as '*mediation*' or '*translation*'. The concept of translation is central to ANT: innovators attempt to create a forum or central network in which all actors agree that the network is worth building and defending. Another important element of the concept is the role of network objects in helping to enhance the translation process by '*creating equivalencies between what would otherwise be very challenging people, organisations or conditions to mesh together*'. Latour wrote about paying close empirical attention to '*various institutions and ideas that bring people together and inspire them to act*' (Latour, 2005).

We view the role of Usov as a *mediator* in the development of a *network* aimed at disseminating knowledge about agricultural economics and rural bookkeeping. At the beginning of the 19th century, the main industry in the Russian economy was agriculture, which employed up to 90% of the population (Yablonskikh, 2000). Transformations in this area were urgent because agriculture had developed in a traditional way, primarily due to extensive factors. Usov's various activities stimulated the creation of new social networks, which helped to spread new ideas in agronomy (e.g. newspaper publications, public lectures, etc). These efforts *inspired people to act* in another way and helped to replace the nobles, who had an irrational form of management, with a new class of rational landowners. The purpose of our research is to establish '*various institutions and ideas*' that Usov used to solve this issue.

We distinguish three main areas of his activities: agronomy, farm accounting and accounting education. The next three subsections are devoted to investigating Usov's personal traits in these areas to provide a perspective on his character and his role in accounting history.

3 Stepan Usov: A progressive agronomist

Little is known about Usov's personal life; his social activities left a larger trace in history. Usov was born in 1797 and entered St. Petersburg University in 1819; he graduated from the physics and mathematics department in 1823. He ran his father's business for several years and at the same time was actively engaged in self-education, attended university lectures on natural disciplines, and read a lot. In 1824, Usov married and eventually brought up 11 children, many of whom became famous: his son Pavel was an editor, Mikhail was a lawyer, Peter was an engineer, and Vladimir was a military man.

Having acquired extensive knowledge in agronomy, Usov advocated for progressive methods of farming. Agriculture in Russia at the beginning of the 19th century was in a deep

crisis. Farms in the central region had suffered from Napoleon's invasion in 1812 and the bad harvest of the 1830s. The reduction in peasants' land led to an increase in their arrears, which by 1831 amounted to 51.9 million rubles. During this period, we can see all three forms of feudal rent: monetary, natural (product), and labour. The role of monetary rent was constantly increasing. Nevertheless, from the middle of the 19th century, the ratio of labour (*barschina* – in Russian) and monetary (*obrok* in Russian) rent among landlord farmers was expressed in the following figures: 71.9% for *barschina* and 28.1% for *obrok* (Kuznetsov, 2018). Under these conditions, there was little possibility to use progressive agricultural technologies and modern machines or to improve the breed of livestock since a significant portion of farms were merely struggling to survive.

The insufficient level of agricultural technology in Russian estates led to the low productivity of peasant farms. Serfdom (i.e. the ownership of peasants as slaves) hindered the country's progress, preventing an increase in the efficiency and productivity of agriculture. Economists of the 19th century noted that the labour productivity of a hired worker was almost twice that of a serf's labour productivity (Tegoborski, 1852). Similar processes took place in noble households. The increase in agricultural production was possible mainly due to the development of new lands in southern European Russia and partially in the southern regions of Siberia (sown areas increased by 53% for the first half of the 19th century). Despite the expansion of plowed territories, the feudal nature of exploitation did not lead to a noticeable rise in profitability due to low labour productivity. In terms of labour productivity in agriculture, Russia lagged behind many European countries. Therefore, the 19th-century economist L.V. Tegoborski (1852) determined the average yield in Russia at 4.63 quarters grain per tithre of earth, while in France it was 7.36 quarters, in Prussia 5.74 quarters, and in Austria 6.6 quarters (1 quarter=209.91 litres; 1 tithre=1.09 hectares).

The main landowners in Russia were the nobles. The decree of 12 December 1801 expanded the range of subjects of land ownership. Not only nobles, but also merchants and officials could now own land. However, Predtechensky (1957:166) noted that the real effect of this decree was very small due to the lack of buying power among Russian citizens. Under these conditions, the representatives of high society—Mordvinov, Golitsyn, Gagarin, Vorontsov and others—created various agricultural societies out of the desire to develop agriculture 'according to science': the Moscow Agricultural Society, and the Agricultural Society of South Russia. They advocated for scientific crop rotation, fertilisers, and modern agronomic techniques. However, in practice, the landowners considered their estates to be their own separate 'states' where they were the sovereign rulers. At the same time, the apparatus of farm administration expanded, and its structure increasingly resembled the state apparatus (Firsova, 2006: 23). The number of property owners who tried to rationalise their farm management was not large. This often led to the ruin of landowners; by 1843, more than 54% of all estates had already been pawned, and by 1857, two-thirds of all landowners' holdings in Russia were mortgaged.

At the beginning of the 19th century, the spread of advanced farming and rural management practices was hampered by the low literacy level of the Russian population. Spreading new knowledge about advanced agronomic techniques and the rationalisation of the economy were necessary to overcome the agricultural crisis and to activate the agricultural market. Usov used journalistic activities for these purposes. He joined journalism in the early 1820s, working with the magazine *Son of the Fatherland*¹ where he published translations from French and German on the natural sciences and historical topics. In the 1830s, Usov became a writer for the very popular newspaper *Northern Bee*², in which he published several articles every year for almost 30 years. Usov's articles were very informative and written with a desire

¹ In Russian – *Syn Otechestva*.

² In Russian – *Severnaya pchela*.

to bring real benefits to readers. Whatever he wrote about, he strove to give the reader comprehensive information on the essence of the issue. To ‘revive’ material he often resorted to ‘curious reports’, including travel notes and letters to publishers. Analysis of Usov’s articles in *Northern Bee* shows he was an expert on a number of issues: production, agriculture, trade, finance, and the natural sciences (Klyuchkovskaya, 2012). The distinctive feature of his publications was his focus on entrepreneurship and support for the country’s commercial and industrial growth.

The most active period of Usov’s publication fell between the 1830s and 1840s, when economic topics were an important component of the newspaper’s content. There were articles titled: *The story of the journey from St. Petersburg to Moscow*, *About the Alexandrovskaya manufactory*, *Izhora Admiralty plant*, *About the grease market in St. Petersburg*, the rubric *Meteorological observatory*, *News for the founders of the shipping company in Russia* and so on.

Usov was actively involved in publishing and editorial activities: he headed the *Agricultural Gazette* (1834–1852) published by the Ministry of Finance, organised his own newspaper, *Mediator* (1840–1856), and oversaw the *Proceedings* of the Imperial Free Economic Society (IFES) and the newspaper *Economic Notes* (1857-1859)³. While participating in journalistic activities, Usov set out to raise public awareness around progressive ideas in agronomy and agriculture. In a simple and clear manner, he tried to explain difficult economic questions and to clarify their essence for farmers. If earlier economic problems were discussed only in scientific societies of a limited number of people, then publications in newspapers and magazines created a new social reality: the discussion of economic news became a common ritual of any meeting among educated people, and Usov was an active organiser of this process.

Usov spoke several languages: French, German, and English; he also understood Polish, Swedish, Italian, and Spanish. His first fundamental publication was his translation of a book by W.A. Kreyssig: *Auxiliary Book for Landlords and Farmers* (1836). The benefits of presenting the Prussian experience to Russian citizens were obvious due to the lack of books on agriculture in Russia at the time. Readers accepted the book favourably, and it quickly sold out. In 1839, while preparing the second edition, Usov checked his translation of the text, clarified the comments, and supplemented the edition with two appendices on the cultivation of forage grasses, as well as on farm bookkeeping (Kreyssig, 1839). In 1846, Usov translated (from German) and published another manual, *Rules of Cattle Breeding*, written by A. Blok. Usov constantly published fragments of translations from books and articles (Y. Liebig, M. Dombal, J.-B. Boussingot) in newspapers, thereby allowing Russian citizens to keep abreast of modern scientific achievements.

Usov not only pursued this line of thinking in his writings, but also evaluated other people’s writings from this point of view. His review of *Counting Science* by Clark and Nemchinov (Usov, 1831) gave both a complete picture of the composition of the publication and contained reflections on the need to introduce the basics of bookkeeping into the everyday practice of Russian businesspeople. Usov was saddened by Russian merchants’ lack of interest in accounting. He convinced his contemporaries that bookkeeping was a necessary tool for economic activity and that ‘*if a merchant had written down every deal properly...then he would know his financial position exactly*’ (Usov, 1831). The reviewer drew the attention of entrepreneurs to the need for honest business, in which bookkeeping would be a faithful assistant: ‘*in case of failure or misfortune in business*’, the merchant ‘*could satisfy his business partners clearly and quickly; then there would be no long-lasting legal proceedings*’ (Usov,

³ Titles of newspapers and magazines in Russian: *Agricultural Gazette* – *Zemledelcheskaya gazeta*, *Mediator* – *Posrednik*, *Proceedings* – *Trudy*, *Economic Notes* – *Ekonomicheskiye zapiski*.

1831). Usov was convinced that accounting should be a tool for doing business based on the principles of honesty, honour, and fairness, which would help improve social relations in Russia. Usov used peer review activities to achieve his goal: to make Russian farmers more educated and enlightened.

Another of Usov's activities was the publication of scientific papers on agronomy. In 1827, he compiled a book titled *Tables for Calculating Interest in Monetary Capital*, the purpose of which was to help merchants save time when performing calculations. Usov published several books in the field of agriculture, including *A Course on Agriculture with an Application to Field Cultivation* (1837), *On the Systems of Arable Farming* (1854), and *Foundations of Agriculture* (1862).

At the end of the 1850s, Stepan Usov began editing publications of IFES, of which he had been an active member since 1834. In 1852 Usov was awarded the Order of St. Anna III degree for his services, and he was awarded the IFES gold medal in 1839 and 1856. In 1838, Usov became an official of the Agriculture Department of the Ministry of State Property, as well as a corresponding member of its scientific committee. Usov died of cholera in 1859 and was buried at the Smolensk cemetery in St. Petersburg.

Thus, a talented researcher and active citizen, Usov used all possible ways to achieve his life's goal: to spread knowledge about rational agriculture by publishing magazines and newspapers, reviewing and translating foreign studies, writing articles and books, giving speeches at public meetings of IFES, and preparing government projects in the field of agriculture policy. In any kind of activity, he sought not only to fulfil his official duties, but also to actively communicate with people and enlighten them. Therefore, he acted as a mediator in Russian society and influenced public consciousness while transforming the social reality.

4 Stepan Usov and his innovations in farm accounting

Previously, only Usov's works in agronomy were presented in the scientific literature, and his publications devoted to accounting methodology or ways of teaching it were not considered at all. We present to the academic community *Rules of Rural Accounting*, published by Usov as the appendix to the second edition of the book by Prussian agronomist Kreyssig, *Auxiliary Book for Landlords and Farmers* (1839). This research introduces us to Usov's views on farm accounting theory and practice. We propose to investigate the *Rules of Rural Accounting* in conjunction with his Master's thesis *On Capital in Relation to Agriculture* (1839).

There was practically no specialised literature on agricultural bookkeeping in the first half of the 19th century in Russia. Since the second half of the 18th century, documents such as *A Mandate to the Estate Manager* were very often created to manage farm economic activity; sometimes these documents were called *instructions*. In these documents, the landowner regulated the activities of clerks (stewards) and determined in detail the structure of a farm's administration, the organisation of the estate court, the procedure for collecting taxes from peasants, and farming methods (Petrovskaya, 1953; *Archive of the Village of Voschazhnikovo*, 1901; Eliseeva, 2015; Ustyugov, 1949). In 1769, the highest award of IFES was given to the instruction written by F. Wolf (*Proceedings of the IFES*, 1769), which contained a complete set of income and expense books necessary to control cash and material flows on estates. Eleven samples of accounting books were presented to reflect the presence and movement of the 21 most important objects of the natural economy. Obviously, in these and similar instructions on the estates, it was proposed to keep single-entry bookkeeping, which was quite justified, since the literacy of the rural population was very low, and the growth of landlord capital was indicated only with the help of single-entry bookkeeping.

In 1804 in Moscow, a book was published titled *Rural Clerk, or Field Book, with Four Accounting Tables, Serving the Easiest Management of Rural Offices: Practical Composition*. The author of this book was Memorsky (1804). In the 1790s, he was a teacher at the private Arbat school and wrote a popular textbook on arithmetic. In the early 1800s, he retrained as a manager of the Tambov landowner estate. It would be a mistake to attribute Memorsky's book to accounting literature, since it deals primarily with issues of agronomy. Nevertheless, the chapter *On a Clerk's Main Functions* contains information about the need to keep records of grain, land and serf transactions, and how important it is to conduct censuses of peasant families and their farms. The last four pages are devoted directly to accounting techniques. The author recommended that clerks keep the *Journal and Principal Book*, as well as the *Alphabet and Draft Journal*. In 1837, Karpovich continued the tradition of publishing landlord instructions with his essay *Economic Experiments of Thirty Years of Practice, or Instruction for Managing Estates*. However, this book, whose second edition was published a year later, said little about farm bookkeeping. Surely, Usov was familiar with these publications in Russian; however, he also read foreign original sources, since we know that he translated material from German, and he made references to the studies of foreign authors such as Storch, Say, Thaer, Schwerts, Morog, Lo, and Sinclair (Thaer, 1830; Usov, 1839).

Usov determined in his books that the goal of accounting was to provide information for landowners to guide their farms on a better path (including information about their financial position, financial results, and comparison of individual parts of the farm). Usov's creative approach was expressed in the fact that he recognised the need to build an accounting system not according to regulated forms, but depending on the needs of a particular economy, its size, location, management structure, and types of activities. This idea was new at that time and created preconditions for the development of management accounting.

Usov proposed distinguishing between general and specific accounting systems. General systems aimed to aggregate information about the financial outcomes of an entire estate. Specific accounting systems contained accounting books for particular purposes; for example, to keep records about a separate part of an estate or a type of activity.

Traditional accounting registers in the practice of landowners' households were income and expense books. Usov offered the following list of books: *Capital Book*, *A Memorable Diary*, *Principal (General) Ledger*, and *Cash Book*.

Capital Book describes the property and stocks at the landowner's disposal. In his Master's thesis, Usov indicates three types of capital: natural (land), productive (seeds, manure, feed, livestock, buildings and equipment, labour), and reserve (part of the capital temporarily not employed in production, such as stocks). In accordance with this classification, he proposed keeping accounts in *Capital Book*, including capital accounts, land accounts, building accounts, and accounts of peasant families. Usov recommended the registration of transactions with serfs in the same way as with natural objects (e.g. grain or milk):

$$\text{Closing balance (number of serfs)} = \text{Opening balance} + \text{Inflow (were born)} - \text{Outflow (fled, died)}.$$

A Memorable Diary was designed to record all transactions on the farm in textual form. In *Principle (General) Ledger*, the same transactions were registered on the accounts. Usov thought that compiling a list of accounts was the most important task of a good accountant, and the bookkeeper must deeply understand all business processes of the economy for this aim. *Cash Book* was designed specifically for cash transactions.

Usov's main idea was to regard the estate as an enterprise. He investigated the components of estate capital and recommended their optimal ratio as a necessary condition for the economy's success. The result of such rational activity should have been a profit; that is,

excess farm income over expenses. Usov promoted the dissemination of progressive business methods, or in modern terms: capital investment.

At the end of the book, Usov gives examples of filling out books on an exemplary farm. However, he does not disclose any details for evaluating the components of capital, closing accounts, compiling a balance sheet, or calculating profits. Some transactions are indicated in two registers, and some are indicated in only one. Usov did not call his system double-entry bookkeeping and did not compare it with traditional single-entry bookkeeping. Analysing the example given by Usov, we can conclude that his system represents an intermediate stage between single-entry and double-entry bookkeeping. It is difficult to judge the practical applicability of his system due to the absence of a detailed explanation or instructions for daily records.

Usov's innovative idea was to build a particular system of accounts for agriculture estates, with an emphasis not on monitoring the safety of the landlord's property, but on identifying the financial outcome of its functioning. Thus, Usov did not repeat someone else's thoughts in his writings, but rather acted as an innovator, and his research contributed to changes in accounting theory. Using the classification of actors created by Latour (1996), this role cannot be determined as an *intermediary*. Usov formed a new approach to farm accounting, so we can classify his activity as the actions of a *mediator*. Through his writings, he responded to a social challenge that required an increase in the population's financial literacy and the efficiency of agriculture, presenting accounting as an instrument of effective management and a component of social reality.

5 Developments in accounting education in Russia in the 19th century

Accounting education became a way of spreading new farm accounting techniques among the population in Russia. For many centuries, such knowledge was passed on '*from father to son, or from business partner to business partner, or from owner to clerk*' (Boyns and Edwards, 2013: 34). In the 19th century, various educational institutions started to be used for these purposes in Russia, and Usov was a pioneer of this practice.

Changes in Russian accounting education in the 19th century were prepared by the reforms of Empress Catherine II based on the principles of the English philosopher Locke. These reforms were entrusted by the Empress to a prominent figure in the Russian Enlightenment, Betskoy, in the second half of the 18th century. Schools providing practical training in handicrafts, artillery, engineering, and other specialties were established in Russia at the time (*Historical and Statistical Essay on General and Special Education in Russia*, 1883). However, only privileged groups of the population, primarily noblemen, could study at these schools. In 1781, the Empress opened a public school in St. Petersburg financed by her personal funds, where reading, writing and arithmetic were taught to everyone. That same year, six other schools of this kind were opened in St. Petersburg, with the total number of pupils reaching 486. In 1786, the *Charter of the National Colleges in the Russian Empire* was adopted, which provided for the establishment of a system of primary schools throughout the Empire and specified their organisational structure and subjects to be taught. The *Charter* abolished restrictions on pupils' social status. Schools were opened in 26 provinces; in addition, the Teacher's Seminary was established, in which 275 teachers were trained over the next 15 years (*Historical and Statistical Essay on General and Special Education in Russia*, 1883). This was negligible compared to the size of the population, which at the beginning of Catherine's reign was approximately 19 million people (*Encyclopedic Dictionary*, 1890–1907). However, as a result of these measures, by the end of Catherine's reign, approximately 20% of officials had graduated from various educational institutions (Troitsky, 1974: 159).

Specialised commerce schools appeared in Russia in the late 18th and early 19th centuries (Burlova, 2003). Similar educational institutions were opened at the same time in other countries: Germany (1768), Portugal (1759), and Austria-Hungary (1763) (Rodrigues et al., 2004). In 1772, the first Commerce School in Moscow was opened; its students were taught French, German and English, business arithmetic, commerce correspondence, and bookkeeping. The entrepreneur Prokopyi Demidov took an active part in opening the school; therefore, it was often called the Demidov Commercial School. Only 20 students entered this school every three years (*Historical and Statistical Essay on General and Special Education in Russia*, 1883). Therefore, their number in comparison with the government's need for competent officials was extremely small. In total, from 1773 to 1800, 239 boys entered the school, but only 96 completed the full course. In 1800, Demidov Commercial School moved to St. Petersburg, and in 1804, a new educational institution appeared in Moscow: the Moscow Practical Academy of Commercial Sciences. Accounting was taught as a set of practical skills in these educational institutions.

For Russian higher education, accounting courses appeared for the first time in the curriculum of the Moscow Practical Academy of Commercial Sciences at the beginning of the 19th century. In our opinion, this institution should be classified as a secondary vocational educational organisation. Sokolov (2018:622) noted that lecturing on accounting at Kazan University was proposed in 1806 to Ivan Akhmatov, the author of one of the first treatises on accounting published in Russian. There is evidence that Akhmatov worked at Kazan University as an accountant for several years at the time (Zagoskin, 1902), but information about teaching or enrolling him as a lecturer has not been found (Mikhailovsky, 1901). He was supposed to become acquainted with accounting as an application for the study of the Russian language at the Mining Cadet Corps, which was granted the status of a higher educational institution in 1804. It is not known who taught accounting there starting in 1804, but we know that Karl Arnold called himself an accounting teacher at this educational organisation in 1814 (*The experience of civil accounting...*, 1814). These facts indicate that attempts were made to introduce accounting as an optional course in some higher educational institutions in Russia at the beginning of the 19th century. St. Petersburg University should be considered the first Russian higher education institution, where in September 1836, it was decided to introduce accounting as a regular course (*Announcement of Public Teaching*, 1836:21).

Let us take a closer look at the situation that led to such a shift in accounting education in the first third of the 19th century. Despite education reform, the Russian state administration experienced an acute shortage of highly educated specialists. In 1802, the Ministry of Public Education was founded, and it immediately began to develop and implement a plan to create a network of universities in Russia and to prepare university legislation (Mantrov, 2007, 2015). In 1835, a typical university charter was created, which described new approaches to the management of higher educational institutions (Petrov, 2002). By the middle of the 19th century, nine universities were already functioning in Russia, but all subjects were taught in the Russian language in only five of them (St. Petersburg, Moscow, Kazan, Kiev and Kharkov). The radical reform involved borrowing some elements of European educational practices and was aimed at creating a complex educational system with continuity in teaching: schools, gymnasiums, and universities. At the same time, the activity of universities was focused not only on training professionals, but also on forming the national intellectual elite of society.

Higher education was not considered prestigious among the nobility at the time. The famous historiographer N.M. Karamzin observed the reluctance of the Russian nobility to study: '*In Leipzig, in Göttingen, a professor only needs to start a lesson; the room will be full of listeners. Russian people are not such fans of the sciences*' (Karamzin, 1991: 66). The government saw the reason for this situation in the opportunity for the nobles to receive official

ranks not for their skills and knowledge, but only for a long period of service. In 1809, Emperor Alexander I (1801-1825) adopted a decree on the attribution of civilian ranks higher than the ninth class, but only to people who had a university diploma, which contributed to the increase in the prestige of higher education among the nobility.

University education was one of the most important incentives that made it possible to improve the social and financial status of representatives from lower strata in society. Admission to the service could occur for them based on a certificate, in which only individual tests for one or two years of study at university were registered. To prevent persons from low strata of society from obtaining high official ranks before they finished the entire course of university study, in 1814, it was decided to give them the rights not of students, but of voluntary learners. They received equal rights as students only after graduating from university. The first regulation in Russian history on academic degrees was published in 1819 and indicated that students and voluntary learners who successfully passed all final exams would be honoured with the academic degree of a real student. As a serf's son, Usov had obtained this title when he began teaching accounting courses at St. Petersburg University.

State policy for higher education institutions evolved during the first half of the 19th century. It consisted of the state's gradual rejection of the principle of autonomy in universities and the transition to an authoritarian style of government. The scientific theories presented by university lecturers were based on liberal ideas that were alien to traditional views and the established social norms of Russian society. Many administrators felt the danger of the spread of liberal ideas expressed by economists, which consisted of the destruction of traditional awareness and the erosion of moral norms. As a result, during the reign of Emperor Nicholas I (1825-1855), there was a tendency to shift the emphasis in curricula of higher education from fundamentality to practical aspects. In 1834, Uvarov was appointed as the Minister of Education. He made it his goal to develop a unified education system, the highest level of which was to be universities, and took some actions to improve the financial situation of professors and academics (Petrov, 2003). On the initiative of Uvarov, a special staff list was included in the University Charter of 1835, which increased the salaries of professors several times. Due to Uvarov's measures, the number of professors increased by one-third, and the variety of teaching courses and differentiation of scientific disciplines expanded.

Agronomy became an actively developing area of education at that time, followed by the opening of agricultural schools, experimental farms, and the establishment of special agricultural exhibitions and rural museums. Finance Minister Kankrin presented *Measures to Improve Agriculture in Russia* to the Committee of Ministers, which were approved by the Emperor on 7 April 1836. As a result of these actions, departments of agriculture started to appear in universities. In 1836, the Department of Agriculture, Forestry and Commercial Accounting was opened at St. Petersburg University (Karelskaia & Zuga, 2015). At the same time, Professor Schmalz started giving lectures on technology and agriculture at the University of Dorpat; Professor Merz did the same in 1837 at Kiev University, as did Professor Pell in 1841 in Kazan (Andreev, 2011).

Teaching of agronomy and farm accounting at St. Petersburg University was entrusted to Usov, a talented researcher who was known as an expert in agricultural sciences, political economy, history, and the publisher and editor of a number of Russian magazines. Usov took over as a lecturer in the Department of Agriculture, Forestry and Commercial Accounting at St. Petersburg University on 16 September 1836. He was later awarded the titles of candidate (1839) and Master of Philosophy (1841), and in 1843 he took the post of adjunct. He became an extraordinary professor, and in 1859 became the Dean of the Law Faculty of St. Petersburg University. Initially, accounting was not regarded as a regular university course (Karelskaia & Zuga, 2014). Usov only gave public lectures, which were attended annually by 400 to 500

people. Usov's course contained accounting in wholesale trade, retail business, and small-scale retailing with settlements between business partners and an emphasis on exchange rates. These lectures became very popular in St. Petersburg. Later, accounting was included in legal education courses, particularly courses on civil and commercial law (*Statistics in St. Petersburg University*, 2010:80). At the end of the 19th century, the teaching of accounting spread to other higher education institutions in Russia, and accounting became an academic discipline (Kaverina, 2010:87). Usov's entire life and his professional activities contributed to this transformation.

We see the difference between Usov and his predecessors in that he considered bookkeeping not to be a practical application of mathematics, such as Pacioli, nor an addition to calligraphy, statistics or anything else. Usov taught accounting as a specific scientific discipline, and this approach was innovative for that time.

Usov tried to teach accounting to the public and stressed its social role. A peculiarity of the lectures at St. Petersburg University was the combination of both knowledge of agriculture and bookkeeping. In his course, Usov gave the information necessary for the rational organisation of the economy, which included accounting as a compulsory component. Moreover, this information was presented to the audience not as a set of recommendations for filling out accounting books but was linked to the laws of philosophy and political economy. Usov's innovative approach has contributed to the growth of the social significance of accounting in Russia.

6 Conclusion

The role of education has always been important for the dissemination and development of knowledge. These processes are not linear and simple due to the social character of accounting. In light of ANT theory, educational institutions are organised into networks that connect a large number of objects through complex and varied relationships. Accounting education has a significant impact on accounting as a way to spread new ideas and accounting techniques. Various forces, including political, cultural, social, and institutional, can influence and change the course of development. One of the drivers of change may be prominent persons who actively form new social networks. The activities of such individuals can accelerate or slow down the emergence of new social institutions, including educational institutions. The study of their biography and professional activity helps us to understand and improve the mechanisms of social development. As outstanding Russian historian Sokolov wrote,

'The history of science is, first of all, the history of people; they were born, lived and died, they were good and bad, but they loved their work, they loved its essence, they kept it for us, and we are grateful to them'.

Sokolov (1985:162)

Stepan Usov took up the promotion and dissemination of innovative ideas and modern techniques of agriculture, one of the main branches of the Russian economy. His life story testifies to the cardinal social shifts in Russian society at the beginning of the 19th century: as the son of a serf, he became a professor at St. Petersburg University, translated the books of foreign economists, and published popular magazines and newspapers on economic issues. As a progressive agronomist, he advocated for the intensification of agriculture, the rationalisation of management on landlord estates, and the introduction of progressive agricultural technologies and advanced techniques of land cultivation. This transformed routine views on farming methods in Russian society, creating a 'fashion' for discussing economic and financial issues among citizens. The publication of newspapers and the popularisation of the views of foreign scientists-agronomists led to the creation of new behaviours in society; modern methods

of agriculture became typical topics for meetings with family, friends, and neighbours. As a result, a layer of landowners with progressive and rational views on agriculture gradually formed, and cultural norms changed. This indicates the transformative nature of Usov's activities.

Usov was an innovator in the field of accounting theory. He argued that accounting should be a compulsory component of the rational organisation of the economy and introduced knowledge about many topics, including specific details on farm accounting. Usov's innovations in accounting theory contained the construction of a particular system of accounts for agriculture estates, as well as ways of calculating the financial outcomes of their functioning. He published a 21-page book, *Rules of Rural Accounting* (1839), in which he defines the goals and objectives of accounting in agriculture, describes the necessary accounting registers, and gives examples of filling out account books. Although similar studies were published in the 18th century, Usov's innovation was to consider an agricultural estate as an enterprise capable of making a profit. The logical connection of all accounting books and the consistency in the process of bookkeeping should have allowed the owner to identify profits or losses in the activities of the estate, and to compare the results of various activities to select and develop the most profitable ones. Such proposals corresponded to the general trend in the development of the agricultural market that was replacing the feudal economy in Russia at the time.

Usov was not only a theorist and researcher. He actively shared his ideas with Russian citizens using different tools, including publications and editorial work in newspapers and magazines, reviewing activities, public lectures, speeches, reports via the Free Economic Society, and lectures at St. Petersburg University. An active civic position allowed Usov to become not just an ordinary intermediary, but a prominent mediator in the network for the transfer of accounting knowledge, with a focus on accounting as an academic discipline. Due to his activities, accounting education reached a new stage: mechanical repetition to acquire the practical skills of keeping accounting books was replaced by the philosophical approach and understanding of the role of accounting as an essential component of an effective management system.

Usov's innovative ideas and creative work became objectively valuable in preparing Russian society's intellectual elites to master the practical skills of managing large enterprises and farms.

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