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'ProZorro' e-Procurement: A Compelling Case of Implementation in an Unlikely Setting

Bevza, Anton

Citation

Bevza, A. (2022). *'ProZorro' e-Procurement: A Compelling Case of Implementation in an Unlikely Setting*.

Version: Not Applicable (or Unknown)

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‘ProZorro’ e-Procurement:
A Compelling Case of Implementation in an Unlikely Setting

Anton Bevza
Student Number: 1982982

MA Thesis Public Administration, Track: Economics & Governance
Faculty of Governance and Global Affairs, Leiden University
Thesis Seminar: "Digitalization and Transparency in Public Organizations"
Supervisor: Dr. Alex Ingrams

Date: January 9th, 2022

Word Count: 28620

Abstract:

This paper examines the case of successful implementation of electronic public procurement platform known as, 'ProZorro', in Ukraine. In order to do so, as opposed to existing scholarly work on the topic, this investigation proposes a novel theoretical paradigm that seeks to identify critical success factors that contributed to the success. Accordingly, these are determined through an analysis in relation to existing barriers to electronic procurement implementation in the public sector. Notably, the literature identifies four of those, namely, technical, organizational, social, and financial. Moreover, the results are further examined by taking into account Ukraine's complex system of governance, which academia brand as 'neo-patrimonial'. As such, this inquiry builds upon a theory generated by Joel Hellman (1998) in which he explores the conventional reasons of reform backsliding in post-Communist transition countries. Ultimately, the assessment comes to the conclusion that the following success factors were key in overwhelming the aforementioned barriers to implementation, (1) business model, (2) re-engineering of procurement process, (3) successful pilot project, (4) political non-interference at initial stages, and (5) change management. Consequently, a closer examination indicates the first and the fourth factors as key to overcome the hurdle of neo-patrimonial resistance. Such is mainly attributable to the fact that it legitimized 'ProZorro' among the wider segment of stakeholders thus, allowing for the creation of a broad coalition in favor of reform, thus e-procurement implementation.

Keywords: 'electronic procurement', 'public procurement', 'ProZorro', 'implementation', 'critical success factors', 'barriers to implementation', 'neo-patrimonialism'.

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Introduction:

Public procurement may be broadly defined as the process whereby the government purchases, rents, leases, or acquires goods, services, and materials necessary to carry out its duties and responsibilities (Neupane, Soar & Vaidya, 2014, 21).¹ As such, public procurement is vital for the operation of governmental institutions, bodies, agencies, departments, the public workforce, and the economy as a whole. Furthermore, it is considered a central instrument that may, in theory, catalyze comprehensive technological, social, and economic reforms and enhance business and investor climate (ADB, 2013, 10). Accordingly, considering the wide array of activities that public procurement covers and its overall importance, it is estimated that on world average, government purchasing accounts for at least 15 to 25% of the Gross Domestic Product (GDP) annually (Synyutka, Kurylo & Bondarchuk, 2019, 62).² All things considered, at least on paper, governments around the world aspire to minimize risks to the integrity and maximize the effectiveness of the procurement process. Among many, such objectives may be achieved by enhancing its transparency and accountability, ensuring competitiveness and non-discrimination (i.e., inclusivity) in bidding, and reducing the discretionary powers of responsible civil servants, thus minimizing interactions between the bureaucracy and private entities.

At the same time, scholars highlight that public procurement is the government activity, which is most prone to corruption. Logically, such may be mainly attributed to the large volume and the considerable financial cost of transactions involved, which proves to be a high incentive for self-interested parties pursuing high economic-rents to distort the process (ADB, 2013, 18).³ As such, it is estimated that more than half of all annual cases of bribery, which is one of many forms of corruption⁴, occurred intending to obtain a public procurement contract (OECD, 2016, 6). Thus, academia, as well as various stakeholders included in the process of governance come to the consensus that traditional public procurement systems are primarily inefficient, as they do not assure the integrity of the process at every stage. As a result, governments, private businesses, international and civil organizations pledge to approach the issue, as they put the fight against corruption at the top of their agendas. Nonetheless, despite ambitious goals, reforms, and optimism exerted from politicians,

¹ For more information on ‘public procurement’, see Section 1.1.1

² For more information on ‘public procurement significance’, see Section 1.1.1

³ For more information on ‘corruption in public procurement’, see Section 1.1.5

⁴ For more information on ‘corruption’, see Section 1.1.5 and 1.2.1

corruption, especially in procurement, remains a complex behavioral phenomenon, requiring ever more inventive mechanisms in order to be sufficiently and adequately addressed.

Presently, among many anti-corruption tools, scholars accentuate the ever-growing utility that information and communication technologies (ICTs) represent (Schoenherr, 2019, 14). As such, since the advent of the digital revolution, rapid technological development offers policymakers a wide array of tools that may be utilized to combat corruption and thus, promote integrity, more effectively. Accordingly, unlike the public sector, the private sector has pioneered the use of digital solutions to increase efficiency, reduce discretion, and cut unnecessary spending. Consequently, governments, especially those in developed-industrialized countries, have followed suit and are now implementing what is known as electronic government (i.e. e-government) solutions with the goal of increasing accountability, transparency, and integrity in their operations.

Consequently, governments also sought to implement digital solutions to one of its most vulnerable activities, namely, public procurement, in the form of electronic procurement (i.e. e-procurement, or e-government procurement). Despite proving to be successful in the majority of instances⁵, reforms involving an end-to-end, or even partial, digitalization of procurement stages must overcome a variety of barriers to its implementation. As such, the barriers to successful implementation may be clustered into, (1) technical, (2) organizational, (3) social, and (4) financial.⁶ Accordingly, academia and in-field specialists highlight a handful of strategic considerations and critical success factors that are crucial for a comprehensive effort on a public procurement reform, which includes provisions for digitalization of the process, to be successful.⁷

Furthermore, it is important to account for the opposition from uninterested, anti-reformist stakeholders that exert significant political and economic power. Such is especially the case in countries, where the established mode of governance can be put under the label of ‘neo-patrimonialism’.⁸ Among many, this method is characterized by the, (1) domination of the political arena by a knit of business-political elite, (2) monopolization of major enterprises (i.e. oligarchy), (3) restriction in political and market competition, and (4) rent-seeking as the key motive for entering the public workforce (Fisun, 2012, 92-93; Stewart, 2013, 199-200). Furthermore, the modus operandi of communication with and within the

⁵ For more information on ‘advantages of e-procurement’, see Section 1.1.2

⁶ For more information on ‘barriers to e-procurement implementation’, see Section 1.1.7

⁷ For more information on ‘critical success factors to e-procurement implementation’, see Section 1.1.8

⁸ For more information on ‘neo-patrimonialism’, see Section 1.2.3

bureaucracy is defined by bottom-up and top-down corruption, that is, petty and grand. Notably, it may reach systemic levels in some instances, thus becoming a social and cultural norm. Ultimately, attributable to negative self-reinforcing mechanisms of unethical distribution of wealth among the populace, the initial net winners of a neo-patrimonial system tend to block or impede developmental reforms that directly threaten their power (Mylovanov & van Weelden, 2018). Precisely, academia describes the phenomenon as, 'partial reform equilibrium' (Hellman, 1998, 204).⁹

Accordingly, following a far-reaching synthesis of available literature that encompasses the two topics, that is, 'public e-procurement' and 'neo-patrimonialism', this investigation has identified Ukraine's digitalization efforts, especially in the area of public procurement, as a captivating case of successful implementation. As such, since the Euromaidan (or Revolution of Dignity) in 2014, Ukraine has experienced a puzzling trajectory of institutional restructuring and anti-corruption reforms.¹⁰ According to various estimates, more reforms have ensued since then, than in the prior years after independence in 1991 (Lough et al., 2018, 3). Among many, the government gave start to reforms of the state bureaucracy apparatus, the military, the judiciary, the energy, banking, and fiscal sectors, public procurement, and law enforcement agencies. Moreover, steps towards decentralization, lustration, de-oligarchization, de-monopolization, digitalization, and privatization were made. In addition, under the pressure of Western partners, the Ukrainian government established new oversight mechanisms and anti-corruption infrastructure that were set to be politically independent. Nonetheless, despite initial progress, as of now, the majority of these either remained partial or backslid, thus, following the logic of the aforementioned 'partial reform equilibrium'. As such, Ukraine's overall political and administrative system, which academia brands as 'neo-patrimonial', remained intact, only changing the faces of its main executors.

However, what remains compelling to this inquiry is that although most reforms failed to reach their end goal, digitalization, especially in the field of public procurement, has managed to not only evade from remaining partial or captured by rent-seeking actors, but to expand its coverage. Interestingly, scholars indicate that since independence, procurement has traditionally been an integral part of the country's neo-patrimonial system. On an annual average, the government purchasing market accounted for at least 15% of the country's GDP

⁹ For more information on 'partial reform equilibrium', see Section 1.2.4.1 and 1.2.5

¹⁰ For more information on the 'trajectory of anti-corruption reforms in Ukraine after 2014', see Section 3.2

(Kovalchuk, Kenny & Snyder, 2019, 1). Considering the vast amount of funds allocated to the activity, self-interested rent-seeking politicians have consistently captured its operation. Accordingly, Ukraine's modern history records three instances whereby the system underwent reform, in 2000, 2010, and 2015 (Laktionov, 2021).¹¹ Notably, none, apart from the last managed to transform it. At this time, Ukraine's procurement legislation obligates nearly all state agencies and institutions to conduct purchasing through the public e-procurement platform known as, 'ProZorro'. The system's title literally means 'transparent' in Ukrainian, and the double 'r' refers to 'Zorro', a renowned masked avenger (Yekelchuk, 2020, 158). Since its inception in 2015-2016, the platform has managed to attract over two hundred thousand new suppliers, the market volume of procurement grew by at least a 100% in the first three years, and the savings in the ensuing years exceeded over a 100 billion UAH (i.e. 4 billion USD) (Kovalchuk et al., 2019, 1; Synyutka et al., 2019, 68). Henceforth, keeping in mind the aforementioned, this investigation will seek to synthesize and analyze available literature in order to answer the following research question, 'which factors best explain the overcoming of barriers to public electronic procurement implementation, in the case of Ukraine in 2015?'

Subsequently, upon analyzing the case of 'ProZorro' according to existing theoretical foundations regarding success factors and barriers to implementation, this inquiry will build an empirically relevant discussion considering context-dependent inhibiting factor of 'partial reform equilibrium'. Therefore, the given research objective may be considered twofold. Firstly, explaining the case of successful public e-procurement implementation in general terms, that is, with accordance to universally applicable theoretical paradigms. Secondly, within local boundaries, that is, a case of successful public e-procurement implementation, in Ukraine's neo-patrimonial setting.

The research objective and the proposed approach are novel to the investigation of the case of 'ProZorro'. At this time, despite a handful of inquiries conducted, to the knowledge of the paper, past studies on e-procurement implementation in Ukraine do not pay attention to the aforementioned barriers and success factors to implementation. This holds especially true if these are juxtaposed against partial reform equilibrium and neo-patrimonialism, at large. As such, Kovalchuk, Kenny & Snyder (2019) employ quantitative methods to assess the impact of the system on competition prices. Similarly, Medzhybovksa & Lew (2020) assess

¹¹ For more information on 'the history of public procurement reform in Ukraine', see Section 3.1

SMEs participation after the reform, and Psota, Chyzhevska, Osychka, Zaika & Koval inquire whether e-procurement has increased competition on the public procurement market. Altsyvanovych & Tsymbalenko (2018) and Synyutka, Kurylo & Bondarchuk (2019) evaluate whether 'ProZorro' was indeed able to reduce corruption in public procurement. Moreover, Vlialko (2015, Varenyk & Yevchyn (2016), Psota (2018), as well as Baumane-Vitolina & Osypenko (2020) assess the adoption of 'ProZorro' in the light of the EU-Ukraine Association Agreement. Furthermore, McDonough (2017), Synyutka, Kurylo & Bondarchuk (2019), Nefyodov & Krykun (2020) offer descriptive accounts of the events that shaped the reform, however, with no in-depth analysis of the intricacies. Moreover, Nizhnikau (2020) assesses the implementation of e-procurement in Ukraine's neo-patrimonial system. Nonetheless, the author attributes larger focus to institutional accounts of explanation and details his examination on anti-corruption infrastructure and the system of online auctioning (i.e. 'ProZorro. Sale'). In addition, Depo (2021) compares the effectiveness of reducing corruption between e-procurement systems in Georgia, Ukraine, and Moldova. In a likely manner, Ivashova & Ivashov (2019) compare the anti-corruption capabilities of e-procurement in Ukraine and other countries. Finally, Bohoslavsky (2019) and Bader, Huss, Meleshevych & Nesterenko (2019) briefly explore the implementation of e-procurement, however, focusing on civil society participation in the larger framework of Ukraine's reforms since 2014. All things considered, attributable to the recency of events and the suggested novel investigatory approach to scrutinize the case of e-procurement implementation in Ukraine, this research is relevant and thus, justified.

In order to adequately satisfy the objective of this research, this inquiry is constructed as a deductive single-case study design that mainly relies on qualitative data. Such is mainly attributable to the fact that this study will take a step forward at identifying and operationalizing potential barriers and factors to the successful implementation of digital solutions in the field of public procurement. Accordingly, based on an extensive literature review, this inquiry will synthesize an appropriate theoretical framework, which will lay the foundation and guide the author throughout the empirical analysis. Such will encompass relevant theories and academic discussions in the field, ultimately directing this paper towards a plausible conclusion, hence, an eventual satisfaction of the research objective.

Furthermore, as the above-mentioned suggests, this scrutiny is positive, empirical, and exploratory.¹² The first is manifested through the fact that an occurred phenomenon from the past is under the scope of investigation. The second because this paper seeks to derive empirical evidence based on conducted studies, as well as builds the foundation of analysis around established theories. The third may be attributable to the reality that this inquiry's aim is to elaborate on existing scholarly work and theoretical approaches. Accordingly, in order to draw accurate conclusions from observed data, gathered information is analyzed in accordance with the theoretical framework, which in turn, is deducted based on a comprehensive review of relevant literature¹³.

All things considered, the method of process-tracing of qualitative data analysis will be utilized with the goal of satisfying the aim of the research.¹⁴ Importantly, this method permits the investigator to gather a considerable amount of contextual information, and delineate the outcome of interest in a chronological fashion. As such, this widens the scope of the research, as well as offers the inquirer a deeper insight on the topic of inquiry. This study deems necessary to employ the given method due to Ukraine's complex, fragile, and rapidly changing political, economic, and legislative environments. Accordingly, for that aim, this exploration will mainly rely on the use of primary and secondary data. On one hand, the former will appear in the form of legislative acts, newspaper articles, as well as interviews from the time period of implementation. On the other hand, the latter will materialize in the shape of academic articles, books, entries, and other relevant types of scholarly literature.

Finally, in order to provide the reader with a clear, concise, and chronologically coherent piece, this investigation will be divided into seven main parts. Firstly, the introduction. This passage will aim to acquaint the audience with preliminary context, which will help situate the objective of this research as a result of which a research question will be generated. Moreover, the introductory section will justify the need for this contribution, overview the methodology and research design employed throughout, as well as demarcate the content of this piece. Secondly, Chapter #1, will address the nature of this research by examining the concepts of 'electronic procurement' and 'neo-patrimonialism'. Ultimately, the results will be illustrated in the theoretical framework, which will lay the foundation for

¹² For more information on 'research design', see Section 2.1

¹³ For more information on the 'literature review' and 'theoretical framework', see Chapter #1

¹⁴ For more information on 'methodology', see Section 2.2

subsequent analysis of data. Thirdly, Chapter #2, will acquaint the public with in-depth information regarding the research design and methodology. Fourthly, Chapter #3, will present a synopsis of Ukraine's public procurement reform efforts prior to 2015, as well as the trajectory of anti-corruption reforms after 2014. Fifthly, Chapter #4, will burden itself with the empirical analysis of the given case-study vis-à-vis the four pre-selected barriers to e-procurement implementation. As a result, the critical success factors that contributed to successful implementation, in the case of Ukraine, will be identified. Sixthly, Chapter #5, will initiate a deliberation upon the obtained data, as well as scrutinize the findings by taking into account the specific aspects of Ukraine's neo-patrimonial political environment. In addition, this section will present limitations, threats to validity, and suggestions for further research. Lastly, the closing passage, the conclusion, will display the key findings and takeaways, answer the research question, and reflect on the contribution's importance towards current academic debate.

1. Literature Review:

A literature review can be defined as a comprehensive survey of previous inquiries related to a specific research question (Yang & Miller, 2008, 62). As such, depending on the time that limits the investigator, it can be broad in scope, however, specifically tailored to the dependent and independent variables, as prescribed in the research question/objective (Yang et al., 2008, 62). The literature review employs a systematic approach to scrutinize previous scholarship in the area, ultimately allowing the investigator to situate her or his research within the academic debate (Yang et al., 2008, 62). In other words, a literature review helps the author to declare and justify why her or his inquiry matters.

It is essential to mention that a well-constructed literature review seeks to place the research into historical context and provide a panoramic view of the research variables and their applications (Yang et al., 2008, 62). As such, this section will seek to reveal long-standing debates, interdisciplinary aspects, describe up-to-date investigations, and establish the need for additional research (Yang et al., 2008, 62). The given literature review will be structured as a 'history of ideas, meaning that it will closely investigate the formation of selected concepts and their application and manifestations in various disciplines and instances (Yang et al., 2008, 64).

Accordingly, each section of this literature review will seek to provide the following information about selected concepts: (1) various definitions, as discussed by academia, (2) dimensions and applications, (3) advantages and drawbacks, and (4) correlated factors. Attributable to the fact that the main variables constituting this research are, 'electronic procurement' and 'neo-patrimonialism', the following literature review will be divided into two parts. The first will explore the former notion, whereas the second will delve into the intricacies of the latter.

1.1 Electronic Procurement:

The following section of the literature review will seek to provide a comprehensive account of the most up-to-date scholarship regarding the notion of electronic public procurement. As such, this passage will seek to acquaint the audience with, (1) a definition of 'public procurement' and 'electronic public procurement', (2) a set of main advantages and drawbacks of e-procurement, (3) an explanation of the difference between centralized and decentralized procurement, (4) composition of public (e-)procurement, (5) risks to integrity in public procurement, (6) corruption at different stages of public procurement, (7) barrier to e-procurement implementation in the public sector, (8) critical success factors to e-procurement implementation, and (9) strategic considerations prior to e-procurement implementation.

1.1.1 Definition and Significance of Public (e-) Procurement:

The basic principle governing public procurement is centered around the acquisition of the suitable goods and services, as well as work and other activities from third parties, at the right time for the most adequate price (Neupane, Soar, Vaidya & Yong, 2012, 305; Neupane, 2014, 16; Neupane, Soar & Vaidya, 2014, 21). Accordingly, in their work, Lloyd and McCue (2004, 5) define public procurement as the process whereby the government purchases, rents, leases, or acquires any supplies, services, constructions, and materials necessary for its operation. Moreover, such includes the description of requirements, solicitation of sources, preparation, and eligibility criteria of obtaining contracts (Lloyd et al., 2004, 5). As such, public procurement encompasses all government bids, ranging from bedsheets to chancellery needs to construction works. Therefore, public procurement can be defined as the procedure that refers to all of the material demands put up by all governmental bodies, agencies, and departments in order to satisfy and assure efficient operation of the government itself, and the economy as a whole. Public procurement is the central instrument that governments employ in order to assure effective management of public resources. Consequently, the literature also suggests that, in some instances, the government aspires to maximize the effectiveness in procurement to catalyze technological, economic, or social reforms (Vaidya, Callender & Sanjib, 2009, 474).

Logically, funds allocated to public procurement belong to taxpayers, hence, it is in the interest, as well as the direct responsibility, of the government to attempt obtaining the best value for money, thus, minimize financial losses (ADB, 2013, 10). As such, the policies, practices, and procedures governing governmental purchasing may be utilized as a tool for economic development in various ways, for instance, by reducing transaction costs, thus,

catalyzing the economy, or by promoting the development and participation of small and medium enterprises (SMEs) (ADB, 2013, 10). For this and other reasons, the way one's government conducts its procurement, especially in terms of efficiency and transparency, greatly influences the public's perception of state performance (ADB, 2013, 10; Synyutka et al., 2019, 62). In turn, to be effective at achieving its goals and tasks, as outlined above, the process must ensure openness, objectivity, transparency, competition, non-discrimination, integrity, and individual accountability of public servants in charge of supervision (Shakya, 2012; Neupane et al., 2014, 22). Accordingly, scholars highlight the increasing utility that ICTs and the Internet offer public administrators to achieve these goals. The modern-day application of digitized solutions to the public sector is known as 'electronic government' (or e-government).

Therefore, as the title suggests, the notion of 'electronic procurement' (or e-procurement) may be defined as the use of ICTs and the Internet by state agencies in public procurement processes (i.e. stages) whereby all stages of the activity become fully automated, as well as integrated end-to-end (Davila, Gupta & Palmer, 2003, Leipold et al., 2004; Neupane et al., 2012, 306; ADB, 2013, 7; Veit et al., 2014, 102).

Despite being the case, the World Bank (ADB, 2013, 7) further differentiates e-procurement into two categories, namely, e-tendering and e-purchasing. The former relates to transactions characterized by high-value and low-volume, whereas the latter indicates those transactions that are low in value and high in volume. Nonetheless, academia agrees on the primary theoretical goals based on which electronic procurement is initiated: (1) removing barriers of entry (i.e. increase competitiveness) among bidders, (2) improve efficiency, effectiveness, transparency, and quality at each respective stage of government procurement, (3) increase accountability of individual public servants and agencies, and (4) minimize opportunities for corruption.

1.1.2 Advantages of E-Procurement:

Existing scholarly research in public electronic procurement tends to emphasize diverging benefits of digitalization reforms in government procurement. As such, this subsection has identified numerous inquiries and will present the findings from each in a chronological manner following the year of their publications. Early works such as the one conducted by Rajkumar (2001) and Peleg et al. (2002) emphasized the importance of electronic procurement in terms of integrating and managing multiple supplier catalogues into a uniform body, as well as regarded e-procurement as a tool through which higher

productivity and cost reduction may be achieved. Moreover, according to Attaran (2001), the perceived benefits of electronic procurement can be grouped into three distinct categories, namely, (1) strategic, (2) high leverage opportunities, and (3) operational advantages. The first group consists of potential organizational changes and market-oriented efficacy. The second cohort includes improved relationships between government and their existing suppliers and a possibility of establishing networks of new ones. Lastly, the third category is characterized by efficiency gains through reductions in costs and time within transactions (Attaran, 2001).

Furthermore, Moon (2005) operates a comprehensive inquiry in which they have identified eight major benefits of e-procurement. These benefits include, (1) faster ordering, (2) integrated procurement processes, (3) lower transaction costs, (4) wider range of vendor choices, (5) employee compliance, (6) minimized duplication of tasks, (7) higher competition among buyers, and (8) streamlines procurement workflows. Accordingly, Wen & Wei (2007) identified five main benefits of e-procurement. Namely, these are, (1) greater efficiency in terms of cost and time necessary to conduct a transaction, (2) flexibility, (3) enhanced accessibility of data and information about available bids, (4) facilitated communication between the government and the private sector, and (5) improved quality of procurement (Wen et al., 2007). Moreover, in case-study research regarding the implementation of e-procurement in Nepal, Vaidya and Neupane (2011, 59) concluded that it, in fact, decreased the likelihood of corruption by improving transparency and accountability in the process of procuring. Consequently, in a panel study by Neupane et al. (2012, 10), the authors have demonstrated that potential e-procurement benefits are, (1) usefulness, (2) ease of use, and (3) increased levels of trust between government and bidders. In other words, the facilitation of interaction between governments and businesses (i.e. G2B).

Substantially, in his book, *The Evolution of Electronic Procurement*, Tobias Schoenherr (2019, 14) determines seven advantages of electronic procurement. As such, these are, (1) visibility, (2) communication, (3) efficiency, (4) automation, (5) standardization, (6) availability, and (7) process benefits. Firstly, because, at this time, supply chains become ever more interconnected and complex, electronic procurement enables the decision-maker to consistently monitor, adjust, and correct tenders according to a pre-specified protocol (Schoenherr, 2019, 13-14). Consequently, those in charge receive better visibility and are more informed, thus, can more easily prevent disruptions or crises (Schoenherr, 2019, 14). Secondly, attributable to the fact that digitalized means of procurement support a vast amount of languages, currencies, and software, global sourcing

and thus, cross-border communication with different suppliers is enhanced (Schoenherr, 2019, 15). Thirdly, efficiency gains are manifested through substantial reductions in terms of transaction time and costs (Schoenherr, 2019, 16). As such, through the means of digitalization, transactions may occur immediately and most importantly, without human interaction (Schoenherr, 2019, 16). Fourthly, automation that comes as a result of the implementation of ICTs, permits managers and professionals to dedicate more time on tasks that are more complex, strategic, and require human intervention (Schoenherr, 2019, 16-17). Fifthly, with a standardized portfolio of necessary purchases, internal users can be granted the possibility to complete orders themselves without extensive oversight (Schoenherr, 2019, 17). Sixthly, the advantage of availability is exemplified through the fact that information can be updated and retrieved anytime, anywhere (Schoenherr, 2019, 18). Ultimately, such reduces the need for extensive processing and enables supervisors to implement decisions in a more effective manner (Schoenherr, 2019, 18). Lastly, process benefits imply that before a comprehensive digitalization reform, existing practices and protocols are re-assessed with the goal of complying and thus, assuring the functionality of electronic procurement (Schoenherr, 2019, 19). Hence, e-procurement does not yield utility only in terms of output, but in the optimization of processes, as an outcome of its implementation (Schoenherr, 2019, 19).

1.1.3 Centralized vs. Decentralized Public Procurement:

States around the globe organize seek to organize, at least on paper, their procurement systems in a way that would allow to minimize distortion and maximize efficiency. As such, methods of public procurement differ in every country depending on: (1) purchasing policies, (2) legal frameworks for organizational arrangements, and (3) distribution of function and responsibilities among various administrative structures and procurement departments (Aboelazm, 2018, 263). In their work, Veit et al. (2014, 112), prescribe that the implementation of e-procurement in the public sector revolves around three main issues, namely, these are: (1) the degree of centralization of computing infrastructure, and the degree of centralization of decision-making process at both, (2) the organizational level and (3) inter-organizational level. As such, the authors also put forward the idea that actors within the public administration based on their political considerations and efficiency aspects of implementation agree upon the trade-off between centralized or decentralized procurement systems (Veit et al., 2014, 112). Accordingly, these differences manifest themselves in the overall degree of centralization in procurement frameworks adopted in each respective country. Keeping that in mind, contemporary research suggests two main methods of

conducting public procurement (Veit et al., 2014, 112; Aboelazm, 2018, 263; Schoenherr, 2019, 53). Namely, these are, (1) centralized and (2) decentralized approaches to procurement.

On the one hand, the former is characterized by two main aspects. Firstly, centralized procurement is carried out by one department, agency, or institution at the level of the state as a whole (Aboelazm, 2018, 263). Secondly, if public procurement is centralized, its main aim is to offset existing costs (Aboelazm, 2018, 263). As such, the government seeks to create a central agency, which performs the function of acquiring goods and services with the goal of increasing overall efficiency, as well as exhibit a substantial amount of control, which theoretically contributes to a higher sense of accountability (Aboelazm, 2018, 264). Accordingly, it is perceived that centralized procurement agencies are likely to decrease corruption risks, as local elites are dismissed of their power to influence contract awards (Fazekas, Toth, & King, 2013, 15). Furthermore, in his work, Aboelazm (2018, 265-266) identifies seven advantages the centralized procurement method. Precisely, these are: (1) increased oversight over public expenditures, (2) higher institutional capacity, (3) enhanced levels of professionalism, (4) coherence with the policies outlined by the central state, (5) administrative efficiency, which ultimately contributes to (6) larger transparency and (7) control over public procurement. Accordingly, Schoenherr (2019, 53) asserts that centralized procurement agencies can implement changes more quickly, as there should be no dissenting opinions across various other decision-making levels.

Nevertheless, the literature also suggests various drawbacks of centralized procurement. For instance, in their book, Veit et al., (2014, 113-114) indicate that the degree to which an electronic procurement system may centralized vastly depends on the political landscape in a country, as well as the capacity of local ICT infrastructure to support a shared tendering platform. Moreover, whenever procurement becomes centralized, public administrations at lower levels of government hand over an important political instrument in towards a central authority (Veit et al., 2014, 113). As was mentioned earlier throughout this literature review, in the anticipation of innovations, which may reduce existing discretionary and decision-making power of individual actors or departments, those tend to resist change (Bhatnagar, 2004, 68; Vein et al., 2014, 113; Schoenherr, 2019, 21). Furthermore, in his contribution, Aboelazm (2018, 266-267) identifies three disadvantages of centralized procurement. These are, (1) market concentration, which leads to increased arbitrariness, thus, increasing the likelihood of monopolistic practices, (2) restricted opportunities of participation for small and medium enterprises (SMEs), and (3) waste of resources as a result

of a lack of communication between different governmental departments and agencies. Lastly, independent of the benefits and drawbacks of the aforementioned method of procurement, research suggests that it is prevalent in smaller, as well as developing (Bhatnagar, 2004, 75; Aboelazm, 2018, 263).

On the other hand, the latter, that is decentralized procurement, can be defined as a situation whereby local departments and authorities receive the ability to decide on procuring goods and services necessary for the needs of their operations (Aboelazm, 2018, 268). As such, this is completely contrary to centralized procurement, where a central agency seeks to represent the collective procurement needs of the government as a whole. In the same piece, Aboelazm (2018, 268-269) identified five main advantages of this approach to administer procurement. Firstly, decentralization may, in theory, reduce the costs and risks of storage and transportation, as most goods will be obtained from local suppliers. Secondly, and related to the first, decentralization enables a higher participation from SMEs, which is attributable to the fact that the volume of quantities needed is smaller. Thirdly, local governments receive an opportunity to respond to urgent operational needs in a quicker fashion. Fourthly, partial decentralization allows for the central agency to concentrate its efforts on larger targets, for instance, military procurement or big infrastructure projects. Lastly, decentralized procurement may arguably create tighter linkage between the central government and its related programs. Moreover, Veit et al. (2014, 68, 112) assert that a decentralized method yields higher utility, as decision-making is conducted closer to the final recipient. Consequently, it is easier to implement, as local decision-makers do not have to give up their discretionary power (Veit et al., 2014, 113).

Similarly, to centralized procurement, in addition to numerous advantages as identified above, its decentralized counterpart also has various drawbacks. As such, in his contribution, Aboelazm (2018, 269) has selected four negative effects of the decentralized method of public procurement. Firstly, decentralized procurement units often lack expertise, as well budgetary means to satisfy special procedures. Secondly, these same units seldomly lack professionalization. Thirdly, there is a lack of communication and coordination between various decentralized procurement agencies on all levels of government. Lastly, prices of goods and services procured by decentralized agencies usually exceed those of centralized agencies. Furthermore, according to Schoenherr (2019, 53), in a decentralized organizational structure, the absence of a central chain of command will negatively manifest itself, as local procurement agencies are unlikely to have advanced expertise that could guide the implementation of innovations. Moreover, departments with a decentralized procurement

structure cannot obtain appropriate discounts, as the volume of purchases does not exceed necessary thresholds (Veit et al., 2014, 112).

Keeping that in mind, it may be clearly established that there is no uniform 'one-fits-all' solution on which method is best to conduct public procurement. As such, it may be argued that what is optimal for one state depends on its context, especially sociopolitical and socioeconomic, as well as the model of government that exists in the respective country. Nevertheless, as suggested by the excerpt above, the degree to which public procurement is centralized (or decentralized) plays a crucial role in future operations of administrations, as well as their institutional capacities. As such, this investigation deems necessary to adopt this criterion in the wider theoretical framework, which will be then utilized to assess the selected case study of this inquiry empirically.

1.1.4 Stages of Public (e-)Procurement:

The process of public procurement has distinct phases, at which various procedures take place and different risks of exposure to illicit behavior from public servants. As such, this section will seek to synthesize a comprehensive review of academic inquiries on the former, whereas the latter will be scrutinized and presented in the subsequent section. Despite the fact that procurement processes, as will be demonstrated, appear to be straightforward, academia has failed to identify a uniform framework that similarly depicts all phases. This inquiry has identified a few contributions that sought to establish such. Precisely, these are, the one presented by Matecak (2002), Szymanski (2007), Wensink and de Vet (2013), OECD (2009), Niewiadomska et al. (2015), and Becker (2018).

Firstly, Matecak (2002) has broken up the public procurement into three phases, which include: (1) procurement planning and budgeting, (2) procurement solicitation, and (3) contract awarding and performance (as cited by Neupane et al., 2012, 307). Accordingly, Szymanski (2007) expands on the work and identifies five stages such as, (1) procurement planning and needs assessment, (2) product design and documentation, (3) tender process, (4) contract award and implementation, and (5) accounting and audit. Similarly to Matecak, the OECD (2009, 9) established solely three phases of public procurement such as, (1) pre-tendering phase, (2) tendering phase, and (3) post-award phase. Consequently, the first stage is composed of, (a) needs assessment and market analysis, (b) planning and budgeting, (c) development of requirements and specifications, and (d) choice of procurement procedure (OECD, 2009, 9). Furthermore, the second phase is comprised of, (a) bid proposal, (b) bid submission, (c) bid evaluation, (d) contract award (OECD, 2009, 9). Ultimately, the third

stage consists of, (a) contract management and (b) order and payment (OECD, 2009, 9). Notably, a recent report by the OECD published in 2016, which focuses on the assessment of corruption in public procurement uses the same stratification, thus, indicating institutional adherence to the suggested model.

Secondly, and not least importantly, in their study prepared for the European Commission, Wensink and de Vet (2013, 70, 83) identify four stages of procurement employed in EU member states. These are, (1) preparation of tender documents, (2) publication of the tender, (3) evaluation of the bids, and (4) post-award. Nevertheless, for the purpose of their contribution, the authors (2013, 45) employ a three-stage model, which mimics the one presented by the OECD and thus includes, (1) pre-bidding, (2) bidding, and (3) post-bidding. Accordingly, the first stage is composed of, (a) needs assessment and (b) definition of contract characteristics. The second stage comprises, (a) contracting process and (b) contract award. Finally, the third stage is constituted out of, (a) contract implementation, (b) contract monitoring, and (c) auditing.

In a similar vein, in their guide produced for the European Bank for Reconstruction and Development (EBRD), Niewiadomska, Gargrave, and Hetherington (2015, 11-12) claim that despite differences in public procurement systems worldwide, all of them have three main stages. Firstly, 'pre-tendering', consisting of a step named 'preparation' through which the procuring entity determines and specifies its needs, budget, and procurement method (Niewiadomska et al., 2013, 11). Secondly, 'tendering' during which the government selects the type of agreement, so, either tendering or purchasing, and calls for bids or quotes, ultimately signing the contract (Niewiadomska et al., 2013, 11-12). Thirdly, 'post-tendering' mainly regards contract management, so, its execution and security (i.e. warranty) (Niewiadomska et al., 2013, 12). The aforementioned distinction(s) prompts for two essential remarks. On one hand, the fact that, in all its variants, the three main stages, as prescribed by the EBRD, do not change regardless of new procurement practices that are rapidly emerging, including e-procurement. As such, it has remained intact even after the most recent revision of Government Procurement Agreements by the World Trade Organization (WTO) in 2014 (Niewiadomska et al., 2013, 12). On the other hand, it suggests an important distinction that was mentioned in preceding sections, precisely, that of tendering and purchasing. On one hand, the former relates to governmental purchasing that involves contracts that are characterized by low volume and high value, thus, has a higher economic impact (ADB, 2013, 7; Niewiadomska et al., 2013, 11; Becker, 2018, 2). On the other hand, the latter, purchasing, indicates contracts that are high volume and low in value, hence, relates to most

of the transactions necessary for the bureaucracy's operation (ADB, 2013, 7; Becker, 2018, 2).

Lastly, despite being to an extent similar in application to traditional public procurement, this scrutiny considers crucial to acquaint the reader with various e-procurement tools that exist up to this day. Similarly to the case of traditional public procurement, scholars identify different stages, as well as models and types of electronic public procurement. It is important to mention that some of these focus on varying steps of the overall process that may be digitalized, whereas others offer descriptions of distinct types of e-procurement. For instance, in their study, among many, Neupane et al. (2012, 306) single out nine types of e-procurement systems, namely, (1) e-informing, (2) e-sourcing, (3) e-tender, (4) e-reverse auctioning, (5) e-MRO, (6) e-ordering, (7) e-markets, (8) e-intelligence, and (9) e-contract management. As such, the first one relates to the acquirement and distribution of information; the second one is the process whereby new suppliers for specific categories of purchasing are identified; the third one may be described as the process of communicating information about upcoming contracts and their prices to suppliers; the fourth one presents an internet-based reverse auction system; the fifth one is characterized by the creation of a comprehensive online platform where participants may place purchasing orders; the sixth one relates to the use of the Internet with the goal of requisitioning and payment; the seventh one are meeting venues where suppliers and purchasers may exchange information in order to facilitate the procurement process; the eighth one may be described as a management information system with the help of which all concerned parties may monitor and analyze procurement; finally, the ninth one may be utilized in order to improve the efficiency and effectiveness of the contracting process.

Similarly, Niewiadomska et al. (2013, 32) highlight nine aspects (i.e. systems) of government purchasing that can be digitalized or created to ensure electronic procurement operation. As such, these are: (1) generating a web portal, (2) e-register, (3) e-notification, (4) e-tendering, (5) e-auction, (6) e-purchasing, (7) e-payments, (8) e-catalogues, and (9) e-information services. Furthermore, the writers (2013, 13) emphasize three key systems of electronic procurement, particularly, (1) e-tendering, (2) e-purchasing, and (3) e-contract management. Although the first two components have been addressed in prior paragraphs, the authors (2013, 14) emphasize the importance of electronic catalogues for e-purchasing. As such, e-catalogues may be defined as an online publication whereby contracts and their information are displayed. Accordingly, the purchasing side may select, order, and conduct payments, whereas suppliers may offer their services and goods. As for the third constituent,

e-contract management, Niewiadomska et al. (2013, 14) describe it as a software system that encompasses a variety of activities such as management of payments, contract settlements and variations, performance reviews, auditing, and control. Subsequently, the contributors (2013, 15) also determine the five key elements of electronic procurement in the public sector. Firstly, 'e-notices', meaning that suppliers and the public must have open, as well as preferably free access to procurement opportunities at least until the expiry of the tender. Secondly, 'e-tenders' signifies that all tender information and documentation must be accessible to suppliers and the public online. Thirdly, 'e-communication' meaning that the purchaser (i.e. the government) does not require to visit the contracting entity in person. Fourthly and related to the last, 'e-submissions' proposals and bids for tenders must be submitted online. Lastly and related to all, 'e-records' signifies that all interaction and procurement decision process must be done in real-time and registered, thus, maximizing transparency. Accordingly, the first two relate to the pre-tendering phase, the third and the fourth to the tendering phase, and the last to post-tendering (Niewiadomska et al., 2013, 12, 15).

Comparatively, in his work for the Committee on the Internal Market and Consumer Protection (IMCO) of the European Parliament (EP), similarly to Neupane et al. (2012, 306, Jörg Becker (2018, 2-3) identifies nine steps of a public e-procurement process. Precisely, these are: (1) e-noticing, (2) e-submissions, (3) e-decision and e-auctions, (4) e-award, (5) e-contract management, (6) e-ordering, (7) e-invoicing, (8) e-control payment, and (9) e-evaluation. Subsequently, the author (2018, 3) adheres to the proposed threefold division of public procurement stages, however, referring to them as, 'pre-award phase', 'award phase', and 'post-award phase'. As such, the first three steps correspond with the 'pre-award phase'; 'e-award' is logically the part of the 'award phase', whereas the remainder are components of the 'post-award phase'. All things considered, despite differing in their explanations of the variety of elements and systems that constitute public electronic procurement, scholars generally agree that electronic procurement can be defined as such when every step and/or system is digitalized end-to-end (Niewiadomska et al., 2013, 19, 32; ADB, 2013, 8; Becker, 2018, 1-2). Such is important for a variety of reasons, for instance, a fully integrated system allows to monitor and handle all related workflows, as well as enhance (i.e. optimize) G2B and G2G relationships (ADB, 2013, 8). Moreover, an end-to-end electronic procurement process maximizes the key principles (i.e. objectives) of the reform, namely: (1) transparency, (2) security, (3) traceability, (4) effectiveness, (5) inclusivity, (6) competition, and (7) fairness (Niewiadomska et al., 2013, 19, 32; ADB, 2013, 11; Becker, 2018, 3)

1.1.5 Corruption in Public Procurement:

Prior to initiating a discussion on corruption in public procurement, this inquiry deems indispensable to define the notion of 'corruption'. The most common definition provided by Transparency International is as follows, the abuse of entrusted power for personal gain (as cited by Lawton, Rayner & Lasthuizen, 2012, 109). Despite being widely accepted and quoted, it does not specify its application to the public sector. Comparatively, the World Bank perceives corruption as the abuse of public office for private enrichment (as cited by Azeem, 2019, 10). Accordingly, in his book, de Vries (2016, 130-31) conceptualizes 'corruption' as, a form of dishonest conduct by a person in a position of bureaucratic or political power, where her or his authority is abused for personal gain, and/or to obtain illicit benefits. Similarly, Menocal (2015, 12) defines the term as, the misallocation of public resources for private gain. In addition, Myint (2000, 36-37) attributes utmost importance to the monopoly on representing the state to any bureaucrat, which in turn, she or he may theoretically be willing to exchange for economic rents in the absence of appropriate oversight systems. Furthermore, Graycar (2015, 89) shapes his definition as, the unauthorized trading of one's authority. However, in his work, Graycar (2015, 89) also specifies that misconduct or malpractice on behalf of civil servants may not always be classified as 'corruption'. Such may be attributable to the fact that 'corruption' occurs only in instances where an individual receives personal benefits, other than her or his salary. Accordingly, these benefits are not always in cash, but may appear in-kind, or as favors, inappropriate hospitality, preferential treatment, promotions, sexual services etc. (Graycar, 2015, 89). For the purpose of simplicity, this investigation will adhere to the conceptualization proposed by the World Bank, however, taking into account various aspects highlighted in other works. Henceforth, 'corruption' is a behavioral issue, whereby a civil servant engages in various illicit practices, ultimately abusing or trading her or his authority to receive tangible or intangible benefits for oneself, or her or his surroundings.

Considering the wide range of activities that public procurement covers, governments spend a significant share of their annual budgets on goods and services (Neupane et al., 2014, 22). In developed countries, government procurement typically amounts to 15-20% of the total GDP (Moon, 2005, 56; Neupane et al., 2014, 22; Veit & Huntgeburth, 2014, 103; Synyutka, Kurylo & Bondarchuk, 2019, 62). Accordingly, various institutions such as, the OECD (2007a, 10; 2016b, 7), the ADB (2013, 18), the World Bank (2007, 3, 9) etc., consider public procurement to be the government sector (i.e. activity) that is most vulnerable to waste, corruption, and fraud. Correspondingly, the OECD (2016, 6) estimates that nearly

60% of bribes paid to public officials or institutions have the final purpose of acquiring a public procurement contract. Subsequently, numerous sources agree on the explanations for such being the case. As such, among many, the most reoccurring reasons in scholarly publications are: (1) complexity, (2) the size of financial flows that public procurement generates, (3) misallocation of public funds, (4) grey areas in procurement procedures, thus, lower levels of transparency and accountability, (5) inadequate procurement legislation, (6) the level of discretionary power among officials, (7) close interaction between public officials and businesses, (8) lack of competitive bidding, (9) conflict of interest in decision-making, and (10) low salaries of civil servants (OECDa, 2007, 12; Niewiadomska et al., 2013, 18; ADB, 2013, 10; Fazekas, Toth, & King, 2013, 14; Synyutka et al., 2014, 63-64; OECD, 2016, 6; Azeem, 2019, 23, 26).

Subsequently, considering the importance of procurement for any government, academia reaches consensus on the negative impacts that corrupt practices have on the country as a whole. As such, in his contribution, Azeem (2019, 28) claims that officials' misconduct and consequent illicit activities impede economic development, alter market mechanisms, curtail foreign investment, ultimately reducing competitiveness and the 'business climate' of a respective country. Furthermore, the misappropriation of taxpayer's funds undermines the transparency and equity in the distribution of public goods and services and reduces their quality, eventually being increasingly detrimental to the environment and the lives of the citizenry as a whole (Azeem, 2019, 28). Finally, it may contribute to the erosion of trust and confidence in public institutions, as well as reverse accountability whereby politicians hold supporters to account for their behavior (i.e. clientelism) (David-Barrett & Fazekas, 2019, 412). Under those circumstances and for the purpose of this investigation, this inquiry finds it crucial to familiarize the audience with various types of corruption that are likely to occur in public procurement and related transactions, as well as integrity risks at each respective stage of government purchasing, that is, (1) pre-tendering, (2) tendering, and (3) post-tendering phases. The former will be addressed in this section, whereas the latter in Section 1.1.7.

Corruption in public procurement takes on a wide spectrum of illicit activities, whereby actors within the process exploit their position for private gains. Despite being a probable statement, various studies identify and put higher emphasis on diverging fraudulent practices. As such, in his work, Azeem (2019, 23-26) preselects seven types of corruption that are most likely to occur in public procurement of a developing country. Namely these

are, (1) bribery, (2) collusion, (3) fraud, (4) tax evasion, (5) embezzlement, (6) abuse of power, (7) rent-seeking.

Firstly, bribery is characterized by an activity whereby one offers, gives, accepts, or solicits an advantage as an inducement for an action (Azeem, 2019, 23). The most common forms of such include, kickbacks, facilitation payments, charitable donations, conflict of interests, lavish gifts, and sponsorships (Azeem, 2019, 24). Substantially, in their work, David-Barrett et al. (2019, 412) claim that the motivation of politicians to engage in the aforementioned types of bribery rests not solely on private enrichment, but also to purchase loyalty. Accordingly, donations, kickbacks, in-kind services, and direct bribes become instruments through which such is attainable. The impetus of such rests on the desire for high-ranking politicians to consolidate power and gain political advantage over political competitors (David-Barrett et al., 2019, 412). Furthermore, preferential treatment in exchange for tangible or intangible 'gifts' may be also beneficial for companies, which secure government contracts, thus keep their competitors out of the market (Goldman, Rocholl & So, 2013, 1618; David-Barrett et al., 2019, 412). Under those circumstances, these processes may quickly become systemic, thus, the entire public procurement process may be captured by a closely-knit political-business elite (David-Barrett et al., 2019, 412).

Secondly, among many, collusion may appear in the shape of: (1) bid-rigging, (2) cartels, (3) price-fixing (or inflation of costs), (4) insider trading, and (5) political patronage (Azeem, 2019, 24-25). Although interrelated, the first relates to situations when conspiring bidders artificially raise the price with a known winner; the second refers to secret arrangements between participating entities; the third and related to the second, concerns situations whereby bidders conspire to manipulate the price in one's favor; the fourth is characterized by asymmetrical information, that is, a supplier possesses non-disclosed information, thus, has an upper hand over other participants (Azeem, 2019, 24-25); the fourth may take forms of clientelism, nepotism, or favoritism (ADB, 2013, 119), where tender victors are not assigned based on merit, but on personal or party affiliations. Consequently, other scholars put higher emphasis on these types of collusion, as they have a more systemic character and may potentially lead to state capture (Søreide, 2002, 5-6). As such, by allocating state resources and contracts according to particularistic ties, partisan favoritism puts unaffiliated parties at a disadvantage, thus weakening political and economic competition (David-Barrett et al., 2019, 412). In a likely manner, the Asia Development Bank (2013, 32) emphasizes collusion in the form of closed suppliers' lists, limited access to

information, and external influences on the bidding process as one of the main corrupt practices that impede the process of open and fair procurement.

Thirdly, fraud concerns the aware intention to deceive public authorities or institutions in order to gain an unfair political or economic advantage (Azeem, 2019, 25). The stages of public procurement most vulnerable to fraud are, bid evaluations, invoices, and contract management (OECD, 2016, 6). Moreover, in their analysis of illicit activities in government purchasing, Azmi and Rahman (2015, 154) relate fraud to other unethical pursuits such as rent-seeking, political patronage, cronyism, and favoritism. As such, they (2015, 154) claim that actors that exhibit a greater amount of political and economic might purposefully distort the procurement process with the goal of deviating it from principles of accountability and transparency. Furthermore, the authors (2014, 154-156) attribute fraud to the interference of rent-seeking groups with the procurement committees, which in turn manipulate documentation and contract management of tenders. Ultimately, procurement legislation may be shaped in a way, which restricts the participation of non-national private firms, thus, limiting competition, eventually opening doors for the collusion between a defined group of private firms and public officials, which in turn may also be defined as a form of political fraud (Azmi et al., 2014, 156).

Fourthly, tax evasion pertains to an instance where an entity or actor does not fulfil its obligation to pay the levy to the specific jurisdiction of the government (Azeem, 2019, 25). Fifthly, embezzlement, which is also known as funds misappropriation is characterized by the theft of public funds or property by a public official acting in her or his own interest (Azeem, 2019, 25). In accordance with a report presented by the OECD (2016, 6), embezzlement is mostly occurring in the stage of needs assessment. Sixthly, abuse of power is characterized by occurrences where a public official exploits her or his entrusted authority by perverting the judicial system, and other sectors of the government in her or his advantage (Azeem, 2019, 25). Lastly, rent-seeking, which is not always perceived as an act of corruption, apply to circumstances whereby a monopoly control of a commodity or service is established (Azeem, 2019, 25).

All things considered, it is important to mention that despite the fact that all of the aforementioned types of illicit activities and conduct often intertwine, may pertain to the same thing, or be part of the same outcome, scholarly publications repetitively emphasize the importance of their distinction. Substantially, depending on the political, economic, and social setting, some of these practices may be widespread or omnipresent, for instance in

countries that are economically volatile, newly democratized, developing, and where corruption, both petty and grand, is considered to be the norm.

Finally, and not least importantly, in their pivotal study on partisan favoritism in public procurement, David-Barrett et al. (2019, 414-416) state that rent-seeking officials aim to control three spheres of the procurement process, namely, (1) the formation of public procurement law, (2) bureaucratic implementation of procurement, and (3) the monitoring of implementation, which consists of audits, judiciary, complaint mechanisms, and civil oversight. Ultimately, obtaining control of all or at least the majority of the aforementioned stages may lead to the capture of major shares of procurement markets (David-Barrett et al., 2019, 427). Keeping in mind the importance of procurement for any government, such can theoretically overhaul the rules of the game and lead to state capture by rent-seeking actors. As such, obtaining control over 'policy formation', so, the drafting of procurement laws and secondary regulations, ensures that purchasing occurs with minimal oversight and benefit the captor group in the long-term without violating institutional rules (David-Barrett et al., 2019, 414). Consequently, politicians may influence 'implementation', that is, the overall procurement process, from needs assessment to contract award. Such is especially reoccurring in political systems characterized by patronage and clientelism, ultimately rendering tenders uncompetitive (David-Barrett et al., 2019, 415). Finally, gaining influence over accountability institutions is crucial in order to safeguard illicit gains, as they secure the integrity of public procurement. As such, invested actors may distort existing systems of checks and balance by enacting constitutional reforms (through a constitutional majority) or reduce its powers (through parliamentary, that is, legislative majority), thus increasing their political control over current institutions (David-Barrett et al., 2019, 415-416).

Accordingly, despite focusing their research on the case study of Hungary, which is a member of the EU, they assert that the country's bureaucracy remains extensively politicized, thus, autonomy of institutions and officials is minimized, ultimately leaving grand corruption schemes intact. As has been extensively discussed throughout this literature review, such is often the case in developing and newly democratized countries such as Hungary or the object of this study (i.e. Ukraine) (David-Barrett et al. 2019, 427).

1.1.6 Risks to Integrity at Different Stages of Public Procurement:

Comparatively, scholars also engage in explaining risks to integrity at each respective stage of public procurement. As such, the following paragraphs will synthesize and explore major findings in accordance to the models presented in preceding sections, that is, (1) pre-tendering phase, (2) tendering phase, and (3) post-tendering phase. However, firstly, this investigation deems necessary to remind the reader about the composition of each.

Firstly, the 'pre-tendering phase' is composed of, (1) needs assessment, (2) planning and budgeting, (3) development of specification requirements, and (4) choice of procurement procedure (OECDa, 2007, 21-22; OECD, 2016, 9). Secondly, the 'tendering phase' consist of, (1) request for proposal bid, (2) bid submission, (3) bid evaluation, and (4) contract award (OECDa, 2007, 24-25; OECD, 2016, 9). Lastly, (1) contract management and (2) order and payment (OECDa, 2007, 25-26; OECD, 2016, 9). Consequently, each process in the procurement chain possesses numerous integrity risks, which will be mentioned in subsequent paragraphs.

In the processes of 'needs assessment' and 'planning and budgeting, which are closely interrelated, the OECD (2007, 21-22; 2016, 9) and the United Nations Office on Drugs and Crimes (UNODC) (2013, 14-19) identify, (1) lack of adequate needs assessment, (2) outside influence on official decisions, (3) informal agreements on contracts, (4) poor procurement planning, (5) non-aligning with the overall investment decision-making process, and (6) the failure to budget realistically, as the biggest integrity risks. Accordingly, the OECD (2007, 22) and Prevenslik & Kostyo (2006, 18) assert that external influence endangers the integrity of needs assessment the most, as politicians and high-ranking officials may use public contracts as an instrument for kickbacks or returning old political favors. Furthermore, in her book, Tina Søreide (2002, 9) expands on the issue by claiming that public officials purposefully ensure the flow of illegal payments in this part of the procurement process in order to distort the process from the get-go, ensure political support, restrict the efficiency of anti-corruption measures, and in some cases directly finance politicians' own private firms. Ultimately, and as will be highlighted further on in this section, such conduct may lead to state capture, especially in the setting of a newly democratized, economically fragile, or developing country.

Similarly, to the prior, the processes of 'development of specification requirements' and 'choice of procurement procedure' are closely intertwined, as they deal with the technical aspects of future contracts and auctions. Subsequently, the OECD (2007, 21-22; 2016, 9) and Prevenslik et al. (2006, 18) pre-selects the following opportunities for corruption: (1)

technical specifications, which may be tailored to satisfy a specific company or not based on performance criteria, (2) selection criteria manipulated or not established in advance, for instance through needless requirements, (3) unqualified companies, and those with a poor record, being licensed, (4) request of unnecessary samples and quality assurance certificates, (5) applying a time frame, which is not sufficient in order to ensure a level playing field, (6) lack of justification for the utilization of non-competitive procedures, and consequently, (7) abuse of non-competitive procedures on the basis of legal exceptions.

Among those presented above, the literature highlights the importance of the first and last risks. As such, in their work, Søreide (2002, 14-15) and Fazekas et al. (2013, 24-25) asserts that public officials, in exchange for a reward, maneuver the specifications, which represent comparative advantages for the bribing company. Moreover, the civil servant may disclose confidential information to the interested part, as well as use their discretionary power to invite a small circle of companies to participate in a bid (Søreide, 2002, 14; David-Barrett et al., 2013, 25). Consequently, as accentuated in the literature, non-competitive procedures on the basis of legal exceptions include: (1) contract splitting on the basis of low monetary value contracts, (2) abuse of extreme urgency, (3) non-supported modifications, and (4) untested continuation of existing contracts (Søreide, 2002, 18; OECD, 2007, 22; OECD, 2016, 9).

As for the 'tendering phase', in the process of 'request for proposal', the following integrity risks are identified, (1) absence of public notice, (2) requests for clarification of tender documents prior to the deadline, (3) evaluation and award criteria manipulated at last instances or unannounced, and (4) procurement information remains undisclosed, as well as not available to the public (Preveselnik et al., 2006, 36; OECD, 2007, 24; UNODC, 2013, 20-22; OECD, 2016, 9).

Subsequently, in the part of 'bid submission' the biggest risk pertains to lack of competition, contract splitting or to collusive bidding, which may take the form of cover bidding, bid suppression, bid rotation, or market allocation (OECD, 2016, 9). Accordingly, in a report presented by the African Development Bank (2014, 14-15) special importance is dedicated to the practices of contract splitting and collusive bidding, which ultimately result in lack of competition. As such, the former manifests itself when large government contracts are artificially split into smaller ones with the goal of avoiding open bidding (African Development Bank, 2014, 14). In a likely manner, the latter relates to situations whereby selected companies collude together, or have informal arrangements with procuring entities, in order to secure contracts without having to compete with one another (African

Development Bank, 2014, 15). All things considered, these conspirations may not occur without the distortion of the procurement process at prior stages, as well as entitlement to sensitive information about contract specifications, price thresholds, and requirements (i.e., asymmetrical information).

Consequently, as prescribed by the OECD (2007, 24-25; 2016, 9) the largest risks to impartiality during the 'bid evaluation' are posed by conflict of interest and enlarged discretion of public officials. As such, it is embodied through, (1) familiarity with bidders, (2) kickbacks, payments, and donations, as well as (3) purposeful blurring of criteria by decision-makers, ultimately validating the personal biases (Transparency International, 2006, 19; African Development Bank, 2014, 15). Accordingly, in the 'contract award' phase, which is closely interdependent with the prior, as awarding directly depends on preceding evaluation, academia highlights similar drawbacks. As such, the approval process is hindered by conflict of interests of individual decision-makers, which results from the lack of separation financial, contractual, and project procurement authorities (OECDa, 2007, 24; OECD, 2016, 9). Finally, another important aspect is the lack of access to records on the procedure and the awarding criteria, thus, there is no transparency in the bid evaluation and the subsequent award phase (Transparency International, 2006, 19; OECD, 2007, 25; Fazekas et al., 2013, 44; UNODC, 2013, 6; African Development Bank, 2014, 16; OECD, 2016, 9).

The 'post-tendering phase' presents a variety of other integrity risks, however, mostly associated with the supplier rather than the procurer. As such, in the 'contract management' the provisioner abuses the terms (i.e. requirements) of the contract, especially in terms of its quality, price, and timing of delivery (OECDa, 2007, 25; OECD, 2016, 9). Furthermore, due to negligence from the side of public officials in the previous two phases, it becomes increasingly difficult to monitor (i.e., supervise) the execution of the contract from the part of the authorities. Besides the overall lack of transparency, such may be manifested in a variety of instances, particularly through, (1) change in contract conditions permitting for increased time frames and price, (2) product substitution, (3) theft of new assets, (4) collusion between contractors and public officials, (5) sub-contracting, (6) false, late, or duplicate invoicing, and (7) in some instances total failure to fulfill the required contract (Transparency International, 2006, 19-20; OECD, 2007, 25; Fazekas et al., 2013, 63; UNODC, 2013, 22-23; African Development Bank, 2014, 16-17; OECD, 2016, 9).

1.1.7 Barriers to E-Procurement Implementation:

This investigation has synthesized and scrutinized a number of scholarly publications, which indicate various disadvantages of electronic procurement, as well as numerous barriers to its successful implementation. It is important to mention that this inquiry has identified that many of the drawbacks associated with e-procurement mimic those of e-government, as well as may also qualify as barriers to its application.

In their work, Liao, Cheng, Liao, and Chen (2003, 521) build their narrative around the case of electrification of military procurement in Taiwan. As such, they establish that the two main barriers to implementation are, behavioral and infrastructural (Liao et al., 2003, 524). On one hand, the former is characterized by cultural resistance to changes in consolidated procurement processes. This manifest itself through personnel receiving benefits (i.e. kickbacks) from favored enterprises, false floor prices, and information leaks. On the other hand, infrastructure barriers, similarly to those identified in the e-government sub-chapter, refer lack of expertise and the appropriate technology.

Furthermore, Hawking, Stein, Wyld, and Foster (2004) identify a set of seven main barriers to the implementation of e-procurement. As such, these are, (1) lack of supplier solutions, (2) security breaches, (3) high cost of technology, (4) lack of comprehensive and inclusive regulatory framework, (5) lack of expertise and knowledge, (6) lack of consolidated networks of suppliers, and (7) lack of standards for data exchange (Hawking et al., 2004). Accordingly, Gunasekaran, McGaughey, Ngai, and Rai (2009, 164) complement the aforementioned list and mention the following barriers to successful implementation: (1) lack of capital, (2) lack of expertise and skills, (3) lack of technologies and tools, (4) resistance to change, and (5) lack of top management support.

In a similar vein, Croom and Brandon-Jones (2005, 374-383) conduct a comprehensive study on the key issues that arise during the implementation process of public e-procurement. As such, the single three, namely, (1) integration of finance systems, (2) the capability of the government and suppliers to adhere to technological standards and harmonize existing IT infrastructure, and (3) project management (i.e. political barriers).

Moreover, Sitar (2012, 122) clusters the main barriers of implementing electronic procurement in the public sector into four categories, namely, (1) management barriers, (2) organizational barriers, (3) technological barriers, and (4) user related barriers. As such, the first is comprised of, limited resources, lack of skilled personnel, information asymmetry, and resistance to change; the second consists of, cultural intricacies, supplier adoption, and compatibility among state entities; the third relates to security issues, lack of integration, and

a lack of common technology standards; finally, user barriers are, fear of changes and subsequent resistance, as well as lack of digital education.

Accordingly, Niewiadomska et al. (2015, 22) single out four key challenges to electronic procurement reform. It is important to mention that the authors (2015, 36) assert that the first three must be considered as a part of the fourth. First of all, the 'cost' of developing and subsequently implementing an electronic procurement platform. Second of all, objections by key stakeholders. This directly relates to resistance from within the public bureau and from the side of suppliers. Consequently, if legislation is appropriate, this is regarded to be the biggest challenge. Third of all, with the goal of avoiding overlaps and fragmentation, it is indispensable to specify and define the 'objectives' of digitalization. Fourth of all, 'procurement reform'. According to the authors, it is important to realize that imposing digitized solutions on a framework for traditional procurement will yield few results, if any. As such, in order to reap the benefits of e-procurement such as, higher transparency, accountability, efficiency, cost-reduction, competition, and integrity, e-procurement reform must be undertaken as a part of a wider procurement reform.

Substantially, in his contribution, Schoenherr (2019, 21) identifies a set of six drawbacks (i.e. disadvantages) to electronic procurement, which ultimately influence the outcome of its implementation in the public sector. Namely, these are, (1) system capabilities, (2) implementation costs, (3) reduced human interaction, (4) internal resistance, (5) supplier limitations, and (6) security. Firstly, it is seldomly perceived that new processes may be seen as less efficient than dismantled old ones. Furthermore, the system capabilities become limited pertaining to the constant upgradeability of electronic systems. However, the author asserts that such may be fixed through extensive training and education programs, which would enhance adaptability and acceptance of novel technologies (Schoenherr, 2019, 20-21). Secondly, as with other digital initiatives, the adoption of electronic procurement proves to be costly at each stage of its development, as well as maintenance (Schoenherr, 2019, 22). Thirdly, despite being ambiguous because of minimizing opportunities for corruption, the author argues that, in some cases, procurement is a relational discipline (Schoenherr, 2019, 23). Fourthly, transition to digitalized operations are often met with fierce resistance from the workforce, who feel endangered for their employment, as well as discretionary powers (Schoenherr, 2019, 24). Fifthly, the drawback of supplier limitations is especially apparent in the developing world, due to the so-called 'digital divide'. As such, some suppliers may become disfranchised as they do not have the necessary means to acquire appropriate infrastructure, knowledge, and expertise to conduct business with the government digitally

(Schoenherr, 2019, 25). Lastly, any electronic system is susceptible to hacking or infecting by viruses. Despite the fact that the probability is low, once manifested, the whole department renders paralyzed (Schoenherr, 2019, 26).

All things considered, as was previously declared, this inquiry comes to the conclusion that many of these barriers, in fact, resemble those to electronic government implementation. Precisely, these were broadly identified to be, technical, organizational, social, and financial. Despite appearing under different labels in the selected literature, or not being clustered into the aforementioned categories, for the purpose of simplicity, this inquiry will employ the proposed arrangement. Accordingly, attributable to the findings among available literature, this investigation argues that, in some instances, the solutions to these barriers can be applied from the wider theme of e-government to the narrower one of e-procurement.

1.1.8 Critical Success Factors to E-Procurement Implementation:

Similarly, to illustrate the barriers to implementation, scholars also conducted numerous studies, which seek to identify the critical success factors to implementation of public electronic procurement. It is important to mention that many may be complementary to the barriers delineated in the prior section. Such is mainly attributable to the fact that neglecting success determinants ultimately renders barriers visible. Hence, much of what is to be discussed in subsequent paragraphs correspond to solutions to the four aforementioned sets of barriers. In accordance with the previous passages, this sub-section will present findings in a chronological manner, conforming to the year they were published.

In a set of complementing studies regarding the implementation of digitized solutions to India's public purchasing system, Panda, Sahu and Gupta (2011), Panda and Sahu (2012; 2015, 13-17) identify the following critical factors necessary for successful implementation. Precisely, these are, (1) top management support, (2) e-procurement implementation strategy, (3) business case and project management, (4) process re-engineering, (5) technology standards, (6) security authentication, (7) system integration, (8) change management, (9) performance management, (10) training and education, and (11) adoption by involved stakeholders.

Additionally, in their entry, Doherty, McConnell, and Ellis-Chadwick (2013, 3) assert that the success of an e-procurement initiative directly depends upon four factors such as, (1) the organization's ability to re-engineer existing procurement processes, (2) appropriate

competence of employees, (3) organization's culture, and (4) the availability of necessary standards and funds.

Substantially, a report prepared by the Asia Development Bank (2013, 61-63) states that the success in the implementation of electronic public procurement rests on the extent to which the digitized platform supports the interaction between the government and suppliers (i.e. G2B) and between government departments (i.e. G2G). Accordingly, in order to achieve set goals, the implementation must be part of a cohesive procurement reform strategy. As such, the reform strategy should ensure the transformation of the traditional procurement process and encompass the following components, (1) institutional leadership and capacity, (2) legislation and policy, (3) private sector engagement, (4) technical infrastructure and web services, and (5) system functionality and standards (ADB, 2013, 61-62). According to the report, the first two components are usually the deciding factor in the success of implementation (ADB, 2013, 65).

As such, establishing a working organizational structure and leadership ensures that the objectives set by the government are efficiently defined and reached (ADB, 2013, 65). Moreover, the leadership is entrusted to form a so-called Project Management Unit (PMU). Consequently, the PMU's functions are, (1) to re-engineer the process, (2) change management, (3) engage stakeholders, (4) assure non-interference with the project, (5) plan security and backup, and devise an implementation plan. Subsequently, the implementation plan must encompass the following activities, (1) project initiation, (2) functional specifications, (3) integration with existing systems, (4) change management procedures, (5) training program (i.e. professionalization), (6) user support operations, (7) monitoring and evaluation, (8) risk management, (9) terms of use, (9) security of the platform, and (10) testing and piloting (ADB, 2013, 64-77).

Moreover, as described in the report, the introduction of new technology requires substantial changes in existing regulations and laws, as well as amending additional ones in order to ensure efficient operation of electronic procurement (ADB, 2013, 68). For instance, the new system must be integrated end-to-end, meaning that it should cover all phases of the process, that is, pre-tendering, tendering, and post-tendering. In addition, other functions must be digitized such as, payments and signatures (ADB, 2013, 68).

Finally, the account emphasizes the importance of a pilot project. Such is attributable to the fact that it helps the PMU to better understand the training needs, support services, necessary IT infrastructure, user environment, and weaknesses of the procurement platform. Moreover, it helps to account for future errors, as well as demonstrates the value of the

project to key policymakers. This latter part is especially of importance, as the determination of the political leadership may diminish, as early results are not achieved (ADB, 2013, 69).

Comparatively, in a guide written for the EBRD, Niewiadomska et al. (2015, 23-36) discuss the strategic considerations for governments preparing to implement electronic procurement should recognize. As such, policymakers must possess understanding and acknowledge the three steps necessary for an e-procurement reform, namely, (1) legal and regulatory, (2) business, and (3) technological (Niewiadomska et al., 2015, 23).

Firstly, the 'legal and regulatory' step includes revising or updating the current procurement procedure at every stage¹⁵. This largely corresponds with 're-engineering' the process, as highlighted by numerous other studies that were previously discussed. Accordingly, the ultimate objective of updating the regulatory and legal frameworks must be focused on how to employ ICTs in order to achieve greater competition, streamline decision-making, and render the procurement process more time and cost-effective (Niewiadomska et al., 2015, 24). Furthermore, the authors (2015, 25-26) point out two core and six optional legislative requirements that must complement an electronic procurement initiative. The former includes, (1) electronic documents, and (2) electronic signatures. The latter is comprised of, (1) electronic records management, (2) consumer protection, (3) laws pertaining to legal evidence, (4) data protection, (5) revision of copyright laws, and (6) codification of accounting practices. Moreover, as prescribed in the report, no legislation may ensure adequate implementation without strong assigned authority to a reform leader and top-down support from key policymakers (Niewiadomska et al., 2015, 26). Accordingly, the proposed legislation must ensure long-term planning and professionalization (i.e. training) of the public workforce. Moreover, it should encompass the creation of a Project Management Unit (PMU), which will be responsible for planning and executing the reform under the vision of the reform leader. These entail the evolution of regulations with the appearance of newer technologies (Niewiadomska et al., 2015, 40).

Secondly, the 'business' step captures the government's vision for e-procurement based on four factors (Niewiadomska et al., 2015, 26-31). First of all, the authorities must consider the costs of developing, implementing, and maintaining the e-procurement platform. As such, depending on the availability of funds, governments may choose among four approaches, precisely, (1) state-owned and operated, (2) state-managed, (3) shared service on

¹⁵ For more information on 'stages of (e-)procurement', see Section 1.1.4

behalf of a third party, and (4) a public-private partnership (PPP) (Niewiadomska et al., 2015, 27). Second of all, the government must strategically choose between a centralized and decentralized procurement platform¹⁶ (Niewiadomska et al., 2015, 27-28). Third of all, conditional to time constraints, the government must consider whether to custom develop a platformer acquire an existing one (Niewiadomska et al., 2015, 28-29). Fourth of all, the government contemplate whether it is viable to operate procurement, depending on the volume and cost of contracts, on a single or multiple platform (Niewiadomska et al., 2015, 29). All things considered, from a business perspective, costs, perceived benefits, complexity, and time constraints are key questions for an electronic procurement project implementation.

Thirdly, ‘technology’ considerations are constituted out of three main components. First of all, the architecture of e-procurement software. This includes the public availability of contract catalogues, but also the integration of the system end-to-end (Niewiadomska et al., 2015, 32). Second of all, the framework of revised procurement legislation must encompass key technological decisions. As prescribed by the authors (2015, 33) these are, (1) business requirements, (2) technical requirements, (3) data storage needs, (4) transaction workloads, (5) network capacities, (6) reliability and security, and (7) interface, authentication, and communication standards. Third of all, the government needs to consider the operational management of the procurement software in the short and long-term. As such, in order to ensure smooth operation, the platform needs to be: updatable, contain user and performance support, and include feedback loops (Niewiadomska et al., 2015, 34)

Additionally, Niewiadomska et al. (2015, 35, 51) claim that in order to check whether the above-mentioned considerations are satisfied, the government needs to conduct a readiness assessment. Accordingly, it is supposed to address concerns about delivering expected value and the current state of affairs and must be assessed in correspondence with four categories such as, (1) regulatory and legal, (2) organizational, (3) technical, and (4) market. Similarly, to the suggestions offered by the ADB (2013, 69), such may be conducted through piloting. The pilot project sets the foundation of a transparent and competitive procurement environment, as well as accustoms the public workforce and suppliers to the software. Consequently, it permits the management to account for strengths and weaknesses, as well as get further or lesser support from key policymakers.

¹⁶ For more information on ‘centralized’ and ‘decentralized’ procurement, see Section 1.1.3

Furthermore, Becker (2018, 8-10) outlines seven factors that are crucial for policymakers to consider prior to implementation in order to avoid pitfalls in the process. Firstly, the process must be re-engineered, meaning that it must be simplified and automated with a suitable IT system (Becker, 2018, 8). Secondly, the e-procurement must be digitized end-to-end, that is, fully integrated. Such is considered to be crucial, as digitizing single stages of the process, puts the reform at risk, as traditional methods may prove to be more efficient (Becker, 2018, 8-9). Thirdly, training and professionalization of the public workforce. This ultimately increases IT literacy, as well as the willingness to work with new systems, thus, decreases internal resistance (Becker, 2018, 9). Fourthly, supplier adoption, the rates of which can be increased if they are included in the process of the reform (Becker, 2018, 9). Fifthly, issues of authentication and security must be addressed. As described by the author, this is a composite issue, as it involves the development of other programs. For instance, digital signatures or authentication through electronic IDs. Consequentially, it is mandatory to consider all security dimensions such as integrity, accountability, confidentiality, and authentication. Ultimately, this leads to lesser skepticism in regards to digitalization, and higher willingness to adopt by suppliers and civil servants (Becker, 2018, 9). Sixthly, as opposed to traditional methods of government purchasing, an electronic platform must be easy to use. Accordingly, characteristics of such include, legibility, meaningful navigation, usability, accessibility, and comprehensibility (Becker, 2018, 9-10). Lastly, top management support. As described by the author, such is comprised of the following, (1) determined (i.e. ambitious) leadership with vision and goals that drive the change, (2) provision of sufficient resources and expertise, (3) enforcement of a project structure, (4) supportive communication, and (5) managerial power supported by key policymakers, political leadership, and legislation (Becker, 2018, 10).

In a similar vein, Akoto Opong (2020, 19-20) identifies four critical success factors that contribute most to a comprehensive end-to-end implementation of digitized solutions in public procurement. Precisely, these are, (1) end-user uptake and training (i.e. professionalization), (2) change management, (3) re-engineering the process, and (4) e-procurement implementation strategy. Accordingly, the author puts higher emphasis on the latter two factors. As such, he indicates the importance of transforming existing processes, positing that it directly relates to compliance from both sides, that is, suppliers and the government, and enhances transparency in procurement procedures. Finally, and perhaps most importantly, an extensive strategy is crucial for the success of the reform due to the fact

that it encompasses and addresses a wide variety of factors, which may theoretically impede policymakers and bureaucrats from achieving original goals.

1.2 Neo-Patrimonialism:

The following excerpt will review the relevant academic literature on the concept of 'neo-patrimonialism'. As this excerpt exemplifies, the notion is associated with the institutional setup of a given entity and the subsequent rules and norms that contribute to its inception and operation. Accordingly, existing scholarly work comes to the conclusion that the mode of governance that is branded as 'neo-patrimonialism' is seldomly a derived outcome of 'grand corruption. In addition, governing processes of the system are reinforced by unethical behavior of the ruling class and the bureaucratic apparatus. As such, this passage will be divided into five parts, which acquaints the reader with the following information, (1) theoretical explanations of corruption, (2) a dichotomy on variants of corruption, (3) a definition of 'neo-patrimonialism' and its application, (4) the manifestation of 'neo-patrimonialism' and 'corruption' in Ukraine, and (5) the intricacies of reforms within a neo-patrimonial polity.

1.2.1 Theoretical Explanations of Corruption:

Among many theoretical approaches that seek to explain the nature and the incentive mechanism of corruption, academia highlights two that are employed most frequently in academic studies. Precisely, these are: (1) principal-agent theory and (2) collective action approach.

The former is comprised of two main actors, that is, the principal, who is usually a politician or the citizenry at large, and the agent, who is a self-interested politician or civil servant (Lawton et al., 2012, 109; Menocal, 2015, 15). Consequently, the problem exists based on information asymmetry between the principal and the agent. As such, because the principal lacks the necessary information to monitor the agent's performance, corruption occurs, as the agent betrays the principal to further her or his interest (Lawton et al., 2012, 109; Menocal 2015, 15). Accordingly, the illustration of the problem may be twofold. On the one hand, elected officials or civil servants (i.e., agents) will abuse public office in order to secure economic rents because members of the public (i.e., principals) do not possess the power to hold them accountable. On the other hand, elected officials (i.e., principals) may not ensure oversight over the behavior and actions of the public workforce (i.e., agents), who may pursue benefits for oneself as a result of illicit conduct (Menocal, 2015, 15). Keeping that in mind, according to this theory, corruption could be limited simply by reducing the discretionary power of agents, limiting their monopoly on sensitive information, and improving accountability mechanisms (Lawton et al., 2012, 109). Therefore, the principal-

agent theory regards corruption as an exclusively agent problem resulting from information asymmetry, ultimately making the principal incompetent to perform the role of a guardian of public interest. Nevertheless, Lawton et al. (2012, 109-110) questions the theory, claiming that principals may also be interested in breaching integrity, thus, making the theory inapplicable to all settings. As such, in his work, Klitgaard (1998, 4), addresses corruption as a systemic behavioral phenomenon, which he expresses through the following formula: ' $C = M + D - A$ ', where, corruption (i.e. 'C') is a function of 'M', that is, monopoly power plus 'D', which is the discretionary power of officials minus accountability (i.e. 'A').

Consequently, the latter, that is, the collective action approach, may be more useful to address instances in which all parties are corrupt, thus, the levels of social and political trust are low (i.e., grand corruption, see Section 1.1.4) (Menocal, 2015, 16). As such, if corruption is an expected behavior, individuals will prefer to adhere, as the cost of acting with integrity outweighs the anticipated. Therefore, from this perspective, the costs and benefits of corruption are inferred from the cost and benefits of being the first to opt-out from such conduct (Menocal, 2015, 16). Ultimately, it may be argued that in settings where it is omnipresent, corruption reflects on all participants of the society, thus, may be embedded in social relations, where all act to pursue particularistic interests and benefits, rather than those of society as a whole.

1.2.2 Variants of Corruption:

Furthermore, scholars highlight the scale on which corruption manifests itself in public office, hence, have generated different labels to categorize different dimensions of the practice further. As such, de Vries (2016, 131) separates 'petty' and 'grand' corruption. The former relates to the most widespread form of bribery, which refers to the daily abuse of power by low-ranking civil servants at the endpoint of the delivery of public goods and services (de Vries, 2016, 131). The latter is characterized by fraud, which occurs at the highest levels of government, whereby policies are maneuvered to benefit the perpetrators, ultimately leaving political, economic, and legal processes sabotaged (de Vries, 2016, 131). The aforementioned is also expanded in the work of Zaloznaya (2015, 347-348), who refers to 'petty' corruption as 'bureaucratic', and 'grand' corruption as 'elite' or 'political'. Accordingly, she agrees with de Vries on the former, however, expands on the latter claiming that distortion of public policies mostly occurs through unethical and sometimes non-democratic means such as, oppression, coercion, clientelism, rigged elections, manipulation, cronyism, favoritism, nepotism, and patronage (Myint, 2000, 35; Zaloznaya, 2015, 348).

Comparatively, in his work, Graycar (2015, 89) characterizes the two as, 'opportunistic' and 'structural'. As such, the former relates to instances whereby a reward, either in-kind or in-cash, is issued in order to not issue a violation or provide basic public services. The latter, however, concerns systemic breaches of integrity, which are tolerated by the agency or organization, ultimately becoming part of the political culture (Graycar, 2015, 89). Consequently, in their contribution, Enste and Heldman (2017, 5) distinguish between two variants of corruption, namely, 'bottom-up' and 'top-down'. On one hand, the former pertains to occasions when low-level officials gather bribes, which they have to portion with their superiors. By engaging in such conduct, they rest assured of their employment, as they will remain protected by their patrons from being dismissed of their duties or prosecuted (Enste et al., 2017, 5). On the other hand, the latter deals with an opposite exchange. As such, upon engaging in distortion of public policy, high-ranking politicians lobby the appointment of loyal people and subsequently, distribute rewards to lower chains of executors in order to assure their loyalty. Therefore, superiors must ensure the flow of rents because they depend on their subordinates' cooperation and the fear of whistleblowing (Enste et al., 2017, 5).

Finally, in her paper, Menocal (2015, 12-13) points the following distinction between what she refers to as, 'bureaucratic' and 'political' corruption. Notably, she asserts that bureaucratic corruption happens during the implementation of public policies. As such, the main perpetrators are appointed bureaucrats and their staff at the central and low levels. This variant of corruption typically manifests itself in bribes, kickbacks, and mutual exchange of favors to accelerate bureaucratic procedure and violate rules and regulations (Menocal, 2015, 13). On the contrary, political corruption involves elected, appointed, or nominated senior public officeholders. As such, this variant includes sabotaging existing legislation and regulatory frameworks and designing new laws and allocating public resources to the advantage of themselves and associated private sector agents (Menocal, 2015, 13). Accordingly, this type of corruption is closely linked to the generation of economic rents, so, rent-seeking. This encompasses actors who seek to obtain higher returns from public assets by manipulating a given country's social and political setting. As such, part of the revenues generated from rent-seeking must be distributed through illicit payments (in-cash or in-kind) through the whole chain in order to assure the constant manipulation of the political environment in one's favor (Menocal, 2015, 13). Ultimately, such may theoretically result in a sociopolitical and socioeconomic landscape characterized by (1) restricted political competition, (2) centralization of power, (3) weak or absent accountability and checks and

balances systems, (4) patronage, and (5) clientelism, which is also known as ‘neo-patrimonialism’ (Menocal, 2015, 27).

1.2.3 Neo-Patrimonialism and its Application:

In his vital work, *Economy and Society*, Max Weber (1922, 159-160, 167), distinguishes between three foundational (i.e. pure) forms that are employed to administer societies, namely, (1) feudal (i.e. charismatic), (2) bureaucratic rational-legal, and (3) patrimonial (as cited by von Soest, 2021, 1). As such, the last set-up assumes the separation between the household chief and her or his clients, to whom benefits are dispersed. Moreover, the main features of patrimonialism include: (1) the blurring of public and private spheres, as well as (2) the appropriation of the governmental sphere by those holding political power (Erdmann & Engel, 2006, 8-9). Accordingly, ‘neo-patrimonialism’ or ‘neopatrimonialism’, as the prefix suggests, implies the recent modification of the term’s application to various modes of governance and regime types observed in the contemporary world.

In 1968, in his review of post-colonial institution-building, Roth (1968, 197), accentuates on a possible symbiosis of traditional patrimonialism and charismatic personal rulership. Furthermore, he attributes a vast importance to clientelism, which he defined as an instrument using which charismatic leaders were able to maintain their status in a patrimonial system. As he reiterates in his later works, he claimed that clientelism provides a basis for the legitimization of a ruler in a modern patrimonial society (Roth, 1987, 18; as cited by Erdmann et al., 2006, 10). Despite opening the academic debate, Shmuel Eisenstadt pioneers the concept of ‘neo-patrimonialism’. At the time of his publication, he refers to it as, ‘modern patrimonialism’, with the suffix ‘neo’ making a later appearance in the work of Medard in 1982. Accordingly, in his seminal work, he claims that ‘neo-patrimonialism’ may be perceived as a symbiosis of modern rational bureaucratic rule and patrimonialism in its traditional understanding (Eisenstadt, 1973, 12). In order to substantiate his argument, he devises a set of three characteristics of modern patrimonialism. Firstly, the uniqueness of the political center and its relationship with the periphery. Secondly, the definition and restriction of the center's boundaries. Thirdly, an informal pattern of political struggle and organization within these restricted boundaries (Eisenstadt, 1973, 12-14).

To illustrate, as Erdmann and Engel (2006, 8) write that, neo-patrimonialism is an attempt to cement a combination of formal and informal institutions within a given polity. In turn, the system is dominated by the application of uncodified procedures, which creates

uncertainty and a self-reinforcing mechanism. Furthermore, the ruling class attempts to limit competition towards its power through clientelism, which ultimately develops a system of patronage (Fisun, 2012, 90; Stewart, 2013, 199). Bratton and van de Walle (1997, 63-68) classify the interplay, where they claim that from a political standpoint, the neo-patrimonial system is reinforced by three informal practices. Firstly, centralization and concentration of political power in the hands of patrons. Secondly, systematic clientelism. Thirdly, particularistic use of state resources.

Despite the first applications of the notion being utilized to analyze semi-democratic or hybrid regimes in post-colonial Africa, Asia, and Latin America, following the dissolution of the USSR and the fall of communism in Europe, scholars have widely observed features of 'neo-patrimonialism' in many newly independent states (Fisun, 2012, 91-92). As such, presently, academia mostly encourages the use of the notion in order to assess and describe the regime types that emerged within the former Soviet Union. Accordingly, in contrast to other world regions, this type of governance has manifested itself differently in post-Soviet.

As such, the post-Soviet democratization of the fifteen newly independent states during the 1990s transformed the patrimonial domination, which was prevalent in the USSR, into a modernized (i.e. updated) form of 'neo-patrimonialism', where a knit of business-political elite appropriated major sources of economic rent in order to control the public, political, and economic realm. As such in their work, Snyder and Mahoney claim that regimes are characterized by a ruler or a ruling elite, who maintain control by distributing patronage to a network of rent-seeking actors such as, economic magnates (i.e. oligarchs), regional barons, particular societal groups, relatives, and cronies (as cited by Erdmann et al., 2006, 22). Accordingly, the political setup includes formal legal institutions such as, parliaments, electoral contests, and constitutions, as well as a plethora of informal arrangements between power groups, where the latter plays a far bigger role in defining the rules of the game (Fisun, 2012, 92; Stewart, 2013, 199). Consequently, the political process is not a struggle between political alternatives, but rather a contestation between different fractions representing the neo-patrimonial bureaucracy to monopolize patron-client networks, control over resources, and economic rents (Fisun, 2012, 92-93). Therefore, it may be established that in the post-Soviet space, neo-patrimonialism manifested itself through, (1) power vertical, (2) clientelism, (3) patronage, (4) particularistic use of state resource, ultimately rendering all policy-making adhering to particularistic interests and orientations, (5) rent-seeking as the key motive of politics, (6) restricted, if not absent, political and market competition, thus, no interest in comprehensive reforms promoting integrity at any level of

government, and (7) political competition through formal electoral mechanisms, however, with the goal of consequent state capture (Fisun, 2012, 92-93; Stewart, 2013, 199-200).

Finally, based on geographic, historical, cultural, and ethnic contexts and models of elite consolidation, various forms of neo-patrimonialism may be distinguished in the countries of the post-Soviet Union. Namely these are, (1) sultanistic, (2) oligarchic, (3) bureaucratic, and (4) democratic (Fisun, 2012, 93-94). Accordingly, the first is characterized by façade elections, clan-based models of voting, charismatic-personalistic ruler, and extreme centralization of power in the hands of one ruler. Such is present in countries such as Uzbekistan, Turkmenistan, Kazakhstan, and to an extent in Azerbaijan (Malygina, 2010, 12; Fisun, 2012, 93). The second, that is, oligarchic is linked with the formation and consolidation of regional and country-wide rent-seeking actors (i.e. oligarchs) that act in unison or instead state institutions via established patron-client networks. Instances of such include, the Russian Federation during Boris Yeltsin's rule, as well as Ukraine during the presidency of Leonid Kuchma (Malygina, 2010, 12; Fisun, 2012, 93). The third, that is bureaucratic, manifests itself through bureaucratic monopolies, coercion, and presidentialism, which are preserved by through fiscal structures, law enforcement, and populist/patriotic rhetoric. Notable examples incorporate, the Russian Federation under Vladimir Putin's and Dmitriy Medvedev's rule, and Belarus under the leadership of Alexander Lukashenka (Malygina, 2010, 12; Fisun, 2012, 94). Finally, a more recent form, democratic neo-patrimonialism, is characterized by political competition through formal electoral mechanisms for different, constitutionally divided, branches of government, however, with the prime goal of economic rents, monopolizing patron-client networks, and state capture. Post-Soviet countries operating under such arrangements are, Georgia, Moldova, to an extent Armenia, and most importantly Ukraine (Fisun, 2012, 94).

1.2.4 Features of Neo-Patrimonialism, Corruption, and Institution Building in Ukraine:

At this time, academia from various disciplines has explored the period of political transitions in post-Soviet states since the dissolution of the Union of Soviet Socialist Republic (USSR) in 1991. As such, scholars highlight a quadruple transition on which all fifteen newly independent republics embarked, namely, (1) state-building, (2) nation-building, (3) democratization, and (4) marketization (D'Anieri, 2016, 12; Kuzio, 2016, 183; Bader, Huss, Meleshevyeh & Nesterenko, 2019, 2). Presently, only three former republics (i.e. the Baltic states) are considered to be democratic states with a market economy and consolidated institutions. Comparatively, a variety of hybrid, semi-democratic, or

authoritarian regimes have been consolidated within the remaining twelve. Despite having contrasting textbook regime types, which may be attributable to contextual differences, all, without exception, are characterized by institutional arrangements that follow the logic of what is known as, 'neo-patrimonialism'.

Therefore, although formal institutions of political democracy are established, actors contesting in the political arena adapt to the more extensive patrimonial logic of how the system operates. As such, 'electoral' competition is not a clash between political alternatives, but rather a struggle between rivalrous fractions of neo-patrimonial bureaucracy seeking to gain a monopoly over patron-client networks, control over state resources and enterprises that generate high economic rents (Malygina, 2010, 14-15). In turn, these (i.e., economic rents) are utilized in order to further incapacitate developmental reforms, the judiciary, and law enforcement agencies, thus, solidifying returns and centralizing power. Accordingly, such developments are still persistent in Ukraine, however, with some differences, which makes it unique in comparison to its post-Soviet counterparts. The aforementioned uniqueness of Ukraine's neo-patrimonialism is twofold. As such, it is manifested through the country's, (1) oligarchy and (2) constitutional politics.

1.2.4.1 Oligarchs in Ukraine and 'Partial Reform Equilibrium':

Firstly, a generic definition of the word 'oligarchy' suggests a form of governance whereby control of an entity is exercised by a few. In the context of post-Soviet countries, the term 'oligarch' refers to big business tycoons that emerged as a result of: (1) Soviet system of governance, which was primarily considered patrimonial, (2) wide-scale privatization in the early 1990s, and subsequent (3) symbiotic relationship with criminal elements throughout the decade. As such, by the early 2000s, what emerged in Ukraine may be conceived as, crony capitalism or kleptocracy. This is attributable to the fact that organized crime merged with the political class and big business in order to create an impenetrable elite ruling class (Yekelchuk, 2020, 69). A specific feature of oligarchs in the context of Ukraine is their inclination to monopolize any segment of the economy and politics they choose to operate in. Presently, the results of this penchant are pervasive levels of corruption, both petty and grand, and state capture by a knit of rent-seeking business-political elite.

Accordingly, academia explains the abduction of the economic and political arenas through a process consisting of four main steps. First of all, at the advent of independence, interested parties secured a monopoly over the banking and energy sectors, extractive activities, state-owned enterprises (SOEs), and the gas trade with the Russian Federation

(Kudelia, 2016, 68; Kuzio, 2016, 181; Pivovarsky, 2016, 225-226). Second of all, in the light of an institutional meltdown, provoked by the dissolution of the USSR, wealthy individuals were able to exert vast influence over the state's bureaucracy, the judiciary, and law enforcement agencies (Kuzio, 2016, 182). Third of all, in order to preserve initial gains and future revenues, oligarchs acquired a bulk of media companies, co-opted opposition parties, created their own political parties, and ensured their representatives penetrated every branch of government (Kudelia, 2016, 67; Aslund, 2015, 8; Mylovanov & van Weelden). Consequently, the use of the aforementioned levers of influence allows manipulating information during election cycles, and prevents state representatives to comprehensively communicate their reforms to the public (Kuzio, 2016, 182; Mylovanov et al., 2018). Moreover, in the absence of market competition, prices artificially fluctuate to suit one's desire, small and medium enterprises (SMEs) are underdeveloped, as well as the majority of privatized enterprises remain undermodernized, thus inefficient (Kuzio, 2016, 182). Fourth of all, with the goal of maximizing their earnings, tycoons avoid paying taxes, eventually rendering the state weaker and easier to control (Kuzio, 2016, 182). Precisely, attributable to tax avoidance from the richest citizens, those less fortunate are keen to behave similarly. In turn, at this time, Ukraine has one of the largest shadow economies in all of Europe (Kuzio, 2015, 368-369). All things considered, the embodiment of oligarchy in the case of Ukraine resulted in, (1) the prevention in the emergence of a level playing field in the economy and politics, (2) pervasive levels of grand and petty corruption¹⁷, which is debilitating to society at large, and (3) hindering of comprehensive reforms that would contribute to the above-mentioned quadruple transition (Kuzio, 2015, 319-320; Aslund, 2015, 4).

Accordingly, among all, the latter is most significant when it comes to an explanation as to why Ukraine's key sectors of political, economic, and social life remain monopolized to this day. In his seminal work on post-communist political transitions, Joel Hellman (1998, 204) named this phenomenon 'partial reform equilibrium'. As such, it signifies a situation whereby early net winners seek to block the advancement of reforms, which directly threaten to eliminate the advantages and market distortions upon which their gains are maximized. Consequently, stalling the reforms in a 'partial equilibrium' proves to be an effective way to create a façade that keeps the electorate busy (Aslund, 2015, 10-11; D'Anieri, 2016, 5-6). As such, the economy has not been liberalized, apart from state assets privatization, and market

¹⁷ For more information on 'petty' and 'grand' corruption, see Section 1.2.2

distortions left mostly uncorrected. Ultimately, outcomes generated by selective introduction of market mechanisms concentrated economic rents in the hands of a few net winners (i.e., oligarchs) (Puglisi, 2003, 103). In turn, they lobby the preservation of the status quo, which allows to maximize economic rents, whilst imposing high costs on society (Hellman, 1998, 205; Kuzio, 2015, 322-324; D'Anieri, 2016, 5-6).

Given these points, this largely coincides with a political theory developed by Robert Michels, which he named 'iron law of oligarchy' (Kuzio, 2015, 324). Precisely, it assumes that regardless of how democratic early institutions may aspire or appear to be, they will inevitably develop oligarchic tendencies, thus making true democracy unachievable (Kuzio, 2015, 324). If applied to the case of Ukraine, throughout its modern history, the power of the seemingly democratically elected government was mainly derived from the President's ability to maintain strategic support of elites. As such, the allocation of tangible or intangible benefits to lower levels of the bureaucratic apparatus, as well as favors to tycoons, rather than ideology, determinism, or the rule of law, have long constituted the foundation of the Ukrainian political system (Puglisi, 2003, 104). Accordingly, the systemic extraction of rents and allocation of revenues within a narrow faction has long-lasting effects on the capacity of the state and the society at large. Namely, these are expansion of the shadow economy, lack of trust in public institutions and their servants, lack of accountability, culture of impunity, isolation of the political leadership, and corruption of the bureaucracy (Puglisi, 2003, 104). Accordingly, benefits, favors, and protection (i.e. corruption) constitute the key motivation of seeking public service, as well as assure its operation. All things considered, scholars widely regard Ukraine as the last out of fifteen post-Soviet republics, where oligarchs maintain such a large degree of political power (Aslund, 2015, 29; Kuzio, 2016, 183).

1.2.4.2 Ukrainian Constitutional Politics:

As was extensively mentioned afore, post-Soviet states experience a high level of institutional weakness. Such is especially characterized by the fragility of constitutions, which are subject to an array of experimentations and manipulations. Constitutions in post-Soviet states reflect temporary constellations on the distribution of power and patronage between political and business elites. Moreover, as described by Kudelia (2013, 156), constitutional change in post-Soviet states has been guided by a 'zero-sum' view of political power. Thus, those at the top of political processes considered imperative to bring as many sources of economic rent under their control and the prolongation of one's rule. Therefore,

constitutional politics are a direct representation of the balance of power in the polity at the time, as well as driven by the political agenda of those holding it.

Up to this day, Ukraine's experience in constitutional dynamics fits within the general post-Soviet paradigm. As such, the main battles occurred between the coalition in the parliament and the President over the degree of influence in the executive branch (Malygina, 2010, 7; Kudelia, 2013, 156). In Ukraine, the executive branch is divided between the President, who is elected through popular plebiscite, and the prime minister, who is elected by the parliament and in most cases represents the coalition (Malygina, 2010, 7-8; Fisun, 2016, 109). Accordingly, the Cabinet of Ministers, headed by the prime minister, arguably exerts more control over the largest sources of rent-seeking opportunities and patronage networks (Kudelia, 2013, 156). Hence, keeping in mind the 'zero-sum' attitude towards political power, it is logical that a more authoritarian (i.e. presidential) regime type was sought to be established. Presently, in most of the non-Baltic post-Soviet states attempts to build a presidential regime that centralizes formal and informal power have been successful.

However, in his work, Fisun (2016, 105-106) emphasizes two distinctions in Ukrainian constitutional dynamics, which make the country unique in contrast to the other eleven post-Soviet republics. Firstly, all attempts to hyper-centralize formal and informal power in the hands of one (i.e. the President) have failed. Moreover, each trial has ended in a public upheaval, which resulted in radical regime change and substitution of the political elite in charge. Notably, this was the case in 1994, 2004, 2014, and to some extent in 2019 (Kuzio, 2016, 184; Fisun, 2016, 111). Secondly, and related to the first, the constitutional policy became the arena where key players bargain about the distribution of power and consolidating their influence within the existing paradigm (Kudelia, 2013, 177; Fisun, 2016, 106). Ultimately, the root of these two unique dynamics come from the clustered neo-patrimonial structure of the country's economy and politics.

The above-mentioned key players in Ukraine's constitutional are rent-seeking entrepreneurs (i.e. oligarchs) and patronal presidents (Malygina, 2010, 13; Fisun, 2016, 107). As such, they support opposing constitutional arrangements that delineates their influences. Accordingly, compromises are codified into formal constitutional amendments, whose aim is to demarcate the informal division of resources and rent-generating opportunities (Fisun, 2016, 107). On one hand, rent-seeking entrepreneurs, as explained earlier¹⁸, are characterized

¹⁸ For more information on 'rent-seeking entrepreneurs' or 'oligarchs', see Section 1.2.4.1

by tendencies to monopolize private sectors of the economy and diversify political risks through the maintenance of a 'partial reform equilibrium' (D'Anieri, 2016, 5). As such, although they may frequently collude with the patronal President, they embody the authority that manages to challenge authoritarian tendencies, usually through parliamentarism (Fisun, 2016, 108). On the other hand, the patronal President concept includes an executive elected through popular vote. Accordingly, she or he possesses a large degree of formal powers based on constitutional rights and informal ones by being at the top of the patronage system pyramid (Fisun, 2016, 108-109). Moreover, it is theorized that patronal presidents have authoritarian tendencies, as they seek to establish a monopoly over the executive and legislative branch, law enforcement, and fiscal sectors. As such, they ensure their reelection and have a system allowing to punish those infringing the consolidated power balance (Fisun, 2016, 108).

It is important to mention that in countries such as Belarus and Russia, which out of all post-Soviet, are contextually most relatable to Ukraine, patronal presidents (i.e. Aleksandr Lukashenka and Vladimir Putin) have managed to monopolize constitutional politics, thus, become authoritarian (Fisun, 2012, 93-94). In Ukraine, however, despite numerous efforts such did not happen. As discussed in various entries, both key actors were divided upon multiple cleavages (i.e. clans or patron-client networks) based on regional, political, or industry divides (Malygina, 2010, 11; Moshes et al., 2021, 3). Therefore, rent-seeking entrepreneurs, despite not having an interest in democratic reforms, would often either support or obstruct patronal presidentialism based on the costs and benefits and the power balance at the time (Fisun, 2016, 109-110). Consequently, patronal presidents seek to battle with those desiring to limit their discretion, whereas rent-seeking entrepreneurs support projects of parliamentarism with the goal of avoiding a scenario present in Belarus and Russia, thus assuring the survival and cohabitation of various patron-client networks.

Furthermore, both parties hold substantial influence (i.e. support) among regional and local elites, as well as labor unions and the public at large. As such, at time of political standoff, which usually involved the constitutional debate between presidentialism and parliamentarism, both sides mobilized supporters in order to resolve collective action problems¹⁹ (Fisun, 2016, 111). This was especially apparent during the Parliamentary Crisis of 1994, the Orange Revolution in 2004, the Revolution of Dignity in 2014, and the

¹⁹ For more information on 'collective action problem', see Section 1.2.2

Presidential elections of 2019 (Kuzio, 2015, 62; Fisun, 2016, 123). Accordingly, at the time of each regime overhaul, a window for reform opportunities was set open (i.e. 'policy window'), as the new arrangement on power distribution was not yet settled (Kuzio, 2015, 51; Nizhnikau, 2020, 1). Moreover, reforms, even if only for façade changes, were executed in order to pacify existing polarizations among stakeholders, that is, the public and patron-client networks. As such, grand corruption was not addressed and institutional design, apart from the constitutional provisions on executive power and control over rent-seeking opportunities, remained intact (Kudelia, 2016, 65).

Comparatively, with the goal of avoiding anti-presidential consolidations in the legislative branch and the oligarchy, presidents have frequently appointed prime-ministers from rivalrous patron-client networks. Notably, such was the case when Leonid Kravchuk tapped Leonid Kuchma in 1992-1993, Leonid Kuchma appointed Pavlo Lazarenko in 1996-1997 and Viktor Yushchenko 1999-2001, Viktor Yushchenko backed Yulia Tymoshenko in 2005, 2007-2010, as well as Viktor Yanukovich in 2006-2007, and Petro Poroshenko supported the candidacy of Arseniy Yatseniuk in 2014-2016 (Malygina, 2010, 8; Kuzio, 2015, 35, 59-60, 249; Fisun, 2016, 111; Pivovarsky, 2016, 226).

1.2.5 Reforms in a Neo-Patrimonial Setting:

As has been demonstrated in preceding passages, a 'neo-patrimonial' mode of governance generates a restricted political and economic system in which early net winners seek to preserve their gains and potential revenues. In turn, generated rents are utilized in order to capture state institutions and law enforcement agencies, ultimately reinforcing the structure and limiting contestation. Moreover, those in power attempt to stall developmental reforms that threaten their might. This occurrence has been described by Joel Hellman (1998, 204) as 'partial reform equilibrium'. The following excerpt will provide an account of existing theoretical approaches on how the phenomenon is overwhelmed. Accordingly, key explanations include, (1) political, (2) institutionalists, and (3) economic/financial accounts on reform processes and outcomes.

Political accounts attribute central importance elites. In his work, Hickey (2013, 6), claims that in any entity elites possess informal and formal veto powers. These may choose to amend a redistribution of political and economic power. As such, elites are said to play a decisive role in developing and shaping governing institutions. In his work, Hellman (1998, 205) asserts that if the elites, which in the case of post-Soviet countries are early net-winners of democratization, are non-reform oriented, they may choose to undermine improvements

that influence their power. In contrast, if the ruling class is said to be reform-oriented, advances are probable (Hellman, 1998, 21). Nonetheless, political explanations also include two other stakeholders, namely, (1) civil society and (2) external actors. On one hand, the former relates to non-elite representatives that have been excluded from the development, or have not benefited, from the existing status quo. Importantly, civil society are considered to be a driver of developmental reforms, as they have an ability to form policy coalitions among excluded fractions (Hickey, 2013, 25). On the other hand, the latter pertains to outside institutions that may exert pressure on the political elite to rethink the current institutional setup (Hickey, 2013, 19). Ultimately, the success of a reform is determined by the degree to which policy coalitions can be formed between the three, political settlements (i.e. trade-offs) critical junctures that open so-called 'policy windows', and the trade-offs between rivalrous groups of elites (Hickey, 2013, 7, 21-22).

Institutionalist accounts focus on similar aspects, however pay higher attention to questions of legitimacy and uncertainty, as well as rules and values (Hickey, 2013, 18, 20). As such, in a neo-patrimonial setting, a reform cannot be expected to take off if it was conceived based on impartial principles. Moreover, the functioning of a new institution is dependent on its ability to overcome initial uncertainty and attain legitimacy. In her analysis of the partial reform equilibrium in Russia, Mård (2018, 4) concludes that the absence of developmental reforms in the country is mainly attributed to the lack of legitimacy among external and internal actors (i.e. civil society). As such, the early net winners have accumulated revenues to debilitate their influence and thus, increase uncertainty in their potential role. In contrast, in his work on describing the escape away from partial reform equilibrium in Vietnam, Malesky (2009, 156) attributes the success to institutional explanations. Notably, he claims that the broad use of existing institutional levers permitted attaining legitimacy to new reforms, as well as reduced uncertainty among key stakeholders. Accordingly, despite facing deep resistance from entrenched bureaucracy and elites, contest through existing mechanisms allowed for broader support from previously excluded actors, even in the face of early losses (Malesky, 2009, 156).

Finally, in his entry Hellman (1998, 232-234) proposes an economic theory through which the partial reform equilibrium may be overwhelmed. He suggests the usage of a traditional J-curve model (see Figure #1) that is widely exploited by economists to explain the politics of an economic reform (Hellman, 1998, 206). The idea is that a reform produces transitional costs in the short term prior to generating expected economic gains. Accordingly, it generates two camps, first, early net winners, and second, early net losers. On one hand, the

former group seeks to preserve their gains due to the fact that in the long-term, these gains will be either smaller or inexistent. On the other hand, the latter, which is usually represented by a larger group of individuals will stop providing support in the light of losses. As such, under the pressure of the public, actors in the policymaking arena may choose to stall the reform and conserve the transitional costs. Hence, if actors are unwilling to accept losses in the short term, they will not commit to maintaining the reform. Accordingly, the amplitude of the costs directly correlates with how radical the reform is. Thus, as described by Hellman (1998, 206-207), this corresponds to a collective action problem²⁰, as the reform needs to reap benefits exceeding the costs in the short-term in order to be supported and sustained.

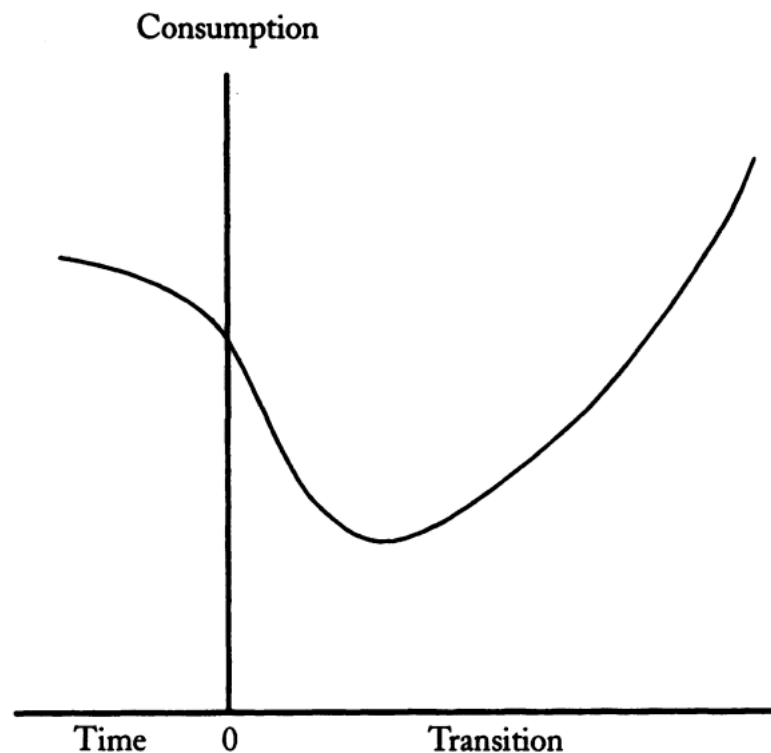


Figure #1: The J-Curve, Retrieved from Hellman (1998, 207)

²⁰ For more information on the 'collective action problem', see Section 1.2.2

1.3 Key Takeaways and Synthesis of Theoretical Framework:

In order to conclude the second chapter, this investigation must synthesize a theoretical framework based on the provided literature, which seeks to adequately present the barriers to the implementation of electronic public procurement. Consequently, respective critical success factors and strategic considerations to overcome these will be provided. Evidently, this inquiry acknowledges the fact that the review of literature presented above is far-reaching. However, it is indispensable to mention that this scrutiny identifies such to be crucial in order to acquaint the reader with the full account, as it ultimately offers a deeper and multifaceted insight on the topic of inquiry. Accordingly, this is prescribed by the research design (i.e. exploratory and single-case study) and methodology (i.e. process-tracing) of this investigation²¹, which obliges this examination to provide a great deal of context and content related features.

The first set, that is, technical barriers, is composed of various components such as, (1) lack or weakness of ICT infrastructure, (2) issues with regards to privacy, security, and confidentiality, (3) lack of expertise, skills and knowledge, (4) lack of standards for data exchange, (5) incapability to harmonize technological standards, and (6) lack of system integration (Liao et al., 2003, 521-523; Hawking et al., 2004; Croom et al., 2005, 374-383; Gunasekaran et al., 2009, 164; Alshehri et al., 2010, 82; Sitar, 2012, 122; Schoenherr, 2019, 21).

The second set, that is organizational barriers, includes the following, (1) lack of reform leadership, (2) internal resistance to innovation, both, among suppliers and civil servants (i.e. non-adoption or stakeholder objections), (3) lack of qualified personnel, (4) lack of cooperation between suppliers and the government, (5) information leaks, (6) collusion between suppliers and civil servants (i.e. corruption), (7) lack of comprehensive and inclusive regulatory framework, (8) lack of consolidated network of suppliers, (9) inadequate project management, (10) partial implementation of digitized solutions, and (11) lack of reform support from key policymakers and politicians (Liao et al., 2003, 521-523; Bhatnagar, 2004, 68; Hawking et al., 2004; Croom et al., 2005, 374-383; Gunasekaran et al., 2009, 164; Sitar, 2012, 122; Niewiadomska et al., 2015, 22; Schoenherr, 2019, 21).

The third set, that is, social barriers, is comprised of, (1) cultural implications, (2) pervasive corruption, thus, lack of trust (i.e. behavioral issues), and (3) cultural resistance to

²¹ For more information on ‘research design’ and ‘methodology’, see Chapter #2

change (i.e. fear of change) (Liao et al., 2003, 524; Bhatnagar, 2004, 40; Sitar, 2012, 122; Schoenherr, 2019, 21).

The fourth set, that is, financial barriers, is constituted of, (1) lack of adequate financial support and capital (i.e. budget considerations), (2) high development costs, (3) high implementation costs, (4) high operation costs, (5) high maintenance costs, (6) lack of integration of finance systems, and (7) lack of complementing legislation regarding electronic payments (Hawking et al., 2004; Croom, 2005, 374; Gunasekaran, 2009, 164; Sitar, 2012, 122; Niewiadomska et al., 2015, 22; Schoenherr, 2019, 21).

Accordingly, academia and numerous institutional reports pre-select numerous strategic considerations, as well as critical factors that are crucial for successful implementation. As such, the former assist in developing a comprehensive implementation strategy, whereas the latter concern themselves with avoiding the aforementioned barriers.

As such, a report presented by the Asia Development Bank (2013, 61-69) emphasizes the importance of considering the following prior to implementation, (1) the extent to which an electronic procurement platform supports interactions via G2B and G2G relationships, (2) a reform-oriented leadership, (3) considerate legislation, which is appropriate in context of a specific country, and (4) a pilot project. Comparatively, in an account conducted for the EBRD, Niewiadomska et al., (2015, 23-36, 51, 69) offer a more encompassing account of strategic considerations that must be accounted for preceding implementation. Namely, these are, (1) legal and regulatory, (2) business, (3) technological, (4) readiness assessment, and (5) a pilot project.

Substantially, the following critical success factors to electronic public procurement implementation were identified in the literature, (1) the ability to re-engineer existing procurement processes, (2) integration of the system end-to-end, (3) user support operations (4) ease to use, (5) development of security and authentication programs, (6) the degree of system centralization, (7) competence of civil employees (i.e. training and professionalization), (8) change management, (9) engaging stakeholders, (10) implementation plan, (11) strong reformist leadership, (12) political non-interference with the project, (13) supplier adoption, (14) successful pilot project, (15) organization's culture, (16) availability of necessary funds, and (17) appropriate business model and platform system (Panda et al., 2011; Panda et al., 2012; Doherty et al., 2013, 3; ADB, 2013, 64-77; Panda et al., 2015, 13-17; Niewiadomska et al., 2015, 28-51; Becker, 2018, 8-10; Akoto Oppong, 2020, 19-20).

All things considered, despite overlapping in some regards, these may be roughly clustered in accordance with the barriers identified afore. As such, the first five correspond

with technical barriers; the following nine coincide with organizational barriers; the fifteenth conforms to cultural barriers; and the last two with financial barriers. Ultimately, these barriers and critical success factors will be utilized in order to assess the case study of 'ProZorro' e-procurement platform implementation in Ukraine.

2. Research Design and Methodology:

This section of the thesis will explain the nature of the scrutiny, the research design upon which it is constructed, and the empirical approaches that are employed in order to synthesize the relevant data and to adequately address the objective of the study.

2.1 Research Design:

Due to the way this inquiry is structured, the following research is primarily constructed upon a deductive design, as opposed to inductive. On one hand, in instances where a researcher employs an inductive method, she or he begins with the collection of data, its consequent analysis, and ultimately develops a theory, which may be utilized in order to explain the observed patterns (Toshkov, 2016, 29). On the other hand, if the research is built upon a deductive design, it seeks to deploy existing theoretical assumptions with the goal of testing it against new data, resolving individual cases, or discover new systems (Toshkov, 2016, 29). As such, based on existing observed patterns and theoretical models, this investigation has developed a theoretical framework²², which will be utilized in order to assess an individual case of electronic procurement implementation in Ukraine. Ultimately, the empirical analysis of the selected case will either disconfirm or conform to expected relationships.

Furthermore, considering the scope of the analysis, which pertains to the case of Ukraine, this investigation is framed as a single-case study design. As such, multiple fragments of evidence about a single unit will be scrutinized and empirically analyzed (Toshkov, 2016, 285). Single-case study designs mostly rely on existing knowledge, and the case explanation is established through the use of well-founded theories and research methods. In addition, to be causally relevant, single-case study designs must present the audience with a sequence of events preceding the object of inquiry. Accordingly, mechanisms of causality must be identified and discussed (Toshkov, 2016, 298). Comparatively, this type of research design has several limitations, among which two prevail. Firstly, results may not always be generalized beyond the case study (Toshkov, 2016, 304). Secondly, existing theoretical assumptions and literature, as well as the sequencing of preceding events does not present strong causal mechanisms, the validity of the evidence is threatened (Toshkov, 2016, 305).

²² For more information on the employed ‘theoretical framework’, see Section 1.3

Consequently, as the overall research question suggests, this investigation is structured as a positive, empirical, and exploratory research. As such, the first is attributable to the fact that positive questions seek to deal with 'what is, 'used to be', or 'will be', unlike normative ones, which give detailed accounts of what is 'ought to be' (Toshkov, 2016, 24). Because, this research has a goal of explaining an occurred instance, namely, the implementation of digital solutions to Ukraine's public procurement, it is a positive study, as opposed to normative. Moreover, in the context of the disciplines of political science and public administration, positive research, in most cases, is associated with the empirical world (Toshkov, 2016, 28-29). Therefore, as this investigation seeks to derive empirical implications from existing theories (or established theoretical framework, as a result of literature analysis (i.e. review), it is also considered to be an empirical research. Lastly, and perhaps most importantly, this inquiry is exploratory in its nature. Exploratory designs usually employ qualitative data to examine a novel issue and develop ideas that will build the foundation of the topic for further research (Neuman, 2013, 38). Ultimately, the use of research questions is considered to be a necessary precondition to test a theoretical framework. Accordingly, due to the fact that it is deductive, it will seek to explain the relationship between numerous concepts and phenomena by deploying theoretical prepositions, which will serve to test existing assumptions against new data from an individual case (i.e. Ukraine's electronic procurement implementation) (Toshkov, 2016, 29). The ultimate goal of exploratory research is to build a comprehensive causal narrative, which seeks to explain a specific phenomenon (Toshkov, 2016, 35). Importantly, in most instances, research in exploratory designs is conducted through the use of questions, rather than hypotheses. As such, in the case of this investigation, the aim is centered around discovering as to why implementation of electronic procurement, in an unfavorable setting, was possible.

2.2 Methodology:

Attributable to the fact that this investigation is structured as a single-case study design, this scrutiny will employ the method of process-tracing in order to analyze the selected literature. As such, process-tracing is qualitative analysis methodology, which offers the investigator a deeper insight on the topic of inquiry, as it allows the researcher to acquaint the reader with a great deal of contextual information and delineate events leading to an outcome of interest in a chronological fashion (Toshkov, 2016, 300). Furthermore, in his book, Toshkov (2016, 300) asserts that process-tracing is an appropriate method to employ towards data analysis in accordance with a set-theoretical framework, to instances whereby a

piece of legislation or a reform was enacted. As such, it opens the doors to conduct an all-encompassing synthesis and analysis of primary and secondary data, legal documents, individual accounts (i.e. interviews and surveys), media sources, formal and informal rules present in the bureaucracy, and an opportunity to delve in-depth on the intricacies of the decision-making process in a given entity. Accordingly, it permits the investigator to cover more general and abstract processes with the goal of putting the given case in perspective, thus, providing the audience with a larger picture of incurred changes. Hence, due to the fact that the goal of this inquiry is to explain the successful implementation of electronic public procurement in Ukraine, this method of analyzing the data is considered best suited. Such is the reason because it puts the topic of inquiry in historical perspective and allows to account for a multitude of factors present in Ukraine's fragmented political, economic, and legislative arenas.

The sources collected in order to satisfy the objective of this research are mainly primary and secondary ones. On one hand, the former appears in the form of institutional reports, legislative documents, and newspaper articles and interviews from the time period. Legal acts have been gathered through open access, which appears on Ukraine's Parliament website (i.e. <https://zakon.rada.gov.ua/laws/main/index>). They are free to access, and the database operates in three languages, namely, Ukrainian, Russian, and English. The same holds true for the EU-Ukraine Association Agreement document. Similarly, institutional reports may be freely accessed on the websites of the respective organizations. Importantly, the ones selected for this investigation have been mostly from the international organizations in charge of monitoring Ukraine's reform effort. Precisely, these are, the EU, the EBRD, the OECD, the World Bank, and USAID. Finally, newspaper articles and interviews have been taken from Ukrainian media outlets. Moreover, they have been selected based on the need to describe a specific instance in the chronological sequence of events, or due to the fact that they included a person directly related to the reform process. The majority of these people's names will be mentioned in the analysis (i.e. Chapter #4).

On the other hand, the latter, that is, secondary sources materialize themselves in the form of academic books, peer-reviewed articles, and entries. The search was performed with the use of Leiden University Library Catalog, as well as numerous digital databases that burden themselves with topics specific to public administration or are multidisciplinary. Namely, these are, Bielefeld Academic Search Engine (BASE), COncnecting REpositories (CORE), Crossref, Google Scholar, Journal Storage (JSTOR), Microsoft Academic, Research Gate, and Science Open. In turn, academic entries were selected based on their adherence to

key words that pertain to this investigation. Precisely, these are, 'public procurement', 'electronic public procurement', 'public e-procurement', 'public procurement reform', 'electronic procurement implementation', 'barriers', 'success factors', 'neo-patrimonialism', 'partial reform equilibrium', 'Ukraine', 'ProZorro', and 'anti-corruption reform'. It is important to mention that searches were conducted based on single key words, as well their combinations. Finally, another exclusion criterion consisted of adhering to a time frame, in the case of this investigation 2014-2021. Such is mainly attributed to the fast-changing nature of digitalization and the recency of reform in Ukraine. Therefore, in order to synthesize an account that adheres to contemporary events and theoretical developments, the given time frame was applied.

3. Historical Context of Procurement Reform in Ukraine:

This chapter of the investigation will briefly accustom the audience with the intricacies of public procurement and its reform in Ukraine. As such, a historical account of reform efforts prior to the one under the scope of this inquiry will be provided. Furthermore, a short section describing the puzzling trajectory of anti-corruption reforms in Ukraine after 2014 will be presented.

3.1 Public Procurement in Ukraine, 1991-2015:

Since the advent of Ukraine's independence, the government has made three major attempts to reform the system of government purchasing. Prior to the most recent one in 2015, public procurement was considered to be the embodiment of grand corruption, and a systemic element of Ukraine's neopatrimonial system (Bugay, 2016; Nizhnikau, 2020, 6). Despite introducing first procurement regulations that would to an extent adhere to international practices, in 1993, many inconsistencies remained in place (World Bank, 2001, 1). As such, the lack of a central procurement agency generated a deficit of clarity and overlaps among procuring entities. Ultimately, this created vast inefficiencies and inconsistencies in the overall process, culminating in non-compliance among stakeholders. As an illustration, McDonough (2017, 8) claims that throughout the 1990s the system of public procurement was, to a degree, an extension of the Soviet planned economy. Precisely, due to the lack of oversight mechanisms, the newly rich managed to exploit the system to their own advantage by generating enormous rents (van Zon, 2001, 74; Aslund, 2015, 28; Yekelchik, 2020, 70, 93). The demand for goods or services was artificially created based on preferential agreements between businesses and respective civil servants. Moreover, competition among bidders was practically inexistent, as contracts were awarded behind closed doors (i.e. closed tendering), and an immense network of bureaucratic procedures ensured that the process remains hidden from the public eye (McDonough, 2017, 8). Accordingly, the first effort to reform the grossly inefficient system dates 2000 and the consequent 2010. The following sections will briefly delve into the intricacies of both, illustrate their drawbacks, and highlight the difficulties in reforming the most lucrative state activity.

3.1.1 First Reform, 2000:

Ukraine began to draft comprehensive legislation regarding public procurement in 1996. Interestingly, it coincided with two other events that were imperative for Ukraine at the

time. Firstly, bilateral relations with the Russian Federation has worsened due to the dispute over the future of the Black Sea Fleet. Secondly, despite stabilizing hyperinflation, Ukraine has introduced a new national currency, the hryvnia. Thus, as the country's economy remained volatile due to the uneven switch from a planned to market economy, the government was obligated to apply for loans in order cover gaps (i.e. deficits) in the budget. Accordingly, due to the first reason, Western organizations served as donors, however, under certain conditionalities of reforms (Kuzio, 2015, 319). Hence, in 1998, President Kuchma launched the 'National Anti-Corruption Strategy', which encompassed addressing fraudulent practices in public procurement (Kudelia, 2016, 62). Ultimately, under the umbrella of EU's TACIS program, and advice from the World Bank and USAID, Ukraine's parliament has enacted the 'Law on Procurement of Goods, Works, and Services for Public Funds' (PPL) (i.e. #1490-III) in early 2000 (Verkhovna Rada, 2000; World Bank, 2001, 1; World Bank, 2006, 1; Stewart, 2013, 201).

Western partners remained very pleased at the time, as the legislation reasonably complied with accepted international standards. According to a World Bank (2001, 3-6) assessment, it established: (1) open tendering, as the main procurement procedure, thus, increasing competition, (2) it allowed for the participation of international bidders, (3) assured open access to information on bidding opportunities, and (4) created an implementing body, namely, the Public Procurement Office (PPO) under the jurisdiction of the Ministry for Development of Economy and Trade, and a monitoring entity, the Special Control Commission (SCC) under the authority of Anti-Monopoly Committee of Ukraine (AMCU). Furthermore, early results accord with the optimism. As such, the proportional number of competitive tenders exceeded 80% in 2000, and 92% in 2004 (World Bank, 2001, 1; Stewart, 2013, 201). Substantially, the savings achieved in the time period accounted to be 20%, as opposed to pre-reform period of 1999 (World Bank, 2001, 1). Nonetheless, despite pledging to develop the legislation further and even developing an Action Plan of doing so, the reform halted, as the relationship with Russia and economic conditions ameliorated.

The first cracks of the 2000 PPL became visible in late 2004, as the parliament passed numerous amendments to undermine the aforementioned standards (World Bank, 2006, 1; Stewart, 2013, 201). Furthermore, according to some estimates, Ukraine experienced one of the most significant increases of bribes and fraud related to public procurement worldwide, between 2005 and 2008 (World Bank, 2006, 2, 21). The apex of introduced non-transparent procedures (i.e. amendments) was the creation of the so-called 'Tender Chamber of Ukraine' (TC) in 2004. It was conceived as a non-governmental organization (NGO) and had the role

of ensuring the procurement process's transparency and promoting local businesses' participation in public tenders (World Bank, 2006, 1-2; Stewart, 2013, 202). In fact, it doubled the functions of the PPO, thus, creating vast inefficiencies in the PPL implementation among procuring entities (World Bank, 2016, 5-6; Nefyodov & Krykun, 2020, 48). Moreover, three more amendments were passed in 2005, 2006, and 2007, respectively. As a result of those, the PPO was forced to submit all bidding documentation to the TC, the TC acquired powers to disqualify potential bidders without formal explanation to the PPO and SCC, and the right to appeal decisions of the PPO and SCC (World Bank, 2006, 5-6, 9; Nefyodov et al., 2020, 48). To illustrate, such practices have immediately restricted competition and the participation of international bidders. Precisely, an average of two to three bidders have participated in open tenders between 2005 and 2008 (World Bank, 2006, 2). Regardless of being widely criticized by international organizations and Western partners, the TC remained in place until 2008. It operated under the patronage of the main three political forces headed by Yushchenko, Tymoshenko, and Yanukovich, all of whom benefited from the system to different extents.

However, similarly to the instance of 1996, in 2008, the Financial Crisis coupled with renewed gas disputes with the Russian Federation, significantly undermined Ukraine's economic stability. As a result, the government had to turn to Western countries in order to avoid financial default. Ultimately, under the conditionalities set by the International Monetary Fund (IMF) and the World Bank, the TC was abolished and key elements of the 2000 PPL restored (Stewart, 2013, 202). Nonetheless, the PPO and SCC were not fully renewed in their rights, and public procurement was governed by resolutions issued by the Cabinet of Ministers between 2008 and 2010 (Lakhtionov, 2021). The overall situation remained problematic, as resolutions do not have the same legal authority as legislative acts (Stewart, 2013, 202-203). Furthermore, in 2009, the Ministry for Development of Economy and Trade issued a decree whereby all publication notice about future tenders has to be done on paper and in one periodical named, "Вісник Державних Закупівель" (in English, Bulletin of Public Procurement) (MEDT, 2009; Nefyodov et al., 2020, 25; Lakhtionov, 2021). Accordingly, a limited amount was published, thus narrowing access to prospective bidders. All things considered, competition became ever more restricted, corruption widespread, and procurement contracts were easily tailored to meet specific requirements and adhere to preferential treatments made behind closed doors.

Moreover, at this time, information on public tenders during that time period remains limited, however, a consensus about widespread abuse, especially in the light of preparations

to the European Football Championship of 2012 (EURO 2012), persists. Precisely, according to various estimates, the budget of the country lost from 6 to 7.5 billion USD during the so-called 'public procurement crisis' (i.e. 2008-2010) (Stewart, 2013, 202-203).

3.1.2 Second Reform, 2010:

In February of 2010, Viktor Yanukovich was elected President of Ukraine. As part of his campaign, he promised to re-iterate economic reforms left uncompleted by his predecessors (Aslund, 2015, 82). As such, in the same month of his inauguration (i.e. February), the Parliament passed a revised PPL, named 'Law on Government Procurement' (i.e. #2289-VI) (Verkhovna Rada, 2010; Lakhtionov, 2021). Nonetheless, although it was improved in comparison to the one passed in 2000, it opened new opportunities for corruption, and lacked clarity on appeal mechanisms. Consequently, it was widely criticized by the World Bank, IMF, and the EU, which were Ukraine's largest creditors at the time (Stewart, 2013, 204; Aslund, 2015, 83). Hence, the Parliament, which was controlled by a presidential majority, adopted a new version in June of 2010. Notably, in some regards the law largely coincided with EU regulations, information about tenders made public, the TC was not reinstated, the PPO was again responsible for implementation, and the SCC was reintroduced as the sole complaint mechanism (Stewart, 2013, 204-205). However, concerns were raised, as disqualification criteria remained blurred, and all companies independent of their reputation given permission to participate in bidding.

Nevertheless, despite the law being progressive in many regards, the law was never implemented as originally drafted. Such is mainly attributable to the upcoming EURO 2012. Due to a plethora of reasons, the rate of preparations has been slowed down during the previous government. Accordingly, the UEFA threatened to revoke the right to host the event, if not accelerated (Stewart, 2013, 205). As a result, with the goal of adhering to the set preparation framework, the government added numerous amendments to the original legislation in August of 2010. These, allowed to eliminate all competitive tenders, as well as open bidding for all projects related to the EURO 2012 (Lakhtionov, 2021). Ultimately, this resulted in widespread abuses, preferential awarding of vast infrastructure contracts (i.e. for stadiums, highways etc.), and higher prices. Notably, the Ukrainian government failed to attract any foreign companies to invest in infrastructure projects (Stewart, 2013, 206). In comparison to Poland, which was co-hosting the tournament, Ukraine ended up spending a sum almost three times higher than their counterparts (i.e. 13 billion USD) (Stewart, 2013,

206). Accordingly, making the first amendment opened the ‘pandora box’ to do so in other sectors.

Beyond the preparations for EURO 2012, numerous other exemptions to the PPL were passed between 2011 and 2013 (Aslund, 2015, 83). As such, amendments circumventing official procedures covered practically all major segments of public procurement (Stewart, 2013, 207). Specifically, by the end of 2013, there was 43 amendments to the PPL of 2010 (Nefyodov et al., 2020, 27). Among numerous major segments, some included, household utilities (i.e. electricity and gas), gas and oil sector, military complex, state-controlled companies, food sector, and sales of land and real estate (Stewart, 2013, 208). In March of 2013, the decree whereby all tender notices were published on paper was repealed. Despite being relocated to an online platform, tender documentation was only accepted for a few hours during week days (Nefyodov et al., 2020, 27). Moreover, information was disclosed only a few days prior to the opening of bids, and requirements for supplier were grandly manipulated (Nefyodov et al., 2020, 26). Furthermore, as ever fewer segments of the market were obliged to follow legislation, those remaining under the realm of competition, faced a number of problems. Precisely, these were, lack of public notice, award of contracts based on favoritism²³, manipulation of tender requirements, and ineffective complaint mechanisms (Stewart, 2013, 207). Ultimately, information asymmetry among suppliers was vast, thus, driving some away from working with the government, or out of the market as a whole. Hence, despite a formal regulatory framework remaining in place, the public procurement system in Ukraine followed a neo-patrimonial logic, as informal arrangements had a dominant influence on the outcome of tenders (Stewart, 2013, 208; Nefyodov et al., 2020, 27).

It is important to mention that scholars generally agree that during Yanukovich’s presidential tenure, embezzlement and kickbacks in public procurement reached their peak (Stewart, 2013, 205; Aslund, 2015, 92; Lakhtionov, 2021). As such, Lough et al. (2018, 18) argue that kickbacks reached from 30 to 50% of procured amounts. These numbers were even higher in the case of large-scale procurement, where huge sums were paid to offshore companies as commission to public servants. Moreover, in his book, Yekelchik (2020, 70, 93) who claims that embezzlement based from procurement contracts became the preferred

²³ For more information on ‘favoritism’ in public procurement, see Section 1.1.5

method of fast enrichment. Such was particularly the case in grand state funded projects such as the ones required to host the EURO 2012.

Lastly, in their book, Nefyodov and Krykun (2020, 23-24) identify three of the most popular corrupt methods present in Ukraine's public procurement, prior to the reform in 2015. Firstly, the allocation of contract by manipulating tender requirements (i.e. supplier discrimination). For instance, a supplier, usually an ally or a relative from someone in an associated patron-client network, proposes to deliver paint for a higher price with the difference between the market and the tender price to be split among those involved. Ultimately, tender specifications will be tailored to deliver paint in cans with the volume of 6.5 liters, which are only available from her or him. (Nefyodov et al., 2020, 23-24) Secondly, potential supplier must submit their bid and accreditations documents in paper format. Thus, depending on the extent to which one is interested in their bid winning, the tender committee may choose to 'lose' one's documentation, or claim that it was 'spoiled' (Nefyodov et al., 2020, 24). Thirdly, and related to the former two, on the occasion that a supplier assures that she or he can supply paint in volume of 6.5 liters and her or his documentation is not spoiled or lost, the tender committee may simply disqualify her or him, as a kickback was not received. Accordingly, exercising the right appeal a decision will not yield utility, as the bribe is dispersed through the apparatus (Nefyodov et al., 2020, 24).

3.2 Trajectory of Anti-Corruption Reforms after 2014:

As has been discussed in Section 1.2.4.2, regime overhauls in Ukraine's political arena, consistently open a window of opportunity to re-arrange or rebuild existing institutions, as well as address key challenges facing the country. As such, this has been the case in 2014, following the Revolution of Dignity. It is widely regarded that since 2014, the Ukrainian government has adopted more reforms than in the previous years after independence (Lough et al., 2018, 3; Nizhnikau, 2020, 1). Accordingly, newly established political parties such as, the Bloc of Petro Poroshenko (BPP) and the Popular Front (PF), which obtained victories in the parliamentary elections of 2014, campaigned on reform platforms and promises to combat corruption. They were joined by three other parties, namely, Self-Reliance, the Radical Party, and Fatherland, all of which were also pro-reform. Accordingly, together, these five formed a parliamentary coalition with a constitutional majority branded 'European Ukraine' (Aslund, 2015, 117; Moshes et al., 2019, 4; Nizhnikau, 2020, 4). As such, they pledged to seek closer ties with the West, transform the existing

institutional arrangement, devise a comprehensive anti-corruption strategy, and enact reforms that would address key issues in Ukraine's economic, political, and legal arenas.

Among many, between 2014 and 2019, the government began reforming the gas, energy, and banking sector. Furthermore, transformations were initiated in the judiciary, customs, fiscal, tax, law enforcement, procurement, and public administration systems (Lough et al., 2018, 2). Additionally, some steps towards digitalization, land reform, demonopolization, de-oligarchization, decentralization, lustration, and further privatization of SOEs were made (Lough et al., 2018, 2). Finally, and perhaps most importantly in the context of this investigation, in 2014, Verkhovna Rada passed the 'Law on Prevention of Corruption', which radically revised previously existing anti-corruption framework (Aslund, 2015, 144; Choudhry, Sedelius & Kyrychenko, 2018, 28; Bauman-Vitolina et al., 2020, 36). Accordingly, under the pressure of international donors and civil society, it was complemented with the establishment of new anti-corruption infrastructure and the National Reforms Council, as well as the restructuring of the parliamentary Committee on Anti-Corruption Policy (McDonough, 2017, 12). Precisely new oversight institutions and mechanisms such as, the National Anti-Corruption Bureau of Ukraine (NABU), the National Agency on Corruption Prevention (NACP), the Specialized Anti-Corruption Prosecutor's Office (SAPO), High Anti-Corruption Court (HACC), the Asset Recovery and Management Agency (ARMA), and the State Bureau of Investigation (SBI) were established (Aslund, 2015, 143; Moshes et al., 2019, 6; Nizhnikau, 2020, 5; Yekelchuk, 2020, 159-160).

It is important to mention that these have been the central pillar of the intensified cooperation between the West and Ukraine. As such, these institutions have imposed new rules and at least initially increased transparency in legislative operations of political parties, and public affairs, as well as procurement. Nonetheless, despite formally existing until 2019, the coalition collapsed in early 2016. According to Nizhnikau (2020, 4), this event is considered to be the formal end of the aforementioned window for reform opportunity. Ultimately, it has culminated in the appointment of Volodymyr Groysman as Prime Minister, and the division of the Cabinet of Ministers of Ukraine (CMU) between the BPP and PF (Sydorenko & Panchenko, 2017; Moshes et al., 2019, 7). Accordingly, the BPP-PF duumvirate established itself as the main, new rent-seeking coalition, and effectively halted reforms and paralyzed the functioning of the above-mentioned anti-corruption infrastructure (Nizhnikau, 2020, 4).

As such, following the collapse of 'European Ukraine', the parliamentary Committee on Anti-Corruption Policy, which was restructured as the main coordination platform of anti-

corruption reforms, became increasingly dominated by BPP representatives (Nizhnikau, 2020, 4). Accordingly, they have effectively blocked further amendments to anti-corruption legislation, even those that were set to be conditional by the IMF. Furthermore, the ARMA and the SBI were institutionally setup through informal deals between the ruling parties. Accordingly, the PF dominated the former, whereas the latter was captured by BPP's political interests. The HACC legislation was not passed until 2018 and thus, the institution was not formally established and have not begun its operation until 2019, and remains ineffective due to lacking complementing judiciary reform (Lough et al., 2018, 29; Bohoslavsky, 2019, 461; Yekelchik, 2020, 160). The NACP's work has been a source of controversy, as its leadership was allegedly politically dependent and on numerous instances sabotaged allegations against high-profile politicians (Lough et al., 2018, 29; Bohoslavsky, 2019, 460; Yekelchik, 2020, 160). Similarly, the SAPO's leadership was selected according to a neo-patrimonial logic. Until 2020, it was headed by Nazar Holodnitskiy, whose reputation is questionable, as he was linked to then Minister of Interior and one of the key figures in the PF, Arsen Avakov, as well as oligarch Igor Kolomoisky (Lough et al., 2018, 28; Yekelchik, 2020, 160; Nizhnikau, 2020, 4). Moreover, despite being established as independent from the General Prosecutor's Office (GPO), the Verkhovna Rada, controlled by the BPP and PF, constantly made attempts to place it under the jurisdiction of the GPO. In contrast, NABU, has generally managed to retain the reputation of a 'clean' organization (Lough et al., 2018, 28; Moshes et al., 2019, 7). As such, since its inception in 2015, it has constantly been in conflict with the President's Administration, the GPO, SAPO, and other law enforcement agencies (Moshes et al., 2019, 7). Notably, due to his alleged political impartiality, NABU's chairman, Artem Sytnyk, has been figure to numerous prosecutions and target of media attacks (Nizhnikau, 2020, 5). Nonetheless, despite launching hundreds of criminal investigations, none has been directly damaging to key patronage networks' interests (Moshes et al., 2019, 7; Nizhnikau, 2020, 5). Hence, at this time, it is widely regarded that albeit strong external and internal pressure, the majority of reforms, as well as newly-established anti-corruption infrastructure during Petro Poroshenko's presidency (2014-2019) became hostage of informal arrangements between the BPP and the PF, thus, remained partial, paralyzed, or backslid. As such, the overall political system, which scholars brand as 'neo-patrimonial', remained intact, only changing the faces of its main political executors.

Nevertheless, academia highlights several landmark successes, precisely, the introduction of electronic declarations (e-declarations) of civil servants' assets, the reform of the banking system, the reform of the largest gas and oil SOE, "Naftogaz", and the

installation of the electronic procurement platform, “ProZorro” (Lough et al., 2018, 34-35; Moshes et al., 2021, 2-3). It is important to mention that on one hand, the success of the former three, may be mostly attributed to the pressure of Western donors. This being said, these were among the first conditions upon which the IMF agreed to provide the Ukrainian government with the much-needed monetary aid in 2014. As such, it was a necessary prerequisite for the incumbent government in order to appear progressive and pro-reform in front of the public and external partners. On the other hand, in the case of public procurement, the reform directly disputed the deeply consolidated neo-patrimonial paradigm of governance, and challenged one of the biggest sources of economic rents. Moreover, despite being an element of economic and trade provisions of the AA with the EU, foreign endorsement was minimal at first. Accordingly, as of 2020, Ukraine has implemented only 42% of all provisions prescribed by the AA (Akulenko, 2020), hence, foreign pressure may not be utilized as a unique explanatory factor of implementation. Therefore, key impeding factors were in place, whilst facilitating ones were initially marginal or missing.

4. Empirical Analysis:

This chapter of the investigation will seek to present and scrutinize the main findings of the selected case study by employing the suggested method (i.e. process tracing) of data analysis²⁴ vis-à-vis academic foundations generated from the extensive review of relevant academic literature. Accordingly, four foundational elements have been identified and brought under a single investigatory paradigm, which is delineated and prescribed by the theoretical framework²⁵.

As such, the following chapter will be divided into five subsequent parts. The first will briefly rewind the background of public procurement reform, as well as accustom the reader with the context behind the development of electronic public procurement in Ukraine. The consequent four will scrutinize the case of 'ProZorro' e-government procurement platform implementation vis-à-vis five identified barriers to implementation. Namely, these are, (1) organizational, (2) social, (3) technical, and (4) financial. Notably, after due consideration, for the purpose of narration and legibility, these will be presented in a different order from the one illustrated in the theoretical framework. Accordingly, this does not influence the analysis, nor findings of this scrutiny, as well as does not collude with the objective of the study.

4.1 Context of 'ProZorro' Implementation:

As has been extensively mentioned afore, academia brands Ukraine's system of governance as 'neo-patrimonial'. In such institutional arrangement, a knit of business-political elite captures the entity's main sources of economic rents and assert its monopoly over patron-client networks and the bureaucracy. Accordingly, it manages to maintain legitimacy through legal procedures of political contest and the dispersal of tangible and intangible benefits throughout the state apparatus and public supporters. Importantly, albeit attempts to maintain the façade of operating in accordance to formal procedures, informal arrangements and agreements tend to dominate the political, legal, and economic arenas. Finally, to secure returns and restrict competition, early net winners seek to incapacitate developmental reforms that directly threaten their interests, centralize power, and cripple, as well as penetrate formal oversight mechanisms, the judiciary, law enforcement, and legislative bodies.

²⁴ For more information on 'methodology', see Section 2.2

²⁵ For more information on 'theoretical framework', see Section 2.1

Keeping that in mind, public procurement was considered to be a traditional element of Ukraine's neo-patrimonial system. In the early 1990's in the light of absence of checks and balances of the collapsed Soviet system, the structure of government purchasing fell under the direct control of the ruling elite (van Zon, 2001, 74; Niewiadomska et al., 2015, 77). As a result, for decades the market of public procurement in Ukraine, which amounted to roughly 15% of the total GDP, was grossly inefficient, corrupt, and with restricted access for SMEs, international companies, and those unfavored by those in power at the time (Romanenko & Shchokin, 2016, 31; Bugay, 2016; Bauman-Vitolina et al., 2020, 36). Accordingly, as have been discussed earlier, heavy bureaucratic procedures and corrupt institutions consistently camouflaged widespread distortions and discretionary decisions regarding awarded public contracts. However, the problem did not only manifest itself through typical structural abuses in public procurement²⁶ such as, nepotism, favoritism, embezzlement, kickbacks, fraud, tax exemption, and bribery, but through channeling stolen funds from the state budget. In turn, these would be utilized in order to sponsor political parties and continuously corrupting law enforcement agencies and the judiciary, thus, impeding the work of oversight bodies and mechanism (Ari & Pula, 2021, 18). Henceforth, public procurement, was utilized as an instrument to reinforce negative feedback loops that strengthen the neo-patrimonial system of governance at the expense of the public good.

Interestingly, throughout its existence as an independent state, Ukraine, has been susceptible to the opening of a so-called 'policy window', whereby in the light of a new arrangement of power distribution, opportunities for comprehensive reforms that address systemic issues are open. As has been discussed in Section 1.2, these usually present itself at times of social upheaval or in instances of deterioration with the country's main geopolitical partners (i.e. the West or the Russian Federation). As such, the sector of government purchasing experienced three major reform attempts, in 2000, 2010, and 2015. Notably, all were part of larger legislative frameworks that would seek to promote economic reforms and corruption prevention strategies. Additionally, the three were codified as separate laws (i.e. PPLs) whose goal was to revise and transform existing procurement procedures in accordance to those in the EU. However, none apart from the latter managed to change the status quo significantly. The first reform of 2000²⁷, despite being hailed a success at first, fell victim to political manipulations between rivalrous patron-client networks. As such,

²⁶ For more information on 'corruption in public procurement', see Sections 1.1.5 and 1.1.6

²⁷ For more information on 'the first reform of 2000', see Section 3.1.1

information about tenders was hidden, the process became increasingly paper heavy, and overlapping supervisory bodies were created. The second reform of 2010²⁸, although addressing the distortions of the preceding one, quickly became a ‘hostage’ of those in power, namely President Viktor Yanukovich and his political party (i.e. Party of Regions). As such, the original legislation was maneuvered by the addition of numerous amendments that would exempt state-funded projects and key sectors of the economy from competitive open tenders. Notably, by 2013, as much as 43 types of public contracts were exonerated from competitive tenders (Niewiadomska et al., 2015, 77). The problem was further exacerbated by lack of public notice, manipulation of tender requirements, allocation of contracts based on favoritistic principles, and ineffective complaint mechanisms.

Attributable to the evident distortions of the 2010 PPL, there was a general consensus among Ukrainian, as well as foreign, experts and policy-makers that a revision of existing, or new legislation was necessary. Furthermore, in preparation to sign the AA with the EU, Azarov’s government (i.e. Prime Minister during Viktor Yanukovich’s Presidency) began work on harmonizing public procurement procedures with EU standards and drafting new legislation (Baumane-Vitolina & Osypenko, 2020, 34). However, Yanukovich withdrew from the idea (Kuzio, 2015, 9). Ultimately, the refusal served as a catalyst for widespread protests, which culminated in his deposition, Russian military aggression, and the opening of yet another ‘policy window’²⁹ (Aslund, 2015, 51; Baumane-Vitolina, 2020, 42-43).

In late February of 2014, in anticipation of an impending fiscal and financial crisis, the interim government announced public control over state spending to be a key priority. As such, then Minister of the MEDT, Pavlo Sheremeta began reforming the public procurement sphere based on the draft bills compiled by his predecessor (Niewiadomska et al., 2015, 77; Nizhnikau, 2020, 7). As such, under his leadership, he assembled a working group that included, non-state activists, NGOs, representatives of the World Bank, EU, and civil society. Ultimately, a new law 'On Public Procurement' (i.e. #1197-VII) adapted Ukraine's legislation closer to EU's policies (Psota et al., 2020, 95; Osyhka et al., 2020, 95). It has put a limit to the amount of exemptions from 43 to 13, opened doors for Ukraine to join the WTO's GPA, and required to report state procurements via online means publicly (Niewiadomska et al., 2015, 77; McDonough, 2017, 10; Nizhnikau, 2020, 7). However, despite removing major

²⁸ For more information on ‘the second reform of 2010’, see Section 3.1.2

²⁹ For more information on the ‘trajectory of anti-corruption reforms after 2014’, see Section 3.2

loopholes, it failed to address systemic abuses from procuring agencies and open doors to the implementation of electronic procurement (Niewiadomska et al., 2015, 77). Hence, the need to improve the legislation was apparent.

Accordingly, cooperating groups at the MEDT continued working on a new concept and draft legislation for reform. Interestingly, in opposition to civil society activists and the Minister, EU advisors to the MEDT believed that e-procurement was a secondary objective to procurement professionalization and centralization (Niewiadomska et al., 2015, 77; Nefyodov et al., 2020, 33). Additionally, the World Bank recommended to launch a new reform with a possibility of electronic procurement implementation from scratch, which would take years to complete (Nizhnikau, 2020, 7). Moreover, in July 2014, the process was formally suspended by the dissolution of the Verkhovna Rada by President Petro Poroshenko and the consequent resignation of Minister Pavlo Sheremeta. Furthermore, in September of 2014 Ukraine signed the AA with the EU (Vlialko, 2015, 83). Particularly, Chapter #8 (Articles 148-156) of the AA fully concerns itself with harmonization of public procurement legislation (Osyhka et al., 2020, 95). However, it does oblige Ukraine to implement an electronic procurement system, but required further amendments to the Law #1197-VII (Baumane-Vitolina et al., 2020, 35). In spite of that, by the end of 2014, after extensive deliberation among stakeholders, e-procurement implementation was included as part of the new draft of the PPL. Nonetheless, it failed to gather enough support among parliamentary deputies (i.e. 226 votes) in order to be passed into legislation means (Niewiadomska et al., 2015, 77; McDonough, 2017, 10; Nizhnikau, 2020, 7). Hence, proponents of the reform had to find ever more innovative solutions for the e-procurement platform to be legally implemented. Such will be further addressed and scrutinized in the subsequent section of this chapter.

4.2 ‘ProZorro’ vis-à-vis Organizational Barriers:

This excerpt will seek to build upon the discussion initiated in the preceding one. Correspondingly by presenting the chronological sequence of events, it will aim at identifying the critical success factors that aided in overcoming organizational barriers to successful public e-procurement implementation in Ukraine.

Prior to the dissolution of the Parliament by Petro Poroshenko in August of 2014, the development of an electronic system of public procurement was evolving along three separate tracks (Nefyodov et al., 2020, 37; Nizhnikau, 2020, 7). As such, the first was headed by the aforementioned working group at the MEDT headed by Pavlo Sheremeta and his

advisor Lilia Lakhtionova. It was composed of civil society and NGO representatives, advisors from the EU and the World Bank, and non-state activists (Baumane-Vitolina, 2020, 37). The latter group, as will be demonstrated later, was of especial importance. As such, they were members of the Open University of Maidan and Kyiv-Mohyla Academy (KMA) led by Oleksandr Starodubtsev and Andriy Kucherenko (Nefyodov et al., 2020, 34; Nizhnikau, 2020, 7; Depo, 2021, 7). The second track was driven by a member of Parliament, Ksenia Lyapina, who acted with the assistance of Georgian advisors, Tato Urjumelashvili and David Marghania. Notably, the two were architects of the Georgian public e-procurement platform known as, 'Ge-GP'. Accordingly, its implementation was successful in Georgia, hence, the idea was to mimic the country's reform in Ukraine (Nefyodov et al., 2020, 38). Finally, the third track was promoted by Ukraine's state procurement agency, Zovnishtorgvydav. In July of 2014, the first two were brought together under the umbrella of the MEDT. Consequently, the model of the 'Ge-GP' was taken as the example, and drafts to pass similar legislation began (Depo, 2021, 7). However, attributable to the above-mentioned dissolution of the Parliament and the resignation of Pavlo Sheremeta all efforts were rendered obsolete, as the initiative lost any political backing (McDonough, 2017, 10; Nefyodov et al., 2020, 38; Nizhnikau, 2020, 7).

The postponement offered time to revise the approach. As of then, the efforts were led by Transparency International, a civil society that gathered some of the former participants of the MEDT working group (Baumane-Vitolina et al., 2020, 37; Depo, 2021, 7). As such, the idea of mirroring the Georgian strategy was refuted, as concerns were raised about its inapplicability to the Ukrainian context (Nizhnikau, 2020, 7; Depo, 2021, 7). Such became especially apparent after the results of the Parliamentary elections. In Georgia, the idea of 'Ge-GP' received greater initial political backing from then pro-reform Parliament and President (Depo, 2021, 8). In contrast, despite the forming a pro-reform coalition in the Verkhovna Rada, support for an e-procurement platform remained low among political parties. As such, the Parliament even failed to vote on a revised PPL, which included provisions for e-procurement, in the first reading, in autumn of 2014. However, in September of the same year, the Deputy Head of the Presidential Administration (PA), Dmytro Shymkiv, suggested launching a pilot project of an e-procurement system (Nefyodov et al., 2020, 53; Depo, 2021, 8). This was possible due to the fact that Law #1197-VII (i.e. PPL of 2014) does not regulate sub-thresholds public tenders (McDonough, 2017, 10). Although they account for roughly half of the country's procurement budget, the pilot could proceed without the necessity to obtain a license (McDonough, 2017, 10; Depo, 2021, 8). For the

purpose of a call to join and asserting political backing, an Open Procurement Platform Memorandum was outlined and signed (Nefyodov et al., 2020, 54). Among many, the signatories included Starodubtsev, Lyapina, Lakhtionova, numerous Georgian policy experts, e-commerce platforms, Transparency International, Minister of Justice Pavlo Petrenko, and others (Nefyodov et al., 2020, 54-55).

The Memorandum outlined four key principles of the initiative such as, transparency, modernity, convenience, and economy. The first was backed by an open-code system in which ‘everyone can see everything’. The second revolved around an innovative idea of an e-procurement platform, which at the time was unique in the world. The third, supported through easy access and invitation for all to participate. Finally, economy advocated for the satisfaction of societal needs at best prices (Niewiadomska et al., 2015, 77; Varenyk et al., 2016, 9-10). In February of 2015, ‘ProZorro’ was launched as a pilot initiative and was supported by six private e-commerce platforms (Nefyodov et al., 2020, 64). Its first clients were the Ministry of Justice and one of the country’s biggest SOEs, Energoatom (Nizhnikau, 2020, 9; Nefyodov et al., 2020, 67). During the first weeks of the platform’s pilot functioning, a saving rate of at least 20% was reported. As first successes were revealed an increasing number of e-platforms and state agencies rushed to join the initiative. Interestingly, the biggest users became those where activists and foreigners took key bureaucratic positions (Nizhnikau, 2020, 8). By August of 2015 as many as 300 state agencies, including Ministries and SOEs, were utilizing the system voluntarily. Moreover, by November of the same year, the pilot project conducted over 15,000 public tenders with a budget of 150 million USD, and according to some estimates generated saving of over 20 million USD (Varenyk et al., 2016, 11-12; Bohoslavsky, 2019, 462-463; Depo, 2021, 8-9).

Accordingly, the e-procurement platform began to receive increasing political backing, and as other reforms backslid, then Prime Minister Arseniy Yatseniuk announced the draft of a new PPL to be the main priority (Depo, 2021, 8-9). Changes began to also happen in the MEDT. A Lithuanian-born Minister, Aivaras Abromavičius, invited Starodubtsev to coordinate effort on public procurement reform in the MEDT and become head of the Public Procurement Department (Nefyodov et al., 2020, 79-80). Moreover, he appointed, another supported of the reform, Maksym Nefyodov, as his deputy, whose work was to lobby the e-platform in the CMU (Nizhnikau, 2020, 8). Accordingly, in order to become the main public e-procurement platform, ‘ProZorro’, had to be transferred to the state. As the MEDT made conditional a state audit of Zovnishtorgvydav and other affiliated procurement agencies (Nefyodov et al., 2020, 92). In May of 2015, civil society activists and

main executors of 'ProZorro' replaced Zovnishtorgvydav's management (Nizhnikau, 2020, 8). Ultimately, in the summer of 2015, the functional capacity of the e-procurement platform began to be expanded in order to encompass the full volume of state procurements, and the drafting of according legislation to be drafted (Depo, 2021, 8).

The most recent Ukrainian law 'On Public Procurement' (i.e. #922-VIII) was passed on December 25th 2015. Based on this law, all public procurement must be gradually transitioned from a paper to an electronic system, 'ProZorro' starting from April 1st, 2016 (Varenyk et al., 2016, 8; Dmytryshyn et al., 2018, 356). Importantly, the law prioritized key principles advocated by 'ProZorro' proponents such as, transparency, non-discrimination, competition, and saving of expenditures. (Psota, 2018, 17) Furthermore, in February of 2016, the government adopted the Public Procurement Reform Strategy, which encompassed further professionalization, centralization of the procurement system, and harmonization with EU legislation (Psota et al., 2020, 95). Moreover, in the same month, Ukraine also joined the WTO's GPA (Baumane-Vitolina et al., 2020, 36). The GPA sets general rules for tender bidding and promotes non-discriminatory conditions for all players on the market, thus, assuring international competition in public procurement. Accordingly, the implementation of the agreement advocates for rational use of budget funds and allows the entrance of international companies on the Ukrainian market (and vice versa) (Baumane-Vitolina et al., 2020, 36).

Most importantly, the new system of conducting public procurement stopped being dependent on changes in those holding political power. As such, in April of 2016, the new Prime Minister, Volodymyr Groysman, maintained that a failure to adapt to new requirements would lead to dismissals of high-ranking bureaucrats in respective state agencies and ministries (Nizhnikau, 2020, 8). Accordingly, despite the informal dissolution of the coalition, new amendments to the law were made in 2017, which introduced a comprehensive framework of risk indicators and increased penalties for their violation. Furthermore, following his inauguration as President in 2019, Volodymyr Zelensky, rallied behind 'ProZorro' and announced that the PPL would be further revised to ensure greater coverage of the e-procurement platform (Nizhnikau, 2020, 9-10). Ultimately, an improved version was passed in September of 2019, which included the introduction of novel complaint mechanisms. In addition, Zelensky mandated the use of 'ProZorro.Sale', a platform to sale state-owned or seized property (also developed by the 'ProZorro' team), as the sole auction platform (Baumane-Vitolina, 2020, 35).

4.3 ‘ProZorro’ vis-à-vis Social Barriers:

This section will delve into the intricacies of how ‘ProZorro’ performed according to social (or cultural) barriers to public e-procurement implementation. Notably, the barriers include, (1) resistance to change, (2) cultural implications, and (3) lack of trust.

Provided with the given case-study, the first two largely intertwine, as resistance to change is derived from the discretionary powers that civil servants fear losing. Accordingly, the amplitude of those powers is dependent on the culture of the organization that they serve. In the case of Ukraine’s public procurement, and more specifically Zovnishtorgvydav, that culture may be characterized by informal arrangements and endemic corruption that manifests itself in a variety of ways, as mentioned afore.

The initial design of the reform and e-procurement platform was based on values of transparency, impartiality, convenience, non-discrimination, and modernity. These principles directly contradict the consolidated system of public procurement since Ukraine’s independence. As such, as previously illustrated the structure of purchasing inherited from the Soviet Union largely followed the logic of neo-patrimonialism. Accordingly, the sudden success in making public tenders more transparent, competitive and, thus, less susceptible to corruption and manipulation during the pilot launch of ‘ProZorro’ allowed for comprehensive changes to the system to be introduced.

The success of the pilot contributed to a reduction of uncertainty among veto players, as well as attaining legitimacy among potential users and key-policymakers. As such, the demand to use the system has steadily increased, culminating in the adoption of Law #922-VIII. The law officially amended the key principles, ultimately, offering an opportunity to overhaul the existing system. As described in Section 4.2 representatives of civil society, and not political appointees, were invited coordinate reform efforts and an audit of procurement agencies was ordered. Consequently, the majority of Zovnishtorgvydav’s management was dismissed and replaced by proponents of the reform, most of which without a political or bureaucratic background. Furthermore, in late 2015, the agency was abolished, and ‘ProZorro’ was installed in its place (Nizhnikau, 2020, 8). Therefore, the culture and nature of operating state procurements was replaced with a completely novel paradigm. Such coupled with extensive political backing meant that the remaining old system workforce could do nothing, but to comply with new rules.

Substantially, new formal oversight mechanisms such as, the BI and ‘DoZorro’ were put in place, as a result of co-production between interested stakeholders (Bader et al., 2019, 16; Depo, 2021, 10). As described earlier, the old system had a very limited structure of

checks and balances and accountability mechanisms. As such, information is publicly available and all interested are invited to monitor the activity of procurement process participants. In addition, in a joint effort, the government, non-state organizations, and foreign donors offered courses that aim to train and professionalize procurement specialists, suppliers, and procurers. Ultimately, these factors, together with the fact that the platform was developed in coordination with the private sector as a bottom-up initiative, increased trust in the reform and the e-procurement platform.

4.4 ‘ProZorro’ vis-à-vis Technical Barriers:

This excerpt will seek to analyze the implementation of electronic procurement in Ukraine in accordance to the technical (or technological) barriers that were identified in the literature and later prescribed in the theoretical framework. As such, the following components will be addressed: (1) ICT infrastructure (i.e. software architecture), (2) privacy, security, and authentication, (3) system integration, (4) harmonization of technological standards (i.e. presence of complementing legislation), and (5) ease-to-use.

At the beginning of 2014, Ukraine’s government administration had very limited reliance on ICTs and the Internet. Apart from a few databases for law enforcement agencies and the judiciary, as well as marginal amount of government websites, the state has failed to make comprehensive advances in digitalization. Importantly, the access to the former was limited to the public, as it encompassed confidential records, whereas the latter did not provide services, thus, was mainly descriptive. As for public procurement, in 2013, a website (i.e. www.tender.me.gov.ua) was created (Niewiadomska et al., 2015, 77). However, its role was restricted to publishing a limited amount of tender notices and contract awards.

Accordingly, no system of electronic bidding and public access to data at all stages of the procurement process was made available. Nonetheless, the majority of Ukrainians, especially those in urban areas, had access to the Internet, and e-commerce platforms were developing and becoming increasingly popular throughout the country (Baumane-Vitolina et al., 2020, 36). Therefore, whilst digitalization was seriously lacking in the realm of the public sector, the private one, as well as the citizenry were experiencing accelerating rates in digital literacy. Moreover, Ukraine is considered to be home to a very strong programming community, which was traditionally neglected by the state (McDonough, 2017, 11).

For this reason, the proponents of electronic public procurement implementation desired to take advantage of existing commercial electronic platforms in Ukraine and the population’s digital literacy. As such, the Ukrainian public e-procurement platform

developed in early 2014, which became latter known as ‘ProZorro’, is designed according to a hybrid model (Niewiadomska et al., 2015, 79; Depo, 2021, 10). Precisely, it involves the cooperation of the private and public sectors, as well as various other non-state activists and representatives of civil society.

In technical terms, it is constructed in adherence to Open Contracting Data Standards as a service-oriented architecture (SOA) based on methods of interaction known as, Representational State Transfer (REST) (Urjumelashvili, Marghania & Gromov, 2015, 12). Accordingly, this approach generated a multi-platform approach that consists of two main elements, a single central database (CDB) and commercial platforms (Urjumelashvili et al., 2015, 12). In simple terms, it is comprised of a CDB (i.e. ‘ProZorro’) through which all interested commercial e-platforms are connected. Consequently, all registered suppliers on these platforms gain access to the CDB, thus, to the public procurement market. Furthermore, users may interact with the CDB via an Application Programming Interface (API), which is performed through the use of JavaScript Objection Notation (JSON) (Niewiadomska et al., 2015, 81; Urjumelashvili et al., 2015, 12; McDonough, 2017, 11).

The API allowed for the standardization of electronic payments, workflows, data sharing protocols, as well as authentication and tender procedures. Hence, this permitted to create a level playing field, as information disseminated across all involved platforms is uniform and executed at the same time. The API was also later developed into a catalogue that stores all data and activity of users (McDonough, 2017, 11). Consequently, in order to address possible security issues and leaks, it is encrypted, stored in cloud, and constantly released for audits that are made publicly available (Urjumelashvili et al., 2015, 12-13). It is important to notice that the use of digital signatures is still optional, as according legislation in Ukraine is still to be revised (Urjumelashvili et al., 2015, 8, 16). As such, this poses valid security issues for stakeholders. Moreover, e-platforms charge suppliers a small access fee, a part of which is used to pay the central database (i.e. ‘ProZorro’) (Niewiadomska et al., 2015, 80; McDonough, 2017, 11). Hence, both, the platforms and the central unit become profit oriented, thus, assuring their independence from state funds. Substantially, the plurality of service platforms assures competition between them, thus will contribute to a continuous improvement of the system and the quality of services.

Furthermore, in order to maximize the efficiency of ‘ProZorro’, its developers made a decision to open the CDB by employing an open-source code named “Apache 2.0” (Niewiadomska et al., 2015, 81; McDonough, 2017, 11). The code is freely available on the web. Ultimately, this facilitated the correction of the system’s weaknesses, development of

additional applications, and exporting the system to other entities. Coupled with the fact that ProZorro is constructed in accordance to Open Contracting Data Standards make it possible to link Ukraine's e-procurement platform with those in other states (i.e. efficiently fulfil the WTO's GPA) (Niewiadomska et al., 2015, 82; Depo, 2021, 10). Additionally, 'ProZorro' has incorporated a monitoring system based on business intelligence provided by "Qlik" (Niewiadomska et al., 2015, 81; McDonough, 2017, 11). Such permitted to constantly overwatch tender procedures and report violations to the CDB. Accordingly, this was later improved and developed into a legal system known as, 'DoZorro'. It unites numerous civil society organizations in Ukraine that identify and submit reports about violations in tender procedures to law enforcement agencies (Baumane-Vitolina et al., 2020, 43; OECD, 2021, 28; Depo, 2021, 10)

All things considered, the decision of launching 'ProZorro' as a hybrid (or multi-platform) model of electronic public procurement diverted the project away from a number of risks. Namely, these are, (1) lack of state-owned ICT infrastructure, (2) unequal access to information, (2) security issues, (3) lack of standardization of procedures, (4) availability of time, (5) potential costs, (6) political interference, (7) lack of supplier adoption, and (8) technical difficulties from building a platform from scratch. Notably, some of these threats directly relate to other barriers to implementation, thus, will be addressed in latter sections of this chapter.

4.5 'ProZorro' vis-à-vis Financial Barriers:

This passage will aim at analyzing the given case-study according to financial barriers. As prescribed by the theoretical framework, these include, (1) high development, implementation, operation, and maintenance costs, as well as (2) lack of legislation on e-payments.

From the very beginning, the developers of 'ProZorro' wanted to guarantee that the funding of the project is transparent. Moreover, they desired to avoid asking for state funds in order not to fall victim to political dependence in the future. Generally speaking, the initial funding, as well as the expenses necessary for the development of the software were based on donations. In their book, Nefyodov and Krykun (2020, 56, 91) assert that the development of a minimum viable product (MVP) of the central database that was needed for the pilot project cost 35 thousand USD. Accordingly, these were donated by seven commercial platforms involved in the launch. These contributions were made to Transparency International (TI), which then administered the money (McDonough, 2017, 11-12). Furthermore, the software

was developed by a Ukrainian-based IT firm named ‘Quintagroup’ and consulting was conducted by Ernst & Young (EY) (Nefyodov et al., 2020, 63). Notably, both operated on a pro bono basis, that is, for free (Niewiadomska et al., 2015, 82; Nefyodov et al., 2020, 63)

Subsequently, the involvement of commercial platforms significantly reduced development, implementation, operation, and maintenance costs. The reason for such lays in the fact that in the hybrid model, operators of commercial platforms are directly responsible for support activities, client management, search for new suppliers, and marketing. In addition, these platforms already possessed existing lists of registered suppliers and contractors. Consequently, ‘ProZorro’ was established as a profit organization. As described in Section 4.4, e-platforms charge an access fee to the public procurement market to all suppliers. Therefore, the management of ‘ProZorro’ assured that it can function as a profitable business, whilst generating revenue for commercial platforms, thus incentivizing them to join.

Following the successful pilot project and the announced plans of implementing ‘ProZorro’ for all public procurement, international donors contributed over 230,000 USD (Niewiadomska et al., 2015, 82). In addition, the EBRD funded the work of e-procurement experts, and the EU paid for consultancy and legal support (Niewiadomska et al., 2015, 82). As for e-payments, in Ukraine, they are regulated by Law #2346-III. Accordingly, in the light of digitalization it has been numerously modernized to adhere to new principles and satisfy the demands of heavier reliance on ICTs and the Internet in the public sector.

5. Discussion:

The conclusive chapter of this investigation will be divided into two parts. The first will summarize the main findings of Chapter #4 and initiate a deliberation that will prompt this paper to provide an answer to the set research question in the conclusion. Importantly, the discussion will consist of identifying the critical success factors that nullified the barriers to implementation, as well as account for resistance from Ukraine's embedded institutional setup, which may be branded as, neo-patrimonial (i.e. partial reform equilibrium). The second part will aim to assess this inquiry's threats to both, internal and external validity, identify the limitations of the scrutiny, as well as offer suggestions for further research.

5.1 Summary, Key Takeaways, and Discussion:

Following an extensive literature review, this inquiry has synthesized a theoretical framework which encompasses four barriers to successful electronic procurement implementation in the public sector. Namely, these were found to be, (1) organizational, (2) social, (3) technical, and (4) financial. Correspondingly, the framework also contains a multitude of critical success factors that determine the extent to which these barriers may be overwhelmed. As such, by employing the method of process-tracing of qualitative data analysis, this scrutiny has investigated the case of successful implementation of public e-procurement in Ukraine. The success factors that contributed to the implementation of 'ProZorro' vis-à-vis the four barriers are presented in the following paragraph in a chronological manner of their appearance.

Firstly, the success factors allowing to overcome organizational barriers were identified as follows, (1) successful launch of pilot project, (2) engaging stakeholders, (3) political non-interference, (4) supplier adoption (5) top leadership support, (6) appropriate legislation, and (7) an implementation plan. Secondly, the success factors to overwhelm social barriers are the following, (1) changing values of the organization, (2) change management, (3) training of public workforce, and (4) professionalization. Thirdly, the success factors to surmount technical barriers are, (1) re-engineering of procurement process (i.e. standardization, non-discrimination, and higher competition), (2) user support operations, (3) advanced security system, (4) open access, and (5) ease-to-use. Fourthly, the success factors to weather financial barriers are, (1) appropriate business model (i.e. hybrid and profit-oriented) and (2) private funding through donations.

Based on the results, this investigation finds compelling that the case of 'ProZorro' implementation is largely inconsistent with the chronological sequence of success factors and

strategic considerations laid out by theoretical foundations. As such, a report presented by the ADB (2013, 61-69) sets out a list of important considerations prior to implementation. The authors emphasize the importance of the involvement of stakeholders, leadership, legislation, and a pilot project. In a similar vein, in account prepared for the EBRD, Niewiadomska et al., (2015, 23-36) attributes major importance to legal and regulatory, business, and technological considerations. In contrast, the authors of that report to a lesser extent emphasize the significance of a readiness assessment and a pilot project. Despite the fact that the final version of electronic procurement implementation in Ukraine encompassed these considerations, the sequence of their appearance, as well as their importance in the process differs. As such, 'ProZorro' was launched under strong leadership, however, with limited, if not any, political support, without a fully integrated business model, marginal endorsement of involved stakeholders, and with no support from existing (or projected) legislation. Accordingly, the implementation of an e-procurement platform was not prioritized by the two main parties, namely, the Ukrainian government and Western partners. Furthermore, civil society had a multitude of plans on how to reform public procurement, with no consensus being reached on the model that must be employed. Therefore, although adhering to the principles, the case of e-procurement implementation does not follow the traditional logic of implementation.

In turn, if the results are projected to neo-patrimonialism and the subsequent 'partial reform equilibrium', the findings are ever more thought-provoking. In Section 1.2.5, this inquiry outlined three accounts that explain the trajectory of reforms in a neo-patrimonial setting. As such, these were, political, institutional, and economic. It is important to mention, that all of the aforementioned to some degree or another emphasize the role of a 'policy window', which in a neo-patrimonial setting appears as a result of a critical juncture attributable to which the demand for reforms is high. In the case of Ukraine, this critical juncture and the subsequent window re-opened in 2014 after the Revolution of Dignity.

From the political and institutional perspectives, this scrutiny identified factors such as, top leadership support (i.e. the ruling coalition was pro-reform) and both, external and internal pressure. On one hand, these elements were omnipresent during the establishment of new anti-corruption infrastructure. They were formed following trade-offs among ruling patron-client networks and a policy coalition that included civil society, non-state actors, and active oversight (i.e. conditionalities) of Western donors. Moreover, the new institutions were mostly conceived without or with minimal political interference. Nevertheless, as of now, most, if not all, are incapacitated and their functioning subject to political manipulations and

interests. On the other hand, as was previously discussed, the West did not prioritize the implementation of electronic procurement, as a key part of the public procurement reform. Moreover, the AA between the EU and Ukraine did not directly obligate Ukraine to implement to digitalize procurement procedures. In a similar vein, the majority of civil society representatives did not endorse 'ProZorro' at first, and had diverging views on how the procurement reform should appear. Accordingly, the Parliament, which was governed by a wide pro-reform policy coalition, failed to pass legislation on reforming the Law #1197-VII, which included provisions on electronic procurement implementation, in the first reading.

Perhaps, what best explains weathering the 'partial reform equilibrium' lays with economic factors. As prescribed by Hellman (206-207) in order to be successfully implemented and rally support, a reform needs to reap benefits exceeding the potential costs in the short-term. As such, 'ProZorro' was developed as a bottom-up initiative and at first, attributable to its hybrid nature, sponsored through donations of interested stakeholders. Moreover, following its pilot launch, it managed to exceed optimistic estimates, by prematurely demonstrating high levels of efficiency and cost offsetting. Consequently, its economic superiority, as well as ease-to-use, helped to attain greater degrees of legitimacy among non-state and external actors, as well as the bureaucratic apparatus. Ultimately, such, coupled with the absence of progress in other reform areas, rallied political support behind the platform, thus, contributing to its successful adoption and implementation.

5.2 Threats to Validity, Limitations, and Future Research:

This investigation has numerous threats to validity, which are mainly attributable to the way this inquiry is constructed. As such, the fact that it is a single-case study design negatively impacts external validity of this research (Neuman, 2013, 211-212). Its results may not be universally generalized to all cases (i.e. countries), however, the findings may be applicable to instances of other reforms within Ukraine, or countries with a similar contextual background. Similarly, it is low in internal validity because a single-case study may not substitute for controlled investigations with multiple objects of study (Neuman, 2013, 221). Hence, despite offering a comprehensive account and observing a relationship between variables, the results are not always robust and their universal application to other cases may be theoretically jeopardized. However, due to the fact that this scrutiny build analyzed empirical evidence based on a set of existing and tested theoretical approaches, the criteria for both, internal and external validity are to an extent satisfied. As such, coupled with the

extensive use of a plethora of valid and relevant primary and secondary sources, this inquiry scores high on reliability criteria.

Notwithstanding, this investigation has a number of limitations. Comparatively, these may be mainly attributed to the nature and scope of this research. For instance, the results obtained from a single-case study design may not be applicable to other instances, unless the contextual background of the cases largely resembles. Furthermore, when employing the method of process-tracing, there is an imminent threat of omitting crucial prior knowledge. Due to the fact that this inquiry is limited in scope and resources such may well be the case. Moreover, heavy reliance on qualitative data from existing sources may not fully trace the causal mechanisms behind actor's decisions as prescribed in the analysis of this investigation. As such, the scrutiny may be enhanced through the effectuation of interviews or surveys, which allows to obtain a deeper insight into the actions of individuals involved in the analysis. Accordingly, the investigation may be further complemented with the use of quantitative data, thereby making findings more robust and empirically relevant. Furthermore, if only resorting to the use of only qualitative data, the results may be enhanced and more universally applicable, if compared to other cases of successful implementation of electronic procurement. Notably, in non-Baltic post-Soviet countries instances of such include, Georgia and Moldova. In addition, the theoretical foundation could have been maximized by a thorough investigation into countries from different regions where paths of neo-patrimonial resistance have been successfully broken during reform efforts. However, as mentioned afore, such would require more resources and time in order to be conducted adequately.

Finally, this investigation solely concerns itself with the exploration of what has contributed to successful implementation of e-procurement in Ukraine. As has been demonstrated throughout the inquiry in numerous instances, initiating research based on the statement, is a result of a number of academic accounts holding it true. As such, despite being indeed a success, early recent work indicates a number of limitations of the reform and that ProZorro is not a panacea to all civil servant misconduct. For instance, there has been warnings that ProZorro's security systems may be omitted. Furthermore, the Verkhovna Rada has numerously attempted to pass amendments to Law #922-VIII, which would require applicants to submit paper documentation prior to be allowed to participate in tenders (Lough et al., 19; Sydorenko et al., 2020). In addition, as of 2020, the number of open tenders has decreased, and the Parliament consistently votes for major state-funded infrastructure projects to be omitted from Law #922-VIII (Ekonomichna Pravda, 2021). As such, future research

may choose to investigate how robust the public procurement reform and 'ProZorro' in particular, is today. In addition, this investigation accounts only for 'ProZorro', whereas 'ProZorro. Sale' and 'DoZorro' are only briefly mentioned throughout. Hence, an investigation into these two platforms must also be initiated. Finally, the first years of Volodymyr Zelensky's presidency have indicated a number of unresolved problems within Ukrainian political arena. One of which manifested itself in 2019-2020, when the so-called Constitutional Crisis began (Romanyuk, 2020; Val'ko & Mykolaychuk, 2021). It began when the Constitutional Court of Ukraine found an array of anti-corruption laws and amendments to be unconstitutional (Romanyuk, 2020; Marchuk, 2020; Val'ko & Mykolaychuk, 2021). As such, serious concerns were raised about the future of other anti-corruption infrastructure and electronic platforms, one of which is ProZorro. Accordingly, future research may address the robustness of Ukraine's digitalization based on the background power relations between the executive, legislative, and judiciary branches of Ukrainian government. Finally, considering the fact that 'ProZorro' is a startup that was launched in the public sector as a bottom-up initiative, future research may choose to investigate the case using theoretical foundations from the field.

Conclusion:

This paper burdened itself with identifying the critical success factors to electronic procurement implementation vis-à-vis four barriers in Ukraine. Furthermore, the complexity of the task was further exacerbated through Ukraine's complex and allegedly unethical political, legal, and economic landscape, which academia puts under the label of neo-patrimonialism. Consequently, since its inception as an independent state in 1991, the country's post-Communist transition has been turbulent, and reform trajectory numerously stalled and paralyzed. Accordingly, the case of successful implementation of digitized solutions to public procurement, the process which has been inherently prone to distortions prior to reform in 2016, has been thought-provoking to this inquiry. As such, this investigation has identified the following factors to be crucial to explain the instance, (1) the business model (i.e. hybrid and multi-platform), (2) re-engineering of procurement process, (3) successful pilot project (i.e. demonstration of premature high returns and efficiency), (4) political non-interference at initial stages (i.e. it was developed as a bottom-up private initiative), and (5) change management. A closer analysis demonstrated that the first and fourth factors played a pivotal role to a more considerable extent. The first maximized initial private sector involvement in the initiative, as well as funding for the project. Ultimately, it nullified possible political interference, thus, avoided the politicization and capture by rent-seeking actors.

Generally, the findings adhere to existing theoretical approaches, as identified critical success factors re-occur in prior literature and comply with barriers to implementation, thus, strengthening existent body of scholarly work. Nevertheless, the case of 'ProZorro' offers a novel system of e-procurement and does not follow the traditional path of public e-procurement implementation. This being said, the case contradicts the chronology of textbook cases of successful implementation, as the idea did not have broad support from political leadership, external partners to Ukraine's government, and a regulatory framework. Furthermore, it was created as a bottom-up initiative based on a hybrid, multi-platform model. Both instances did not have analogs in the reviewed literature, thus contribute to current public e-procurement implementation knowledge. In addition, the reform had to address the so-called 'partial reform equilibrium', which is persistent in non-Baltic post-Soviet states. In contrast, to other reform efforts initiated in Ukraine after 2014, e-procurement did not have political backing and support from both external actors and internal non-state parties. Accordingly, despite apparent deficiencies in initial support and legitimacy, it managed to overcome the hurdle and consolidate within a problematic political landscape

with a deeply embedded culture of corruption and informal arrangements. As such, although largely adhering to explanations offered by Joel Hellman, the inquiry builds a foundation for future reforms seeking to overcome resistance from influential stakeholders within a neo-patrimonial system of governance.

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