THE
POCKET OF EFFECTIVENESS
IN KAZAKHSTAN:
THE CASE OF
ELECTRONIC GOVERNMENT

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Abstract

The electronic government (e-gov) of Kazakhstan is a remarkably effective project which provides public services online. The lion's share of services can be obtained just with one click on the single e-gov web portal. E-gov can be regarded as the "pocket of effectiveness" because an effective provision of public services is not a norm in Kazakhstan. Therefore, e-gov's outstanding performance in a hostile environment is worth scholarly investigation. This research work aims to explore the main factors that contributed to the emergence of e-gov as the "pocket of effectiveness" in Kazakhstan. This single case study employs the "explaining-outcome process tracing" method because it investigates the causes of a puzzling historical product which is a multifactored and highly context-specific phenomenon. Consequently, both theorized causes and empirical observations are analyzed to build a minimally sufficient explanation that accounts for the most important aspects of the Y-outcome. Therefore, generalization of causal explanation is possible but very limited. Overall, this research paper finds that a specific sequential combination of three key factors contributed to the implementation of e-gov. These include: 1) will of the incumbent, 2) meritocratically selected competent leader, and 3) positive organizational culture. The results of the study reveal that in personalist regimes, the whim of the head of state is not enough, because it requires the interplay between both exogenous and endogenous factors which are equally important. Overall, this thesis contributes to the research area that focuses on authoritarian modernization and public sector performance in developing countries.

Key words: Pockets of effectiveness, electronic government, digitalization, Kazakhstan, government agencies, public services, process tracing, causal mechanism

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List of Abbreviations

CM	Causal Mechanism
CIS	Commonwealth of Independent States
DDIA	Digital Development, Innovation and Aerospace Industry
EDS	Electronic Digital Signature
E-GOV	Electronic Government
EGDI	E-government Development Index
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
ICT	Information and Communications Technology
IT	Information Technology
JSC	Joint-Stock Company
MDDIA	Ministry of Digital Development, Innovation and Aerospace Industry
NIT	National Information Technologies
PoE	Pocket of Effectiveness
UN	United Nations

1   Introduction

It is believed that developing countries with bad governance and weak public sectors are necessarily doomed to fail. Although numerous empirical instances support such belief, this is not always the case. Many so-called inefficient governments perform comparatively well in specific areas and manage to serve a public good against all odds that an inauspicious environment imposes on them. Overall, this phenomenon is called the "pocket of effectiveness". Precisely, the "pockets of effectiveness" (hereafter — PoE)[1] are interpreted as "public organizations that are relatively effective in providing the public goods and services…, despite operating in an environment in which effective public service delivery is not the norm" (Roll, 2014, p. 24). The efficiency of public organizations is determined by performing the official mandate that involves serving some notion of public good under the unpropitious circumstances in which regular public entities are largely ineffective and fall prey to the vicissitudes of corruption and patronage (Leonard, 2008, p. 8).

Generally, public organizations are defined as entities that were initiated by the government or derived significant support from the state to serve a substantial portion of beneficiaries within the state. The outreach of its services is significant. Still, the importance of the holistic examination of factors is recognized, and thus the context in which those projects are embedded and their interaction with influencing factors such as the head of state, state apparatus, and political economy will be analyzed. Overall, the set of causes in their sequential conjuncture led to the Y-outcome, namely effective provision of public services in a relatively hostile environment. PoE is, indeed, the result of the group of causes that exert a synergistic effect on the outcome.

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[1] PoE are also called as "pockets of productivity" (Daland, 1981; Leonard 1991), "islands of excellence" and "islands of effectiveness" (Crook, 2010). For the sake of clarity, this paper will stick to the term "pockets of effectiveness" (PoE).

The exemplary case of PoE in Kazakhstan is the electronic government (e-gov). It is ranked 29th internationally according to the 2020 UN report which makes it the most successful e-gov in Central Asia, South Asia, and among the Commonwealth of Independent States (CIS). Most importantly, this mechanism allows citizens to obtain public services remotely via a single web portal and thus makes the life of citizens easier. However, it is important to acknowledge that the public sector in Kazakhstan is generally ineffective. There is endemic corruption, nepotism, and cronyism that still pervades the government agencies. The proper realization of state projects that effectively serve citizens is a rare case in the country. Therefore, the phenomenon of e-gov's emergence in Kazakhstan is worth scholarly investigation.

Firstly, exploring this topic would significantly contribute to the field of "pockets of effectiveness" and public policy in general. Today there are no studies that cover the phenomenon of PoE in Central Asia. It is known that Gel'man (2017, 2018) in his study examines "success stories" (analog of PoE) in authoritarian Russia where he asserts that state-sponsored developmental projects are the result of perverse incentives of the head of state who seeks to maximize short-term rents and consolidate status-quo regime. Although there are clear parallels between Kazakhstan's PoE and Russia's "success stories", the politico-economic environments of these two countries are not identical since these two cases are context-specific.

Second, it would be interesting to see whether explanations and hypotheses regarding the causal mechanisms of PoE suggested by key authors in the field are present in the case of Kazakhstan. For instance, Roll (2014) and Gel'man (2017, 2018) argue that the strong will of the head of state is a primary condition to implement state-directed projects because they see them as strategically important. For example, Kazakhstan is a unitary state where potential PoEs are realized by the whim of the strong president. Such an environment is conducive to the implementation of the e-government due to direct and fast political decision-making and centralized budget funding

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(Kassen, 2016). This explanation constitutes an exogenous causal mechanism. Yet, there are crucial endogenous factors that lead to the Y-outcome. For example, it is said that organization functions more productively when there is a high degree of specificity in the job it performs (Israeli, 1987). Furthermore, a manager should have professional integrity, a work ethic, dedication, and an ability to make political connections with the head of state (Leonard, 1991). In a similar vein, the personnel of the company is expected to embrace the sense of "mission" and "calling" while performing their duties (Tendler, 1997). Most importantly, potential PoE ought to cultivate a positive organizational culture that is featured by, *inter alia*, non-hierarchical interaction with leadership and the presence of friendly, professional, and like-minded teammates (Grindle, 1997).

Overall, this thesis argues that there is a sequence of three key causal mechanisms that led to the emergence of the e-government as the "pocket of effectiveness" in Kazakhstan: 1) will of the incumbent, 2) meritocratically selected competent leader, and 3) positive organizational culture. This case-centric study employs the "explaining-outcome process tracing" method because it examines potential causes of an extremely context-specific product. Therefore, this paper will resort to both theorized causes and empirical observations to build a minimally sufficient explanation that accounts for the most important parts of e-gov implementation in Kazakhstan. First, this research work delves into the extant literature that covers the general understanding of the phenomenon and the causal mechanisms that contribute to the emergence of PoE. Afterward, it proves the utility of the chosen research method which is complemented by an unstructured interview. Then, it exposes Kazakhstan's e-gov to a more detailed and in-depth analysis that includes its evolution under president Nazarbayev, its current status, and a close examination of three primary causes that account for the e-gov's realization. Finally, it concludes by summarizing findings and making suggestions for further research.

2 Literature Review

2.1 Analysis of PoE

The extant literature on PoE lacks a coherent understanding of the "pockets of effectiveness". Nonetheless, present versions of pockets of effectiveness encompass quite similar explanations. For instance, Geddes (1994) argues that since Brazilian reformers failed to galvanize adequate support in Congress to mandate universal reforms, presidents did not have a choice other than creating special agencies ("pockets of effectiveness") insulated from the legislature and traditional bureaucracy. There was a conspicuous case of a typical "politician's dilemma" in the upper echelons of Brazilian bureaucracy that was based on the elite's short-term pursuit of political survival utilizing clientelism or long-term planning oriented on the state development which would call for the creation of professional civil service in the form of effective public entities. Likewise, Daland (1981) and Leonard (2008) contend that effective public organizations can serve a public good despite operating in a hostile setting where they are systematically exposed to severe embezzlement, corruption, nepotism, and patrimonial politics. In a similar vein, Roll (2014) adds that these public organizations operate in the politico-administrative environment that is hugely reliant on personal loyalty and informal networks as opposed to the impartial and formal rule of law observed across established democracies. He further adds that entities that function more efficiently than other departments under unfavorable circumstances perform their duties against all odds as they manage to resist the predominant systemic constraints and perverse motives that typically plunge public performance to the nadir of its productivity.

Interestingly, Gel'man (2016) through examining the modernization efforts of Russia in the late 1990s and early 2000s provides a contrasting view arguing that these so-called "pockets of effectiveness" are full of holes. He claims that reformers seek to achieve success only in high-priority policy areas while ignoring other important aspects. Furthermore, he adds that failure in

certain policy reforms or state-led development projects can entirely disincentivize the incumbent from continuing the whole process of authoritarian modernization. Overall, he refers to PoE as "success stories" under the rule of bad governance. Most importantly, Gel'man (2018) asserts that such "success stories" of state-directed developmental projects are the result of perverse incentives of a political elite that look for the maximization of short-term political rents. He maintains that these "success stories" largely perform compensatory functions against the ubiquitous governance failures. Thus, it is not surprising that they become short-lived since political agents seek to accumulate immediate benefits by sacrificing long-term development goals because authoritarian rules tend to have short-time horizons due to the risk of being deposed any time soon. Accordingly, such "success stories" do not create strong multiplicative effects. In other words, success in some policy areas does not necessarily spill over into other niches of the public sector.

Hence, Gel'man's (2016) overarching conclusion was that "success stories" under bad governance are not capable to rectify the government's poor performance. On the contrary, they consolidate bad governance and contribute to the preservation of authoritarian power (Gel'man, 2017). He considers PoE mainly from a cynical perspective as he posits that "success stories" of modernization initiatives in authoritarian regimes do not contribute to the democratization of the political regime and overall good governance in the long run. However, given the political context of Kazakhstan, it is intuitive that local PoEs were not created to trigger regime change in the first place, but rather to solidify the incumbent's grip on power and boost his legitimacy of holding office whereas the provision of public goods serves as a collateral goal that usually amounts to little more than window dressing. Yet, Gel'man's suggested cause of the will of the head of state that contributes to the emergence of PoE will be the central cause within the causal mechanism.

2.2   How to recognize PoE?

Finally, one may wonder how to identify potential public entities that qualify as PoE? On this account, Roll (2014) provides four criteria that help to determine the "pockets of effectiveness". First, a governmental organization should be relatively effective in providing public benefits that it has a legal obligation to fulfill. The word "relative" here is dependent on the context. The more hostile environment and the less efficient the rest of the government-related enterprises are under the same conditions, then PoE should be more effective than other entities. Second, the organization should have the capacity to provide public services across the country and not only in the capital and big metropolitan areas. Third, PoE enterprise is expected to provide public benefits under the principles of human rights and rule of law. This is particularly related to law enforcement agencies. The reason behind the inclusion of this criterion is that some organizations might achieve the first two criteria by resorting to illegal means and human rights abuse, which is unacceptable and ruins the whole purpose of PoE where the provision of welfare to people is at the center of the agenda. The last criterion states that the period of persistence of PoE should be at least five years since it should demonstrate that it is not an accidental one. Some scholars have proposed that the PoE should have existed for at least ten years. Yet, this may be problematic because some organizations are too young in contextual and historical terms. Hence, a five-year period of endurance for PoE seems to be universally appropriate. Unfortunately, even this criterion needs to be reconsidered while examining the case of Kazakhstan, because Kazakhstan is a very young country that gained its independence only in 1991. Given the relative youth of Kazakhstani public organizations that operated in a tumultuous time of post-Soviet political and economic crises, it should be acceptable if those entities have been conforming to the requirements of "pockets of effectiveness" for less than 5 years. Because the duration of PoE should be defined according to the respective politico-economic context and history of the country.

2.3   Review of theorized causes

Another crucial question is: what factors cause the "pockets of effectiveness"? The literature on the causes of the emergence of PoE lacks scholarly consensus. First and foremost, the area that covers the "pockets of effectiveness" is relatively new in the field and is not in the mainstream of political development studies and social sciences nor today's policymakers' scholarly deliberations. In an academic community, nowadays, studies that cover PoE are called "monologues" because there is no consistent and coherent terminology on the subject, and authors who specialize in this area, for the most part, work in isolation.

Nonetheless, the current literature on PoE is mainly composed of research made by four key authors. One of the classic studies that contributed to the research on the quality and performance of public enterprises is Arturo Israeli's work known as *Institutional Development: Incentives to Performance* which was published for the World Bank in 1987. In his book, he seeks to find out universal characteristics that amplify the effectiveness of public organizations with a special focus on developing countries. His overarching hypothesis is that "the higher the degree of specificity, the more intense, immediate, identifiable, and focused will be the effects of a good or bad activity" (Israel 1987, p. 49). The first aspect of specificity in this sense is related to the extent to which the institution's objective and the ways of achieving it can be identifiable. Another aspect is about the temporal features regarding the effects of such intensity such as immediateness or lagging of the results since the implementation of the project. He argues that the higher the degree of specificity the better the performance of a public organization will be. Israeli's other hypothesis states that the competitive atmosphere set by the organization's leadership may boost the productivity and performance of the organization. In short, the more specific and intensely competitive the public organization, the better and more effectively it will perform its duties.

The second popular scholar in the field who examined crucial components that constituted effective public organizations is David Leonard whose publication *African Successes: Four Public Managers of Kenyan Rural Development* examined both professional and non-professional qualities of civil servants in rural development. In his study, Leonard (1991) predominantly focuses on the leadership and managerial traits of personnel within organizations that are embedded in a hostile environment. He examines the essential traits of successful managers. The first is political connections and organizational development which allows managers to set up networking even with the incumbent to protect the autonomy of their institutions, galvanize all sorts of political support and use that autonomy for the fulfillment of the organization's mission. The second attribute is the necessity to be a committed professional with an entrepreneurial spirit who can set up organizational targets and carry out responsibilities that benefit wide public interests. The last attribute concerns professional integrity that is manifested through work ethic, self-discipline, and dedication. Such a person prioritizes staff's well-being and internal camaraderie. Furthermore, managers are expected to take risks when it is necessary to make crucial decisions for the prosperity of the organization. Besides the managerial qualities of leaders, Leonard underscores the importance of political economy. He adds that to make an organization a pocket of effective performance there should be a political demand for the services of that organization in the first place. Following this, factors such as the political economy and professional attributes of the staff are equally important for the existence and persistence of PoE (Leonard, 1991).

Similarly, Judith Tendler (1997) conducted a study on the success of public organizations with a special focus on staff. She stressed five features that boost the effective performance of employees. The first characteristic is the strong dedication of workers to do their job. This dedication stems largely from the community's appreciation of their services along with trust-based relationships between them. Another one concerns the sense of "mission" and "calling" that staff usually acquires through public information campaigns and various kinds of media outlets. The most

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important feature is that workers should be granted greater autonomy which they can employ to serve the needs of their clients in the best way possible. Furthermore, these practices were often accompanied by new accountability principles. Workers were expected to do their duties decently under the informal source of accountability, namely the desire and perseverance to not disappoint their loyal clients. All in all, Tendler (1997) tried to show that these elements help to create a formidable capacity to provide service efficiently.

Another study that explains why pockets of effectiveness succeed despite unpropitious circumstances is conducted by Merilee S. Grindle (1997). Her overarching inference was that the secret of PoE lies in its extremely positive organizational culture. This culture is characterized by its "commitment to organizational works, a strong sense of professionalism, efficiency, elitism, and hard work" (Grindle 1997, p. 491). We can notice that her work focuses on the similar aspects examined by Leonard (1991) and Tendler (1997). Furthermore, she underscored three effective and innovative approaches to boost the performance of organizations. First is the non-hierarchical structure of interaction among staff members along with clear and specific regulations and procedures. The second aspect is about the provision of specific training to people who feel that they want to utilize their strengths to focus on the tasks they do better than others. This, in turn, gives them the motivation to do their job with passion. The last point concerns the sense of mission that should be cultivated in employees. This feature was similarly mentioned by Tendler (1997). Thus, Grindle (1997) argues that workers perform their duties more effectively when they realize the important mission of serving the people. She concludes that these three features constitute a "positive organizational culture" which is key to the emergence of PoE.

Overall, these authors have lots of commonalities in their foci of analyses. Leonard, Tendler, and Grindle emphasize the significance of professional, managerial, and leadership qualities of staff in public organizations, while Israeli considers the macro-organizational aspects within public entities

such as the degree of specificity and competitiveness within the framework of the institution. In addition, it can be inferred that the issues of remuneration, material incentives, control, and formal organizational regulations are of secondary importance, while the immaterial sources of motivation such as the sense of mission along with nonhierarchical styles of interaction are critical. In a similar vein, special training and skill-enhancing programs for staff are equally precious as they help employees to focus on their strengths in performing tasks that they look favorably upon.

In short, the findings of these four authors are quite coherent in explaining why and how PoE emerge. Although they did not explicitly address the question of "how do PoE persist" but still the output of their research studies may greatly contribute to the understanding of potential causes that contribute to PoE. Given the relative abundance of literature on the emergence of PoE, we can infer and group their findings into several hypotheses. This was exactly what Leonard did in his propositional inventory (2008). He condensed extant findings into five mega hypotheses based on the literature contributed by these authors. Yet, this research paper will condense them further to three general hypotheses by following the study of Roll (2014).

2.4   Three meta hypotheses

The first hypothesis concerns an endogenous factor, namely managerial attributes, which posit that an organization's 'efficiency' is hugely contingent upon how it performs its tasks, i.e., by management and leadership, rather than due to its function or political environment (Leonard 2008, p. 15). It implies that managerial practices exert a significant influence on the productivity of an organization independent of the political context. The key effective leadership and management attributes include management practices such as "performance-based personnel systems, meritocratic recruitment, adequate resource mobilization, competent and honest resource management" (Roll 2014, p. 34). These qualities boost the legitimacy of the organization and provide ample room for its staff to be flexible in setting and achieving goals. Furthermore,

organizations that promote and consolidate this professional climate provide specific incentives to facilitate the implementation of institutions' projects. Above all, an organization needs to nurture "organizational entrepreneurs" or, in other words, agency leaders, who assemble resources essential to create a successful organization and embrace these core managerial qualities that will help to ensure a certain degree of protection from political predation.

The second meta-hypothesis is related to the political economy in which the public organization is located which concerns exogenous factors in a public organization. It affirms that the politico-economic climate in which the public organization is embedded will overshadow all other possible causal factors and hence will ultimately dictate whether success is plausible. Primarily, it is important to determine how the political system is organized. It defines what kind of interest groups dominate and how economic incentives are shaped in the country. For instance, effectiveness is more probable when key beneficiaries are motivated by private interests rather than being pushed by patronage and clientelist factors. If there are interest groups within society that perceive the function of the state as a service to a public good than a mere tool of predation and expropriation, efficiency is more likely to take place and endure (Leonard 2008, p. 25). In addition, the current unprecedented level of globalization and integration of markets make countries vulnerable to the misdeeds and actions of international economic actors along with making national organizations that are crucial to economic management overly sensitive to the international pressure to initiate certain political and economic reforms (Leonard 2008, p. 23).

Furthermore, Moore and Schneider (2004) argue that given that peasants are more likely to be politically malleable through patron-client nexus in contrast to interest groups, environments dominated by agrarian communities may encounter considerable difficulties in establishing and sustaining effective government-related organizations. In this regard, there is an opinion that the rise and preponderance of the middle class are necessary for the initiation of effective reforms that

influence the performance of public organizations. Specifically, the initiation of crucial administrative reforms may take place only if there is support at the highest executive levels. It means that political institutions in a certain country shape the legal ground for the generation of pockets of effectiveness. For instance, reforms are less likely if "appointments to top agency positions are fully politicized so that the political and administrative elites are fused" (Leonard 2008, p. 22). In general, pragmatic reforms and effective organizations have better chances of generation and survival if they conform to the dominant institutional framework of society.

The third meta hypothesis posits that the function which public enterprise performs is more decisive for effectiveness than either the factors of management or political economy. It is said that function and the organization's underlying technology give birth to organizational specificity of benefits and special incentives it provides to the organization's staff (Leonard 2008, p. 18). According to Israel (1987), organizational specificity is the extent to which the means/methods of achieving targets can be determined. If the organization's goals are simple and consistent, perceived favorably by the broader local audience, and the organization's output and results are tangible, the method of implementing its mandate is clear and widely accepted only then productivity within the institution is more probable. In this scenario, the existent political pressure will incentivize leading management to provide its services efficiently and aggregate resources to react in the most effective way possible. Nevertheless, the top managers will need to ensure autonomy from political interference in operational managerial decisions along with synchronization of efforts to provide public services. However, if an organization's goals conflict with the public understanding of its mission, and when there is an inconsistency between expected organizational outcomes and desired results, political pressures may exacerbate the situation by confusing its managerial team and decreasing the probability of effective response in providing services to the public. Hence, the function of an organization is more likely to produce an organizational specificity of benefits and stimulus in comparison to management, leadership, and

political economy. Similarly, the function of that institution may boost its chances to achieve autonomy from the operational political direction in contrast to other factors.

2.5   Additional exogenous factors

Gel'man (2017) seeks to examine the causes and mechanisms of the emergence and development of bad governance in post-Soviet Eurasia. Gel'man's analysis of "islands of effectiveness" helps to understand why certain modernization projects in authoritarian regimes are successful, while others are not. In general, Gel'man argues that bad governance in post-Soviet states is not the result of historical legacy nor the repercussions of the fall of the USSR, but rather it is a "consequence of elite rent-seeking combined with weak and limited domestic and international resistance" (2017, p. 6). He maintains that bad governance in post-Soviet Eurasia is largely agency-driven rather than structure-induced because he considers bad governance as the outcome of people's strong temptations to use their power for personal interests. Bad governance is usually characterized by a lack of rule of law, a high rate of corruption, poor quality of regulations, and ineffective government. Gel'man argues that attributes of bad governance are necessary for the survival of a political regime because it ultimately facilitates the reproduction of the vicious cycle. Indeed, given the short time horizon of autocrats' planning, which is accompanied by the performance legitimacy of the executive actors and questionable hereditary succession, political leaders act as "roving bandits" rather than "stationary bandits" (Olson 1993). Therefore, it is not surprising that rent-seeking ruling elites privatize gains, steal the national resources to sponsor the "politics of fear" and coercive capacity to suppress the mass opposition activities, and use corruption as a tool to control people. Thus, violation of property rights and lack of stimulus to invest in businesses and developmental projects remain to be a norm under the short time planning of autocrats.

On this issue, Gel'man and Starodubtsev consider only three possible ways in authoritarian regimes that would help to overcome the barriers to implementation of effective reforms under bad governance: "(1) the strategic priority of certain reforms for the president; (2) the implementation of a given reform by reformers who are concentrated in a single powerful agency; (3) the reform requiring one-time governmental actions that are implemented within a short period" (2016, p. 7). We can observe that all these means are based on the political will of the incumbent who directs the projects of development under his patronage. Gel'man and Starodubtsev (2016) demonstrate that the major driving force behind policy reforms in Russia was Putin's genuine will to carry out socio-economic changes that are mostly considered to be of great strategical importance for him. Such reforms are largely short-lived since they are not sustainable under bad governance. Still, there are high-priority reforms that may require long-term maintenance. For this reason, it seems Gel'man's analysis of Russia's "success stories" amid poorly governed institutions would significantly supplement this research work on the primary driving forces behind the implementation of the e-government project in Kazakhstan, namely, the will of the incumbent.

In his research, Michael Roll (2014) explores how pockets of effectiveness emerge and persist through a comprehensive analysis of cases of PoEs in different countries at specific periods. His analytical framework is especially applicable to developing countries that are ruled by strong political leaders and characterized by weak government and personalist politico-administrative systems. In such a regime, all important decisions are made by the head of state who has a vested interest in the implementation of certain projects. For this reason, Roll similarly argues that one of the most important factors that explain the emergence of PoE in hostile environments is the deliberate top-down political decision to create them (2014, p. 194). In other words, the head of state should be personally interested in the execution of specific tasks that are mandated by a promising organization. This statement is in line with Gel'man and Starodubtsev's (2016) emphasis

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on the political will of the head of state to carry out the high-priority and strategically important projects in authoritarian states.

Mostly, in patrimonial developing countries, the strong head of state is willing to invest particularly in those public entities that can deliver quick and tangible results. Because political leaders in authoritarian environments strive to get credit for the implementation of these successful projects to make people start associating PoEs with the incumbent's will and competence. The logic behind this strategy is that such a political move helps the head of state to prolong his survival through performance legitimacy within unstable settings where his future grip on power and time horizon is usually short and unpredictable. Furthermore, the head of state must appoint chiefs to top-level positions on a meritocratic basis as opposed to patronage practice. Indeed, chiefs of organizations must possess the necessary skills and extensive experience in the field to achieve desired results. Yet, it does not mean that appointed executives cannot be acquainted with the head of state. Even if the appointee belongs to the close circle of the incumbent, he or she still should be competitive in the labor market of potential chiefs. The main takeaway here is that the head of state is expected to employ a technocratic approach while selecting candidates for the vacant managerial positions in PoE.

3 Research Design

3.1   Case selection

Digitalization in Kazakhstan continues to gain momentum because it is expected to accelerate economic growth and improve citizens' quality of life. In the framework of this initiative, Kazakhstan can take pride in its flourishing development of the e-government system which is ranked 29th internationally according to the 2020 UN report (United Nations, 2020a). Indeed, it made the life of Kazakhstanis easier by providing socially significant public services with one click through a single web portal. Furthermore, it helped to make the public sector's activities more open and transparent which helps to curb corruption and red tape. This successful case is an anomaly not only for Kazakhstan but for the whole region of the Commonwealth of Independent States (CIS). Even Russia with its rapidly growing tech industry occupies the 36th position according to the E-Government Development Index in the same 2020 UN report. These surprising facts demonstrate that Kazakhstan's e-government system is competitive both in its immediate environment and on a global scale. For this reason, it would be quite expedient to study this single case and explore the key factors that account for its emergence as a PoE in a setting where such instances of effective public projects are regarded as "unicorns". Therefore, in this research, the electronic government of Kazakhstan will be at the center of the analysis. In general, the population of cases Kazakhstan is relevant for includes contemporary authoritarian regimes such as Central Asian countries and Russia. These countries share a common history, similar culture, institutional framework, and political architecture that is featured by a personalist rule. Therefore, researchers can extrapolate the results of this study to this population of cases and test suggested hypotheses accordingly.

3.2   Research method of analysis

This research paper seeks to answer the following question: "what key factors caused the emergence of the electronic government as the pocket of effectiveness (PoE) in Kazakhstan?" Hence, this qualitative research work regards the "explaining-outcome process tracing" method as the best fit for tracing causal factors that contributed to this outcome. The primary reason behind the selection of this variant of process-tracing is that this paper seeks to investigate the causes of a puzzling historical product in an individual case (Beach and Pederson, 2013). Indeed, the case of the electronic government's emergence as PoE in Kazakhstan is a very intricate, multifactored, and highly context-specific phenomenon. Therefore, the causes of this particular outcome are generalizable outside of this single case but in a very limited way unlike "theory-testing" and "theory-building" variants of process-tracing. Yet, it can be argued that the results of this case study can be extrapolated to countries with similar contextual conditions such as Central Asian countries with personalist regimes. But still, identical regimes do not exist, because politico-economic circumstances that shape PoEs vary across countries. As concerns this study, since it is multifaceted case-centric research, it uses both deductive and inductive approaches. In other words, the author decided to consider both existing literature (generalizable theorized causal mechanisms) that explains the emergence of PoE and empirical material (primary and secondary sources) that may account for the plausible explanation. This method will help to grasp the holistic picture of e-government's emergence as PoE. In short, the chosen variant of process-tracing will yield a minimally sufficient explanation of how multiple Xs produced Y (e-gov). The sufficiency of explanations is achieved when the causes account for the most important aspects of the Y outcome (Beach and Pederson, 2013).

3.3 Potential causes

Overall, three key causes may account for the emergence of the electronic government as PoE in Kazakhstan:

- Cause 1 (external factor): if there is a will of the incumbent to implement the project, then it is more likely to emerge and persist.

- Cause 2 (internal factor): if the top leader who is held accountable for PoE's development is competent and meritocratically selected, then the PoE is more likely to emerge and persist.

- Cause 3 (internal factor): if the company which develops PoE cultivates positive organizational culture (open-minded leadership, friendly working atmosphere, values reflecting the meaningfulness of the job), then it is more likely to emerge and persist.

It is essential to emphasize that in this case-centric study there is no single cause that is responsible for the output Y. All three distinct causes are equally important. This paper argues that the unique sequence of three potential causes contributes to the Y-outcome. In this case, cause 1 created a chain reaction so that change at one level affected the change at another level and so on. Thus, the synergetic combination of causal mechanisms operating in a certain order may have contributed to the genesis of PoE in Kazakhstan. This hypothesis will be tested to investigate the minimal criteria for the emergence of PoE under hostile circumstances.

3.4 Data sources and collection

Overall, to test the viability of the first two causes this research work will resort to a wide range of primary and secondary sources. Primary data include interview transcripts, peer-reviewed journal articles, government publications, and archives. Secondary data include academic books, journal articles, autobiographies, governmental reports, and news articles. However, to test the influence

of positive organizational culture on the emergence of PoE (cause 3), it is necessary to gather personal stories of people regarding their work experience. Usually, the data about the values, mission, and strategy of the company are posted on the official website. However, it is important to get first-hand information to see whether official data reflects the real situation at the workplace. For this reason, the author decided to conduct unstructured interviews with four employees of JSC "NIT who are directly involved in developing and accompanying the e-government project. The interviews were taken at the main office of JSC "NIT" in Nur-Sultan. The main advantage of such unstructured interviews is that they resemble daily conversations and flow naturally so that respondents are not pushed to stick to pre-planned agenda. There are no standardized questions because the interviewer composes queries based on the responses of the interviewees which gives leeway to direct the course of conversation in line with the purpose of the interview (George, 2022). Such an informal approach to inquiry helps to build trust and establish rapport with the interviewees. This, in turn, allows the interviewer to extract in-depth information and more nuanced details by making the respondents comfortable sharing their true thoughts, emotions, and experiences.

4 Empirical Analysis

4.1 Background information about Kazakhstan

Kazakhstan is the world's biggest landlocked country that lies primarily in Central Asia and partly in Eastern Europe. It is classified as a consolidated authoritarian regime with a democracy score of only 6 out of 100 (Freedom house, 2022). Yet, the former Soviet Union country has experienced outstanding economic growth in the past 30 years which was fueled mainly by the country's oil, gas, and coal industries. Since the declaration of independence in 1991, oil-rich Kazakhstan launched a wave of market-friendly reforms as an antidote to remnants of an unbalanced planned economy inherited from the USSR. Thus, sovereign Kazakhstan managed to attract billion-dollar investments that were surely made in the oil and gas industry. As a result, hydrocarbon production made up 21 % of GDP and constituted approximately 70 % of exports in 2020 (World Bank, 2022a). Overall, such a boost in economic growth helped the country to alleviate poverty and transform Kazakhstan into an upper-middle-income economy (World Bank, 2022b). However, the country's extreme reliance on natural resources makes it vulnerable to external shocks such as volatile oil prices and the collapse of supply chains in the energy sector due to potential regional conflicts and instabilities. Therefore, without proper economic diversification sustainable economic growth remains to be a distant aim.

Furthermore, such a remarkable economic performance over three decades concealed serious socio-economic problems and vulnerabilities on the micro-level. The problem is that president Nazarbayev focused exclusively on the reformation of the country's economy and ignored the political changes stating that "the economy first, then politics" (Cornell et al., 2021). This flawed strategy and outright neglect of the nation's well-being resulted in poor quality of life, rising living costs, egregious wealth inequality, household over-indebtedness, shortage of jobs, endemic corruption, weak institutions, and lack of accountability and transparency in the public sector.

Corruption and nepotism are, indeed, endemic in the country. To be precise, Kazakhstan's corruption perception index score is 37/100 whereas 0 is "highly corrupt" and 100 is "very clean" (Transparency International 2022). The socio-economic situation was further exacerbated by the outbreak of the COVID-19 pandemic that laid bare the Kazakh government's unpreparedness and incompetence to address issues stemming from coronavirus disease (WHO, 2020).

Overall, systematic failure of the public sector, bad governance, ubiquitous corruption, and economic inequality prompted the largest and unprecedented protests in the country's history which are known as Bloody January or the January Tragedy (Pannier, 2022). After the January events rocked the stability of the country, Tokayev swiftly launched the "de-Nazarbayevization" campaign as a timely response to public requests (Alimova, 2022). The family members and close relatives of Nazarbayev have been pushed out of strategic managerial economic and political positions (Radio Free Europe, 2022). It is known that the first president of Kazakhstan built a personality cult for over 29 years of his autocratic rule and tried with all his might to write his name into Kazakh history as the "leader and father of the nation" (Sauer, 2022). But he was shockingly succeeded by Kassym-Jomart Tokayev in 2019, whom he handpicked as his successor. Indeed, the whole "political transition" process was orchestrated. It is only now, after the Tragic January events, that President Tokayev failed to live up to the expectations of Nazarbayev and became a more independent political figure (Imavova, 2022). Citizens generally anchor their hopes that under Tokayev's leadership Kazakhstan will make great strides towards democratization.

4.2 E-Government as the "pocket of effectiveness"

The salient example of PoE in Kazakhstan is the electronic government. Indeed, the excellent performance of e-government remains to be an exceptional case since Kazakhstan's public sector is largely ineffective. The Soviet legacy still pervades the national governance system which is expressed through corruption, bureaucratic red tape, flattery, and delayed response from state

agencies. All of which deteriorate citizens' quality of life and decrease public trust and confidence in government. According to the Worldwide Governance Indicators 2020, Kazakhstan received only 0.16 points and ranked 72nd on the global government effectiveness index (World Bank, n.d.).[2] Although this indicator demonstrates an upward trend per annum, it should be noted that effective provision of public services is not a norm in today's Kazakhstan. Therefore, this section will analyze key factors that contributed to the emergence of the e-government as a PoE in a hostile environment. Undoubtedly, it is a phenomenon that is worth scholarly investigation.

In general, the e-government is a unified structure that facilitates coherent interaction between the government and citizens as well as coordination among various state agencies using digital technologies (egov, 2021). The main goal of the e-government is to make the life of citizens easier. In the past, to get a "police certificate of good conduct" one had to go to a specific state agency and stay in a long line for hours. Today, more than 500 public services can be received via a single e-government portal because the services of different state agencies were integrated into a single digital platform. People just need internet access and an electronic digital signature (EDS) (which is also downloaded online) to get the necessary documentation such as certificates, permits, and references or pay traffic fines. If citizens need to obtain a license, they are just required to enter their individual identification numbers. Overall, Kazakhstanis can get 91% of public services via egov.kz portal just within 10-15 minutes on the principle of a one-stop shop ("15th Anniversary of the Electronic Government of Kazakhstan," 2021).

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[2] The government effectiveness index rates 193 countries based on the following scale: -2.5 (less effective) to 2.5 (more effective). Overall, the ranking reflects the perceptions of the quality of public services, civil service, the policy formulation and implementation, and level of insulation from political pressures (World Bank, 2020).

4.3   Cause 1: will of the incumbent

Last year was the 15th anniversary of Kazakhstan's electronic government which has been functioning since 2006. It was the first president Nursultan Nazarbayev who envisaged the creation of the e-government 18 years ago. It took place exactly during the state-of-the-nation address on March 19, 2004, when Nazarbayev delivered an order to launch the e-government:

> "It is time to start the formation of the "Electronic Government". It should be a small and transparent Government. It will reduce physical contact between citizens and officials, improve the quality of services and shorten the time of delivery. This will lead to a new administrative reform and a reduction in the state apparatus"[3] (Akorda, 2004).

Here, it is evident that the head of state considered the creation and development of the e-government as a strategically important project so he deemed it was worth mentioning during the annual address to the whole nation. It signaled that the president took personal responsibility for the implementation of such an ambitious plan. Thus, he immediately issued the decree "on the state program for the formation of e-government in the Republic of Kazakhstan for 2005-2007" (egov, 2021). The launch of the e-government was a common trend for developed nations at that time. President Nazarbayev asserted that Kazakhstan also needed an electronic government. because it did not only provide e-services to make the life of millions easier but also improved the image of the country in the international arena and contributed to its economic development.

4.3.1 E-gov's development under the control of the president

In general, it is accepted that there are four stages of the e-government's development (see Table 1). The progress in each period was closely monitored by president Nazarbayev and his subordinates. It is important to mention that Kazakhstan is a unitary state with centralized public

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[3]"Пора на деле приступить к формированию «электронного Правительства». Это небольшое по численности Правительство, прозрачное в своей деятельности. Оно позволит сократить контакты между населением и чиновниками, повысит качество и уменьшит сроки оказания услуг. Это приведёт к новой административной реформе и сокращению госаппарата."

administration that is notorious for top-down political directives. This particular environment is conducive to the implementation of the e-government due to direct and fast political decision-making along with centralized budget funding. Indeed, generous and regular funding for ICT-driven public reforms, strict organizational control, and administrative pressure is the driving force behind its successful realization (Kassen, 2016). Hence, the development of e-gov in Kazakhstan is speedier as opposed to countries with decentralized administrative systems since the latter requires cumbersome agreements with local executive bodies. Moreover, almost all members of the executive branch of power in Kazakhstan belong to the ruling party Amanat (previously Nur-Otan) (Kumenov, 2022). This political context is instrumental to the development of the e-gov mechanism because the state apparatus works in unison and does not oppose the commands coming from the head of state.

Table 1. E-government's evolution in Kazakhstan

Periods of development (years)	Progress
The first stage (2004-2006)	Building the e-government infrastructure (informational)
The second stage (2007-2009)	Integrating e-government into a single platform (interactive)
The third stage (2010-2012)	Creating interactive e-government (transactional)
The fourth stage (2013-present)	Maximizing the efficiency of the e-government (transformational)

Source: the table was partially adopted from Kassen's (2016) periodization of the e-gov's development and official information from egov (2021).

So, the first stage of e-gov's development encompasses the construction of the e-government infrastructure that has been serving as the foundation for the ICT-driven public administration. At this stage, the services of e-gov were comprised of primitive functions, namely, giving necessary government information on a single portal that helped people to understand state agencies and respective services. The final output of that period was the unification of all citizens' identification

numbers and social security numbers into one single national identification number (Kassen, 2016, p. 32).

The second stage involved the integration of e-government projects into a single domain that allowed citizens to get interactive services through an integrated electronic portal. During this period citizens witnessed the introduction of "informational systems, state databases, electronic licensing, and gateway of the electronic government" (egov, 2021).

The third stage was devoted to the development of transactional services. Citizens got the opportunity to pay taxes, fees, fines, and utility services via a single e-government web portal without the need to go to banks and face enervating bureaucratic procedures. One of the most valuable projects of this period was the so-called "e-procurement" portal that aimed to save public funds by ensuring the best price for the procured goods and services by boosting transparency and openness of electronic transactions. Thus, it contributed to the emergence of a competitive market environment for entrepreneurs and business organizations that participated in the state auctions and tenders (Kassen 2016, 57).

The last stage embodies the maximization of e-gov's efficiency through embedding the open government and open data technologies into web the portal which resulted in the transformation of the provision of socially significant services. This is also made by the constant development of an e-gov mobile app that is used on smartphones, tablets, and various devices. As of today, there are 400 public services available in the eGov mobile app. Approximately 80% of all public services will be transferred to smartphones until the end of 2022 ("New version of the eGov mobile app is available to users," n.d.).

4.3.2 Strategic importance of PoE

There are political, economic, and social dimensions that prove the strategic importance of the e-government for the incumbent and central government in general. Yet, they may overlap with each other. But each of them can stand as a separate motivation to carry out the e-gov project.

Firstly, the global image of Kazakhstan has always been a critical concern for the first president Nazarbayev and his successor Tokayev because it has been used as a tool for boosting the performance and legitimacy of the government in front of both international and domestic audiences. Kazakhstan tried to raise the country's prestige through the organization of global scale events such as the 2010 OSCE Summit, 2011 Asian Winter Games, EXPO-2017, Syria Peace talks in Nur-Sultan, etc. The creation of a unique national "brand" identity helped the Kazakh government to increase the public approval of the leadership and thus maintain the political status quo (Marat, 2009). Indeed, the development of the e-government project is just one out of many similar infrastructural and reputational projects to showcase the "progress" to the whole world under the guise of modernization. Therefore, president Nazarbayev did not want to fall behind developed nations and decided to launch the e-government project. The realization of the e-government project remains to be a national priority under the adoption of the bigger and more complex government program "Digital Kazakhstan" in 2017 which aims to elevate the living standards of citizens, accelerate economic growth, and create a digital economy (Digital KZ, n.d.).

As concerns the nation's branding priorities, once the foundation of the e-government mechanism was finished, the performance of Kazakhstan's e-gov started to be estimated according to different e-government rankings. One of the most important was the E-government Development Index (EGDI) composed by the United Nations which measures three key dimensions of e-government: provision of online services, telecommunication connectivity, and human capacity (United

Nations, 2020a). In other words, EGDI reflects the willingness and capacity of national institutions to employ Information and Communications Technologies (ICT) to deliver public services (United Nations, 2020b). Since the inception of e-gov in the country, Kazakhstan ranked only 69th in 2004 (see Table 2). From that time onwards, Kazakhstan regularly paid special attention to EGDI biennial rankings and gradually improved its digital infrastructure over time. Overall, the efforts of Kazakhstan were not in vain, because Kazakhstan managed to achieve 29th position among 193 United Nations member states in 2020 thus becoming the first in the CIS region, and even got ahead of Russia (ranked 33rd) with its relatively fast-developing IT-sector (United Nations, 2020a). Today, Kazakhstan is regarded by the United Nations as one of the most successful ICT-driven public administrations and an exemplary electronic state in Central and South Asia (Kassen, 2016). The strong desire of Kazakhstan's leadership to be noticed by the international community and raise its global image yielded fast and productive results.

Table 2. Kazakhstan's global position according to EGDI (2003-2020)

Global performance rating of the national e-government project									
	2003	2004	2005	2008	2010	2012	2014	2016	2018	2020
Kazakhstan	83rd	69th	65th	81st	46th	38th	28th	33rd	39th	29th

Source: United Nations (2020a)

There are clear political incentives for the incumbent to develop the electronic government in Kazakhstan. This political motivation can be summed up as an effort to establish "direct digital democracy". E-gov incorporates an "e-participation" project that aims to encourage inclusive and conscious civic engagement in public decision-making and policymaking through active usage of digital technologies. For instance, every citizen who has questions and complains to high-ranking officials such as ministers, akims (heads of local government), and representatives of local executive bodies can make an appointment with them and address these concerns in a face-to-face video call or online chat. Furthermore, there is open access to the full text of legal acts and the whole regulatory database on a single web platform, the Adilet Open Laws project, so that citizens

can easily get acquainted with the legislation and constructively participate in the lawmaking processes ("Legal information system of Regulatory Legal Acts of the Republic of Kazakhstan," n.d.). Besides, the top executives of state agencies are obliged to create the official blog platform in the framework of the "Open Dialogue Project" as a new communicative channel between citizens and government. In the blog platform, citizens can post petitions to directly appeal to the heads of ministries thus bypassing customary administrative barriers. It is said to increase public trust and confidence in the government because such a platform makes the work of public institutions more transparent and accountable to citizens (Kassen, 2016, p. 73).

All in all, different participatory and collaborative e-projects helped Kazakhstan to achieve 26th position out of 193 UN member states in the global e-participation index (United Nations, 2020c). This resonates well with President Tokayev's concept of the "Listening State" that strives to timely respond to citizens' demands and engage society in the constructive decision-making process (Yergaliyeva, 2020). Yet, it should be acknowledged that these "democratization" efforts through digital technologies serve two important aims for state leadership: raising the global image of Kazakhstan as a friendly state and imitating democratization domestically. It is known that the leadership of Kazakhstan does not tolerate fundamental political reforms that can undermine the stability of the current regime. This is the key reason why most of these e-participation projects do not function properly as they should. For instance, if citizens want to make an appointment with a chief executive officer of the state agency, then they have to select the desired date and time for the online conference ("Appointment to the chief executive officer," n.d.). Yet, in practice, once they receive the e-mail confirmation, they are obliged to visit the state-owned corporation «Government for citizens» to have a video conference. However, it, again, requires physical interaction with state agencies, waiting in long queues, repeated registration, meticulous checking, and identification all of which turned a useful project into a regular noneffective bureaucratic mechanism (Kassen, 2016). Furthermore, the request for the videoconference can be rejected if

"the question is not within the sphere of the chief executive officer of the state agency" ("Appointment to the chief executive officer," n.d.). This vague regulation provides leeway for the members of service centers to reject those requests that may raise politically sensitive issues. The myriad of such bureaucratic barriers was intentionally devised to curb real political opposition. Because it poses huge risks for the status quo leadership. This e-government mechanism and all concomitant e-projects create just a façade of democratic changes that are used for the legitimization of central government. Undoubtedly e-participation projects play important role in promoting civic engagement and political consciousness among the citizenry. However, today they seem to be more of a formality rather than an impulse for genuine political transformation (Kassen, 2016).

There are also clear economic incentives for the head of state to develop the electronic government in Kazakhstan. Firstly, President Nursultan Nazarbayev was preoccupied with launching lofty targets for the country's long-term development. One of them is the "Kazakhstan 2050 Strategy" which set the goal to enter the world's top 30 most developed economies by 2050 ("Kazakhstan 2050 Strategy," n.d.). It is not surprising that such an ambitious plan embraces the development of an electronic and open government that acts as a guarantor of stability and peace in the country due to people's high satisfaction with the government. Secondly, the e-government enhances state accountability and battles corruption and red tape that has been paralyzing the efficiency of the state agencies. For instance, e-procurement promotes cost-effective strategies for government spending and ensures the best price for government procurement ("Public procurement portal," 2021). In other words, it helps to save public funds by boosting the transparency of public spending. This, in turn, makes the business and investment climate more propitious for foreign enterprises. Indeed, transparency of procurement and openness of the government attracts external investors because of the trust and confidence in the national authorities which increases their willingness to engage in investment opportunities in Kazakhstan. Most importantly, the

global image and brand of Kazakhstan as a "democratic" and the modernized country also played a key role in drawing foreign investments and businesses. Thus, Kazakhstan managed to attract more than US$370 billion in foreign direct investments (FDI) for the whole period of its independence (Satubaldina, 2021). Most of the incoming investments were made in the oil and gas industry. Overall, it can be argued that the development of the e-gov contributes to the acceleration of the economic growth of Kazakhstan.

Moreover, President Nazarbayev especially emphasized the upgrade of citizens' quality of life with the advent of the integrated e-government system. Kazakhstan has been suffering from overly bureaucratic public administration that was inherited from the totalitarian Soviet system. Obviously, people supported the idea of the e-gov project since it truly made their everyday life easier. This mechanism eliminated queues to state agencies and speeded up the receipt of various important documents and public services. Most importantly, it reduced the instances of corruption and red tape. Before the introduction of a single e-gov mechanism, there were frequent occasions when citizens were asked to pay bribes or provide "gifts" for faster delivery of services from state agencies. Now people can get necessary documents online with one click by entering their electronic digital signature.

Furthermore, it is important to note that Kazakhstan is the largest landlocked country in the world. The distance between the urban and remote rural areas is very huge. In addition, roads that connect the living localities are of poor quality which complicates the route of commuters from village to city. Therefore, rural citizens that would like to get public services should depart to urban areas and visit service centers because there is an underdeveloped telecommunications market in remote regions due to a low population density (UNESCAP, 2019). Without adequate access to the internet, it is impossible to get public services through a single e-gov portal. Therefore, the plan for the e-gov implementation stimulates the development of necessary infrastructure for the

realization of ICT-driven public administration in Kazakhstan. Furthermore, the e-government services imply that citizens have sufficient capacity and knowledge to use its opportunities. This challenge also serves as an impulse for the massive campaign of increasing computer literacy among the rural population. Nevertheless, today, nearly 12 million Kazakhstani citizens (62 % of the population) receive public services online ("15th Anniversary of the Electronic Government of Kazakhstan," 2021). In total, more than 60 million public services were provided through the e-gov platform in 2020 (egov, 2021). The practical benefit of e-gov demonstrates to citizens that government can implement successful reforms. The display of formal achievements in developing an efficient and transparent digital client-oriented government certainly entails public support for the incumbent and national authorities in Kazakhstan.

4.4   Cause 2: meritocratically selected competent leader

Once the incumbent made a solid decision to create the electronic government, he realized that there should be a competent, smart, reliable, and loyal manager who can take full responsibility for its timely and effective implementation. One such person is Bagdat Mussin. He has been appointed as the Minister of Digital Development, Innovation, and Aerospace Industry (MDDIA) on September 2 in 2020 by the decree of President Kassym-Jomart Tokayev (Akorda, 2020). He is only 39 years old (born in 1983) and thus the second-youngest minister in Kazakhstan. In general, the ministries are the central executive bodies of Kazakhstan which are held accountable for the designated field of public administration ("Ministries and committees of the Republic of Kazakhstan," 2022). Important to mention that Kazakhstan has a strong presidential system of governance which is designed in a way so that the head of state has direct control over all branches of power and possesses extensive authority. For instance, the ministers are assigned to the post and dismissed by the president. This type of hierarchical system encourages top-down political directives that come all the way down from the president to the rank-and-file civil servants. Such a politico-administrative model has been the driving force for the realization of state-sponsored

projects in Kazakhstan. Hence, if former president Nazarbayev and his successor Tokayev believed that the implementation of the e-gov project served their political purposes and proved its strategic importance, then it was in their interests to appoint a minister who was an expert in the IT sector and knew potential pitfalls and effective solutions to them.

Indeed, Mr. Mussin is a person who was at the origins of the e-government launching in Kazakhstan. Especially he gained popularity for fixing bureaucratic public service centers and optimizing operations of JSC "Kazpost" (national postal operator of Kazakhstan) by introducing effective digital technologies (Akhmatova et al., 2016). Mr. Mussin graduated from the Suleiman Demirel University (SDU) in Almaty with a degree in "software and hardware of computer technology" (GPA 3.3 out of 4) ("Mussin Bagdat," n.d.).[4] After gaining expertise in computer programming in one of the most prestigious universities of Kazakhstan, he started to work as a software engineer in JSC "National Information Technologies" (NIT)[5] which has been a single operator of the info-communication infrastructure of the e-gov of Kazakhstan ("Activity," n.d.). In practice, this enterprise functions as a state-owned company that provides technical assistance and maintenance for the e-government mechanism. Mr. Mussin has worked at NIT for three years in different positions (2004-2007 years): software engineer, head of certification centers unit, and deputy director in the department for establishing IT units in government agencies (see table 3). At that very company, he started working on the development of the e-gov project. Mussin reflects on his first work experience at NIT as follows:

> Immediately after graduation from university, I took the position of a software engineer at JSC "National Information Technologies". It was a great school for me. It gave me an understanding of where to move, and what to develop. I was fortunate to participate in the development of large state projects. It had its peculiarities: organizational issues, overcoming resistance to change, and strict adherence to regulations. After all stages of project implementation, an

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[4] SDU is famous for its outstanding graduates who have contributed to the development of IT industry in Kazakhstan. According to the extensive research on the market of Kazakhstani IT developers conducted by popular local IT company Kolesa Group in 2022, SDU became the second-best university in training of highly qualified IT specialists in Kazakhstan.
[5] Leading company in Kazakhstan's information technology market.

employee becomes a "universal soldier" who can apply gained knowledge in any field (Tengrinews, 2017).

Furthermore, Mr. Mussin assumed top positions in the IT sector of different ministries. But one of the most important ones in terms of his contribution to the development of e-government projects were his appointments as a Chairman for E-government & Public Services in the Ministry of Transport and Communications (2012-2014), CEO of JSC "Kazpost" (2014-217), and Chairman for Legal Statistics & Special Accounts in the General Prosecutor's Office of Kazakhstan (2017-2018).

For instance, while working in the Ministry of Transport and Communications, Mussin played a key role in the introduction of modern principles of customer service, optimization of public services, licensing procedures, and conversion of public services into electronic format (Kapital, 2020). His popularity especially skyrocketed when he became the chair of JSC "Kazpost" in 2014. Under his leadership, "Kazpost" automated the process of issuing pensions and benefits, launched a global tracking system for postal items, and opened a network of post offices and even the first parcel supermarket in Kazakhstan. Moreover, Mussin and his team managed to modernize 400 post offices across the country (Mayakovskaya, 2017). In addition, as a Chairman for Legal Statistics & Special Accounts in the General Prosecutor's Office of Kazakhstan (2017-2018), Mr. Mussin made the work of police officers more transparent using digital technologies. He proposed an idea to issue traffic fines on a tablet. Previously, police officers had to carry a folder with a pile of papers and fill them out, and then, after returning to the workplace, retype everything from pieces of paper to a computer. Yet, today, about 40% of criminal cases are conducted entirely in electronic format (Chernysh and Vorona, 2021). Furthermore, Mussin and his team implemented the introduction of digital documents on the single e-gov portal and in the e-gov mobile application. Now citizens can freely drive without a driver's license, registration certificate, and insurance. In case they are

stopped by a highway patrol, then the policeman can check the existence and validity of necessary documents on the tablet. Now, digital documents are used almost in all significant public services.

The head of state noticed dramatic progress in the digitalization of the government under the leadership of Bagdat Mussin throughout his career. Mr. Mussin demonstrated that he was passionate about the development of e-government. Mussin's work ethic, dedication, expertise, and managerial skills helped him to climb the corporate ladder in leaps and bounds (see Table 3). He inspired trust among the state apparatus. Thus, in 2020, he was appointed as the advisor to President Kassym-Jomart Tokayev on Digitalization and Innovative technologies. After a short while, proving his loyalty to the president, Mr. Mussin was appointed as a Minister of Digital Development, Innovations, and Aerospace Industry (MDDIA) of the Republic of Kazakhstan in the same year. It can be argued that the appointment of Mussin to a position of a minister was possible because he was previously an adviser to the president in his field of expertise. However, it is important to emphasize that it is his skills, and deep knowledge of the e-government and the IT sector in general that elevated him to the position of minister. In other words, Mussin has been selected as a manager of the e-gov projects on a meritocratic basis. He climbed the corporate ladder up from the basic positions in the sector of digitalization and e-government projects. But now, he is aware of almost every detail of e-government. It is important to understand that the IT sector is specific, and the development of digital products requires special skills and educational background. Therefore, appointing managers to "high priority" projects such as the development of e-government based on cronyism would not yield productive results for the incumbent. Possibly, the success of this project lies in its specificity where the patrimonial practice of hiring staff is just a fruitless strategy.

Table 3. Bagdat Mussin's career path.

Bagdat Mussin's Career		
Public Organization	**Position**	**Years of service**
JSC "National Information Technologies"	Software Engineer; Head of Certification Centers Unit; Deputy Director in the Department of establishing IT units in government agencies.	2004 - 2007
JSC "AMANAT-Insurance"	IT Adviser-Consultant	2004 - 2007
Ministry of Justice of Kazakhstan	Information Technology Adviser; Head of IT Department	2007 - 2010
Ministry of Communication and Information	Deputy Director for National IT Policy Department	2010 - 2011
Ministry of Communication and Information Technology	Vice-Chairman for E-Government & Public Services	2010 - 2012
Ministry of Transport and Communications (renamed)	Chairman for E-Government & Public Services	2012 - 2014
JSC National Information Technologies of Kazakhstan	CEO	2014 (April-August)
KazPost (national postal company)	CEO	2014 - 2017
General Prosecutor's Office of Kazakhstan	Chairman for Legal Statistics & Special Accounts	2017 - 2018
BeInTech (technology company)	CEO	2018
Ministry of Digital Development, Innovations and Aerospace Industry of the Republic of Kazakhstan	Minister	2020 - now

(Source: GOV.kz and Mussin's account on LinkedIn)

Obviously, minister Mussin is not the only person who is responsible for the success and effectiveness of the e-government project in Kazakhstan. Nonetheless, as a head of the executive body, Mussin exercises direct control over the whole field of digitalization and e-government. All managers of projects related to the development of e-gov are accountable to him. Therefore, state-owned enterprises that work on the development of the e-gov mechanism are expected to obey minister Mussin's orders. As was previously mentioned, e-gov's single operator of ICT infrastructure is JSC "National Information Technologies" (NIT) which has been developing

information systems for state agencies for 21 years under the political and administrative control of the Public Services Committee in different ministries. Therefore, there is no doubt that the lion's share of staff at NIT is selected based on expertise and talent, let alone developers and computer programmers who are regarded as the brain of the organization.

Overall, NIT has an enormous team of 1900 specialists working in representative offices across the country ("National Information Technologies" JSC," n.d.). For instance, the chairman of the Board of NIT, Rostislav Konyashkin, has graduated from Lomonosov Moscow State University majoring in Mathematics (financial/actuarial field) and holds a master`s degree in information systems from Gumilyov Eurasian National University ("Board of «NIT» JSC," n.d.). Mr. Konyashkin has been working in the sphere of digital technologies and innovations for over 10 years. In 2020, he was appointed to the position of Deputy Chairman of the Board of Public Services Committee under the MDDIA. Therefore, it can be asserted that the top manager of NIT has decent qualifications and expertise to carry out control over the development of the e-government of Kazakhstan.

4.5   Cause 3: positive organizational culture

Besides the necessity of competent leaders, the success and effectiveness of big state projects hugely depend on the organizational culture within the company. Although the incumbent and the head of PoE can deliver smart and strategic instructions to subordinates, the attitude, stimulus, and inspiration of the latter can make a huge impact on the prosperity of the project. Therefore, internal factors by no means should be ignored. This case demonstrates that even under the unpropitious environment of an authoritarian political system, the presence of strong will of the head of state and highly qualified managers are certainly insufficient for the creation of effective public organizations. Consequently, it is crucial to delve into the internal climate and organizational culture of JSC "NIT" to investigate what kind of working environment, staff motivation, and

informal culture make the organization successful in developing the e-government mechanism that enters the top 30 developed e-governments in the world.

According to official information on NIT's website, the company's mission is to boost Kazakhstan's competitiveness and prosperity by assisting government agencies and state-owned organizations with IT support. One of the strategic goals is to ensure the seamless operation of the e-government's ICT infrastructure ("Activity," n.d.). In sum, the company maintains three core values: the team, performance, and quality. It is written that all achievements of the company are the common achievements of NIT's highly professional and responsible staff. The company is performance-oriented, and its results always meet the consumers' expectations ("Strategy and mission," n.d.). In short, it can be inferred that formal values in NIT constitute team spirit, unity, performance-oriented culture, and adherence to professionalism. Furthermore, it is seen that key advantages of working at NIT are the career development and implementation of innovative ideas, training and development, fair salary (consistent salaries and quarterly bonuses), friendly and close-knit team (team of like-minded people with a shared goal), corporate culture (sports events and team buildings), and concern for employees (welfare benefits) ("Career in NIT JSC," n.d.). Nevertheless, the author of this research work deemed it useful to investigate whether these formal rules and values reflect the real situation in the workplace at NIT by interviewing four employees who are directly involved in the development of the e-government mechanism.

Overall, four employees of NIT[6] were asked to describe their experience at the workplace with a focus on primary motivation to work, corporate culture, working conditions, interaction with leadership, values of the company, and so on. In general, they have similar opinions, but in some respects, their views, and perceptions regarding work experience at NIT diverged. The apparent

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[6] The identities of interviewees were intentionally concealed for anonymity purposes. To avoid assigning names to interviewees, they are listed as "respondents 1, 2, 3 and 4" or "R1, 2, 3, 4" respectively.

commonality between interviewees is their educational background in computer science from top local universities such as Nazarbayev University, Suleyman Demirel University, Eurasian National University, and Al-Farabi Kazakh National University. Another conspicuous similarity is that all of them are relatively young, they are either in their early or late 20s. Important to note that they were willing to share their experience in developing the e-government system at NIT via an unstructured face-to-face interview.

Respondent 1 (R1) is a junior software engineer who has been working on the development of e-government for one year. He said that at the beginning he enjoyed working at NIT because everything was new to him, but now he is a bit fed up with his job. The first reason is that the organizational processes do not stimulate educational growth, because there are no team leaders who would conduct code reviews, organize meetups, and explain stuff as in other top IT companies. In other words, there is a lack of cooperative work, developers usually work alone. The second reason is that the project itself became monotonous and boring at times. Yet occasionally managers may organize team-buildings, but corporate culture is not developed. As concerns positive aspects, he regards his colleagues and teammates as friendly and respectful. He is very comfortable working with them. He is also content with the leadership of the department as they are open-minded and deferential towards subordinates. He also reports that there is no strict performance-oriented culture. The primary motivation for R1 to work at NIT is that he is growing as an IT specialist and acquiring valuable expertise. However, he asserts that the salary does not seem competitive for him (in his words, it is lower than the average salary in the IT market), but since it is his first job, he is satisfied with it.

Respondent 2 (R2) is a lead business analyst who has been working on the development of a single e-gov web portal and e-gov mobile for almost four years. Overall, she has more optimistic views toward organizational culture at NIT. In sum, she likes working there because of the interesting

job, good working conditions, and amicable colleagues. She feels that she makes the life of citizens easier by developing a digital government where citizens can receive socially significant services just with one click. She considers material incentives of secondary importance, while the sense of mission and idea of e-gov of principal motivation. She describes her relationship with immediate leadership as a "peer-to-peer" interaction that encourages camaraderie and trust among all members of the team. R2 reports that organization pays special attention to the KPI of their employees to boost productivity. The leadership sets tasks that should be accomplished until a certain deadline. She also mentioned that quarterly bonuses motivate personnel to stay afloat. As concerns corporate culture, she reported that with the coming of the new managers, the corporate culture worsened. The team buildings and offsite events became rare. R2 also emphasized that there are special training and courses provided for staff by the company, but they are very limited due to budget constraints.

Respondent 3 (R3) is a software engineer who has been working on the development of e-government services for three and a half years. Overall, R3 enjoys working at NIT because he likes operating new technologies and using these innovations in his daily life. He likes being at the forefront of e-gov development as he sees the immediate results of his efforts at the company. The main motivation for him to work on e-gov is the constant improvement of skills and knowledge in programming because as a team they always get versatile tasks from government agencies that aim to digitalize their services. He mentions that he feels his contribution to the betterment of the citizen's life by working on the development of e-gov services. For instance, recently, he developed an e-service that allows people to issue passports and identity cards remotely by submitting a photo and signature to the system. Furthermore, he is satisfied with immediate leadership as they are always friendly and willing to cooperate. Yet, he is not frequently contacting his colleagues because of the specificity of the programmer's job which requires minimal physical

interaction. But still, he participates in team-building exercises with his colleagues and regards them as like-minded professionals.

Respondent 4 (R4) is a lead business analyst who has been working on the development of e-government services for three years. As an analyst, he deals with requests and complaints coming from e-gov users through the helpdesk and then directs them to developers to fix the problems. Generally, R4 likes his job at NIT because of its meaningfulness as he witnesses that the e-gov platform helps to curb red tape, battle corruption, and makes the life of citizens easier. Moreover, he is fond of his immediate managers for their open-mindedness and creativity and generally has a good relationship with colleagues whom he regards as talented and skillful. R4 emphasized good working conditions at NIT since their office is designed as an open space, which helps to improve teamwork, communication, and unity. However, there are very few trainings offered by the company due to the limitation of the budget. No significant encouragement in learning is observed at the workplace. He also confesses that the salary at NIT is not competitive at all and even significantly lower in comparison to other companies in the IT industry. Therefore, he reported that remuneration is not a motivation for him to work at NIT. He is driven by the opportunity to create something new and useful for the country. For example, he underscores the fact that they can develop some services and witness their immediate implementation on the web portal and get swift feedback from users. In other words, he finds his job captivating because it provides an enriching experience in the world of programming and ICT development.
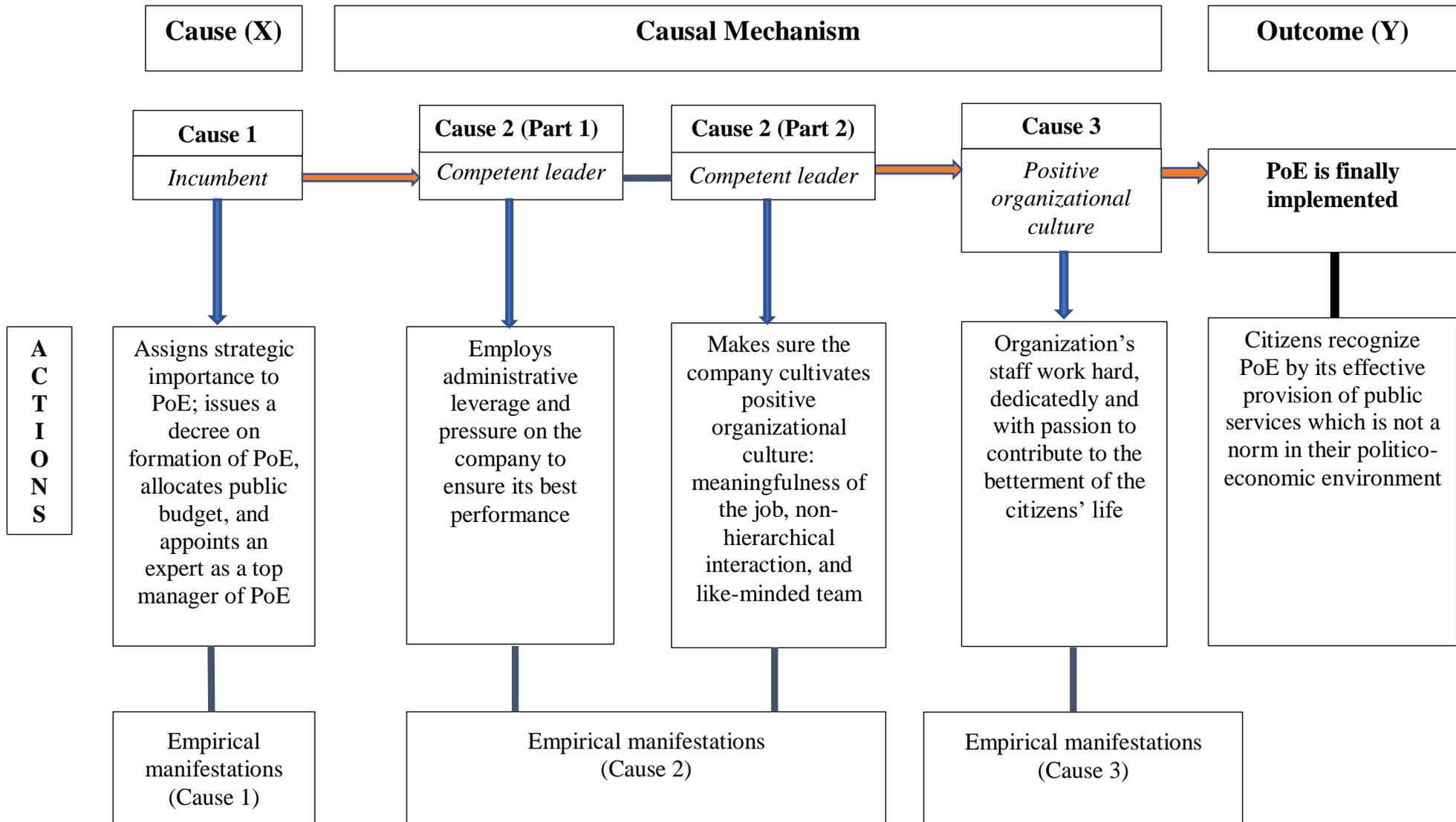
Based on the interviewees' feedback and experience, in general, the organizational culture at NIT can be described as "positive". Yet, it is important to mention that it does not fully reflect what is written on the official website regarding the advantages of working at NIT and its values. However, it should be noted that the company encourages the persistence of a friendly and close-knit team as it directly relates to the productivity of staff. The leadership at NIT seems to be friendly, open-

minded, and caring. Yet, corporate culture (such as offsite team buildings) is not conspicuously cultivated. Moreover, the company is not fully performance-oriented and does not effectively cultivate skills and knowledge. Because the provision of necessary training and courses to its staff is hugely dependent on its either limited budget or simply priorities of the organization. Therefore, the point regarding training and development at NIT does not seem to reflect reality. Most importantly, the compensation at NIT turned out to be unsatisfactory to respondents. It was surprising given that IT specialists tend to receive competitive salaries. Probably the problem lies in the fact that NIT is a state-owned enterprise that is not driven by profit but rather by top-down directives from the central government.

Overall, these interviews helped to derive valuable insight: in case of low material incentives competent staff can be motivated by the sense of mission, calling, and meaningfulness of the job along with improvement of professional expertise. Indeed, the success of the company is not completely the product of high wages and welfare benefits. The rule of either earning or learning (or their combination) surely works in the corporate world of the IT industry. To conclude, the success of the e-gov project in the framework of organizational culture may be logically attributed to its meaningfulness and importance for the nation as a tool that raises the quality of citizens' life, accelerates economic growth, and battles corruption and red tape. Yet, the data elicited from the interview may suffer from low generalizability and reliability. There is a possibility that respondents did not answer all questions honestly due to the specificity of questions and issues of trust. Because citizens in Kazakhstan may have skepticism towards interviews that touch upon political issues.

4.6   Final Analysis

Figure 1. Causal Mechanism by Explaining-Outcome Process-Tracing

Cause (X)	Causal Mechanism				Outcome (Y)

Cause 1	**Cause 2 (Part 1)**	**Cause 2 (Part 2)**	**Cause 3**	**PoE is finally implemented**
Incumbent	*Competent leader*	*Competent leader*	*Positive organizational culture*	

ACTIONS

Assigns strategic importance to PoE; issues a decree on formation of PoE, allocates public budget, and appoints an expert as a top manager of PoE	Employs administrative leverage and pressure on the company to ensure its best performance	Makes sure the company cultivates positive organizational culture: meaningfulness of the job, non-hierarchical interaction, and like-minded team	Organization's staff work hard, dedicatedly and with passion to contribute to the betterment of the citizens' life	Citizens recognize PoE by its effective provision of public services which is not a norm in their politico-economic environment

Empirical manifestations (Cause 1)	Empirical manifestations (Cause 2)	Empirical manifestations (Cause 3)

Interestingly, figure 1 reveals vertical sequential conjuncture comprising three main causes that produced the Y-outcome (PoE). In this case, the will of the incumbent (cause 1) created a chain reaction. Since Kazakhstan is a personalist regime governed by a vertical hierarchy of power, the president gives top-down commands to the executive branch of power to initiate and develop PoE. Then, the leaders of central executive bodies (ministers) are held accountable for the designated field of public administration. Thus, the minister uses the leverage and exerts administrative pressure on the subordinate companies that are directly involved in implementing and developing the PoE to ensure they do the job to their maximum potential. This top-down assignment system has been at the core of Kazakhstan's public administration.

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So, it can be argued that it all started with the strong will of President Nazarbayev to launch the e-government project because there was a high demand for it among citizens, it was good for the country's global image and served as a tool for the legitimization of the political status quo respectively (cause 1). Since it was strategically important for Nazarbayev, he took matters of its implementation into his own hands and issued a decree on the formation of the e-gov. He allocated generous public funds to it and executed direct control over all steps of its realization. Afterward, due to the specificity of the IT industry and the necessity for loyal and competent managers, new president Tokayev decided to appoint highly experienced and qualified Bagdat Mussin as the Minister of DDIAI. Mr. Mussin was, indeed, an expert in the IT sphere and a hard-working manager which was clearly reflected in the achievements of the e-gov project under his immediate leadership. As a minister who was responsible for the development of e-gov, he used his political connections with president Tokayev to ensure political autonomy from different lobbyists and ill-wishers. Since the development of the e-gov was under the jurisdiction of DDIA, Minister Mussin used his positional resources to make sure JSC "NIT" did its best to maximize the efficiency of the e-gov (cause 2). He pushed the leadership of NIT to cultivate a positive organizational culture

that consisted of a good working environment, friendly teammates, professional staff, open-minded leadership, and most importantly, the meaningfulness of the job among the personnel. The sense of mission and calling among staff may have risen when the development of the e-gov became a national priority and it started to make the life of citizens easier. Nonetheless, with positive organizational culture and the cultivation of immaterial incentives, it was expected that the personnel of NIT would work hard and dedicatedly even though they did not earn a fortune by working there (cause 3). In a nutshell, it can be argued that the set of three key causes in a vertical sequential order contributed to the emergence of the electronic government as PoE in Kazakhstan.

5 Conclusion

This research work demonstrates that the set of three primary causes, namely, 1) the will of the incumbent, 2) meritocratically selected competent leader, and 3) positive organizational culture contributed to the emergence of e-gov as PoE in Kazakhstan in sequential order. They constitute a minimally sufficient explanation of the Y-outcome. The nuanced argument of this paper is that the strong will of the president in authoritarian and personalist regimes is not enough for the realization of state projects. It also requires the presence of endogenous factors such as the competent leader who directs the company and cultivates propitious working conditions within the organization. Yet, it can be argued that it is still the whim of the president that realized this project. However, without a conjuncture of factors, the implementation of this project would remain uncertain at best.

The uniqueness of this model of analysis lies in its conglomerate of both theorized and empirical causes. The explaining-outcome process-tracing variant was the best fit for this single-case study. Indeed, it was found that theorized causes are present in e-gov's genesis as PoE in Kazakhstan. Firstly, Gel'man's (2016, 2017) and Roll's (2014) argument regarding the strong will of the head of state and the strategic importance and high priority for him/her proved to be essential in the case of the e-government. This strategic importance is also corroborated by citizens' strong demand for it (Leonard, 1991) because the first president of Kazakhstan sought to increase his performance legitimacy as the head of state and thus prolong his grip on power. Moreover, the professionalism, competency, and dedication of the top leader, Bagdat Mussin, helped him to get appointed as the Minister of DDIA who is directly responsible for carrying out the e-gov project. This, in turn, pushed him to use his positional leverage and administrative pressure to make sure that NIT company did its best to maximize the efficiency of e-gov. Mussin made sure the company cultivated positive organizational culture (Grindle, 1997) that includes non-hierarchical interaction

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with leadership, professional and like-minded teammates, and most importantly, the staff's sense of mission and calling to implement the e-gov project (Tendler, 1997).

Thus, explaining-outcome process-tracing revealed that theorized causes are firmly present in this single-case study. Yet, they are not involved in ways envisioned by their authors as they resemble bricks that help to form a holistic picture of the phenomenon. Causes do not act independently, because they reinforce each other and only their sequential combination contributes to the Y-outcome. Therefore, this specific causal explanation of e-gov's emergence as PoE can hardly be extrapolated outside a certain population of cases. For instance, Central Asian countries such as Uzbekistan, Tajikistan, and Kyrgyzstan may be taken as similar cases for investigation. Therefore, it would be interesting to observe how researchers in the field of public sector performance in developing countries applied this causal explanation to other Central Asian countries and tested whether these three key causal mechanisms are present in their single-case studies. Future research may rectify the limitation of this research by showing the validity of these findings. Nevertheless, one should be cautious in trying to replicate this research design since every case is unique, multi-factored, and highly context-specific.

Although the suggested causal explanation of the e-gov's emergence as PoE cannot be confirmed with 100 percent certainty, the primary goal of this research work was successfully achieved: this research work built a minimally sufficient explanation of how key three causes account for the most important aspects of the emergence of the electronic government as PoE. The main contribution of this research work is that it helps scholars to grasp the dynamics and nature of the PoE emergence and persistence in the politico-economic settings that closely look like Kazakhstan.

Since the main stakeholder in the promotion of e-government has been President Nazarbayev and current President Tokayev, Kazakhstan's e-gov managed to rank 29th internationally which makes

it the most successful e-gov in Central Asia, South Asia, and among the Commonwealth of Independent States (CIS). Citizens can obtain public services remotely with just one click by entering their electronic digital signature. It helps to battle corruption and red tape which became a regular issue once there was a physical interaction between citizens and government agencies (Kassen, 2016). The government activities and public budget spending became more open and transparent which saves public funds and creates a safe investment climate. Therefore, given the extraordinary success of Kazakhstan in the sphere of e-gov, it was worth investigating what factors contributed to PoE and how they reinforced each other in an environment that was inimical to its emergence in the first place.

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Appendix

List of Interviewees

#	Organization	Position	Years of service	Main responsibility
1	JSC "NIT"	junior software engineer	1	software design and coding
2	JSC "NIT"	lead business analyst	4	executing operational systems
3	JSC "NIT"	senior software engineer	3.5	building applications and installing software solutions
4	JSC "NIT"	lead analyst	3	dealing with customer queries and requests