

CORRUPTION IN BUSINESS: MOTIVES AND INFLUENCE ON SHADOW ECONOMY

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Abstract. The paper devoted to the research of the corruption offenses in the activity of business entities which are quite a common phenomenon that causes serious moral, economic and political problems, hinders development and distorts fair competition. The purpose of the study is to reveal the distinguishing peculiarities of corruption in business to business relations and special features of the behavior of the corrupt company employee in the context of corruption influence on the level of the shadow economy of Ukraine. The differences between employment in the public and private sectors are highlighted. Analyzing relevant literature, the paper offers a model of corruption-related decision-making of an enterprise employee that takes into account all the factors that may influence a choice of involvement in the corruption offenses. The main causes of corruption in business are viewed as the competitive advantages the company can gain and the level of corruption around it. The research proves that the company can start participating in corrupt practices because many representatives of the business environment are involved in it, claiming that it is the only way to survive. The paper proves the impact of corruption on the level of shadow economy on the example of Ukraine. The essence and constituent elements of the shadow economy are revealed, as well as the negative consequences of the shadow economy, the spread of which is facilitated by corruption in the authorities and government. We proved that the higher level of corruption in the public sphere will result in a higher level of corruption inside the business environment. We proved that special attention should be given to the corruption in business relations as a sub-set of a general corruption phenomenon. The suggested by authors model of corruption-related decision making in business to business relations facilitates better understanding of the true nature of the business corruption phenomenon and development of well thought anti-corruption measures both on company and government levels.

Keywords: corruption-related decision, business activity, corruption, Business-to-Business (B2B) corruption, economic freedom, shadow economy.

JEL Classifications: D73.

Introduction

Corruption, of course, is not only a purely Ukrainian phenomenon but a phenomenon of the World in the name. As history shows, corruption is a long-standing source of tradition and accompanied the state from the very beginning of its occurrence. Those who govern, distribute, never neglect “offerings” and bribes. Corruption remains the most important factor hindering the growth and development of the world and national economies. Corruption manifestations threaten the integrity of the markets, weaken fair competition, and break the balance in the system of resource distribution. There had been

said a lot about the dangers of corruption. Corruption has a negative influence on economic growth and investment, undermines the rule of law and public trust, as a result of which an abnormal economy is created in which the fundamental economic laws cease to operate. It can lead to a maximum reduction of many government programs and activities leading to economic decline and a sharp decline in living standards of the people of many countries, it unnecessarily sharpens distinctions on income and living conditions. The fight against corruption has become a key point of the programs of governments of most countries and the world's international financial organizations.

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Effective and sustainable development of the business environment particularly requires the absence of corruption. Corruption here sufficiently influences competitive market mechanisms. Business-to-Business (B2B) corruption, also known as private-sector corruption refers to unethical or illicit transaction between private actors, without the direct participation of the state. A study by the World Bank estimates that about \$1 trillion is paid in bribes each year across the globe (The Global Anticorruption Blog [GAB], 2014). The International Monetary Fund research confirmed that public sector corruption siphons \$1.5 trillion to \$2 trillion annually from the global economy in bribes and costs far more in stunted economic growth, lost tax revenues and sustained poverty. Moreover, when systemic corruption affects virtually all state functions, distrust of government can become so pervasive that it can lead to violence, civil strife, and conflict, with devastating social and economic implications (International Monetary Fund [IMF], 2016).

Due to corruption in business, the winner is not the most competitive entrepreneur, but the one who was able to illegally gain benefits and privileges. As a result, there is a decline in market efficiency and a discreditation of the idea of market competition.

Research on corruption in business perceives company managers only as participants who can either offer a bribe to a government official or react to his bribe demand (Bahoo et al., 2021). Still not only public officials can be bribe-receivers and not only government representatives can misuse their power for a private gain, thus violating the obligations they have to the company and society. Company's ordinary employees, as well as top managers, can also turn out to be corrupted, putting their private interest ahead of companies, ethics, or legal rules. In the authors' opinion, special attention should be paid to the problem of corruption in the business to business relations as a sub-set of a general corruption phenomenon, to the factors that influence corruption-related decisions made by company employees and the impact the corruption has on the economy.

The purpose of the paper is to reveal the distinguishing peculiarities of corruption in business to business relations and special features of the behavior of the corrupt company employee in the context of corruption influence on the level of the shadow economy of Ukraine.

1. Theoretical framework

The issue of B2B corruption has received increasing attention by business professionals, scholars, and public decision makers (Burduja & Zaharia, 2019).

Many scientists believe that corruption is closely linked with bureaucracy (Acemoglu & Verdier, 1998, 2000; Ackerman, 1999). Therefore, their research is focused on bureaucratic corruption and behavior, particularly of bureaucrats, i.e. government officials. Nevertheless, the evidence shows that corruption involves not only

government officials and employees of the public sector, but it has successfully spread into the private sector.

Focusing on the contractual nature of corruption, one can see that two (or more) sides agree to execute certain illegal or/and immoral actions as part of the deal made. Such contractual relations can take place not only in the public sphere. "Corruption involves illegal, immoral gratification in cash or kind in exchange for securing an unethical advantage over others in business and/or in society with a side effect that may include human rights abuse, degradation of the environment, or compromise of sustainable development" (Roy, 2007).

Anticorruption organization Transparency International identifies corruption as an "abuse of entrusted power for private gain". Such abuse can occur not only in the result of the dealings of public officials, politicians, and bureaucrats.

Usually, in the context of corruption, private business is perceived as a party in the relationship with bureaucrats where an official demands a bribe or is eager to violate his duties if the business manager will pay for his special services (Roy, 2007).

The World Bank Group Enterprise survey on corruption that offers a better understanding of the prevalence of different types of bribery across various firm subgroups is also limited to bribery and gifts incidents related to public transactions and government officials, and firms here are the party that is expected to interact with a public officer to "get the thing done" (The World Bank, 2019, 2020).

Even the anti-bribery policy adopted by the big and successful companies refers only to the interaction with government officials. However, the Code of Business Conduct includes issues of money laundering, conflict of interests, inappropriate gifts or hospitality, fair competition, bribery, trade of inside information, and fraud.

There are scientific researches that explore the behavior of managers who confront demands for bribe payments. Still, their research is aimed at analyzing the corruption forms in the business environment and the behavior of a corrupted company manager only regarding cooperation with public services (Jacoby et al., 1977).

Thus, the issue of corruption in business to business relations is left unaddressed and pushed to the side. However, corruption manifestations in business are very common, as well as loss-making and ruinous for the entrepreneurs, posing a certain risk for the company, its reputation, financial and economic security.

Several studies (Coricelli et al., 2010, 2014; Aven, 2015) have shown that selfish economic decisions with a negative public externality may cause a moral conflict reflected on the decision maker's emotional arousal. According to them, negative feelings were triggered by non-compliance with a pro-social norm, committed in the presence of a threat of punishment of law or public. Therefore, the level of acceptance of corruption in society is directly influencing corruption-related decisions. If the individual feels more or less comfortable engaging in

corruption, because the society tolerates corruption, he will more likely make a corruption decision, as the moral hazard will below.

Another factor influencing the behavior of a potentially corrupt employee is the probability of detection. In this case, deterring is the recognition of a corrupt act as being contrary to the law and/or certain established company rules and procedures, code of conduct with appropriate consequences. In the public sector, the impact of this issue is a lot stronger, as the regulations and punishment are more severe. In the case of disclosure, there is a danger of being prosecuted and punished through imprisonment, and disclosure will usually be followed with close attention from mass media and publicity. In the private sector, the cases of corruption are generally concealed and passed over in silence. Rarely, only when the scandal cannot be avoided such cases are made public. To prevent reputation losses, company owners and management usually prefer to solve the situation quietly without turning to the court. That is why company employees are less afraid than public officers that their offense will be disclosed and punished.

The factor that creates a very solid ground for corruption is information asymmetry. Generally, this term refers to the situation when out of two participants one party possesses important information, while the other lacks it, and this possession grants certain advantages to the owner. Again, turning to the principal-agent model, not always the principal can closely monitor the actions of the agent. Thus, in the situation of information asymmetry, an agent along with the power has certain information that is not available for his employers, and has a possibility of carrying out certain actions that cannot be observed by the employer, and therefore is capable of obtaining personal benefit from his position. The existence of information asymmetry is one of the basic conditions that make corruption possible. In completely regulated and transparent activity corrupt acts would be at once detected and disclosed.

Many scientists name low salaries in the public sector as one of the main reasons for government officials' corruption (Uribe-Toril et al., 2019). They suggest that when public servants earn a relatively high salary in comparison with peers within or outside their place of employment, they are not that eager to commit corruption acts. On the contrary, low wages are considered to be a justification of corruption as a means to survive. Moreover, this attitude may be shared by the general public that is eager to show sympathy toward a corrupt official in exchange for special favor (Abbink, 2005).

For the company manager, the theory of fair wage can hardly be applied. Certainly, the corrupted person wants to earn more and believes he has a right to get what he wants, despite any restrictions and responsibilities. Usually, the company manager's wage is more or less fair and in case he is not satisfied with it, it is a lot easier for him to leave for another company. Public officials are less free in their choice of occupation within

the government sector. Wages here are more or less equal across different positions and the number of positions is limited. Therefore, they are more afraid to lose their jobs and as a consequence, company managers are more prone to opportunistic behavior.

Still, rent-seeking behavior is present in business to business relations either. Rent in this case refers not to the entrepreneurial comings created due to better use of resources, specific assets, technology, or innovation. In terms of corruption rent-seeking behavior refers to the socially costly, often unproductive, but remunerated activity, promoting personal interest (Dejardin, 2011; Voliotis, 2017). Usually, it includes recourse distribution diversion and opportunism. Opportunistic behavior is the behavior of an individual who avoids compliance with the contract to profit at the expense of partners. It is common for the private sector and based on the mentioned above information asymmetry. However, opportunistic behavior is not a simple violation of the contract terms. It is a specific style of behavior of economic agents, which is realized on the ground of their characteristics and personal characteristics aimed at the increase of the proper level of well-being at the expense of reduction of the level of well-being of the counterparty.

This article is based on scientific works of domestic and foreign specialists in the field of corruption. In the course of processing, studying and analyzing the accumulated materials, a set of general scientific methods abstract-logical analysis, theoretical generalization, systemic and regression-correlation analysis, graphical method combined by a complex approach to studying this problem were applied.

2. Methodology

After reviewing the literature on business corruption factors, the first step of the current research was to build a conceptual model of corruption-related decision-making of the company's employee. Our methodological approach is based on individual focus group members' interview of ten companies in which a senior manager is assigned power on the example City of Kharkiv, Ukraine. Given the sensitivity of the topic addressed, focus group members' selection was based on personal connections, including people who would feel comfortable sharing their experiences of corruption, including full confidentiality. As a result, we estimated that power of the manager over subordinates creates a certain temptation to abuse the entrusted power for his private gain (I). First things that this employee must think of are the expected income ("kick-off") (X) and potential consequences in the case of detection: punishment (P) and moral hazard (M).

$$I = X - (P + M), \quad (1)$$

where I – an expected private gain of the employee from abusing the entrusted power; X – the amount of expected

income (“kick-off”); P – expected punishment, under the condition $P > 0$. However, for business environment P is lower than for government officials; M – expected moral hazard (if $M > 0$).

Under expected punishment, we consider the loss of salary W , disciplinary responsibility, and prosecution.

$$P = W + \text{Disciplinary responsibility} + \text{Prosecution.} \quad (2)$$

Thus, the conduction of a corrupt act by an employee of the company depends heavily on the total private gain this employee will receive from misconduct. The other factors impacting his decision are weak governance (Gw) and job-related attitude (J) which can be positive or negative. If a job-related attitude is positive, the employee is less likely to commit the violation, if it is negative the probability of corruption increases. So, the affirmative corruption-related decision will be made under the condition:

$$I + Gw - (\pm J) > W. \quad (3)$$

As a result, under the condition that the expected gain of the corruption is higher than the employee’s salary and the weak governance and negative job-related attitude are present, there is a high probability that employees will decide to abuse entrusted power in his private favor. Finally, B2B corruption involves the “misdirection of organizational resources for personal or organizational benefit” (Bowen, 1953). This implies a lack of responsibility for possible social and economic consequences for the society.

The social and economic consequences of corruption include the impact on the economic activity of individuals; the impact on public finances; the impact on human development (through the unequal distribution of income). Thus, corruption creates fertile soil for the shadow economy. Shadow economy is able to function and develop on a large scale only in the presence of corruption in all systems of state power and administration, business and society.

To reduce the knowledge gap on c B2B corruption-related decision-making the primary research question is addressed using two hypotheses, namely:

H1: A negative B2B corruption-related decision-making decrease the level of corruption on the national level (destimulator factor) and increase the level of economic freedom (stimulator factor) on the level shadow economy in the country.

H0: A positive B2B corruption-related decision-making increase the level of corruption on the national level (stimulator factor) and decrease the level of economic freedom (destimulator factor) on the level shadow economy in the country.

On the base of data accumulated from the sources of information published on the official web portals of The World Bank, Europe, Middle East, India and Africa Fraud Survey, Transparency International, Freedom House, the Heritage Foundation the impact of corruption indexes on the level of the shadow economy of Ukraine is defined.

The impact of corruption on the economy also depends on the legal and institutional framework of the country and the quality of governance and the political regime. Because, in the absence of political stability and a sound legal basis, there is a favorable environment for corruption leading to persistent crises. This, in turn, does not allow reformation in different spheres of life and leads to a deterioration in the quality of life of the population.

3. Results of the research

The main causes of corruption in business are the competitive advantages the company can gain and the level of corruption around it. The research proves that the company can start participating in corrupt practices because many representatives of the business environment are involved in it, claiming that it is the only way to survive (Jacoby et al., 1977; McLean & Elkind, 2003).

The higher level of corruption in the public sphere will result in a higher level of corruption inside the business environment. Company employees, as well as public officials, can be corrupted and stand to benefit from the misconduct of their duties.

EY Fraud survey indicates that:

1. 1 in 3 board directors and senior managers would feel appropriate offering cash payments to win or hold on to business. While fewer than 1 in 5 of other employees would.
2. 1 in 5 board directors and senior managers would willingly book revenues earlier than needed to meet targets, against 1 in 10 of all other employees.
3. 12% of board directors and senior managers would be inclined to provide false information to management to gain some benefits or improve their careers, double the number of all other employees (Ernst & Young, 2017).

Corruption has so many forms of manifestation. According to Argandona (2003) in the private sector may take such forms as bribery, dubious commissions, facilitation payments, extortion or solicitation, nepotism and favoritism, gifts and favors, illegitimate use or trading of information, use of undue influence to change a valuation or recommendation, and other, as the corruption manifestations are evolving over the time. Analyzing each of them, one can see that corruption manifestations in business sufficiently harm financial stability, management integrity, and overall competitive position (Momot et al., 2016; Ogorean, 2007; Orlovskiy et al., 2018; Campbell & Göritz, 2014).

In general, corruption for the enterprise itself is:

1. reducing or bringing to the “zero” the reputational capital of an entrepreneur and his business;
2. loss of confidential information and intellectual property, theft of values;
3. decreasing competitiveness, loss of customers and income, inhibition of growth;
4. obstacles to the promotion and consolidation of the best personnel, corruption of staff and deterioration of the ethics of the team;

5. the atmosphere of corruption does not promote openness and forces the business to close information about its affairs.

Yves Fassin highlights the importance of understanding the causes of unethical behavior of managers and entrepreneurs, as “there are different sets of reasons for the rise of the unethical behavior in business: some are the consequence of the general evolution of society, others are due to the evolution of the business environment and to its internal organization” (Fassin, 2005). Among such causes, the researcher points out:

1. the increasing individualism of the modern people and consequently growing significance of money in present-day society and glorification of material consumption;
2. the side effects of globalization of the economy, namely the emergence of big centralized structures with a greater concentration of power;
3. the race to multiply productivity, leading to depersonalization as the distance between headquarter and the ordinary workers build up;
4. the focus of the economic system on the short-termism;
5. often the perfidious treatment of present-day contracts;
6. the incapability of the law and justice, imperfections of the juridical system;
7. the systems of managers’ rewards and evaluation in business are not always in line with the long-term vision;
8. the constant pressure of stakeholders, scarce resources, social and financial pressure, and stiff competition;
9. opportunistic behavior, the pursuit of profit, and success in a competitive environment.

Some scientists are convinced that “a key difference between working in the public sector and working in the private sector is that public sector jobs put people in positions where they can dishonestly appropriate public funds” (Barfort et al., 2015). A principal-agent model is also applicable for business. There is the owner or the director who is giving orders and granting certain power, and the employee who has some duties and certain resources to fulfill his duties. Corruption takes place when the agent violates the rules established by the principal to promote his benefit, in case of involvement of the third party (bribery, extortion, favoritism) by collusion with the client. As well as in the public sector an employee can choose to abuse the entrusted power in favor of his gain. So, we would not consider this a key difference of working in the public and private sectors regarding corruption manifestations.

In the authors’ opinion, the main differences in employment in the public and private sector that influence corruption-related decision-making are:

1. fundamentally different goals. The public sector is concentrated on serving the general public and taking care of their interests, while the private sector’s

main concern is to create markets, enabling earning profits. A company employee is supposed to bring a certain profit to the organization. If he fails to do so, he is fired. Public sector officials are not that outcome-oriented.

2. differences in the employment process. Private sector managers have the ability to hire staff quickly depending on the need for personnel. However, in the public sector, it can take years to create a new position and months to fill an existing position due to bureaucratic challenges and extensive documentation. This also causes the differences in the firing of employees in both sectors making the removal process in a public area more complex and time-consuming. Moreover, in the private sector, there is no self-selecting of bureaucrats.
3. management system. The human resources model in the public sphere is traditionally career-based, as public officials are usually recruited at the beginning of their careers and are expected to remain in the public service throughout their working life. Therefore, job security in public service is much greater. The management system in the private sector is position-based, meaning that employers are hired from a pool of candidates on the ground of their skills and competencies regarding a specific position.
4. different funding allocation. Public organizations are owned by the government and are funded by taxes paid by the public or through the issuance of public debt. Adequate funding must be attained and disbursed, procurement practices need to be approved by several governing bodies, and suppliers often undergo background checks and other investigations, all of which slow down the procurement process considerably. Private organizations can use their revenue from sales and investments to buy things when they are needed.
5. scrutiny and accountability. Public organizations are subject to a specific kind of attention. This is mainly since they are funded by taxpayers who hold these agencies accountable for how their money is being spent and who view expenditures not only for their efficiency and effectiveness but also for the degree these address questions of social equity and fairness. The activities and accomplishments of these organizations hold a greater presence in the public eye. Leaders of private corporations are accountable primarily to their board of directors and shareholders.

These factors cause certain peculiarities of corruption in business to business relations and therefore influence the decision-making process of a company employee regarding corruption.

Let us have a closer look at the conditions sufficient for corruption-related decision making in business to business relations (see Figure 1).

One of the features common for both private and public sectors is the moral issue of corruption. Generally,

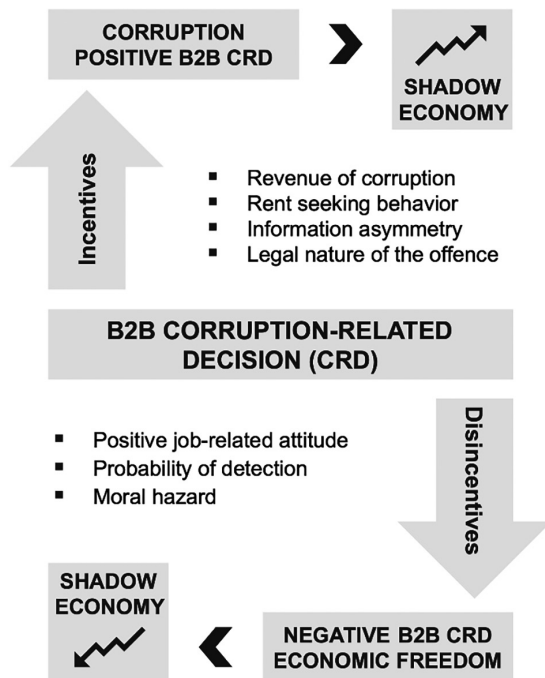


Figure 1. The conceptual model of corruption-related decision making in business to business relations (source: developed by authors)

corruption can be considered as a kind egoist ethics according to which an individual denies accepted social and moral rules, contaminates social relations to get personal privileges, liberties, and advantages (Rendtorff, 2010). The scientists have not agreed as to the nature of erosion in one's unethical behavior. Gino and Bazerman (Gino & Bazerman, 2009) studies suggest that people are more likely to accept others' unethical behavior when ethical degradation occurs slowly rather than in one abrupt shift. They call this phenomenon "the slippery-slope effect". At the same time, research of Köbis et al. (2017) shows that there is a higher likelihood of severe corruption when participants are directly given an abrupt opportunity to commit the violation. Thus, from the scientists' point of view, the route to corruption leads over "a steep cliff". However, there is a consensus regarding moral hazard and corruption. An employee who considers corrupt action takes into account the moral and ethical burden (disapproval, condemnation) of corruption behavior, which is socially determined. In other words, the corrupt behavior of individuals, and their restriction from committing a crime are affected by the awareness that corruption acts contradict the established norms of morality and ethics, as well as recognition (in the case of committing a crime of corruption and punishment) of the inevitability of the onset of negative attitude and condemnation by the public.

In the public sector, one of the factors that have an impact on the corruption decision, as well as on the amount of the bribe, is the monopolistic position of the public official. In the private sector, the monopoly of the agent can hardly be named as an important factor.

The competition in business is more diverse and if the manager of the one company is not compliant, the more amenable individual can be found in another company. The performance of public officials is entirely regulated by law and legal rules and restrictions. Almost every violation of his duties would be a legal offense that includes corresponding punishment. On the contrary, the private sector is regulated basically by the internal documents and code of conduct. Breach of these rules can hardly be compared with the law infringement. Some of the forms of corruption in business are a serious offense, but often a company employee agrees to provide certain service or information, believing that his action is not illegal (Cuervo-Cazurra, 2016). It may be a manifestation of the absence of company loyalty or business ethics, but this is not that serious. If the required action is illegal, the fear of legal persecution and punishment may reduce employee's willingness to get involved.

Another important issue is that the company manager is more committed to the organization he works for and is more interested in the positive results of company performance as this can directly affect his welfare. Government officials are less attached to the organization and less involved in the ownership for its performance. They do not feel equal loyalty and organizational identification. The job-related attitude would include job satisfaction, job commitment, and job involvement (Amar, 2012). An employee with a positive job-related attitude is loyal to the organization, feels psychological ownership for organization performance, and is satisfied with the specific job dimensions like co-workers, salary, supervision, promotion opportunities, etc. The most important factor in corruption-related decision making is the revenue of corruption (Torsello, 2018). An individual evaluates all costs and benefits from his criminal activities and decides to commit a crime if the expected benefit of such acts is higher than that which he will remain honest.

The main motive of a corrupt individual is the benefit, which, predetermines the commission of a crime. Criminals, including corruptors, are not psychopaths and victims of social oppression, but rational economists-analysts. The potential offender, before committing a property crime, objectively weighs what he will receive, being an ethical and law-abiding citizen, and what he will be able to obtain as the result of a misdemeanor offense. The potential offender analyzes not only the benefits (profit, benefits from the crime) but also his expenses and negative consequences, which will occur in the event of an unfavorable outcome.

Any employee who has the chance or opportunity to engage in corruption always analyzes and assesses the potential (least justified) incomes of corruption actions concerning the expected (maximally justified) losses from such actions in the event of disclosure of crime and bringing it to justice. If the benefits of corruption prevail, then for certain citizens, there may be prerequisites for committing a crime.

4. Discussion and interpretation of results obtained

A high level of corruption in Ukraine is confirmed by all major perception-based surveys and indicators. The Corruption Perceptions Index of Transparency International (*CPI*) and the freedom rating of Freedom House (*FHR*) were used as indicators for assessing the level of corruption, and the Heritage Foundation's Index of Economic Freedom (*IEF*) was used to assess economic freedom.

Ukraine scored 32 points out of 100 possible in the Corruption Perceptions Index (*CPI*) for 2021. The score has decreased by one point, and now Ukraine ranks 122nd out of 180 countries in *CPI*. Ukraine improved the *CPI* only on 6 points in 10 years, which is not a good enough result for the country the one of priority goal of which is the fight against corruption.

The level of corruption, as one of the component of Freedom House Rating (*FHR*) produces annual scores representing the levels of public perceptions of corruption, the business interests of top policymakers, laws on financial disclosure and conflict of interest, and the efficacy of anticorruption initiatives, on a scale from 1 (the highest level of corruption) to 7 (the lowest). In accordance with this indicator the corruption remains one of the main challenges preventing Ukraine's reforms from succeeding (Freedom House, 2022).

According to the estimates of the Ministry of Economic Development and Trade of Ukraine the integral indicator of the level of the shadow economy (*IISE*) is obtained. In 2021 the level of the shadow economy in Ukraine was 32% of the official GDP, which is by 2 percentage point more as compared to 2020. The dynamics of the Ukrainian economy shadowing is restrained by unresolved issues, which adversely affect the development of the country's economy as a whole. The high level of corruption in the country is one of the systemic factors that restrain the processes of detinization of the economy in Ukraine. The integral indicator of the level of the shadow economy (*IISE*) is obtained based on the results of its calculation in various ways and generalized by the method of integration (The Ministry of Economic Development and Trade of Ukraine, 2021).

At the same time, we take into account the level of economic freedom in the country. The ideals of economic freedom are strongly associated with healthier societies, cleaner environments, greater per capita wealth, human development, democracy, and poverty elimination. The Index of Economic Freedom (*IEF*) is measured economic freedom based on 12 quantitative and qualitative factors, grouped into four broad categories: Rule of Law (property rights, government integrity, judicial effectiveness); Government Size (government spending, tax burden, fiscal health); Regulatory Efficiency (business freedom, labor freedom, monetary freedom); Open Markets (trade freedom, investment freedom, financial freedom) (Appendix A, Table A1).

Based on these sources, we conduct a correlation analysis that allows us to identify mutual relationships between the studied factors (Table 1).

Table 1. The results of the correlation analysis (source: developed by authors)

	IISE	CPI	FHR	IEF
IISE	1			
CPI	-0.683	1		
FHR	-0.251	0.622	1	
IEF	-0.695	0.831	0.754	1

Next, we conduct a regression analysis of the impact on the level of the shadow economy using the different number of available factors (Table 2), removing from consideration the least significant factors. Thus, a strong enough correlation was found between the integral indicator of the level of the shadow economy and the Corruption Perceptions Index (0.683) and the Index of Economic Freedom (0.695). At the same time, the Heritage Foundation's Economic Freedom Index and the Freedom House Rating have a strong correlation (0.622) significant correlation between the Index of Economic Freedom and Corruption Perceptions Index. It turns out that economic freedom contributes to corruption to some extent. The obtained results proved our hypothesis H1: A negative B2B corruption-related decision-making decrease the level of corruption on the national level (destimulator factor) and increase the level of economic freedom (stimulator factor) on the level shadow economy in the country.

According to the results of the calculations, it is proved that the growth of corruption and decrease of economic freedom determines the increase in the amount of shadowing of the economy.

Table 2. Regression analysis of the impact on the level of the shadow economy of a variety of factors (source: developed by authors)

Regression Statistics	
Multiple R	0.830
R Square	0.689
Adjusted R Square	0.556
Standard Error	0.097
Observations	11.000
Coefficients	
Intercept	1,856
CPI	-0,017
FHR	0,531
IEF	-0,035
Model formula	
$IISE = 1.856 - 0.017 \times CPI + 0.531FHR - 0.035 \times IEF$	

This conclusion is partly in line with the findings of D. Dreger and F. Schneider, who argue that corruption in low-income countries increases the shadow sector. Unlike our results, they believe that dependence on developed countries is inversely proportional, that is, corruption reduces the level of the shadow economy.

Conclusions

The paper offers a closer look at the corruption phenomenon in the business. The corruption-related decision making of the company employee grounds on many factors depending on the particular circumstances and personal features of an individual. Nevertheless, some common causes can be determined and divided into incentives and disincentives. Incentives are revenue of corruption, rent-seeking behavior, information asymmetry, and the legal nature of the offense. These factors facilitate corruption decisions increasing the probability of corruption. Disincentives include moral hazard, probability of detection, and positive job-related attitude. These issues can restrain employees from getting involved in corruption.

The developed model of corruption-related decision making in business to business relations enables a better understanding of the corruption phenomenon and establishment of the anti-corruption policy of the company. Knowing these factors, top management can pay close attention to certain areas and use the relative measure to ensure the ethical behavior of the employees. We believe that the following internal options for preventing corruption in the business sector could be applied to: the anticorruption standards in each company; the Corporate Social Responsibility agenda; anticorruption internal auditing; the collective business initiatives against corruption; and due diligence on partners in the supply chain.

As for external measures, the preferred options could be based on the recommendations of the 2022 CPI study, TI Ukraine which provided the authorities with five specific steps that will help reduce the level of corruption in Ukraine and increase the confidence of citizens and businesses (Corruption Perceptions Index-2021). The recommendations are aimed to complete competitions and select professional, independent and high integrity heads of the anti-corruption bodies (the Specialized Anti-Corruption Prosecutor's Office, the Asset Recovery and Management Agency, and the National Anti-Corruption Bureau); to adopt the national Anti-Corruption Strategy and the program for its implementation; to ensure transparent accounting of public property and continue the course of privatization; minimize the risks of adopting draft laws which exclude certain types of procurement from the scope of the Law of Ukraine "On Public Procurement".

Besides this, the Ukrainian experience clearly shows how the active civil society may influence the political leadership of the country and how important its role is. Taking both into consideration we may conclude that the tight cooperation between the state governing bodies, civil society, international organizations, businesses, and NGOs, that based on acting and probed international practices can bring to the real shift in the situation on the counter-corruption front. Taking into account the social and political situation in the country, The Ukrainian leadership is expected to make real moves to combat corruption as a precondition for the development of society, support of small and medium enterprises and as a result,

built up middle class in Ukraine. The country did a lot, especially in the counter-corruption legislation and the international cooperation in this brunch.

In particular, among the most known and successful projects of the NGO Transparency International Ukraine (TI-Ukraine) is the participation in the development and implementation of the ProZorro electronic procurement system. ProZorro – is the electronic public procurement system, which replaced a paper state requirement. This hybrid system has combined a central database and electronic commercial platforms and was based on an open-source. The efficiency of the TI-Ukraine clearly shows the positive results of the counter-corruption activities, when the state bodies and NGOs are involved as equal counterparts. The efficiency of corruption counteraction is not an issue of responsibility or sanctions, but it is a question of punishment inevitability for a socially dangerous act with mandatory imprisonment and impossibility to hold official state positions in the future (what is now called "lustration"). This process also depends on the work of law enforcement authorities, and in our case, it also depends on the establishment of some official body, that connects the Government and non-Government entities in the common mission to minimize the factor of corruption and to eliminate its a negative effect.

To conclude, certain approaches should be developed regarding the improvement of the issue of a weak government. Considering the status of Ukraine as a candidate for accession to the European Union and recommendations of EU commission, corruption is one of the main obstacle on the way of European integration of Ukraine. Thus, we should use each and every opportunity to prevent this destructing phenomenon on all levels of society.

We confirm that this problem exists both in the government and private sectors. The essence of the problem is that the supervisor or manager cannot control his employees and their actions all the time. Thus, this matter requires additional research.

Potential future research questions worth answering include: to evaluate different internal and external solutions for preventing B2B corruption for increase of level of economic freedom and decrease the level of shadow economy.

Although the research is limited to Ukrainian anti-corruption practices and level of shadow economy, we believe that the results would be applicable to majority of developing countries, struggling with these problems.

References

- Abbink, K. (2005). Fair salaries and the moral costs of corruption. In B. Kokinov (Ed.), *Advances in cognitive economics*. NBU Press.
- Acemoglu, D., & Verdier, Th. (1998). Property, corruption and the allocation of talent: A general equilibrium approach. *The Economic Journal*, 108(450), 1381–1403. <https://doi.org/10.1111/1468-0297.00347>

- Acemoglu, D., & Verdier, Th. (2000). The choice between market failures and corruption. *American Economic Review*, 90(1), 194–211. <https://doi.org/10.1257/aer.90.1.194>
- Ackerman, S. (1999). *Corruption and government: Causes, consequences, and reform*. Cambridge University Press.
- Amar, A. (2012). *Models of corruption* [Master's thesis, Business School]. The University of Birmingham.
- Argandoña, A. (2003). Private-to-private corruption. *Journal of Business Ethics*, 47(3), 253–267. <https://doi.org/10.1023/A:1026266219609>
- Aven, B. L. (2015). The paradox of corrupt networks: An analysis of organizational crime at Enron. *Organization Science*, 26(4), 980–996. <https://doi.org/10.1287/orsc.2015.0983>
- Bahoo, S., Alon, I., & Floreani, J. (2021). Corruption in economics: A bibliometric analysis and research agenda. *Applied Economics Letters*, 28(7), 565–578. <https://doi.org/10.1080/13504851.2020.1764476>
- Barfort, S., Harmon, N. A., Hjorth, F. G., & Olsen, A. L. (2015). A formal model of corruption, dishonesty and selection into public service. https://static-curis.ku.dk/portal/files/144009137/CorruptionDishonestyCorruption_theory.pdf
- Bowen, H. (1953). *Social responsibilities of the businessman*. Harper and Row.
- Burduja, S. I., & Zaharia, R. M. (2019). Romanian business leaders' perceptions of business-to-business corruption: Leading more responsible businesses? *Sustainability*, 11(20), 5548. <https://doi.org/10.3390/su11205548>
- Campbell, J.-L., & Göritz, A. S. (2014). Culture corrupts! A qualitative study of organizational culture in corrupt organizations. *Journal of Business Ethics*, 120(3), 291–311. <https://doi.org/10.1007/s10551-013-1665-7>
- Coricelli, G., Joffily, M., Montmarquette, C., & Villeval, M. C. (2010). Cheating, emotions, and rationality: An experiment on tax evasion. *Experimental Economics*, 13, 226–247. <https://doi.org/10.1007/s10683-010-9237-5>
- Coricelli, G., Rusconi, E., & Villeval, M. C. (2014). Tax evasion and emotions: An empirical test of re-integrative shaming theory. *Journal of Economic Psychology*, 40, 49–61. <https://doi.org/10.1016/j.joep.2012.12.002>
- Cuervo-Cazurra, A. (2016). Corruption in international business. *Journal of World Business*, 51(1), 35–49. <https://doi.org/10.1016/j.jwb.2015.08.015>
- Dejardin, M. (2011). Entrepreneurship and rent-seeking behavior. In D. Audretsch, O. Falck, S. Heblich, & A. Lederer (Eds.), *Handbook of research on innovation and entrepreneurship* (pp. 17–23). Edward Elgar Publishing. <https://doi.org/10.4337/9781849807760.00009>
- Ernst & Young. (2017). *Europe, Middle East, India and Africa Fraud Survey 2017 (EMEIA Fraud Survey)*. <http://d2f5upgbvkvx8pz.cloudfront.net/sites/default/files/inline-files/EMEIA%20Fraud%20Survey.pdf>
- Fassin, Y. (2005). The reasons behind non-ethical behaviour in business and entrepreneurship. *Journal of Business Ethics*, 60(3), 265–279. <https://doi.org/10.1007/s10551-005-0134-3>
- Freedom House. (2022). *Freedom in the world 2022. Ukraine*. <https://doi.org/10.12968/nuwa.2022.3.14>
- Gino, F., & Bazerman, M. (2009). When misconduct goes unnoticed: The acceptability of gradual erosion in others' unethical behavior. *Journal of Experimental Social Psychology*, 45(4), 708–719. <https://doi.org/10.1016/j.jesp.2009.03.013>
- Index of Economic Freedom. (2022). *Graph the data*. <https://www.heritage.org/index/visualize>
- International Monetary Fund. (2016). *Corruption: Costs and mitigating strategies*. IMF. <https://doi.org/10.5089/9781513594330.006>
- Jacoby, N. H., Nehemkis, P., & Eells, R. (1977). *Bribery and extortion in world business: A study of corporate political payments abroad*. MacMillan and Co.
- Köbis, N. C., Prooijen, J. W., Righetti, F., & Van Lange, P. A. M. (2017). The road to bribery and corruption: Slippery slope or steep cliff? *Psychological Science*, 28(3), 297–306. <https://doi.org/10.1177/0956797616682026>
- McLean, B., & Elkind, P. (2003). *The smartest guys in the room: The amazing rise and scandalous fall of Enron*. Portfolio Trade.
- Momot, T. V., Mizik, I. I., & Polituchyi, S. Y. (2016). Anti-corruption compliance in strategic monitoring of personnel security at an enterprise. *Actual Problems of Economics*, 6(180), 167–175.
- Ogrea, C. (2007). From business corruption to business ethics – new challenges for the competitive strategy of the firm. *Studies in Business and Economics*, 2(2), 49–64. <http://eccsf.ulbsibiu.ro/RePEc/blg/journal/227ogrea.pdf>
- Orlovskiy, R., Shapoval, R., & Demenko, O. (2018). Possibilities of adapting the typologies of the international standards for establishing criminal liability for corruption-related crimes in Ukraine. *Journal of Eastern European and Central Asian Research (JEECAR)*, 5(2), 12. <https://doi.org/10.15549/jee-car.v5i2.230>
- Rendtorff, J. (2010). The concept of corruption: Moral and political perspectives. *Organization and Management*, 139(1), 125–133. <https://doi.org/10.2478/v10166-010-0009-4>
- Roy, A. (2007). Corruption in business: Management theory and practice. *International Journal of Business and Globalisation*, 1(3), 311–327. <https://doi.org/10.1504/IJBG.2007.015051>
- The Global Anticorruption Blog. (2014). *The source of the \$1 trillion in annual bribes figure*. GAB. <https://globalanticorruptionblog.com/2014/04/24/the-source-of-the-1-trillion-in-annual-bribes-figure/>
- The Ministry of Economic Development and Trade of Ukraine. (2021). *General tendencies of the shadow economy in Ukraine*. Report. <https://minfin.com.ua/ua/2021/06/29/67115422>
- The World Bank. (2019). *Enterprise surveys*. <http://www.enterprisesurveys.org/data/exploretopics/corruption#--13>
- The World Bank. (2020). *Anticorruption fact sheet*. <https://www.worldbank.org/en/news/factsheet/2020/02/19/anticorruption-fact-sheet>
- Torsello, D. (2018). Organizational culture and corruption. In D. Poff & A. Michalos (Eds.), *Encyclopedia of business and professional ethics* (pp. 1–5). Springer. https://doi.org/10.1007/978-3-319-23514-1_136-1
- Transparency International Ukraine. (2021). *Corruption Perceptions Index-2021*. Report. <https://ti-ukraine.org/en/research/corruption-perceptions-index-2021/>
- Uribe-Toril, J., Ruiz-Real, J. L., Ceresia, F., & Valenciano, J. (2019). Corruption and entrepreneurship: A bibliometric analysis. *Journal of Legal, Ethical and Regulatory Issues*, 22(4), 1–11. <https://www.abacademies.org/articles/corruption-and-entrepreneurship-a-bibliometric-analysis-8512.html>
- Voliotis, S. (2017). Establishing the normative standards that determine deviance in organizational corruption: Is corruption within organizations antisocial or unethical? *Journal of Business Ethics*, 140(1), 147–160. <https://doi.org/10.1007/s10551-015-2652-y>

APPENDIX A

Table A1. Data for econometric analysis (source: Transparency International Ukraine, 2021; The Ministry of Economic Development and Trade of Ukraine, 2021; Freedom House, 2022)

Year	The Integral Indicator of the Level of the Shadow Economy (IISE)	The Corruption Perceptions Index of Transparency International (CPI) Points from 100 possible (the lowest level of corruption)	The Level of Corruption of Freedom House Rating (FHR) from 1 (the highest level of corruption) to 7 (the lowest)	Index of Economic Freedom Heritage Foundation (IEF)
2011	0.772	27.00	1.75	45.80
2012	0.752	26.00	2.00	46.10
2013	0.792	25.00	2.00	46.30
2014	1.000	26.00	2.25	49.30
2015	0.911	27.00	2.00	46.90
2016	0.782	29.00	2.00	46.80
2017	0.901	30.00	2.25	48.1
2018	0.624	32,00	2.25	51.8
2019	0.604	30,00	2,25	52.3
2020	0.634	33,00	2,25	54.9
2021	0.535	32,00	2.25	56.2