Conceptual foundations for opportunistic behavior of university teachers

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Abstract. The effective system of secondary and higher education is becoming an essential element ensuring competitiveness of the national economy. At the same time, this system cannot be based only on investments in education. If there are no institutional investments in education, government investments, no matter how large they are, will not help achieve the desired results. Private companies do not invest in education at all. One of the most important conditions for effective educational services market is full-fledged competition in the labor market. Companies as buyers of the final product (specialist) should compete with each other. This is a prerequisite for the development of competition between providers of educational services – Institutes and Universities. Competition between institutions will increase the level of qualification of specialists (quality growth) and correspondence between the professional structure of specialists and the structure of jobs in the labor market. This will happen if the sellers copy the most successful patterns of behavior of those the sellers who have achieved commercial success in the market of educational
services. Finally, there will be competition between applicants for the purchase of educational services, which will effectively adjust the policies of sellers – Institutes and Universities. When training specialists, Russian universities focus on requests coming from the institutions (government and quasi-government structures) having high budget revenues rather than on the market needs. This refers to numerous state and quasi-state structures. These customers can significantly reduce efficiency of the higher education system.

1. Introduction

Russian Higher Education has experienced a lot of trouble. In the USSR, higher education was a privileged sector of the economy (high salaries, social status of professors and associate professors). The market of higher education, like any other market, was regulated by the government authorities. Commercial activities were not typical of the management and employees of the Institute. However, the fact that the educational products (academic degrees) were a scarce good, pushed some teachers to commit crimes (extortion). Since in the Russian economy and in the higher education system, the alignment of forces has not changed over the years of reforms, opportunistic behavior of teachers is widespread.

2. Problem Statement

Russia ranks first by scientific potential measured by the relative number of educational institutions and teaching staff. The high share of Russians having academic degrees contributes not only to a specific growth mechanism [1]. By creating appropriate motives, educated Russians are able to set the country to a path of innovative economic growth which is characteristic of the developed countries [2]. However, a powerful system of motivation encouraging people to invest in human capital by acquiring advanced knowledge and skills does not exist in all spheres. It is much more profitable to buy an academic degree which opens the way to profitable activities. This rearrangement of priorities reduces the effectiveness of the scientific and educational potential of Russia. The educational process is subject to dangerous deformations.
3. Research Questions

It is necessary to determine the reasons why the nature of the educational process in some Russian Institutes loses its scientific and professional orientation. The educational process is transformed into a formal procedure that is not accompanied by the transfer of confidential knowledge, skills and abilities from the Teacher to the Student. It seems that the reason for this phenomenon was the presence of large segments in the Russian labor market, where qualification requirements are formal.

4. Purpose of the Study

The research subject is opportunism of university teachers. Opportunism of the teacher has two forms - extortion and shirking. In the Soviet high schools, bribery was common practice. It successfully migrated to the current market economy. Shirking as a form of teacher behavior is closely related to extortion, but sometimes it can be independent. What are the fundamental prerequisites for the existence of bribery and shirking in the modern higher education system.

Bribery (extortion) has been a research object for a long. It is a form of opportunistic behavior of the individual when an individual seeks to improve his well-being at the expense of the counterparty, using such elements of deceit as deception, information hiding, fraud, threats, etc. [3]. It would be expedient to consider bribery and shirking in comparison with other forms of opportunistic behavior of the teacher affecting the effectiveness of the entire system of higher education.

5. Research Methods

The exceptional role of higher education in building a competitive economy has become the focus of many scholars [4]. Education is the most valuable element of cultural capital [5]. The value that the community gives to education influences living standards. Education is a tool that facilitates migration processes in the global economy [6]. There is no doubt that the role of knowledge and, accordingly, the value of education is different in different countries and communities [7]. However, little attention is paid to the fact that the lack of demand for true knowledge and skills can be
replaced by the demand for external signs of education, documents, diplomas and certificates. If academic degrees are sold and bought, the education system will destroy itself. The studies of these phenomena are carried out within the institutional theory devoted to the study of opportunism prerequisites – information asymmetry, moral hazard, unfavorable selection, customer-performer problems, etc. [8].

6. Findings

There are three prerequisites for opportunistic behavior of the teacher. First, a positive exam mark must have a certain value for the student. Second, the teacher putting examination marks acts as a monopolist. Third, the external control of the teacher’s activities is discrete. All these prerequisites are well studied in the world economic literature and it will be enough to analyze conclusions.

The high value that the student assigns to a positive examination mark is due to the increment of wealth which is a result of obtaining an academic degree. There is a point of view according to which the academic degree which has not been confirmed by knowledge reduces has a lower price in the competitive market. There are two objections to this.

The first objection is empirical. In the Russian economy, there is an extensive labor market, where competitiveness of an employee is assessed by formal signs. All enterprises and institutions that are not experiencing competitive pressure do not monitor their own costs. Among these formal signs, the academic degree occupies an outstanding place.

As for the second objection, it is based on market signals [9]. In some markets, there is an asymmetrical distribution of information between the seller and the buyer [10]. The seller possesses private information about the quality of the good. The seller faces difficulties when trying to convey this information to the buyer. The statements that the goods are of high quality may be not convincing if behavior of the seller of high-quality goods can be copied by the seller of low-quality goods. The problem will be solved if the sellers of high-quality goods are able to give special signals that the sellers of low-quality goods cannot copy. These signals must be reliable. The reliability of the signal depends on the company reputation. One more form of a reliable signal is guarantees provided by companies producing reliable products resistant to defects.

In the labor market, this reliable signal is an academic degree. M. Spence's ideas can be illustrated with a business model used by one of the
leaders of the global online educational market Coursera [11]. The access to some courses offered by the company is free, but testing is chargeable.

At the same time, the Diploma has an independent value, regardless of whether the knowledge and skills obtained by the student correspond to his profile in the company. According to the employer, the academic degree cannot be obtained if the student does not have qualities (perseverance, patience, dedication, erudition, ability to work with literature and formulate proposals, sociability, etc.) needed in the workplace. That is why the Diploma has a positive market price regardless of the level of acquired knowledge and skills. Moreover, disciplines which do not develop professional skills and are hard to learn and pass (e.g., mathematics) are filters that eliminate "bad" students and improve the quality of the Diploma as a signal [12].

The sellers of low-quality goods (students who have not not acquired enough knowledge and skills to obtain the Diploma) have a powerful incentive to copy the signal sent by sellers of high-quality goods (students who have acquired enough knowledge and skills to obtain the Diploma). In other words, some students would be much more willing to invest in academic degrees, while other students invest in knowledge. It is clear that each individual chooses an investment direction. A savvy and industrious student invests in knowledge, while a lazy, careless and overburdened student invests in academic degrees. It is clear that both types of investment take place only if the expected gain exceeds the costs.

Thus, some students are willing to monetize the knowledge assessment procedure. The desire to purchase marks will be the higher, the greater the opportunity cost of investment in knowledge. High alternative costs of investing in knowledge are characteristic of less intelligent students, working students, or students for whom the marginal utility of money is less than for others.

Let us consider the motives of the teacher to conclude unfair contracts. Let us assume that the Institute is a private company that acts as a seller in the educational services market. The teacher is an employee who performs specific functions – transfer of knowledge and skills. The teacher produces a finished product – a specialist. The final mark put by the teacher indicates that the teacher did his job. The owners of the Institute want the quality of education to meet the standards. Since the transactions between the Institute and the buyers of educational services are long-term (the companies recruit graduates each year), the institute’s reputation becomes its asset, allowing it to manipulate the price when recruiting students. Let us assume that the Institute is not able to control the quality of the educational services provided by the teacher. The teacher can choose opportunism as a behavior
model. The goal of opportunistic behavior is to maximize own well-being through the use of resources belonging to the Institute.

There are several options for opportunistic behavior of the teacher. Firstly, the teacher can save his labor efforts. For example, he can cancel classes or reduce their duration, focus on independent work of students, use formal control measures, etc. The teacher can replace the content of an academic discipline with a more convenient one, duplicate previously mastered disciplines. However, as a result, the teacher puts final marks that overestimate the actual knowledge of students. This kind of behavior is well studied within the institutional theory. It is referred to as *shirking* [13, 14]. The teacher is controlled by the students. It is easy to detect shirking if it is absenteeism. When it is duplication, students cannot detect the fact of shirking due to insufficient competence. Sometimes duplication can take such vivid forms (e.g., complete course duplication) that students' control becomes quite reliable. Despite the fact that students can control the teacher without significant costs, the effectiveness of this control is questionable. The students can be in collision (most often silently) with the teacher. Both parties save their investments in knowledge and labor efforts; positive marks help hide illegal deals from the management of the institute. But even if students want to receive an objective examination mark in exchange for a full-fledged educational service, they cannot dispose of information about shirking if they do not have sufficient protection in bilateral relations with the teacher. This protection can be provided by the Institute which could use quasi-market instruments (e.g., changing teachers who specialize in this discipline). If students are not sure that they get rid of personal dependence, they will not give publicity to the evidence of shirking.

Second, the teacher can use personal dependence in order to “monetize” student consumer surplus, that is, to make students pay positive marks. The logic used for the analysis of market transactions can be applied to positive marks (Figure 1). The positive mark brings a certain utility which can be measured in monetary terms. It is area 0VB1. Using the unit as a symbol means that the service (mark) cannot be fractional.

To obtain a positive utility, the student is ready to incur costs (examination price). These costs take the form of studies (attending lectures, seminars, reading works, writing essays, cramming). These costs is figure C (0NK1). It is assumed that for a student, the examination price is lower than its utility (otherwise, the students stop learning).

For other students, the cost of an examination becomes unbearable (figure C exceeds figure 0VB1). Therefore, under the traditional form of examination, they will have to stop studying. However, the teacher offers an alternative option – to pay
the positive examination mark. At the same time, the monetary cost of an examination mark must be lower than its utility.

![Diagram](image)

**Figure 1.** Monetization of student consumer surplus.

It should be noted that an unscrupulous teacher can increase the "monetary" price of credit, tightening official requirements for the quality of knowledge. By raising the standards of knowledge, the teacher forces even those students who prefer to invest in cognitive efforts to monetize the positive mark.

In the second case, the teacher shifts the behavior pattern to extortion (holding-up). For society, this behavior is more destructive and dangerous than shirking. It is important to emphasize that from the point of view of the customer (the Institute), both shirking and extortion are unsuitable models of behavior of the contractor (Teacher). Both models affect the quality of the product sold by the Institute and make it impossible for them to make a profit.

There are other models of opportunistic behavior of the teacher. Extortion is a powerful but crude tool for monetizing student surplus. It does not allow for personalization of the amount of the consumer surplus. At the same time, extortion may be rejected by the most advanced students. Therefore, the teacher may use unconventional forms of opportunism. For example, at the
first stage, the teacher can reveal those students who are more inclined to “monetize” their efforts to obtain positive examination marks. At the second stage, the teacher begins to save labor efforts when delivering lectures and holding workshops. At the third stage, the teacher gives classes to the identified group of students according to the tariff which is beyond the limits of the official tuition fee. Thus, a combined opportunistic behavior model can be used. It includes elements of both shirking and extortion.

The teacher has powerful incentives to choose one of the forms of opportunistic behavior. However, the teacher will abandon the opportunistic behavior if the opportunity cost of such behavior is too high. Therefore, it is necessary to answer the following questions: Who is affected by the teacher? Who has chosen the opportunistic model of behavior? Does the injured party have effective control over teacher’s behavior? What measures can be taken to prevent opportunistic elements in teacher’s behavior?

There are four mechanisms for monitoring teacher's behavior: the market, the customer, the student, and the reputation. The teacher who participates in student training does not feel market signals confirming student’s qualifications. However, these signals are captured by the direct seller of educational services – the Institute. The Institute is a private company that provides educational services in the competitive market. The institute is not able to exercise full control over teacher’s behavior, since the latter is better informed about the parameters of his work. It is well-known problem of agency relations [15].

The Institute is a customer, and the teacher is a contractor. Let us assume that the Institute positions itself as a provider of high-quality educational services. It sets a high price in the first period and support it in subsequent periods to maximize a profit. A prerequisite for success is the fact that competitors providing low quality services cannot duplicate the behavior of the institution due to the following circumstances: secondary trading when companies hire new specialists from among students who have been trained in this Institute; buyers who have information about the quality of training in this Institute. Then the opportunistic behavior of the teacher decreases the quality of educational services provided by the Institute, and its pricing strategy yields a loss. The high price is no longer a signal of high quality of the product. Therefore, the Institute controls the behavior of the teacher to prevent opportunism. The Institute controls the behavior of teachers if the managers want the Diploma to be a market signal in the long run. If the Institute does not have long-term plans, it invests in high-speed signaling tools [12] (e.g., repairing the facade of a building or inviting eminent lecturers). It is easy to prove that rational buyers do not perceive such actions as market signals.
The Institute does not position itself as a seller of high-quality educational services and the behavior of the Institute indicates that it does not aim to train quality specialists. For example, the Institute may stop expelling students for academic failures or introduce a simplified examination procedure, or reduce the number of classroom hours. Of course, this Institute will lose the ability to set a high price in the market of educational services. This Institute will treat manifestations of opportunistic behavior of the teacher selectively. It will severely pursue any attempt to monetize the student surplus, since the teacher enters into direct competition with the institute for the student’s money. On the other hand, the Institute will be much more loyal to the teacher who saves his labor efforts.

The teacher’s opportunistic behavior is detrimental to the well-being of the Institute. The losers are direct buyers of educational services – the students. Many students invest in knowledge and skills. Therefore, due to the opportunistic behavior of the teacher, they lose their investments. The control over the teacher's behavior is limited. Only the most audacious forms of opportunistic behavior (monetization of surplus) can be detected. As for shirking, it can take on such sophisticated forms that it can be confused with enthusiasm. For example, the content of the discipline can be monitored only by the teacher himself or by specialists in this field. The more specific the investments of the Teacher in his own qualification and scientific specialization, the weaker the possibilities of external control. The students are unable to prevent the teacher’s opportunistic behavior. The teachers are replaced on the initiative of students only due to poor interpersonal relationships with students. Exceptions are cases of extensive duplication of educational material by one and the same teacher, since students become competent enough to assess the quality of classes. It is clear that the poor quality of teaching (due to the teacher's opportunistic behavior or poor qualifications) can be easily detected if adjacent, interconnected disciplines are taught by different teachers. Then, systematic miscalculations of one Teacher will be revealed. As always, competition (even in a veiled form) is the best controller of quality.

The attempts to control the quality of teaching using standards of higher education are useless. First, the standardization rejects the heuristic nature of scientific knowledge. Second, the market control over the quality of education is completely ignored. Third, the standardization does not make sense if it is not accompanied by high-quality internal audit. Thus, the initiators of the reform face the problem of differentiated interpretation of scientific knowledge by different teachers.

It is impossible to disregard the teacher’s reputation. The formal approach applied when selecting teaching staff weakened the dependence of the
teacher on market assessment. However, it was not possible to eliminate the influence of reputation on the welfare of the teacher. In the market of commercial educational services, teachers with clouded reputations are not in demand. If the teacher ignores his own reputation, he will not be able to derive additional income by providing commercial educational services.

The final comment concerning the conceptual basis of opportunistic behavior in the higher education system is as follows. The market is the most advanced mechanism controlling the quality of the services provided and integrity of the providers. Any attempt to abandon market services will inevitably increase probability of opportunistic behavior and affects the quality of educational services provided. When the Institute trains specialists for the government rather than for an anonymous employer, availability of the sales market reduces responsibility of the Institute and allows it to switch to a model of behavior characteristic of a low-quality seller. In the same way, the quality of education becomes lower if specialists are trained for a narrow territorial market, where there is no competition, and employers cannot replace one specialist with another one. Low territorial mobility of labor lowers the quality of education because of the teacher’s behavior and smaller investment in education. On the contrary, the most advanced students and schoolchildren who invest in their knowledge and skills are washed away from the local (regional) labor market and rush to federal centers, where the competitive labor market allows them to enter into more profitable transactions with employers.

References

[1] L. Baltserovich, A. Zhonts, Institutional systems and driving forces of the economy, (Thought, Moscow, 2012)
[2] E. Phelps, Mass Flourishing: How Grass Roots Innovation Created Jobs, Challenge, and Change (Princeton, Princeton University Press, 2013)
[3] O. Williamson, Economic Institutions of Capitalism: Firms, markets, “relative contracting, (Lenizdat, St. Petersburg, 1996)
[4] A. Greenspan, The Epoch of Shocks: Problems and Perspectives of the Global Financial System, (Alpina Business Book, Moscow, 2008)
[5] P. Bourdieu, Cultural reproduction and social reproduction in knowledge, education and cultural change (London, Tavistock, 1973)
[6] P. Collier, How migration is changing our world, (Gaidar Institute, Moscow, 2016)
[7] L. Harrison, Jews, Confucians and Protestants: Cultural Capital and the End of Multiculturalism, (Thought, Moscow, 2016)
[8] R.S. Pindyke, D.L. Rubinfeld, Microeconomics, (Delo, Moscow, 2000)
[9] S. Michael, Market Signaling, (Harvard University Press, Cambridge, 1974)
[10] G. A. Akerlof, Quarterly Journal of Economics, 84(3), 488-500 (1970)
[11] B. Zh. Tagarov, Creative Economy, 12 (8), 1201-1212 (2018)
[12] B.ZH. Tagarov, Creative Economy, 12 (5), 607-618 (2018)
[13] Б.Ж. Alchian, H. Demsetz, American Economic Review, 62, 777-795 (1972)
[14] H. Demsetz, Once again about the theory of the firm, (Delo, Moscow, 2001)
[15] O. Williamson, The Logic of Economic Organization, (Delo, Moscow, 2001)