



***Fostering Compassion and Understanding Across Borders:
An International Dialogue on the Future of Educational Leadership***

UCEA Conference Proceedings for Convention 2007

David C. Thompson and Faith E. Crampton, Editors

Corruption Hierarchies in Education in Developing and Transition Societies*

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* Osipian, A. Corruption Hierarchies in Education in Developing and Transition Societies. Annual Conference of the University Council for Education Administration (UCEA), Alexandria, VA, November 2007.

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Corruption, and higher education corruption in particular, is something known but not described theoretically. The restructuring of higher education and increasing scale and scope of corruption in higher education in the former Soviet Bloc, as well as numerous other countries, urges better understanding of the problem within the context of socio-economic transformations as it touches upon issues of access, quality, and equity. This paper presents an overview of the research on corruption in organizations and hierarchies, develops models of corrupt organizations, including the vertical structure, the horizontal structure, and the vertical hierarchy, and applies them to higher education. Possible future structures of corrupt organizations are presented as forms evolving from the horizontal structures. There are at least three possible forms of the future organization identified in the paper, including return to the modified vertical structure, formation of a hybrid or the mixed structure, and creation of the vertical hierarchy. The mixed structure as a likely option of predominant corrupt organizational structure in higher education combines elements of both horizontal and vertical structures with the core exchanges having form of latent corruption.

Key words: corruption, higher education, hierarchies

Introduction

Factors that reshape higher education are common to all countries and reflect the key issues of access, quality, and equity. These are growing demand on higher education, globalization, and government inefficiency. Countries of the former Soviet Bloc reform higher education faster than most European countries. Political, economic, ideological, language, and cultural factors are all important for the reform. One of the negative sides of the reform is growing corruption of higher education institutions and in the educational industry overall. Corruption, and higher education corruption in particular, is something known but not described theoretically. At the same time, increasing scale and scope of corruption in higher education in the former Soviet Bloc, as well as numerous other countries, urges better understanding of the problem within the context of socio-economic transformations.

Along with the health services industry, higher education has become one of the industries, most affected by corruption. At the same time, rapid development of higher education, its partial privatization, and increasing flow of financial resources have created a base for corruption. College professors, who lost the bulk of their savings to inflation in early 1990s, and are now grossly underpaid, and they adjust their professional ethics and behavior accordingly by accepting bribes and numerous other benefits and utilizing their privileged position and control over the access to higher education. Corruption increases inequalities in access to higher education, slows down the process of accumulation of human capital, and hence impedes economic growth and negatively affects economic development and social progress.

This paper presents an overview of the research on corruption in organizations and hierarchies and then develops models of corrupt organizations, including vertical structure, horizontal structure, and vertical hierarchy. Possible future structures of corrupt organizations are

presented as forms of evolution of horizontal structures. The three organizational forms of corruption as well as their possible future developments are projected on higher education. Suggestions for future research of corruption in organizational perspective are presented in the conclusion.

Corruption

Different authors use the word *corruption* in different contexts, expressing different meanings. The word comes from the Latin word *corruptio*, which in Medieval Latin expressed a moral decay, wicked behavior, putridity, rottenness. This Latin meaning was consistent with the classical notion of corruption, which in ancient Greece referred less to the actions of individuals than to the moral health of whole societies (Johnston, 1996, p. 322). Milovanovic says that in this context one could talk of bribes, or other dishonest means for achieving particular disgraceful ends, as a symptom of an ailing society and the two concepts were not identical (Milovanovic, 2001). Johnson's Dictionary defines bribe as "a reward to pervert the judgment or corrupt the conduct", while corruption is "a loss of purity and purpose, a social decomposition." (Osborne, 1997, p. 10) The task of creating a set of well-grounded definitions seems to be a primary methodological task for the problem-focused research in the field of corruption.

The definition of corruption varies depending on the inquiring discipline. Economics has advanced significantly in modeling corruption, but is experiencing difficulties in testing the models (Rose-Ackerman, 1978; Tirole, 1992; Bardhan, 1997). Whatever problem economists might have in explaining corruption is indicated by Rose-Ackerman's (1978) definition of corruption as an "allocative mechanism" for scarce resources: "When this allocation is somehow shared between a market system in which wide inequalities in income are taken for granted, and

a democratic political system that grants a formal equality to each citizen's vote... Political decisions that are made on the basis of majority preferences may be undermined by wide use of an illegal market as the method for allocation... Corrupt incentives are the nearly inevitable consequence of all government attempts to control market forces – even the 'minimal' state.” (Rose-Ackerman, 1978, p. 2) Rose-Ackerman recognizes that personal values limit the applicability of this approach, since economics cannot substitute for the personal integrity of political actors (Rose-Ackerman, 1978).

Lui (1986) considers dynamic models of corruption and inclusion of deterrence as a factor of reducing corruption or confining it within the certain limits. One of the means of deterrence as well as control is collection of *comproamat*, i.e. materials or information, evidence of wrongdoing, used for allegations and accusations in illegal or immoral activities. Ideally, supervisors in organizations as hierarchical structures monitor agents and control their behavior in order to prevent potential acts of corruption. However, corruption may develop vertically across the levels in an organizational hierarchy. Carillo (2000) notes: “But corruption can propagate within the hierarchy. We capture this recursive property of corruption by assuming that agents can share the bribe with their superiors in exchange for not being denounced.” (p. 3) This presupposes existence of collusion between supervisors and agents.

Corruption in hierarchies

Principal-agent theory, first developed in economics to study relations between the owners of the enterprises and their managers, is now widely used in investigating numerous issues in public policy and may be applied to the issues of higher education corruption. Principal-agent structure is multilevel. National leader is an agent to his electorate while at the same time

he is a principal to presidential administration. This hierarchy may be scaled down to the local elected and appointed officials.

Principals and agents are both self-interested actors, so their preferences often diverge. This agency problem not only urges a principal to monitor the agent, but also to try different mechanisms of controlling his behavior. Agent abuses his position by getting involved in corruption and by encouraging his subordinates to do the same in order to blackmail them later. Referring to Klitgaard (1988, p. 23) Gong states that corruption: “than occurs when an agent betrays the principal’s interests in pursuit of his/her own or when the client corrupts the agent “if he or she (client) perceives that the likely net benefits from doing so outweigh the likely net costs” (Gong, 2003, p. 88) Describing collective corruption Gong says that its purpose is: “to maximize individual gains and/or minimize the risks associated with corrupt activities.” (Gong, 2003, p. 88) In fact, vertical hierarchy uses risk minimization as a tool for maximizing total benefits for the regime. Minimization of formal risks is an essential part of the corruption and coercion scheme.

Shleifer and Vishny (1993) and Ahlin (2001) investigate possible implications of centralization and decentralization of corrupt organizations on the total volume of corruption. Shleifer and Vishny (1993) consider vertical structures and come to the conclusion that decentralization of corruption leads to an increase in the total volume of graft collected by corrupt bureaucrats. Ahlin (2001) researches horizontal structures and regional distribution of corruption and comes to the similar conclusion.

Problem of corruption in hierarchies is researched by Bac (1996, 1998, 2001), Olsen & Torsvik (1998), and Varian (1990). Corruption in hierarchies is studied in connection with the principal-agent theory. Olsen & Torsvik (1998) combine the principal-agent theory and issues of

collusion by considering collusion in organizations within the principal-agent frame. Guriev (2001) considers three-tier hierarchies with principal, bureaucrat, and agents. Carillo (2000) develops four-tier hierarchical model that includes corrupt behavior. Waite and Allen (2003) make an attempt to follow the possible top-down and bottom-up channels of conveying benefits of corruption as well as resources in educational systems.

Another part of studying corrupt hierarchies in organizations is the cost-benefit analysis used in designing cost-effective models and mechanisms of supervision. Bac (1998) investigates the problem of organizing three agents in a hierarchical monitoring structure and designing a corresponding incentive system to minimize the cost of implementing a target level of corruption. Bac (1996, 1998) combines hierarchies, cost-benefit analysis, and collusion in potentially corrupt structures and demonstrates that the possibility of collusion may prevent the implementation of anything less than full corruption. He asserts that “In relatively flat hierarchies, economies of scale in monitoring reduce implementation costs but may increase the risk of collusion.” (Bac, 1998) Different types of hierarchies include the hierarchy where one supervisor monitors two subordinates with the supervision chain, whose upper part is shown to display a higher risk of collusion than its lower part. The different hierarchical structures are then contrasted with each other in order to follow the performance of each in terms of better supervision and control. This helps understanding possible measures to prevent corruption in organizations.

Combining vertical and horizontal structures of corruption

Corrupt structures in higher education have evolved from vertical to horizontal and back to vertical, depending on the region. This paper presents vertical structure, horizontal structure, and vertical hierarchy and makes projections about their possible future developments.

Vertical structure

Vertical structure is taken as an initial form of organizational structure with some presence of corruption. Major characteristics of the vertical structure include absolute degree of centralization and concentration of formal authority. Bribe-takers or corruptioners have an opportunity to draw some benefits from their position without using their authority over their subordinates. They have to operate in conditions of clear laws and regulations, as well as high risk of punishment. Vertical structure anticipates a very high degree of monopolization and discretionary power. Corruptioners, positioned at the top of their organizations and institutions, enjoy near-perfect monopoly in access to graft.

The level of secrecy in vertical structures is very high while corruption itself is not widely acknowledged. The high level of secrecy may be explained by two facts: first, corruptioners do not need broad networks of corrupt interrelations with their subordinates and so corruption is localized and confined to a small group of individuals; second, the risk of actual punishment is very high and the degree of punishment is high as well.

The form of organization that existed under the planned economy in the USSR can be characterized as a vertical structure. The level of tolerance of corruption by co-workers as well as by the public in general was quite low. Corruption was considered unordinary or extraordinary and definitely wrong. The level of transparency was high in relation to the investigated and prosecuted cases of corruption. In 1986 the central government fared 13 thousand bureaucrats and economic directors and reprimanded another 100 thousand for corrupt activities, including embezzlement, fraud, and bribery (Saleh, 2003).

The cases of corruption were addressed in the governmental publications. The publications themselves were authorized by the central authorities since all the media was controlled by the state and the Party organs (McNair, 1991). Such publications were based on particular legal cases. Low level of corruption among bureaucrats was maintained by the ideology and ethical standards (Ivanov, 2005). Examples of corruption presented in the Soviet media included the so-called Coal mafia and Coal investigation in Donbass (Matsuzato, 2001), as well as numerous cases of embezzlement, fraud, and speculations in the retail sector. Corruption in higher education was disclosed in such institutions as Baku Institute of Economy (Bakinskij Institut Narodnogo Hoziajstva), Yerevan State University, and few other higher education institutions. Baku Institute of Economy was the only higher education institution in the USSR that was reorganized and renamed because of the numerous cases of corruption (Gorshkov, 2007). The special governmental commission found rampant corruption and fraud during the investigation of entrance examinations and academic process. In Yerevan State University there were few cases of extortion when professors demanded bribes from well-performing students.

The major form of corruption at that time was embezzlement. One of the characteristics of embezzlement was its grand scale. While in the retail sector there was plenty of petty corruption, in other industries corruption was relatively rare but occurred on a grand scale. The predominance of embezzlement over other forms of corruption is easy to explain. In Soviet times, dominated and indeed monopolized by the centralized systems of governance, management, control, distribution, and production itself, the major task for a corruptioneer was embezzling from the state. The major problem for a corruptioneer was to actually enjoy the benefits derived from corruption. The state imposed restrictions on the level of personal consumption and exercised oversight over the lifestyles of the individuals. For instance, no one was allowed to

own more than one car or build a two-storey private house. Access to housing was based on the number of family members and not the ability to pay. In the case of major expenditures, sources of income had to be justified by the household (Alexeev, 1988).

In the USSR, the level of corruption varied region by region. While in the Russian Federation, Ukraine, and the Baltic republics the level of everyday corruption was very small and corruption itself was confined to major cases of embezzlement and petty corruption in the retail sector, in the republics of the Caucasus and Central Asia corruption was more common, including in the areas of higher education and healthcare (Eizenbaum, 2005).

The vertical structure of corrupt organization is presented in Figure 1.

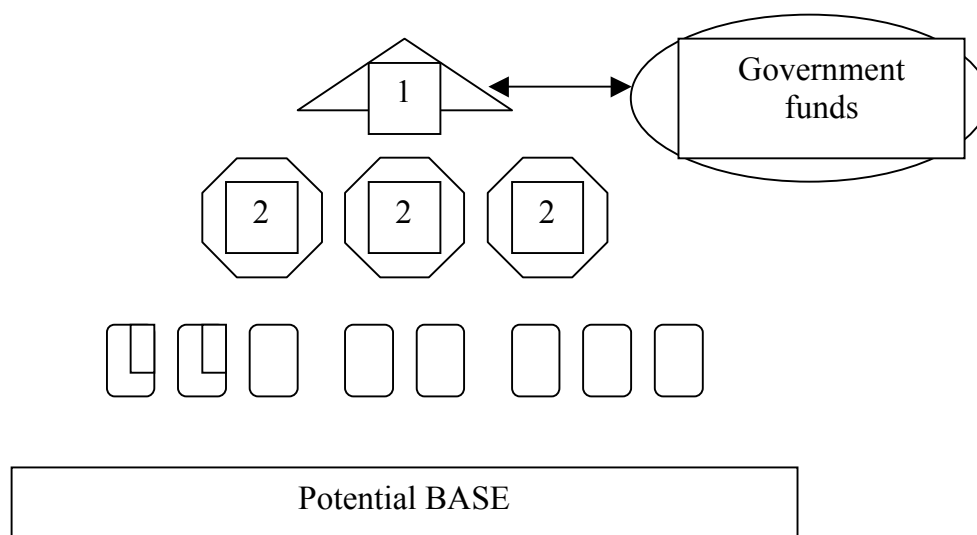


Figure 1. Vertical structure of organization with corruption

“1” depicts the highest level in the organization, be it a ministry, a directorate, or other managerial unit, depending on the unit of analysis. “2” depicts the second level in an organization, i.e. mid-management. Employees at the lowest level of the hierarchical ladder are marked with “3.”

Understanding the vertical structure of corrupt organizations might shed some light on how corruption takes place in higher education institutions, e.g. embezzlement from the state funds by the rectorate, i.e. university president's office. This type of corruption is similar to that in other organizations funded by the government. Embezzlement of funds in monetary form was rare while embezzlement of products was more common. A good example would be a director of a collective farm (kolhoz or sovhoz) who funded construction of a new school in his district while building a private house in a neighboring district.

Transition from vertical structure to horizontal structure

The period of the late 1980s and early 1990s in the USSR was characterized by Perestroika, the movement for independence in the republics and for market reforms. Government funding was declining and consequently the total base for embezzlement was shrinking. The state funding of higher education in the Russian Federation was falling during the period of 1992 to 1998 at an average annual rate of 19.6 percent (Kniazev, 2002, p. 111). In Azerbaijan, public spending on education by 1997 was 34 percent of the level of 1992 (Petrov and Temple, 2004). Parallel structures were created in order to generate extra income, including that coming from corrupt activities. Parallel structures were also intended to increase the rate of embezzlement in order to compensate for the potential losses due to the shrinking base, i.e. declining government funding.

It is important to note that the creation of parallel structures in higher education in order to generate extra income was not caused by the decline in funding from the central budget, but by the relative independence and openness and newly emerged opportunities of selling educational services to match excessive demand. All of these were created shortly before the

budget cuts. Those who created the parallel structures identified within the base a separate segment from which to draw the benefits in exchange for educational services. Here the general structure stays intact. Vertical structure that incorporates parallel structure in a corrupt organization is presented in Figure 2.

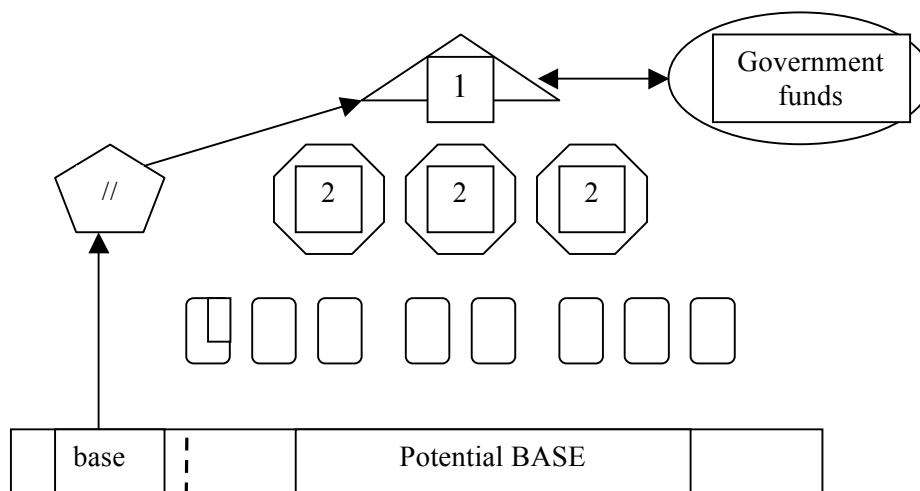


Figure 2. Parallel structure in a corrupt organization with the vertical structure

Examples of parallel structures created to ease the ways of embezzlement and create new venues for corruption are numerous. Private or so-called commercial banks were created within the large state enterprises. They paralleled state banks in issuing credits to the enterprises by which they were created. Playing on the difference in the interest rates, top management of the state enterprises accumulated significant funds necessary for the future privatization of these enterprises (Blasi, 1996).

The Ministry of Science and Education established an autonomous unit to conduct licensing and accreditation of newly emerging private higher education institutions. This department, created under the auspices of the Ministry of Education, was based on the principle

of *hozraschet*, i.e. self-financing. In public opinion the term *hozraschet* was closely associated with the term “corruption.”

For-tuition programs were created within the departments that provided educational services in the majors in high demand, including economics, finance, and law. By the year 2002 54 percent of students paid for their education, while 46 percent were paid by the federal government and the local administrations. It may also be true that that the majority of students had to pay a bribe or involve in other forms of corruption during the course of their study (Smolentseva, 2002).

Private or so-called commercial higher education institutions were created by those who earlier led for-tuition programs in public universities. Licensing, accreditation, and programs for working adults were riddled with corruption. Low quality of education with degrees being conferred in exchange for tuition is an example of corruption in parallel structures. Parallel structures enjoyed a low level of direct governmental control.

Branches are created by the public higher education institutions in order to maximize income. The quality of educational programs in these branches is relatively poor. Poor quality translates into corruption, because the degrees conferred are no different from those conferred in the head institutions and money is taken in the form of tuition and fees as well as informal payments. The normal process of institutional outreach suffers from corruption. Along with well-established public universities, branches are also created by the private higher education institutions in order to maximize total revenue. The quality of educational programs here is often poor as well, while tuition and fees are supplemented by collective and individual informal payments.

In Kazakhstan and Central Asia more abuse took place during the establishment and operation of branches of public and private higher education institutions than in the Russian Federation and Ukraine. Some private higher education institutions and branches of public higher education institutions in the region are but ghosts, existing only on paper, much like the US diploma mills. Others only enroll visiting faculty from the head campuses and classes are not held regularly. In Georgia, a country of around 3 million people, the number of higher education institutions is disproportionately large for the region and is several times higher than it was before independence in 1991. There were around 200 higher education institutions in Georgia in 2007 as compared to 535 in Ukraine with population of 50 million and 1068 in the Russian Federation with population of 148 million. This indicates potential problems with the quality of education in some of the so-called higher education institutions (The Ministry of Education and Science of Ukraine, 2007; The Ministry of Education and Science of the Russian Federation, 2007).

Relatively close control over the system of higher education from the government in Ukraine, even during the “liberal” 1990s, prevented to a high degree the rise of corruption in branches and consequently precluded the sharp decline in the industry that takes place in some other republics starting late 2000s. While in the Russian Federation some of the private colleges and their branches are slowly disappearing, in Ukraine such a process is virtually non-existent.

The key phrase that describes the period of transition from vertical to horizontal structure is “They want to eat and we do not,” as related to the higher-ups. This is a sarcastic phrase used by subordinates when referring to what motivates the actions of underpaid public servants, be it bureaucrats or faculty members, and their higher-ups. Centralized corruption, with its near-

perfect level of monopolization of access to graft, no longer satisfies the majority of the employees, including the faculty and staff of higher education institutions.

Horizontal structure

One of the major characteristics of the horizontal structure is that it exists and develops through a process of decentralization and of declining concentration of formal authority. Other major characteristics include low salaries for employees and their opportunistic behavior. Conditions in which horizontal structures form and operate include the absence of clear laws and regulations, low risk of actual punishment, and prioritization of financial survival by organizations as well as by individuals.

The degree of monopolization and discretionary power in the horizontal structures is low as compared to the vertical structure. Horizontal structures are less secretive. Even though corruptioners do not share the information, everyone knows that just about everyone accepts bribes and gifts or enjoys other benefits of corruption. The existence of corrupt practices is widely acknowledged by the employees as well as by the general public. This situation is traditionally described as similar to sex in Victorian times, when “everyone does it but no one talks about it.” In higher education institutions faculty members know of each other’s corrupt activities but do not discuss them. Such a situation can be identified as a circle of salience.

Petrov and Temple (2004) describe this problem in higher education systems in the Russian Federation and Azerbaijan by noting the following: “Our own experiences in our region of study suggest that even the most carefully phrased enquiry to university members of staff about the existence of corruption in their institution can be taken as a personal insult. This naturally limits the scope of data collection. Students and former university staff members have

no difficulty generally in discussing the matter, however.” (Petrov and Temple, 2004, p. 87) Here internal institutional salience is counteracted with the relatively high external openness to discussions.

The level of tolerance of informal payments in horizontal structures is high, as corruption is considered a part of everyday life. Petrov and Temple note that “In Russia, our interviewees also despised bribery, but at the same time expressed the view that, perhaps, in the present situation, corrupt practices in higher education were inevitable.” (Petrov and Temple, 2004, p. 92) Spiridonov (2000) concludes based on the survey conducted in 1999 that the corruption was regarded as an “absolutely normal element of real life.” (Spiridonov, 2000, p. 245)

The level of transparency is high as well, as corruption is often highlighted in the mass media, including both official and independent sources (RBC, September 20, 2003). Publications are based on generalizations as well as particular legal cases. Corruption in education is discussed openly in the society in all of the former republics, including Azerbaijan (Guliev, 2007), Armenia (Yerevan.ru, 2006), Belarus (Glebov, 2007), Kyrgyzstan (BPC, 2007), Moldova (Tudoryanu, 2007), the Russian Federation (RIA Novosti, 2004), Ukraine (Boljubash, 2006, CityNews, 2006). The key phrases that characterize horizontal structures and that are uttered in a tone that is apologetic (in both senses of the term) are as follows: “Everyone wants to eat,” “We are all having hard times,” “Everyone takes [bribes].”

Petrov and Temple present the following comment: “One can in effect hear people say in Russia: it is impossible to live honestly on such a low salary – this makes academics ask for and accept bribes. Corrupt practices are justified by this argument, not only by academics but also sometimes by students. Many in higher education see it as ‘forced corruption’, when both those who give bribes and those who take them are forced to engage in bribery because life, it is

asserted, would be impossible unless rules were broken.” (Petrov and Temple, 2004, p. 90) Uncovered cynicism in the state’s as well as the faculty’s conduct is now obvious (Sandgren, 2002).

In horizontal structures most of the benefits from corruption are generated by each corruptioneer individually and independently. The distribution of access to graft is based on such characteristics as rank and position. Rent-seeking behavior is commonplace. Horizontal structures in higher education institutions in the former USSR are characteristic of the period from the early 1990s till the present. This is a part of post-Soviet reality in the spheres of higher education and healthcare.

Major forms of corruption present in horizontal structures are bribes as well as numerous latent forms of corruption, including nepotism, favoritism, exchange of favors, services, etc. All the forms are shaped by the process of adaptation to the new realities. The scale of corruption is presented by the full spectrum and varies from petty corruption to grand scale corruption, depending on the level of bureaucrat, his personal characteristics, etc.

The horizontal structure is presented in Figure 3. It reminds one of a house-like structure with the parallel structure as an attachment rather than a pyramidal structure.

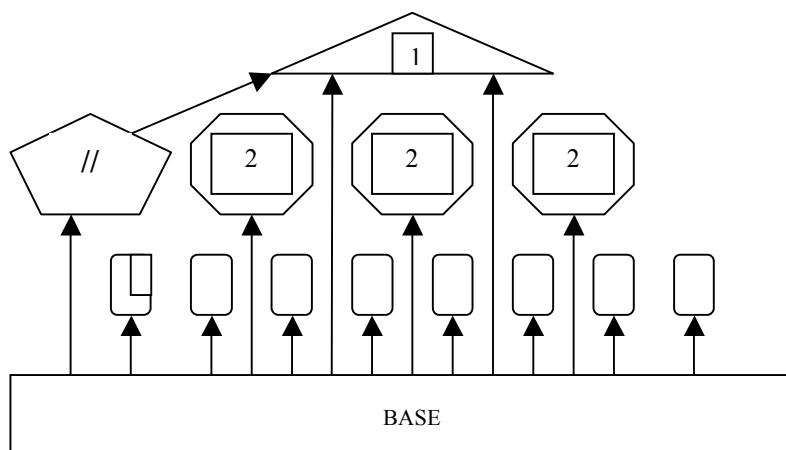


Figure 3. Horizontal structure with the parallel attachment

Transition from horizontal structure to vertical hierarchy

The transition from horizontal structure to vertical hierarchy in different industries and different regions of the former USSR takes place in different periods. In some of the former Republics such a transition occurs starting in the early 2000s while in others it does not occur in higher education till the present. The key phrase that captures what occurs during such a period is: “We do have corruption, but no one talks about it.” At this point corruption in higher education reaches high level. The 2000 federal budget allocated \$2.5 billion for education (Sergeev, 2002). Referring to Kostikov (2002), and Milkus (2002), Petrov and Temple assert that Russian citizens pay annually up to \$520 million in bribes for places in higher education institutions as a part of the “shadow economy” that may go as high as \$5 billion annually, “mostly in the form of perfectly legal payments for private tutoring or for various preparatory classes to help students enter higher education” (Petrov and Temple, 2004, p. 89). Almost third of all families in Russia hire private tutors for their children graduating from high school (Bondarev, 2002).

Vertical hierarchy

Vertical hierarchy anticipates both formal and informal subordination. Its major characteristics are an absolute degree of centralization and a concentration of formal and informal authority. Conditions for vertical hierarchy include unclear laws and regulations as well as high risk of punishment for opposing illegal practices rather than for violating formal rules. The degree of monopolization and discretionary power is high. There is a near-perfect monopoly in access to graft.

Vertical hierarchies are highly secretive, but the presence of corruption is widely acknowledged. The high level of internal secrecy is explained in part by the presence of a developed net of corrupt relations through which corrupt practices are performed and the benefits of corruption channeled. The level of tolerance of corruption is high, with corruption accepted as a norm. Transparency is limited to the formally approved governmental publications. Vertical hierarchy is characterized by silence because of fear of being reprimanded or dismissed.

It would be difficult to single out just one form of corruption as the major form of corruption since many forms of corruption are present, including embezzlement, fraud, and bribes, as well as numerous latent forms of corruption, such as nepotism, favoritism, exchange of favors, exchange of services, etc. Vertical hierarchy is characterized by the continuous invention and formalization of new forms and mechanisms of corruption in addition to those inherited from the horizontal structure. The preferred form of corruption may be bribes in cash, since part of the illegal benefits is supposed to be channeled to the higher-ups. Natural exchange is replaced by the monetary exchange. All services and favors have a clearly defined monetary value.

The scale of corruption in the vertical hierarchy is more significant than in the vertical structure and the horizontal structure. All levels of corruption are present, ranging from petty to grand corruption. The large scale of corruption is explained by the dominance of the process of maximization of the total amount of illegal benefits derived from corrupt activities.

The period of development of the vertical hierarchies is in the early 2000s in some of the former Republics, when the major task for a corruptioneer becomes maximization of total corrupt benefits based on sharing and profiteering. Vertical hierarchy may often be mixed with collective corruption and collusion. Describing collective corruption Gong says that its purpose is “to maximize individual gains and/or minimize the risks associated with corrupt activities.” (Gong, 2003, p. 88) In fact, vertical hierarchy uses risk minimization as a tool for maximizing total benefits.

Vertical hierarchy is the highest organizational level of corruption when corruption is institutionalized or near-institutionalized and is a result of collective effort. This level is characterized by the delegation of corrupt functions to subordinates. Sharing and profiteering are the two dominating functions of the participants and the structure overall. Subordinates collect bribes and then channel benefits up the hierarchical ladder. At this stage the Top becomes a good “roof” or an “umbrella” for the entire corrupt structure, protecting it from a possible negative external impact. Petrov and Temple (2004, p. 87) point to routinization of corruption in higher education and to the fact that bribes are sometimes referred to as informal fees. The authors believe that at this point the rates are largely predetermined and that corruption acquires a semi-public character.

There are numerous records and research statements that public offices are on sale and profitable or bread-winning places are bought-out (Gong, 1997, 2002; Gorha, 2000; He, 2000).

In the vertical hierarchy, a lump sum payment is often required to receive a position in a corrupt organization (Gong, 1997, 2002). Gong states for China that “today, buying and selling office has become a rather common phenomenon.” (Gong, 2002, p. 100) The presence of such a practice also guarantees that the new employee accepts the informal rules of the vertical hierarchy and will cooperate and share the benefits of corruption with the top. Accordingly, if a potential candidate refuses to make an advance lump sum payment, it means that he is likely not to conform to the rules of the vertical hierarchy and hence he is denied access to the organization. The lump sum payment may also be made after the employment during which the money needed to make the payment can be earned and accumulated, as sufficient amount of money is accumulated to do the payment often referred to as establishing a “credit line.” This broadly accepted practice is similar to that used in human trafficking and other illegal businesses.

Sometimes this type of career path starts from the time of one’s education. For instance, in order to enter a police academy one has to pay a lump sum bribe. He then makes his money back by accepting informal payments (Newsru.com, 2006, 2007). Joining the traffic police after graduating from the police academy also costs money. By the time an individual joins the vertical hierarchy he is already well-educated about the corrupt practices and ready to take part in them.

The practice of paying bribes for entering a faculty position in higher education is not widespread. Nepotism and favoritism play a certain role in hiring decisions, but the quality of every applicant is still one of the major factors considered during the decision-making stage of the hiring process. However, if the vertical hierarchy is to develop in the higher education industry, a lump sum payment for entering the faculty position may be required in order, above all, to prove future compliance with the informal rules and corrupt practices.

The pyramid-like structure of the vertical hierarchy is presented in Figure 4.

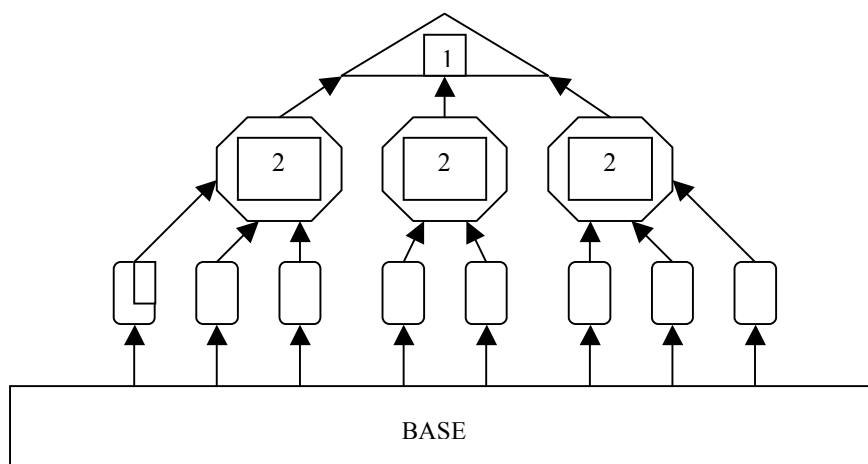


Figure 4. Pyramid-like structure of the vertical hierarchy

In this case subordinates retain some of the benefits from corruption while giving the rest part to those at the top. This process of sharing is administered through several links in the hierarchical chain till it reaches the top. The share can be either a fixed amount of money or a percentage. Some speculations about the presence of such structure in some higher education institutions in the Russian Federation are already present in the media (Gorshkov, 2005).

The high density pyramidal structure of the vertical hierarchy is presented in Figure 5.

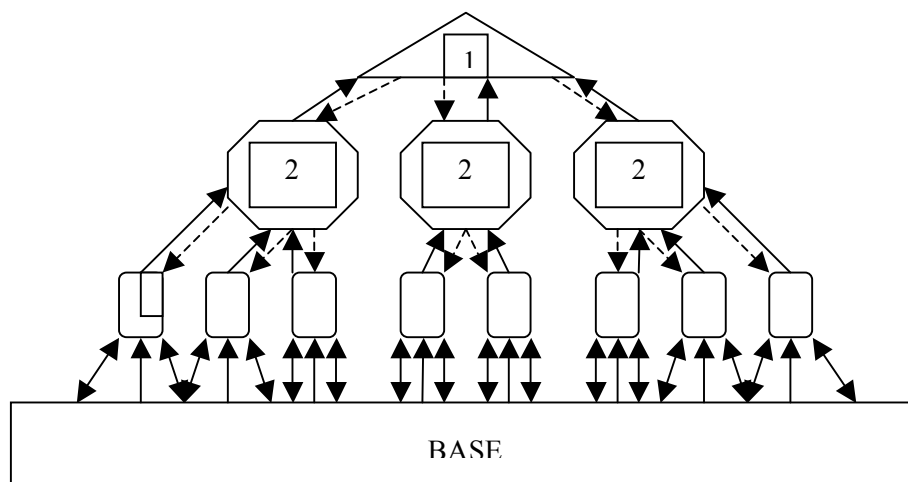


Figure 5. High-density pyramidal structure of the vertical hierarchy

The dashed arrows in Figure 5 represent paybacks from the top to the immediate subordinates. In this case, the top collects all the benefits of corruption and then distributes part of them among the subordinates. Here subordinates are no longer partners in the illegal activities but rather mere tools. They are instrumental in collecting graft. Other variations in the distribution of graft in the vertical hierarchies are possible. At this point, informal operations of the vertical hierarchy are no different from formal business-like operations of corporate structures where revenue is collected in the company's budget and then distributed in form of wages and bonuses.

The double-ended arrows in Figure 5 symbolize extortion. Agents attempt to maximize their benefits by maximizing total amount of graft derived from the base by using all variety of possible tools and mechanisms, including extortion. Extortion as an openly presented demand for a bribe in exchange for a certain service, such as permission, license, admission, positive grade, was rarely practiced in higher education. Extortion can be of at least two types. First, extortion anticipates an informal payment which would not be made otherwise. Second, extortion may

anticipate an informal payment of a larger size than would be made otherwise. Petrov and Temple (2004, p. 90) note that in distinction of “morally justified” corruption in Russia, in Azerbaijan students tend to see themselves as victims of extortion. Apparently, in Azerbaijan, as well as other former Soviet republics in Caucasus and Central Asia horizontal structures move toward vertical hierarchies.

Higher education is somewhat similar to healthcare but differs significantly from other industries. Higher education is still archaic as related to corruption. The reasons for that are as follows: first, higher education preserves high moral and ethical standards of conduct and a sense of collegiality; second, it has a double-directed hierarchy of administrative position and academic merit; third, there are no pure market-based relations and market-type mechanisms in the industry, i.e. higher education has yet to be commoditized. One may anticipate a relatively low level of collusion among the faculty members as related to sharing the benefits of corruption that exists in form of bribes, yet very high level of collusion as related to exchange of favors and the other forms of latent corruption. The three major types of corrupt structures discussed above are presented in Table 1.

TABLE 1

Structural forms of organization of corruption and their major characteristics in higher education

Indicators	Vertical structure	Horizontal structure	Vertical hierarchy
Characteristics	Absolute degree of centralization and concentration of formal authority	Decentralization, reduced concentration of formal authority, low compensation, opportunistic behavior	Absolute degree of centralization and concentration of formal and informal authority
Conditions	Clear laws and regulations, high risk of punishment, centralized funding	Absence of clear laws and regulations, low risk of punishment, financial survival	Unclear and contradictory laws and regulations, high risk of punishment for nonconformity
Degree of monopolization	Very high, near-perfect monopoly	Low	High, near-perfect monopoly
Discretionary power	High, centralized	Decentralized	High, centralized
Level of secrecy	Highly secretive, not widely acknowledged	Less secretive, widely acknowledged	Highly secretive, but widely acknowledged
Level of tolerance	Low	High	High, accepted as a norm
Level of transparency	Governmental publications in the media	Mass media, both official and independent	Governmental publications in the media
Major form	Embezzlement	Bribes as well as latent corruption	All existing forms, invention of new forms
Scale	Grand corruption	Full range, from petty to grand corruption	Full range, maximization of total illegal revenue
Period	Soviet times	Post-Soviet	Post-Soviet, 2000s

Each of the forms is not free of problems and internal conflicts. There are certain immanent and developing problems and antagonisms in each of the organizational structures. These antagonisms as well as changes in external environment push the structures to adjust and move to the next stage.

The vertical structures can only last as long as there is absolute power concentrated at the top and all the subordinates have a satisfactory level of income. As related to higher education institutions, faculty and administrators will only tolerate exclusiveness of access to graft limited to the top management or rectorate as long as their legal income is high enough to provide them with living standards and social status allotted to them by the society. Once their level of income suffers significant decline without the perspective of fast recovery, they present their claims on the part of the “pie” and start seeking for other sources of income inside as well as outside academia. Collecting informal payments at the full-time teaching position as well as part-time positions becomes a norm. Centralized control, top-down approach, administrative tools and artificially imposed restrictions become ineffective in reducing corruption.

The vertical structure transforms into horizontal structure with its freedom, equality, and Bentham. Opportunities in access to graft are distributed amongst all, but they are not distributed equally. Initially, the top level dominates. Later, however, it becomes disadvantaged. A large portion of graft goes to those in direct contact with the base. The number of students equates to amount of graft collected. This disadvantage is eliminated promptly. The faculty members with limited teaching course load due to administrative duties collect benefits from the students by utilizing their administrative authority. The faculty members are called to sign some of the students’ record books in the chair’s office or dean’s office or other administrative offices. This gives them informal approval of collecting bribes in exchange for grades. The faculty members, academic offices, and administrative offices compete for the students’ informal payments. The delineation of functions is unclear and so offices and faculty members may give attestation to a student interchangeably.

The top starts seeking for the forms of channeling benefits of corruption from the lower level or the “frontline” to the top. The justification for such motion is threefold: first, it is done under the slogan of fighting corruption within the institution; second, it is conducted as a part of a larger anti-corruption campaign, demanded by the central authorities; third, quality of education and graduates as a part of the institution’s reputation is to be reclaimed. In essence, the top attempts to re-monopolize its access to graft and other benefits of corruption, improve image or facade of the institution, and report to the central authorities of achieved success.

This creates at least three possible forms of future organization, including return to the modified vertical structure, formation of a hybrid or the mixed structure, and creation of the vertical hierarchy. Evolution and possible options in corrupt organizational structures in higher education can be presented as follows:

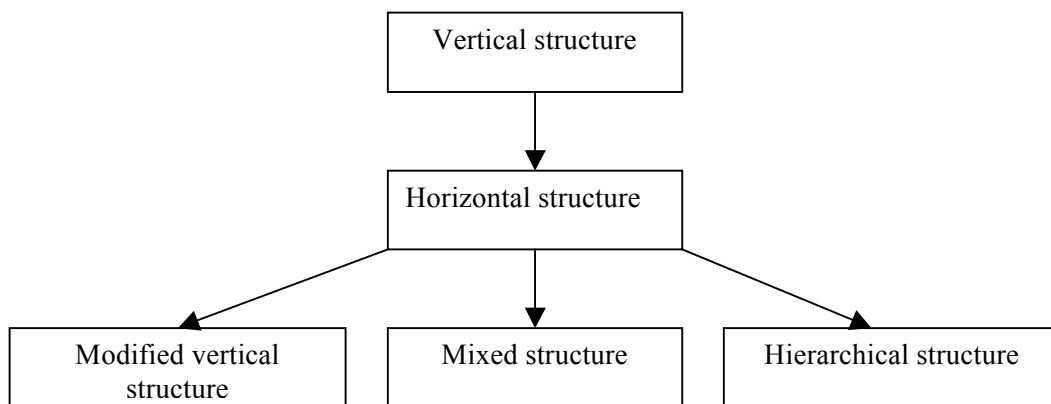


Figure 6. Evolution and possible options in corrupt organizational structures

The vertical structure and the vertical hierarchy are described above. Mixed structure as a likely option of predominant corrupt organizational structure in higher education combines elements of both horizontal and vertical structures with the core exchanges having the form of

latent corruption. In the mixed structures benefits of corruption are derived without being served by the monetary exchange. In higher education institutions characterized as mixed structures, faculty members distribute access to publicly funded places among themselves. Access and student retention are shared and maintained on the collegiate basis, when faculty members agree on admission decisions and positive grades for students. Additional revenue is generated from the for-tuition programs.

Mixed structures are relatively democratic, with a high level of equality in access to benefits of corruption. Total amount of corrupt benefits depends on the rank and position of each faculty member. A top level faculty who is also positioned at a key administrative role has access to a larger number of publicly funded places and controls not only student admission and retention, but faculty hiring and retention as well. The central authorities are satisfied with the mixed structure, since it presents a relatively low level of open corruption, while the predominant latent corruption is difficult to detect. The state maintains an official image of high integrity in higher education (Filippov, 2001; Mustafayev, 2002).

The three key questions are: What stage has the higher education industry or particular higher education institutions in each of the regions of the former Soviet Bloc reached? Can horizontal structure be considered as a steady state? Where is it moving, toward what structure?

The modified vertical structure is centralized. However, in distinction from the vertical structure, it is market-based, and students pay for access to educational services. Similar to the vertical structure, there is little corruption in the modified vertical structure. Most of the payments are legal. Revenues are shared in form of high salaries. The administration fights corruption in order to channel all types of income into a formal stream of tuition payments. The administrators are highly paid. However, faculty demonstrate some opportunistic behavior.

Bribes are rare and risk of punishment for unauthorized corrupt activities is high. The modified vertical structure is only viable if the administration shares the revenue and pays high salaries to the employees.

Mixed structures combine for-tuition programs and government funded programs. In the modified structures for-tuition programs experience the same problems as in the modified vertical structures. State-funded places in the mixed structures are distributed among the faculty members. Higher education institutions are converted into family enterprises. There is virtually no cash flow present in informal transactions. Shares of faculty members in access to graft and other benefits of corruption differ and are not clearly specified. Informal authority lacks clear demarcation. This creates a ground for continuing conflict. Also, faculty members who do not place their children, grandchildren, nephews, and protégés to the higher education institution are less cooperative as they prefer monetary and non-monetary benefits. This touches upon those faculty members who have their relatives and protégés in the higher education institution. Obviously, monetary exchange is the most market-like form of corruption, while the mixed structure gives way to latent forms of corruption.

Strengthening of latent forms of corruption goes in contradiction with the market reforms. Such conflict is amplified by the fact that the two forms—*for-tuition programs and government-funded programs*—not only coexist in one institution but are virtually indivisible. Faculty members teach in both types of programs while students are often mixed and are not separated by groups. In the vertical hierarchies the major conflict forms around the determination of shares in access to graft as well as distribution and redistribution of the benefits obtained from corrupt activities.

Concluding remarks and suggestions for future research

This paper identifies three major organizational structures with corruption, including the vertical structure, the horizontal structure, and the vertical hierarchy. The criteria selected include major characteristics, conditions or environment, degree of monopolization and distribution of discretionary power, levels of secrecy, tolerance, and transparency, predominant forms and scale.

Vertical structure is taken as an initial form of organizational structure with some presence of corruption. Major characteristics of the vertical structure include absolute degree of centralization and concentration of formal authority. Corruptioners have an opportunity to draw some benefits from their position without using their authority over their subordinates. Collusion did not take place in the structure itself. The major form of corruption at that time was embezzlement when corruptioners were embezzling from the state. Usage of the embezzled funds required a certain form of external collusion.

Vertical structure transformed into horizontal structure. Major characteristics of the horizontal structure are that it exists and develops along the lines of the process of decentralization, and declining concentration of formal authority. The characteristics also include low salaries of the employees and their opportunistic behavior. The horizontal structure may potentially transform into the vertical hierarchy. Vertical hierarchy anticipates both formal and informal subordination. Major characteristics are absolute degree of centralization and concentration of formal and informal authority. Conditions for vertical hierarchy include unclear laws and regulations, and high risk of punishment for opposing illegal practices rather than for violating formal rules. Vertical hierarchy is the highest organizational level of corruption when corruption is institutionalized or near-institutionalized. This level is characterized by the

delegation of corrupt functions to subordinates. Sharing and profiteering are the two dominating functions of the participants and the structure overall. Subordinates collect bribes and then channel benefits up the hierarchical ladder.

Each of the forms is not free of problems and internal conflicts. There are certain immanent and developing problems and antagonisms in each of the organizational structures. These antagonisms as well as changes in external environment push the structures to adjust and move to the next stage. In the vertical hierarchies the major conflict forms around the determination of shares in access to graft as well as distribution and redistribution of the benefits obtained from corrupt activities.

The form of organization that existed under the planned economy in the USSR can be characterized as a vertical structure. The period of the late 1980s and early 1990s in the USSR was characterized by Perestroika, the movement for independence in the republics and for market reforms. Government funding was declining and consequently the total base for embezzlement was shrinking. Parallel structures were created in order to generate extra income, including that coming from corrupt activities. Parallel structures were also intended to increase the rate of embezzlement in order to compensate for the potential losses due to the shrinking base, i.e. declining government funding. In horizontal structures most of the benefits from corruption are generated by each corruptioneer individually and independently. Distribution of access to graft is based on such characteristics as rank and position. Rent-seeking behavior is commonplace. Level of collusion between faculty members and administrators is very low. Horizontal structures in higher education institutions in the former USSR are characteristic of a period from early 1990s till present.

Higher education is still archaic as related to corruption. Higher education preserves high moral and ethical standards of conduct and sense of collegiality, it has double-directed hierarchy of administrative position and academic merit, there are no pure market-based relations and market-type mechanisms in the industry, i.e. higher education has yet to be commoditized. This creates at least three possible forms of future organization of corruption, including the return to the modified vertical structure, formation of a hybrid or the mixed structure, and creation of the vertical hierarchy.

Mixed structure as a likely option of predominant corrupt organizational structure in higher education combines elements of both horizontal and vertical structures with the core exchanges having form of latent corruption. In the mixed structures benefits of corruption are derived without being served by the monetary exchange. Mixed structures combine for-tuition programs and government funded programs. In the modified structures for-tuition programs experience same problems as in the modified vertical structures. State-funded places in the mixed structures are distributed among the faculty members. Higher education institutions are converted into family enterprises. Changes in the characteristics will not necessarily lead to the logically expected results. For instance, according to Bac (1998), increase in transparency in corrupt organizations may result in corruption increase.

Methodology for future research in organizations and corrupt hierarchies, including higher education institutions may include cellular automation—a relatively new methodology of studying organizations. Research of corruption with the use of cellular automata is virtually nonexistent. Wirl (1998) presents basic socio-economic typologies of bureaucratic corruption and their implications as studied through the application of cellular automata.

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