Hacettepe University Graduate School Of Social Sciences

Department of Political Science and Public Administration

Program of Public Administration

THE ROLE OF POLICY NETWORKS AND POLICY TRANSFER IN KAZAKHSTAN E-GOVERNMENT POLICIES

Dastan ALMEN

PhD Dissertation

Ankara, 2021

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ACCEPTANCE AND APPROVAL

The jury finds that Dastan ALMEN has on the date of 28 January 2021 successfully passed the defense examination and approves his Ph.D. Thesis titled “The Role of Policy Networks and Policy Transfer in Kazakhstan E-government Policies”.

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Dastan ALMEN

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Dastan ALMEN

DEDICATION

I want to dedicate this work:

To the God

To my beloved family

To the people who helped become who I am

ACKNOWLEDGMENTS

I want to thank the Lord for all that I have. The strength that faith gave me allowed me to reach the end of this both exciting and challenging path. In this regard, I promise to always try to use the knowledge I gained as a result of this educational process only for good and for the benefit of people and all of humanity.

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ABSTRACT

ALMEN, Dastan. *The Role of Policy Networks and Policy Transfer in Kazakhstan E-government Policies*, Ph.D. Thesis, Ankara, 2021.

This thesis combines two relatively novel concepts of public administration: e-government and public policy. In this dissertation, e-government, which is often explored as a self-sufficient notion, was investigated as a case study within the framework of public policy. The term "e-government policy", produced from such combination, is a rare phenomenon in present academic literature. Hence, this thesis strives to study not only how certain public services can be amplified through the use of ICTs, but also challenges to examine how such amplification attempts are designed using different practices and techniques widely utilized in the field of public policy.

In this regard, the major objective this dissertation aims to achieve is to address e-government development and its implementation through different projects in Kazakhstan and to assess policy making in the country using e-government policies as a case study. To reach this objective the author reviewed the literature on e-government as a concept and e-government implementation in Kazakhstan. The author then tested the policy making on the example of e-government in Kazakhstan using two important concepts of public policy: policy networks and policy transfer. The data collected from the literature were complemented by a series of interviews conducted with a wide range of e-government policy actors in Kazakhstan and abroad.

The analyzed data and findings presented in the dissertation not only allow to review the design and implementation of e-government in Kazakhstan, but they also help to establish the basic patterns of generic policy making in the country. This dissertation thus would be useful for policy makers and practitioners involved in both Kazakhstan and countries having a similar public administration context, especially those of post-Soviet space.

Keywords:

E-government, Public Policy, E-government Policies, Policy Networks, Policy Transfer, Kazakhstan

ÖZET

ALMEN, Dastan. *Kazakistan'ın E-Devlet Politikalarında Politika Ağları ve Politika Transferinin Rolü,* Doktora Tezi, Ankara, 2021.

Bu çalışma, kamu yönetiminin nispeten iki yeni kavramı e-devlet ve kamu politikasını birleştirmektedir. Bu tezde, genellikle kendi kendine yeten bir kavram olarak ele alınan e-devlet, kamu politikası çerçevesinde bir vaka çalışması olarak incelenmiştir. Bu bağlamda, böyle bir birleşimden üretilen "e-devlet politikası" kavramının mevcut akademik literatürde nadir görülen bir fenomen olduğu not edilmelidir. Bu nedenle sözkonusu yaklaşım, belirli kamu hizmetlerinin BİT aracılığıyla ne şekilde sağlandığını ve kamu hizmetleri sağlanırken kamu politikasının farklı uygulamaları ve teknikleri kullanılarak hangi politika yöntemlerinin/tasarımlarının kullanıldığını incelemektedir.

Bu bağlamda, bu tezin ulaşmayı amaçladığı temel amaç, e-devlet gelişimini ve uygulamalarını Kazakistan'da yerine getirilen farklı projeler aracılığıyla ele almak ve e-devlet bir vaka çalışması şeklinde kullanarak ülkedeki politika yapımını değerlendirmektir. Sözkonusu amaca ulaşmak adına e-devlet bir kavram olarak ve Kazakistan'da uygulanan e-devlet örnekleri geniş bir literatür yelpazesi kapsamında incelenmiştir. Daha sonra, Kazakistan'da politikalarının oluşturulması e-devlet örneği kapsamında politika ağları ve politika transferi gibi iki önemli kamu politikası çerçevesinde test edilmiştir. Literatürden toplanan veriler, Kazakistan'da ve yurtdışında çok çeşitli e-devlet politika aktörleri ile yapılan bir dizi röportajla tamamlanmıştır.

Tezde sunulan ve analiz edilmiş veriler ile bulgular, Kazakistan'da e-devlet durumunu gözden geçirmekle beraber ülkede politika yapmanın temel varsayımlarının ve temel taşlarının oluşturulmasına yardımcı olmaktadır. Bununla birlikte bu tez hem Kazakistan'da hem benzer yönetim yapısına sahip olan ülkeleri, özellikle eski Sovyet cumhuriyetlerini çalışan uygulayıcılar ve sözkonusu ülkelerde faal olan politika yapıcılar için yararlı olacaktır.

Anahtar Sözcükler:

E-devlet, Kamu Politikası, E-devlet Politikaları, Politika Ağları, Politika Transferi, Kazakistan

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ABBREVIATIONS

ACF: Advocacy Coalition Framework

BII: Bloomberg Innovation Index

CIS: Commonwealth of Independent States

EBDI: E-government Development Index

EBRD: European Bank for Reconstruction and Development

GII: Global Innovation Index

ICT: Information and Communications Technology

IDI: ICT Development Index

IMF: International Monetary Fund

INSEAD: Institut Européen d'Administration des Affaires

IPB: ICT Price Basket Index

ITIF: Information Technology and Innovation Foundation

ITU: International Telecommunication Union

NPM: New Public Management

NRI: Networked Readiness Index

OECD: Organisation for Economic Cooperation and Development

OSS: One Stop Shop

PPR: Public Sector Process Rebuilding

UNCTAD: United Nations Conference on Trade and Development

UNDP: United Nations Development Programme

UNESCO: United Nations Educational, Scientific and Cultural Organization

WEF: World Economic Forum

WHO: World Health Organization

WIPO: World Intellectual Property Organization

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INTRODUCTION

The topic of e-government, like all major breakthroughs in technology in general, and in particular in the ICT sphere, has a commonplace in the political rhetoric of Kazakhstan. Over the past 10-15 years, e-government in Kazakhstan has been associated with a positive trend and progress among the population, which was also set by a fairly stable economic growth.

On the other hand, like any other trend, e-government in Kazakhstan has already been quite often presented, discussed, and studied, and as a result, has lost the freshness and vigor that it had some 10 years ago. Since e-government was one of the key elements of several reform waves related to the modernization of public administration in the country and improvement of people's well-being in general.

In fact, e-government in Kazakhstan has achieved relatively good results, fundamentally changing the concept of public services in the country. The success of e-government implementation can be seen in various international rankings, which also includes the widely held UN ranking. For example, quite recently, one of the most widespread public services in Kazakhstan, the reception of an address certificate, could not be obtained without dealing with red tape and other bureaucratic barriers. This was complicated by the fact that some intermediaries could ask for a payment (maybe a bribe) in a process for a public service that was essentially free. Nowadays, an address certificate as a bureaucratic element is practically not asked at the clerks' tables since they can access it online.

However, expectations from e-government were much higher. This fact was aggravated by the fact that the e-government in Kazakhstan has ceased to show qualitative growth, since Kazakhstan has already reached a certain maturity threshold, after which it has become much more difficult to advance in development. This moment could not but cause concern for the future of e-government and the hopes associated with it in Kazakhstan.

On the other hand, e-government as a phenomenon has already been well studied in academia. In particular, the authors painstakingly studied e-government as a tool for providing public services more efficiently, as a means of combating corruption, as a way to increase transparency and accountability, as a part of wider modernization reforms, in terms of difficulties experienced during its implementation. and in the context of open government and Big Data. E-government has also been often criticized and compared to other countries. By and large, it can be said that e-government was already thoroughly studied, measured and described as a subject in Kazakhstan.

However, e-government in Kazakhstan as an object or a case has only little been addressed in terms of the theories of public administration. This is very natural since there are several specific difficulties in studying e-government in the context of governmental decision making in Kazakhstan, especially in term of public policy1. So, if attempted, this would be a completely new attempt to study e-government within the framework of public policy. In this regard, considering the mentioned gap in the literature and expectation placed by the government and citizens on e-government, such research becomes binding.

Nevertheless, the difficulties mentioned in the previous paragraphs and which will be carefully examined in the fifth chapter have not disappeared. Therefore, the assumptions regarding how to test e-government in the context of public policy should be treated with concern. Since in Kazakhstan there is a risk not to reach the expected results due to data shortage.

Thus, in order to understand where to begin the study of e-government in the framework of public policy, the author made several attempts to address e-government using different components of public policy such as planning and decision making. After having unsuccessfully attempted these public policy approaches, the author has also examined the assumptions to study e-government in Kazakhstan in the framework of policy networks and policy transfer. The said two concepts proved to be useful tools in approaching e-government in Kazakhstan in the context of public policy.

[1] This aspect will be mentioned in the chapter on methodology.

After clarifying these two public policy concepts, the author set to answer the main question of the dissertation: Can policy networks and policy transfer be used to explain e-government policies in Kazakhstan? And, if yes, what results will the analysis of e-government policies in Kazakhstan demonstrate in the framework of such essential concepts of public policy like policy networks and policy transfer?

In order to answer these questions, all the concepts that have been mentioned above will be carefully explored in the different chapters of this dissertation. For example, the first three chapters will help figure out what the concepts of e-government, policy networks and policy transfer mean. In doing so, the author will review the overlapping aspects of these concepts and identify how the said notions are used in tandem.

Further, in the fourth chapter, the author will analyze the case of e-government in Kazakhstan, citing previous works on this topic, providing information on Kazakhstan in context and presenting the distinctive characteristics of e-government in Kazakhstan. To make sure nothing is overlooked, in the last sections of the chapter, the author will provide an analysis of the historical development of e-government in Kazakhstan and give information about the major e-government projects implemented in Kazakhstan recently, both failed and successful.

In the fifth chapter, the author will describe how he collected data for its subsequent analysis, and what difficulties he had to face in the research process. Other important details related to the methodology of this dissertation will also be reflected in detail in this chapter.

The last chapter is devoted to the central part of the thesis. It will present the data, which forms the basis of this research and was formed as it was originally planned by the author. It will reveal the final analysis, results, and the detailed answer to the research question posed by the author at the very beginning of the study. The finer particles related to the research results that were not reflected in the last chapter will be reviewed in the part concluding this dissertation.

CHAPTER 1: POLICY NETWORKS

This chapter reviews the phenomenon of policy networks in detail. In particular, the author detailed the variant definitions of the concept approaching the topic as it was convenient for the purpose of the dissertation. After straightening out the situation with definitions, it was important to understand in what conditions the concept of policy networks can be used. The section about the dimensions of policy networks helped understand this. Due to the said differentiation in the conditions, policy networks, just like people and any other structures built by them, can be completely discrete depending on the number of participants in the network, the level of network integration, the distribution of resources inside and outside the network and the balance of power among actors within the network. It was therefore crucial to study the typology of policy networks.

An equally important factor in the process of studying the concept was the manner in which the policy networks are handled in different situations. The said section makes it quite evident that approaches to the study of policy network might differ depending on the research question of the dissertation. In this regard, such essential components of any policy network such as actors and strategies that they use to obtain necessary resources deserve a separate and special mention.

At the end of the chapter, the author shows that policy networks can develop at the transnational level. The author also addresses such important issues as policy innovation and policy change. The said topics are especially important since the next chapter evaluated in detail separately the topic of policy transfer, which bears close relation to the mentioned concepts.

1.1. DEFINING POLICY NETWORKS

For a long time, policymaking was considered an indispensable part of the unitary, hierarchical, and state-centered political setup (Adam & Kriesi, 2007, p. 132). However, the scholars admitted that policymaking in the contemporary world, just as politics as a whole, is a complex and uneven process. Driven by the waves of globalization and

advancements in the field of information and communication, the political systems and methods started to be closely associated with the increasing polarization and fragmentation (Blom-Hansen, 1997, p. 670; P. Kenis & Schneider, 1991, p. 26; Stone, 2008, p. 19). The actions of policy actors, as a response to intricate societal problems, needed greater coordination and expertise. This collective action also required increased interdependency and broader diffusion of responsibilities (Benson, 1982; Heclo, 1978).

The decentralized and informal nature of policymaking as a result of the liabilities of policy actors getting more and more dispersed was not a novelty in the political literature (P. Kenis & Schneider, 1991, p. 27). The formality and strict hierarchical culture were severely criticized in the discussions of pluralist (see Bentley, 1967; Truman, 1971) and corporatist/neo-corporatists (see Atkinson & Coleman, 1985; Howlett & Ramesh, 1995, 1998; Kenis & Schneider, 1991; Kriesi, 1982; Lehmbruch, 1984; Lehmbruch & Schmitter, 1982; Rhodes, 1990, 1997; Schmitter & Lehmbruch, 1979) theories of policymaking at the time. As mentioned earlier, many of the features of horizontal links emerging among the politicians, bureaucrats, and interest groups were considered primary aspects of the pluralist and corporatist theories (P. Kenis & Schneider, 1991, p. 27).

The discussion that was taking place in the mentioned literature at the time and that would eventually lead to the emergence of the policy networks approach takes its origins in pluralist and corporatist/neo-corporatist theories (Blom-Hansen, 1997, p. 670). However, the policy networks cannot be attributed singlehandedly to the “aggregation of interests, licensing of groups, monopoly of representation and regulation of members,” which are typical corporatist features (Rhodes, 1990, p. 303). It is also different from the pluralist theory whose major inadequacy is its uncertain and amorphous view of the world order (Carlsson, 2000, p. 505; P. Kenis & Schneider, 1991, p. 28).

The policy networks approach recognized that modern-day policymaking was taking place in an unpredictable and highly changeable environment. The political actions could no longer be reined in by a single authority (e.g., the state) and more often proceeded across different branches and levels of the government system (Dredge, 2006, p. 271). The coordination of actors was not the result of the "central steering." Instead, the

individuals' harmony was sustained through a setup where policy actors exchanged relevant information and resources. The said arrangement cannot be explained solely by the interaction of policy actors, though. It is rather dictated by the diversity of policy actions and the "processing" of policy elements (P. Kenis & Schneider, 1991, p. 26). Yet again, the stated processing was streamlined by the congregation of policy actors, their coordinated efforts, and what's more important, their collective abilities (Benson, 1982; Heclo, 1978).

Several scholars studying policy networks found it challenging to provide a clear and unequivocal definition of the term. On the one hand, they maintain that the concept of policy networks lacks an adequate theoretical framework (Carlsson, 2000, p. 502). The claims on the settled methodological perspective are pending as well (Börzel, 1998, p. 254; Dredge, 2006, p. 271). On the other hand, it is asserted that the term users often mix it up when referring to state/interest group relations. Besides, authors frequently imply a ranging interpretation of the policy networks, which even forced Börzel (1998, p. 256) to call it tricky since “very often similar labels describe different phenomena, or different labels refer to similar phenomena.”

This study claims that the term is evolving, though. This reasoning is typically reflected through a careful analysis of the existing literature. The said analysis starts with the account of some authors, including Rokkan (1969), Friend, Power, and Yewlett (1974), who cited networks for the first time in the process of policymaking. Consequently, the term “policy networks” began to be used by several academics to define the relations between the public and private sectors.

Katzenstein (1978) used the term to indicate the ties between the state and industry during the policy implementation. Lehmbruch’s (1984, p. 74) is a slightly broader approach. He pointed to the interconnectedness of the government authorities comprising political, bureaucratic, and business domains through mutual participation in the national committees and joint membership at the top of the administration. In 1974, Heclo and Wildavsky used the term “policy communities,” which get even closer to modern-day policy networks. It put an accent on interpersonal relationships among chief governmental actors in a specific

policy sector. Another attempt to define the policy networks was made by Hanf and Scharpf (1977), who emphasized the role of individuals in the formalized horizontal linkages. A year later, Heclo (1978) elaborated an even more sophisticated understanding of the network analysis. He introduced the term “issue networks” which hosts a great variety of policy experts cross-referencing it with, in his view, deficient “iron triangles,” used as a prototype to depict the state/industry relations taking place in the US in the 1950s and 1960s. The author categorizes issue networks as looser and more flexible in contrast to closed and segmented iron triangles. The interaction within the issue networks is complicated and based on the informality with the power scattered across the network. According to Heclo, such setup suits better to solve policy issues that necessitate more considerable expertise.

Parallel to the concept of policy networks getting more mature, some authors devised new terms to describe the same phenomena. Among these, one can note the “policy sector” by Benson (1982), “policy sub/system” by Sabatier (Sabatier, 1987), and “policy domain” by Laumann and Knoke (1987).

Despite discrepancies taking place among the scholars, the term has been steadily evolving. Policy networks would finally become a common denominator, characterizing informal, decentralized, and horizontal interaction among the actors. This informal definition started gradually to gain the upper hand in the policymaking process (P. Kenis & Schneider, 1991, p. 32).

Keeping still the pursuit of an ideal and preferable concept of policy networks for this study, one has to note systematic accents made on the two critical traits in the following definitions of the term: resource exchange and interdependency, which administered the relations of the actors within the network (Compston, 2009, p. 11). The said traits were used in Benson's policy network definition and are useful for this work's cause. Benson (1982, p. 148) defined the policy networks as: "…a cluster or complex of organizations connected by resource dependencies and distinguished from other clusters or complexes by breaks in the structure of resource dependencies." He stressed that actors interact in groups, while their vital differences lie in their structure, which is shaped by dependencies

on resources. Rhodes honed the term by proposing a typology of policy networks depending on the cohesiveness of the actors in a given policy network and earmarking of resources. Thus, more cohesive "policy communities" would be on the one end of the spectrum, while less integrated "issue networks" would be on the other (Rhodes, 1990, p. 304).

The reconstruction of the term was fostered even further by Wilks and Wright. They, as opposed to Rhodes, asserted that the interaction between state and industry is deep-seated and occurs at the subsectoral level. Besides, the authors stressed that the informal and interpersonal aspects of the policy networks should not be unnoticed. They also introduced the concept of "policy universe," which stood for a pool of actors who were close to the industrial policy and could contribute to the policy process systematically based on mutual interest. They further redefined Rhodes' "policy community" to refer to a set of policy actors, separate from the policy universe, with the primary aim to deal with specific policy problems (as cited in Kassim, 1994, p. 18).

Given the above, the concept of the policy networks would finally be defined using generic classifications mentioned in the works of Schneider (1992, p. 109), Kenis and Schneider (1991, pp. 41–42), and Sabatier and Jenkins-Smith (1999). Thus, policy networks should be defined as the horizontal cooperation of relatively autonomous but interdependent actors, representing specific sub/sector and geographic locale in the framework of a broad policymaking process. They emerge as a response to the redeployment of resources, enlargement of policy scope, and extension of the governmental load. Formal institutional rules do not dictate such relationships. Instead, they are centered on mutual recognition and trust of the actors and progresses through the exchange of information and vital resources they possess.

The way how the stated concept may be applied in social sciences varies as well. Adam and Kriesi (2007, p. 130) singled out three approaches to such an application. The first approach—commonly used in German and Dutch sources—sees the policy networks as a mode of governance that mobilizes political resources scattered across the state and industry. The said governance mode lies somewhere in-between the vertically shaped

hierarchical and horizontally arranged market-based modes of governance (Börzel, 1998, p. 254; Marsh & Smith, 2000, p. 4). Besides the governance approach, the policy networks are also used to refer to different interaction patterns between the policy actors. Simply put, it means that there is a wide range of policy networks. Classified into different categories, they strive to embrace various forms of relationships among the policy actors (see also Börzel, 1998, p. 254). The categorization of policy networks is often based on the different ways of interest intermediation rooted in pluralism and corporatism. Pluralism emphasizes the involvement of a wide range of policy actors, while a relatively low number of stakeholders join the policymaking process in corporatist tradition. The third approach relies on the formal, quantitative methods of social network analysis. The tools of network analysis are employed to explore and reflect the diversity and intricacy of connections between the public and private actors (see also Marin & Mayntz, 1991).

After defining the concept of policy networks, it seems more or less feasible to explore further avenues associated with the term. In this context, the approaches mentioned in the previous paragraph will pave the way for new efforts in this direction. To be more precise, the first and second approaches should serve the purpose of this study and, thus, be elaborated in greater detail. In this respect, the perspective related to interest intermediation allows to delve deeper into the issue by developing the different facets of the policy networks such as its dimensions, types, approaches, and dynamics within networks. Policy networks, as a part of a broader governance concept, will be considered as a separate topic. It will also open the way to the brief discussion of concepts closely related to the study's central hypothesis, such as policy transfer, policy innovation, and policy change. In this regard, the author of this dissertation will emphasize the actors and the role of policy networks as a transnational phenomenon.

1.2. DIMENSIONS OF POLICY NETWORKS

The power, and the way it is distributed among policy actors, come to be the commonly cited dimension of the policy network among the scholars (M. Atkinson & Coleman, 1989; Marsh & Rhodes, 1992). Here, particular emphasis is given to the concentration of power. It might be consolidated in a few hands or dispersed among the actors. It is also

important what type of actors hold power. In this regard, the powerholders may be public, private actors, or representatives of NGOs.

The way actors interact with each other is another important dimension. It is closely related to the concept of power mentioned in the previous paragraph since interpersonal relationships bring to light the concentration of power within the network. Such understanding is motivated by Knoke (1990, p. 1) for whom "power is not a property or attribute that is inherent in an individual or group in the way that electrical battery stores so many volts of energy. Rather, power is an aspect of the actual or potential interactions between two or more social actors". The intensity of interaction among actors in the policy network is weighed on whether it is conflict dominated, based on the bargaining or centered around cooperation (Kriesi et al., 2006, p. 342).

Table 1

Dimensions of Policy Networks

Dimensions	Properties
Actors and agencies	The number and type of actors involved; needs and interests of actors; interdependencies between actors, structures, capacities and resources; degree of professionalisation; mandate; perceived role and attitudes of actors.
Functions of the network	Access to the decision-making process; consultation and exchange between participants; negotiation; co-ordination; co-operation in policy formulation.
Structure of the network	Size of the network; boundaries (open or closed); membership requirements; pattern of linkages; strength of relations; density /multiplexity; clustering; centrality of the network; reciprocity of interconnections.
Characteristics of institutionalisation	Ad hoc, temporary or informal organization to formal, stable, permanent coalition structures.
Rules of conduct	Negotiation and accommodation of conflicting interests; shared sense of public welfare; secrecy or openness; politicalisation or mutual understanding to depoliticise issues; rationalist pragmatism or ideological disputes.
Power relations	Capture of state agencies by business interests; autonomy of the state; capture by private interests; balance of power between state-interest groups, hegemony.
Actor strategies	To structure relations within the network; to influence the selection of actors in the network; to influence the function of the network; to create or nurture certain convention or interests.

Note. Adapted from "Policy networks and the local organization of tourism" by D. Dredge, 2006, *Tourism Management*, 27(2), p. 273.

Here it should be noted that Börzel (1997, p. 3) also suggests that the structure of policy networks might be determined by so-called "weak" and "strong" states. According to the author, in weak states, policy networks avoid conflicts and involvement of a wide range of actors in the policymaking process. The activities in fragile states within the policy networks are based on concertation. In contrast, in the steady states, the actions of policy networks are subject to pressure from a wide range of actors.

Another explanation regarding the dimensions of the policy networks is related to their heterogeneity and homogeneity. Such view of the problem is often neglected by the authors who primarily research heterogeneous systems with the predominance of actors with varying priorities and resources. Such circumstances make policy actors dependent on each other, seeking to resolve conflicts through mediation. A few studies on homogeneous policy networks produced concepts such as epistemic communities (Haas, 1992) and professional networks (Burley & Mattli, 1993). The concepts will be discussed in greater detail in the following sections (Börzel, 1998, pp. 257–258).

Although for some authors the concepts of power (the distribution of power) and structural aspects facilitates general comprehension of policy networks, several scholars find it worthwhile to delve into other changing aspects of policy networks closely linked to cultural factors such as institutionalization level, norms of behavior within the network and the strategies of actors (Dredge, 2006, p. 272; Howlett & Ramesh, 1998).

Based on the discussion above, the meticulous work of Frans van Waarden on the dimensions of the policy networks will serve best the purpose of the study, especially in the discussion related to the major findings. The author used seven dimensions of the policy networks: the role of actors and their strategies, the function and structure of the network, the level of institutionalization, and the rule of conduct and power relations within the network (van Waarden, 1992). The detailed account of van Waarden's classification is reflected and listed in Table 1.

1.3. TYPES OF POLICY NETWORKS

The dimensions drawn up in the previous section help revise the policy networks' character to reflect their typology. Setting policy networks into groups is a step further, which will allow to comprehend the nature of the policy networks and better understand the roles of the policy networks in policymaking. It is also deemed an indispensable analytical tool in assessing the underlying assumptions of this research.

Table 2

Typology of Policy Networks by Rhodes

Dimension	Policy community	Issue networks
1. Membership		
(a) Number of participants	Very limited number, some groups consciously excluded	Large
(b) Type of interest	Economic and/or professional interests dominate	Encompasses range of affected interests
2. Integration		
(a) Frequency of interaction	Frequent, high-quality, interaction of all groups on all matters related to policy issue	Contacts fluctuate in frequency and intensity
(b) Continuity	Membership, values and outcomes persistent over time	Access fluctuates significantly
(c) Consensus	All participants share basic values and accept the legitimacy of the outcome	A measure of agreement exists but conflict is never present
3. Resources		
(a) Distribution of resources (within network)	All participants have resources, basic relationship is an exchange relationship	Some participants may have resources, but they are limited and basic relationship is consultative
(b) Distribution of Fesources (within participating organisations)	Hierarchical, leaders can deliver members	Varied and variable distribution and capacity to regulate members
4. Power	There is a balance of power between members. Although one group may dominate, it must be a positive sum game if community is to persist	Unequal powers, reflects unequal resources and unequal access. It is a zero-sum game

Note. Adapted from "New directions in the study of policy networks" by R.A.W. Rhodes and D. Marsh, 1992, *European Journal of Political Research*, *21*(1-2), p. 187.

Similar to the dimensions, several attempts were made to produce a more or less successful policy network classification. For instance, LaPalombara (1964) described relations between the public and private sectors in Italia, while Schmitter (1974) viewed policy networks as different forms of pluralism and corporatism. Lehmbruch (1984) had a similar outlook with Schmitter but with particular emphasis on sectors. Peters (1989) accentuated the legitimacy of the policy network and thus made relevant standardization on the

issue. Apart from them, one can note Heclo (1978), already mentioned above, and his work on iron triangles and issue networks.

Understanding the fluctuating nature of the policy networks, especially the fact that the phenomenon is not easy to grasp and that policy networks might emerge in different fields of public policy and various levels of the government (M. J. Smith, 1993, p. 65), it is deemed adequate for this study to review more than one of the existing typologies.

The first one is the well-known and already cited approach, which describes a continuum with the term policy communities, characterized by their small scale and closed nature, and more extensive and less restrictive issue networks. Professional networks, intergovernmental networks, and producer networks are located in the middle of the continuum (Rhodes, 1988).

The five types of policy networks Rhodes proposed are classified by the integration level and type of network members, and the relocation of power and resources (Rhodes, 1988). It should be noted that while several studies focus on the relationship between the public and private sphere, Rhodes (1997) became acquainted with his model while studying intergovernmental relations.

Policy communities are primarily featured by stable relations; limited membership; strong vertical links among members, established due to shared responsibilities to deliver services; weak horizontal bonds; and segregation, not only from the public but also from other networks (Rhodes & Marsh, 1992, p. 182). Only one type of members, represented by professional allegiance, dominates the professional networks. Representatives of the Health Service is set to be a good example of a professional policy network. Intergovernmental networks are, in turn, consist of organizations representing local administrations. Common economic interest is the main criterion for producer networks. It is also primarily characterized by the reliance of the central government on the private sector's expertise and delivery of services. A wide range of different actors and low level of interdependence is typical of issue networks (Rhodes & Marsh, 1992, pp. 182–283).

Another direction towards the optimal typology of the policy networks is closely associated with the traditions of corporatism and pluralism. The polities of corporatist establishment presuppose the participation of a limited number of actors, representatives of particular industry or policy sectors, in the decision making process as critical stakeholders. On the other hand, in pluralist tradition, a significant number of interested parties present their views to wobble officeholders who determine the political course (Falkner, 2000, p. 95).

All parties are sought to be pleased in corporatist steering. The spirit of solidarity and mutual benefit in such a network setting is prevalent. Participants try to reach an agreement on all subjects, while power demonstration and competition for resources are minimum. The actions within the network are coordinated horizontally. Such a horizontal style of decision making can be applied due to the shared values and beliefs of its members, while mutual appraisal and consideration allow stability to endure for a long time.

Pluralist networks, on the contrary, largely depend on the distinction between the state and society. In the case of resource competition among policy actors, the government arbitrates the management of conflicts over specific policy issues (Falkner, 2000, p. 96). The views on the policy issues are diverse in pluralist networks, which brings the competing interests to the fore. The conflicts within such systems are reinforced because the power center switches all the time. That's why interest groups try to maneuver to get what they want from the state authorities who have no intention to share power (Coleman et al., 1996, pp. 278–279). The significant change in pluralist networks takes place in post-conflict or crises, whereas policy change in corporatist systems is more incremental and is driven through problem-solving and bargaining (Coleman et al., 1996, p. 298).

Previous two attempts to classify the policy networks will be valuable for the research proposals. Equal, if not more, importance should be given to the overarching typology developed by van Waarden (1992), illustrated in great detail in his article "Dimensions and Types of Policy Networks." The author, who had studied the existing literature, offered eleven different variations of the policy networks: Statism, captured Statism, clientelism, pressure pluralism, parentela relations, iron triangles, issue networks, sectoral

corporatism, macro-corporatism, state corporatism, and sponsored pluralism (for the accurate account of the said variations see Appendix-1).

As noted, van Waarden's typology is a conglomerate of the most prominent categorizations of the time's policy networks. Some of them, in particular, iron triangles and issue networks were already thoroughly discussed here. Other classifications, including parentela relations, pressure pluralism, sponsored pluralism, sectoral corporatism, macro-corporatism, and state corporatism, were also indirectly mentioned in this study. In fact, most of these types come to be just elaborate forms of pluralist and corporatist policy networks discussed earlier. In this regard, a particular interest in this dissertation's case study constitutes Statism, captured Statism, and clientelism. These types of networks were not explicitly examined in this work up to now.

In rigid forms of Statism, there is hardly any interaction between the government and interest groups. The state tries to avoid the involvement of the business community in the policymaking either because the sector is poorly organized and has limited influence or due to dominant ideology such as nationalization. Other forms of Statism may occur when influential civil servants transfer to the leading positions in the business sector, thus extending the influence of the state (and its way of doing business) to the private sector. When public officials capture the significant areas of the private sector, the said phenomenon is also called pantouflage in the French literature (van Waarden, 1992, p. 42).

Captured Statism is a flip side of pantouflage. In this case, prominent figures of the business community take critical positions in the public sector. They bring with them the organizational values and practices of the business world to the public sector. The procedures become performance-based, and there is a tendency to deal with public issues informally. They prefer to leave pressing matters to the market forces. Forming new (legal) bodies within the existing structures and delegating different tasks is another essential feature of such "one-dollar-a-year" managers. Besides, the mobility of such managers across the public and private sectors is a widespread phenomenon (van Waarden, 1992, p. 43).

A more sophisticated version of captured Statism is clientelism. Instead of a few managers' transfers to the public sector, in clientelism, the state is "colonized" by one particular interest group, which becomes a gatekeeper for the public authorities for the specific public sector. The said interest group serves as a framework and reference point for the work of the state. In such a model, the stated interest group enjoys a monopoly in terms of representation, making the government reliant on it. Such dependency on an interest group as a sole source of information makes the interest group more powerful, ramping up its resources and expertise. Close cooperation between the parties makes bureaucrats sensitive and receptive to the main aspects of the industry's activities as well (van Waarden, 1992, p. 43). The limited or no competition in clientelism is evident. However, such a restrictive set up is advantageous for the state authorities who establish consistent traditional channels through which they receive full compliance and support both within and beyond the public administration (van Waarden, 1992, p. 44).

1.4. APPROACHES TO POLICY NETWORKS

The analysis of the policy networks' definition, dimensions, and typology was conducted up to this point. The said facets are essential for the understanding of visceral dynamics and the nature of the policy networks. However, knowing where to use and how to approach policy networks is of equal importance, while not knowing how to approach policy networks, just like in case of the concept issue, maybe academically unsafe, leading to confusion and further misunderstanding around the term.

The resolute attitude on how to approach policy networks was that of Rhodes, who found out that policy networks were primarily analyzed on a meso-level. Realizing that tendency to consider policy networks as a one-tier phenomenon may lead to the conceptual pitfall, Rhodes systematized and identified that three levels policy networks should be studied: micro, meso, and macro (Blom-Hansen, 1997, p. 673; Rhodes, 1990).

The studies of policy networks on a micro-level concentrate on the relationship of actors within the network and focus on the implications of such interaction beyond the network. Actors and their behavior may be analyzed in groups or individually. In this regard, it is

noteworthy that informal links and organization among actors are no longer treated as deviation but considered as an indispensable feature of network dynamics. Other than that, the particular roles of actors, patterns of affiliation among them, intensity, and type of links are considered as other vital aspects of microanalysis. Several elite studies share specifics of such evaluation. A stark example of a micro approach in policy networks studies is Heclo and Wildavsky's research on public expenditure in Britain, where they studied the roles of political and administrative officials and specific features of their relationship (Rhodes, 1990, pp. 294–295).

Table 3

Approaches to Policy Networks

Levels of analysis	Micro	Meso	Macro
Discipline			
Sociology	Group dynamics Social network analysis	Interorganizational analysis	Political economy
Political Science	Issue networks	Sub-government/ intergovernmental relations	Neo-pluralism

Note. Adapted from “Policy networks: A British perspective” by R.A.W. Rhodes, 1990, *Journal of Theoretical Politics*, *2*(3), p. 294.

Rhodes argues that the typical network analysis is made on a meso-level. The most common of such interaction takes place among several organizations of individuals representing these organizations. Scholars study specifics, formal interaction patterns, and power distribution of organization links. Less tangible aspects, such as values, interests, power structures, and perception of power, are taken into account as well. How a small number of people make routine decisions in a specific policy area is an exemplary case study of sub-governmental politics, which produced attuned concepts like iron triangles, whirlpools, and subsystem politics. Moreover, meso-level analysis is characterized by attempts to grasp the regularity of relationships among public officials in the framework of general policymaking. Such an approach emphasizes the multiplicity of links and competing interests taking place among actors. Financial leverage proves to be a decisive factor in such bondages (Rhodes, 1990, pp. 296–297).

Another landmark development of the network studies on a meso-level is closely associated with the two waves. The first one is tightly linked to the greater specialization and the rise of professionals; the second one is concerned with further polarization in as sub/sectoral level, especially in the fields such as education, energy, health, housing, transportation, and urbanization. These two tides led to radicalization both in terms of centralization and decentralization. Centralization in such a setup occurs due to the newly emerging class of technocrats' desire to control the policy process. On the other hand, in such an order, many policy decisions are taken at the sub-central level, reinforcing the state's decentralization (Rhodes, 1990, p. 299).

Studies that include macro-level analysis resemble inter-organizational links taking place on a meso-level. They also cover relationship patterns among the organization and focuses on the idea that actors compete over scarce resources within the organizational network. When doing so, they approach the problem in a broader context; for example, within the political economy framework. Authors like Benson (1982), in particular, believe that network analysis should be contextualized and must be viewed through the lenses of a broader international network. He also holds that the basic unit of study should be based on a specific policy sector. The policy sector is a social structure where policy-making is carried out through the mechanism of resource dependency. The capacity to solve policy problems highly depends on the international networks of professionals. In such an ecosystem, the government coordinates the mentioned professional networks (subsystems) that hold diverse obligations and competencies.

1.5. ACTORS, STRATEGIES AND RESOURCES

After addressing the vital aspects of the policy networks notion, there will be an effort to take advantage of the term in terms of the requirements of this study. Endogenous factors, that is, the internal dynamics taking place within the network, are considered a good starting point. Although internal dynamics are also closely related to the functions, structure, and rules of conduct, they will be covered only partly in this work. Greater emphasis will be placed on the discussion over the other major endogenous determinants of the policy networks, such as the actors, their relationships, and the distribution of power/resources.

There is a significant discrepancy between the two groups of actors. On the one hand, some public officers represent the state. On the other hand, there are different categories of actors who participate in the process of interest intermediation. These actors are often represented by representatives of party politics, interest organizations, and nongovernmental affiliations. State actors are in a better position than their counterparts because they manage critical resources within the network. The most valuable resource is the decisions they take, which often confers an obligatory character owing to the legitimate recourse to use state power (i.e., the backing of society) (Adam & Kriesi, 2007, p. 135).

The actors within policy networks are identified with resource interdependency by using methods and solutions elaborated in the part related to the analysis of the concept. This approach implies that an actor would make arrangements for the exchange to get what he/she needs/wants from the other member of the network. Actors are the lowest denominator of the policy network who rally together due to the common interest and believe that teamwork is the best option to achieve common goals (Börzel, 1998, p. 254). In fact, policymaking in the context of networking is the process of such exchanges (Rhodes, 1985, pp. 4–5).

Trust is an indispensable part of the exchange process. Since an actor should have the confidence that he/she will get what is wanted from a certain other. Another dimension of the trust is the belief that all network members understand and comply with the "rules of the game" and other mutually recognized formalities, which in the further stages may become legal rules for the network (Compston, 2009, p. 16).

The critical point related to the exchange of resources within the network is proximity among the actors. Anyone who is two steps beyond the intimacy level is at danger to fall out of the network interaction. Considine et al. (2009, p. 69) pose that "…anyone more distant than a friend of a friend, or the confidant of a confidant, is a stranger." Being a friend or close associate is not enough to understand how specific policy decisions come about. A more apparent act would be to look for the generator of ideas or to whom

policymaking authorities go for advice. Such moves are considered a primary source of a policy innovation (Considine et al., 2009, p. 72).

How this proximity change over time depends on many factors. One of these factors relates to the personal attributes of actors. Thus, each actor has individual perceptions and preferences determined by his/her capacity and capabilities. Specific capabilities may be traits inherent to a particular group of people as well. In fact, specific trait characteristics can be a precondition for the network entry. Because usually, members possess different traits/capabilities equally distributed across the network to serve their purposes better. It should be noted that the mentioned capabilities or traits are often used as an alternative to the concept of power and its distribution within networks (Adam & Kriesi, 2007, p. 134; M. Atkinson & Coleman, 1989).

The way to use power depends on the abilities of actors to develop and implement strategies during the interaction process. Most often, this takes three forms: through conflict, bargaining, and collaboration (Adam & Kriesi, 2007, p. 135). The policy outcome is highly dependent on how well the mentioned three modes of negotiations will go. However, at least two other factors are essential for successful policy outcomes: the process of decision making within the network (and opportunities they create) and the resources of the actors (Powell, 1990, p. 303).

Powell (1990, p. 303) posits that in the network structure, "individual units exist not by themselves, but in relation to other units." It means that policy decisions affect the lives of all network members. The strategies of actors, as a result, are reflected in policy decisions, especially when they are legally binding.

Public actors may seem to be in a better position because they control the policy course. Yet, they often need the assistance of other natural participants of the policy process represented by the private sector (or NGOs) if they want the policy to be well designed, both technically and politically. The problems do not end there, though. After the successful formulation of the policy problem, the state officials, being under the public's constant scrutiny, want to ensure that their policy proposal is not blocked in the court, parliament,

carefully implemented, and backed politically in the later stages of implementation. All these gaps within the policy process give leverage to the third parties and allow them to enter the policymaking process and make a deal by proposing policy amendments in their favor. The problems in such setup are often solved through both formal and informal ties, in the process of which the needed resources are mobilized and then exchanged. Such a steady relationship later turns into institutionalized networks (Compston, 2009, pp. 8, 13–15).

Actors who manage to occupy a central position within the process of information exchange tend to have more lasting access to the network's decision making structure (Leifeld & Schneider, 2012, p. 733). More skillful counterparts manage to find "structural holes" within the network for better use of the social capital generated in the course of information and skills exchange within the network. A structural hole, a concept elaborated by Burt (1992), refers to a lack of links among actors, which, if present, would increase the actual performance of the network. The actor who manages to establish this missing connection becomes a kind of bridge for the actors who would not be linked otherwise. Burt believes that an actor succeeding in bridging a large number of such bonds has a high degree of control over information circulating within the network and thus has a high chance of dominating the policy outcome. However, the author holds that too many bridges (i.e., actors) reduce the efficiency of the network. In some cases, the bridgework is carried out by someone outside the network. It happens when there is a need for an independent perspective and a requirement for mediation to proceed (Klijn et al., 1995, p. 442).

Pursuing strategies without valuable resources would prove to be a useless endeavor. Information is the most vital asset which allows directly controlling the process of resource exchange. The impact of information might also be indirect. It happens when actors change policy preferences through policy learning. Having access to information is often equal to be a part of a network. Such privilege is quite commonly prescribed by law. Other possible resources are technical expertise, funding, legal appeals, protests, media exposure, and other strains that third parties place over the public authorities to get what they want. Most of the said resources can be exchanged for their equivalent with other

players. Some, however, cannot be easily redeemed. The legal authority that civil servants possess, for example, is not transferrable. What are bargained through resource exchange are, in fact, policy concessions and compromises like abstaining from regulation, reviewing the tax regime, and enabling less stringent fiscal policy. Such resources are often two-sided, as policy amendments may be rewarding or punishing. Policy concessions may be granted for the "good" behavior of the stakeholders, dependent on the policy outcomes, or retained in case of unwanted conduct. Thus, the private sector may veto the public authorities by withdrawing political support and mobilizing society through strikes or media coverage if the needed concessions are not provided (Compston, 2009, pp. 24, 26–32).

1.6. POLICY NETWORKS AS TRANSNATIONAL PHENOMENON

Actors, their relationship, and resource interdependencies taking place within policy networks are not the only factors affecting the implementation of public policies that will be covered here. The purpose of this study also necessitates the review of how policy networks operate in the transnational context. The international agenda has the power to deviate the way policy networks work at the national level by generating a new suite of resources and reopening negotiation platforms previously settled domestically (Adam & Kriesi, 2007, p. 137).

Transnationalization sped up due to integration dynamics gaining traction both on social and economic level constantly challenging national jurisdiction. Continuing technological advances also contributed to changing the way policymaking is organized, pushing aside geographical barriers, and shortening the time frame for critical decisions. Another factor reinforcing further transnationalization of policy networks was the narrowing domain of expertise, which overlooked national bureaucratic practices. Increasing international cooperation gave prominence to the policy networks which well-fitted such multifarious setup. It especially gave preference in controlling the flow of information, promoted more extensive involvement of new stakeholders, and helped deal with coordination failures of the governments (Reinicke, 1999, pp. 45, 47).

Although policy decisions were no longer considered as the only part of state sovereignty, the transnationalization effect did not imply a complete departure of the policymaking from the national context. Instead, it required a significant transformation of how policymaking is carried out by overhauling the venue of the public policy (Cerny, 2006, p. 97). Different reference points were set in the literature as a reaction to such venue shifts. Some prominent ones, such as "global governance" will be reviewed in later parts of this work. Special attention will be given to the term "policy agora," developed by Stone (2008). The term was elaborated to distinguish the public venue as a place where policy actors have enmeshed, flexible and proactive relations with other policy actors at the transnational level. The said public venue is molded by the interaction of diverse international institutions and professional associations. It should be noted that the power relationship is typical in such a public place, with some of the policy actors being more powerful and superior concerning others.

Such a view of Stone (2008, p. 23) was expanded around the traditional understanding of political science that public policy is taking place within the nation-state. The domain of international relations, especially its "realist" viewpoint, also retains that states are the principal actors that supervise the policy line with other nations. The field of comparative public policy aggravated this approach to methodological nationalism, holding that states remain the critical unit of analysis when public policy practices are matched with each other (Wimmer & Schiller, 2002). Such perspectives undertook that the nation-state is the typical point around which policymaking should be analyzed (see also Baltodano, 1997, p. 618).

The argument eventually led to the resolution that policy processes taking place at the international level guide to the eventual development of a new sort of authority operating parallel to national policy processes (Reinicke et al., 2000). The said multilevel and multicentric approach involved a large number of various stakeholders who negotiate different policy outcomes by sweeping across the international regimes and agreements. This format ensued as a result of the absence of formal and clear-cut governance rules. Refining Dye's (1984, p. 1099) definition, which holds that public policy is "whatever governments choose to do or not to do," Stone (2008, p. 24) retained that public policy is also

whatever some states prefer to hand over of its responsibilities. According to the author, the said understanding does not contradict the definition but rather complements it. Such hand over is performed in two steps: the first step occurs when policies are delegated from nation-state to the global realm, and the second occurs when policy responsibilities are outsourced to nonstate policy actors.

Meanwhile, noteworthy is that transnationalization of policy processes enhanced the value of "policy transfer," which denotes that knowledge on specific policy solutions, including administrative and institutional remedies, is applied in other places (P. Evans, 2004). The term will be examined in more detail later.

Stone (2008, pp. 27–28) admits that there are some concerns regarding the analytical capacity to address the policy implementation through the lenses of transnational context since international institutions and networks have neither authority nor means to insist on the full and prompt policy compliance. The author noted certain areas where lack of international authority is the keenest. The said fields range from terrorism to the environment and from organized crime to human rights.

The global network of government officials remains widespread, though. Civil servants do enter into information swap and harmonization of actions through the means of informal interstate links. For instance, lawmakers and arbitrators' joint efforts become decentralized when their efforts are scattered across the issue-specific network of professional counterparts. Official procedural mechanisms taking place among the public authorities may be settled through the binding conventions and other direct applications prearranged among the governments. The role of nonstate policy actors in articulating, defining, and implementing the policy solutions and putting in place the rules of network engagement is significant as well (Brütsch & Lehmkuhl, 2007). The adoption of best practices may be unbalanced and vary across countries, though. Moreover, the balance of power among international organizations alters, which leads to the leadership swaps and quest for a suitable forum aiming at settling global issues (Stone, 2008, p. 28).

The policy evaluation perspective in the transnational context deserves special attention. The evaluation at the national level is often carried out by the local bureaucracies, auditing firms, and ad hoc commissions. At the transnational level, however, the sources of evaluation are diverse. Credible international institutions are often apt to investigate and thus put to challenge the evaluative sovereignty of the nation-states. Encroachments on the sovereignty of nation-states are often scrutinized by specialized experts representing professional institutions. In fact, the interaction of the state with such policy entrepreneurs remains the key to understanding the "black box" of international policymaking (Stone, 2008, pp. 29–30; Xu & Weller, 2004).

The international context of policymaking is significant because it bears the collective term "transnational policy community," which comes to be a powerful engine and generator of information, ideas, and best practices. The term also refers to three critical subtypes. The first subtype refers to the international community of government officials operating in transnational executive networks. The presence of such networks does not imply the complete marginalization of the nation-state. On the contrary, it is argued that the state responsibilities become fragmented and horizontal networks of high-ranking officials (usually at the ministers' level) meddle into the decision making process. The second subtype pertains to the international staff working at the secretariats of the transnational organizations. The third subtype is closely associated with the network of policy professionals. Such network consists of a heterogeneous community of various specialists, supervisors, think tank experts, NGO representatives whose presence is continuously growing, services covering large areas, and who are highly competent and have a professional approach to the policymaking process. The origins of their potency shifts. Broadly speaking, they hold their power due to their semi-formal position, dominion over the flow of information and administrative resources, reliance on competence and expertise, as well as opportunities due to their tedious careers as international bureaucrats (Stone, 2008, pp. 30–31).

1.7. POLICY NETWORKS AND POLICY INNOVATION

How the transfer of new ideas and solutions contribute to the policy processes is closely associated with this study's hypothesis. Studying the effect of ideas on the policymaking is largely the domain of policy innovation. Policy networks have much to offer to the diffusion of innovation (Schneider, 1992, p. 112).

Such understanding is developed around the formulation provided by Rogers (1995, p. 5), who maintained that "diffusion is the process by which an innovation is communicated through certain channels over time among members of a social system." Valente (1995, p. 2) added to Roger's definition by emphasizing that "research on diffusion has been greatly enhanced by network analysis because it permits more exact specification of who influences whom during the diffusion process."

Although innovation can be transferred through several means, the formulations presented above suggest that person to person links are essential for understanding the role of the new knowledge application in policymaking. It is thus suggested that the prospective policymakers deliver their verdicts based on the experience of the professionals who have sound training and knowledge regarding the proposed solutions rather than supporting their conclusions relying on news reports and scientific deliveries (Mintrom & Vergari, 1998, p. 128). Rogers (1995, p. 18) amplifies this argument by stating that the "…dependence on the communicated experience of near peers suggests that the heart of the diffusion process consists of the modeling and imitation by potential adopters of their network partners who have adopted previously".

Berry and Berry (1990, 1992) sought to estimate the specific tendencies of policy adoption. In one study, they prioritized internal factors and analyzed how political, social, and economic parameters determine the policy adoption. In other research, they evaluated how regional effect shape interstate policy innovation analyzing longitudinal data of the past events. The authors came to the conclusion that the two proposed methods to study policy adoption should be merged since when apart, they are not adequate to explain the dynamics related to the policy adoption. When together, they complement each other,

forming a joint logical framework of policy diffusion and policy adoption (Mintrom & Vergari, 1998, p. 127).

In furthering the discussion, Walker (1969, p. 887) declared that when providing explanations of the adoption processes, "…we must go beyond the search for demographic correlates of innovation and develop generalizations that refer to the behavior of the men who actually make the choices in which we are interested." Walker (1981) later revised his view, asserting that close engagement among the representatives of policy communities are a vital tool for the diffusion of policy innovations (as cited in Mintrom & Vergari, 1998, p. 128).

Martin (2001), who studied innovation strategies in Australia, took note of the role of policy networks in boosting trust and commitment and fostering information swap among policy actors both inside the organizations and beyond them. He argued that policy networks reduce the constraints in the course of the policymaking process, especially when some matters create complexity and confusion. Policy networks also facilitate the inter-organizational interaction among the involved stakeholders through informal learning processes (Considine et al., 2009, p. 54).

The policy networks originating from more developed nations tend to have more influence in terms of policy innovation. However, the research done on the rapidity of policy innovation and adoption defies this conclusion. It shows that policy diffusion is a country-specific and idiosyncratic phenomenon (Mintrom & Vergari, 1998, p. 127). At the same time, while it is thought that policy networks promote policy innovation through the transfer of ideas and best practices, alternative studies come to a second conclusion. In some cases, policy networks stimulate conformity among network members monitoring the maintenance of appropriate group behavior, blocking alternative solutions, and hindering change (Considine et al., 2009, p. 54; Schneider, 1992, p. 111).

1.8. POLICY NETWORKS AND POLICY CHANGE

A detailed analysis of the role of policy networks in policy innovation was provided in the previous section. This section deals with the contribution of policy networks to policy change.

The scholars have mainly fallen into two camps regarding this issue. Some maintain that policy networks are more apt to explain policy stability than policy change (John, 1998; J. Richardson, 2000, p. 1007; Thatcher, 1998, p. 394). Some believe that policy networks cannot clarify policy change (Marsh & Rhodes, 1992, p. 261). Others say exactly the opposite. They argue the term has the capacity to ensure an explanation of policy change (Compston, 2009, p. 34; M. J. Smith, 1993). The position that policy networks contribute to the policy change will be reiterated here.

Before furthering the discussion, it should be noted that change is an embracing term and may involve diverse aspects of policy networks. For instance, it may include the resource exchange aspect of policy networks, meaning that policy preferences would have to be revised in exchange for the needed resource. On the other hand, changes in resources tend to trigger subsequent changes in network members' strategies and changes in the code of conduct inside the network. Likewise, it may spark changes in how specific policy issues are perceived, modifying prospective solutions. The mentioned parameters may be influenced by the changes (as well as perceived changes) in external factors as well (Compston, 2009, p. 34).

Further clarification is needed not to get confused with the term and its dimensions. Considering the context of the study, the notion of change will be built on the components of public policy, i.e., its instruments (amending legislation, regulation and providing entitlements) and settings (level of a prescription). The focus of this study will be thus on the changes in policy instruments and settings. The topic of policy change will also be closely associated with the essence of policy decisions themselves, which eventually leads to the mentioned modifications in policy instruments and settings. A policy, therefore, will be considered changed in case policy preferences or/and amendments undergo (serious)

modification/s following a (definitive) decision (or the introduction of a new variable) by a policy actor (Compston, 2009, p. 35).

Table 4

Type of Policy Change

Distribution of Power	Type of Interaction		
	Conflict	Bargaining	Cooperation
Concentration	Moderate potential for rapid (serial) shift	Low to moderate potential for incremental change	Low to moderate potential for change-maintenance of status quo
Fragmentation	High potential for rapid (serial) shift	Moderate to high potential for incremental change	Low to moderate potential for change-maintenance of status quo

Note. Adapted from "The network approach" by S. Adam and H. Kriesi, 2007. In P. A. Sabatier (Ed.), *Theories of the policy process* (p. 145). Westview Press.

Another discussion is related to how types of networks impact policy change. Thus, closed policy networks such as iron triangles are associated with steady regimes and step-by-step daily routines. Only minimal changes take place within them or as a result of their activities. More overt policy networks, such as issue networks, are characterized by open and innovative approaches to policy decisions. Such networks are more susceptible to change (Adam & Kriesi, 2007, p. 143). For example, the lack of national health insurance in the United States is explained in terms of the weak government stance and the presence of powerful policy actors within the policy network operating in the health sector. The network politics in such a setup hinders abrupt policy changes. A similar study of the agricultural network in the United States, Canada, and Australia demonstrated that pluralist networks cause the most dramatic policy changes (Boase, 1996; Coleman et al., 1996).

To what extent and how policies change also varies. According to Adam and Kriesi (2007, p. 143), such change depends on network members' interaction. Thus, conflict-affected situations provoke swift and dramatic policy changes. More progressive shifts occur when parties reach consensus through negotiation. Therefore, it is assumed that if power within the network is dispersed, chances towards more abrupt policy change increase. In case the concentration of power is high, it is harder to challenge the established "policy monopoly." The said expectations are met through Héritier and Knill (2001) study, which analyzed the transportation policies of the European Union. Their research validated that regulations imposed by the European Union become harder to withstand in case the policy networks in a given country are contentions and power relations are unevenly dispersed.

1.8.1. Policy Change in the Context of Advocacy Coalition Framework

The Advocacy Coalitions Framework, formulated by Paul Sabatier in a series of articles, was first introduced in 1988 with the publication of the author's seminal paper entitled "An Advocacy Coalition Framework of Policy Change and the Role of Policy-Oriented Learning Therein." In a broader sense, the theory outlines the process of a policy change driven by several actors having a different set of beliefs. These actors form "advocacy coalitions," which compete with each other in closed systems and specializes in a particular policy area called "subsystems." The advocacy coalitions react to the internal and external challenges, albeit slowly (in a process taking over a decade or so) and adjust and stipulate different learning arrangements and mechanisms.

The framework starts with the fundamental question: how can one describe shifts in policy process taking place over a long time (i.e., decade or more)? Having borrowed the idea from Heclo (1974), Sabatier recognizes that major socio-economic determinants such as mass migration (change in a country's demography), change of political power and deterioration of macroeconomic indicators (poverty, inflation) lead to significant shifts in how specific policy is handled (1988, p. 134).

The author categorizes the said exogenous factors into (1) the more or less stable ones and (2) the ones rapidly developing, or dynamic (Sabatier, 1988, p. 134). The stable

determinants can manifest themselves both inside and outside the subsystem. In this regard, society's values and structure, as well as basic legal structure and distribution of the primary resources, are considered stable determinants of the policy change in a subsystem (Sabatier, 1988, pp. 135–136).

Unlike factors that stably affect the work of subsystems, the dynamic elements have a significant impact on the operational procedures taking place within subsystems in an unexpected way and over a short period (e.g., a few years). Such factors constitute a permanent challenge since it is difficult to predict and react to dynamic changes and discontinuities taking place in the political environment following the beliefs of the agents of subsystems. Changes in socio-economic conditions and technology, handover of political leadership/bureaucratic elite, decisions, and influence of the other subsystem/s were recognized as the central dynamic events that can undermine a subsystem (1988, pp. 136–137).

Besides significant socio-economic impacts, the change in policy can occur due to the strategic interaction of experts in a particular field struggling to solve specific policy problem/s. Describing policy changes, Sabatier pays close attention to individuals who seek to solve problems in particular policy areas. As mentioned earlier, such people are involved in a process to form a subsystem. The subsystem is different from traditional concepts such as “whirlpool,” “iron triangles” and “policy network,” which according to the author are not enough holistic and inclusive since they often omit latent participants of the policy process like analysts, researchers, journalists covering the topic, and people located at other levels of government, and instead tend to emphasize interest groups, government officials and representatives of the legislative branch of government. It allows the framework to consider the maximum number of participants needed to explain the lengthy process of policy change. Besides, the subsystems are mostly independent and have distinctive features that single out them from other subsystems (Sabatier, 1988, pp. 137–138).

Often, the rise of a specific subsystem in a state structure occurs due to continued disregard for a problem by existing subsystems. However, sometimes the subsystem is formed

out of a dominant (political/bureaucratic) party/coalition. It happens, because such party/coalition become increasingly large and complex, and thus are unable to spare considerable time and resources to solve a particular policy issue paving the way for new specialized subsystems (Sabatier, 1988, pp. 138–139).

Various individuals can become participants in the subsystems. The participants form different groups based on their preferences or rather “beliefs” concerning how a particular policy is carried out to become a part of a subsystem. Sabatier calls these groups within the subsystems “advocacy coalitions.” These coalitions are groups of people who came from a variety of political and apolitical institutions, share a particular belief system, have similar fundamental values and same problem perceptions, and conduct coordinated activities together over a long period. There can be only one coalition in a subsystem, although in most cases, the number of coalitions ranges from two to four (1988, pp. 138–140).

Other than coalition members—people who usually defend a particular way of policy solution—there are categories of subjects responsible for the role of an intermediary between coalitions: the “policy brokers.” This traditional function is usually performed by the courts or some senior officials in European countries. However, sometimes the role of an advocate and a broker may not be evident since occasionally, the broker can (implicitly) adhere to one belief system or policy option adopted as a means to solve some policy issue. In contrast, the “advocate” will maintain balance within the subsystem believing that a peaceful solution must come first (1988, p. 141).

The concept of "advocacy coalitions" is based on the belief system, which is shared by the coalition members during the development of a policy solution. According to the scholar, beliefs of a coalition are "the principal glue of politics." The author believes that short-term interests and frequently fluctuating coalition structures are not explicitly associated with the development of a policy process. Still, the author does not reject the impact of economic and organizational interests unequivocally yet prefers to abandon them since measuring them from a methodological point of view is challenging. Sabatier finds beliefs

more convenient for studying policy change as they become "more inclusive and more verifiable" (1988, pp. 141–142).

The author deems that the belief system determines the direction in which the policy program will develop. However, its implementation's success and impact are deeply attached to the coalition's access to strategic resources such as money, experience, and the number of (political) supporters. Therefore, coalitions are continually trying to increase access to resources by striving to improve coalition's budget by hiring new qualified employees and ensuring its members occupy senior positions (Sabatier, 1988, p. 143).

It should be noted that there might be a divergence of beliefs in the newly formed coalitions, while the belief system in a coalition being operational for a while would be more stable and sustainable. The author believes that the stability of belief systems is preserved because actors, allies within the coalition, bolster each other's positions, thereby hardening the belief system within the coalition, and strengthening the values of its members. The offices that people held and the consistency (tendency to longevity) with which they hold these offices also contribute to the consolidation of beliefs within the coalition (Sabatier, 1988, p. 140).

The belief system in Sabatier's framework is classified into several categories depending on the extent to which they are susceptible to change while handling a policy issue. The most robust structural classification standing for "deep core beliefs" represents a specific worldview of the subsystem's members addressing existential and moral dimensions of their values. The next category, "policy core beliefs," includes a set of principles or political stance used to achieve the deep core beliefs. The last one comprises the "secondary aspects" of a belief system, implying the use of supplementary methods as well as practical and technical ways to reach policy core beliefs in a specific policy field (Sabatier, 1988, p. 144). Arranged in descending order, this classification would suggest that coalition members would give up secondary aspects of their belief system before admitting constraints and limitations of the policy and deep core values. It also indicates that deep core beliefs of individuals almost always remain unchallenged, being "akin to religious conversion" and immune to any internal and external stimuli (Sabatier, 1988, p. 146).

Coalitions seek power to embody their deep core beliefs. However, coalitions will not give up their deep core beliefs to remain in power; instead, they would abandon secondary aspects of their belief system. While deep core beliefs almost always remain untapped, the policy core values may be subject to change; however, there should be a severe external intervention such as critical socio-economic phenomena or the result of the policies of other subsystems (Sabatier, 1988, p. 148).

Beliefs, along with policy programs, might change processes within the coalition through "policy-oriented learning." Policy-oriented learning is the heart, a working mechanism, of a coalition showing how its members react to different trends and developments associated with certain policy areas. Through policy-oriented learning, coalition members try to adapt to the political environment placing top priority on the realization of their deep core values. The deep core values remain unaltered most of the time; therefore, the mainstream of learning occurs over policy core values and secondary aspects of the belief system (Sabatier, 1988, p. 151).

"Policy-oriented learning" is an essential concept in the author's theoretical framework since it also regulates interactions among coalitions. Learning across coalitions takes place when a coalition has enough resources to trigger a discussion with other coalitions. As a result of such talks, coalitions will learn about the main concerns of the other side. Again, this does not mean that the deep core values and even policy core beliefs of a coalition are easily reversible (Sabatier, 1988, p. 155).

Thus, the debate is usually structured between the secondary aspects of the belief system of one coalition and policy core values of the other, or between the critical dimensions of secondary elements of the conflicting coalitions. However, the dialogue to take place is dictated by the crucial considerations of the opposing parties. Typically, the said prerequisite would be met through an appropriate specialized forum, sufficiently respected for coalitions to take part in it. Parties also expect from each compliance of formalities or commitment to a professional code of conduct. Until a coalition has adequate resources and is satisfied with the current policy, the debate over a specific policy problem will

continue. It is important to emphasize that conflicts based on data-based evidence are resolved faster and more efficiently than disputes where there is ambiguity about the facts (Sabatier, 1988, pp. 156–157).

Generally speaking, the Advocacy Coalition Framework provides insight into the policy change phenomenon, stressing that it is a gradual process. It reflects that both domestic constraints and exogenous factors, especially major socio-economic drivers, has implications for the work within the subsystems, specialized areas of policy activity. How actors adapt and react to these dynamic forces through "policy-oriented learning" vary in magnitude and type. The author increased the number of players involved by introducing the concept of "advocacy coalitions," and hence challenging the idea that a small group of people dominates the policy process. The framework also illuminates how belief systems guide actors' policy decisions, carefully classifying between the most sturdy and enduring beliefs from the least cherished values.

1.9. LESSONS LEARNED FROM POLICY NETWORKS

The concept of policy networks was reviewed in detail in this chapter. Abstracted by many authors, the term of policy networks is blamed for lacking clear definition and harmonized classifications. The term needs an integrated approach, which is also missing in the literature (Blom-Hansen, 1997; Börzel, 1998; Salancik, 1995; Scott, 2000; Wasserman & Faust, 1999).

For this reason, the design of the chapter was structured in the way which best suits the purpose of the study. Many sections of the study were organized according to the priorities set in the research objectives. As a result, after undertaking the literature review, the most accurate and suitable definition of policy networks was both selected and elaborated in the process. The next step was to mainstream the internal structure and examine the typology of policy networks. Both are essential tools for testing the hypothesis of the study. On the other hand, the method for studying the policy networks, or approaches to the policy networks, became an important link in the integrated study design since it provides an understanding of how to come across the subject.

Although policy networks abound in different internal aspects and dynamics, the two, namely the actors and their roles and the transnational context of the policy networks, were singled out for a particular reason. Both play critical roles in the research hypothesis and will be put to the test many times throughout the study.

Although criticized by several scholars for being merely informative and descriptive, the concept of policy networks and its relationship with the ideas of policy innovation and policy change (policy outcome) were also mentioned in the final part of the chapter (Blom-Hansen, 1997; Salancik, 1995). All the present literature focusing on policy networks seeks to determine the correlation between the concepts and measure the effect of the policy networks on policy innovation (Marsh & Smith, 2000, p. 9). In this regard, this connection between the terms will be reviewed in this study as well, especially the applicability of Advocacy Coalition Framework of e-government in Kazakhstan, though only to a limited extent.

Another criticism related to the policy networks is that it neglects the power relationships among the policy actors. The scholars complained that too much focus was given to consensus-based negotiation, and too little attention was paid to systematize conflictual situations within the networks (Brans, 1997). The literature focusing on the policy networks mentioned here accorded particular interest to discussing cooperative aspects of the policy networks and, for the most part, disregards facets related to the debate on power and power discrepancies within the network.

Another weakness of network analysis is its inability to draw up a direct and clear-cut cause-effect analysis of the previously defined goals with their outcomes. The analytical framework proposed by policy networks does not provide explicit assessment criteria for the predefined objectives. As a result, the network analysis fails to evaluate the impact of policies, often offering explanations that are not clear and specific enough. The lack of an unequivocal explanatory mechanism and significant standards in assessing policy outcomes also lead to the disregard of the role of government as a custodian of public interest,

putting it in one place with other organizations taking part in the policy processes (Klijn et al., 1995).

Although network analysis is considered more as an analytical tool rather than a theory (Börzel, 1998, p. 254; Dowding, 1995, p. 157; Scott, 2000, p. 38; Wasserman & Faust, 1999, p. 17), its merit is envisaged in the ability to conceive the policymaking as a process involving a wide variety of interrelated actors. It also wraps up the relationship taking place between the government and the public, breaking through the narrative of conventional policymaking (Boase, 1996). This feature of policy networks was given particular attention here and was mentioned several times throughout the chapter.

The network analysis is also a delicate tool for reviewing the involvement of interest groups in the governmental affairs allowing a more attune assessment of the policy process instead of the proposed national policy studies, which regard the state as a basic unit of measurement. The pivotal role of network analysis is that it allows promoting the investigation of sectoral and subsectoral dimensions and differences between them. This ability is one of the reasons network analysis was given priority in this study. Moreover, instead of only focusing on the mandate of official institutions, the network analysis provides an account with private actors' role and their informal connections to the public actors and institutions (Kassim, 1994, p. 19).

The network perspective not only focuses on the role of actors, but it also places great emphasis on the relationship pattern taking place among them. This approach, a fundamental assumption of this study, embraces that policy actors can no longer be considered as segregated and insulated units of analysis. In addition to this, their activities should be regarded in combination with the general state-oriented context (Adam & Kriesi, 2007, p. 146).

In this regard, it should be noted that the author has a clear understanding that formal state structure trails how informal processes are conducted (Considine et al., 2009, p. 81). The mentioned understanding is bolstered by the idea that both external (structural) and internal factors influence the work of the policy networks. Such insight inevitably draws the

conclusion that policy networks are self-organizing entities, which are affected by formal institutional procedures. Policy networks form informal institutional ties, which in turn play a key role in shaping policy outcomes. In practice, this may mean that state institutions may be forced to work together over some policy issues to make specific policy decisions. However, policy actors may prefer to form informal networks to solve the mandated policy issues more effectively. The further durability and depth of the formal ties thus may be impacted by internal dynamics such as the relationship of the actors and/or reflected by the biases, stereotypes, and (a certain degree of) partisanship of the policy actors (Henry, 2011, p. 362).

CHAPTER 2: POLICY TRANSFER

The topic of policy transfer had already been raised in the previous chapter through the discussion of the concepts of policy innovation and policy change (policy outcome). The said concepts were reviewed as a part of a broader debate on policy networks and addressed the subject of policy transfer in a more general and less detailed way. However, the policy transfer should not be considered as a side-effect of the network analysis; on the contrary, the term merits additional attention and deserves a detailed description. The idea of policy transfer takes a full part in showcasing the evidence in support of the proposed hypothesis of this study; that's why it needs a more detailed follow-up and thorough elaboration.

2.1. POLICY TRANSFER AND ITS FORMS

The term "policy transfer" explores how certain policy beliefs and policy solutions move from one place to another. The concept gives extra clarification on why policy changes and why the said changes take place in other corners of the planet. The broad definition of the term is depicted by Dolowitz and Marsh (1996, p. 344, 2000, p. 5) as "the process by which knowledge about policies, administrative arrangements, institutions and ideas in one political system (past or present) is used in the development of policies, administrative arrangements, institutions and ideas in another political system."

Policy transfer has significant ramifications that refer to the other aspects of the transfer of policy solutions and policy ideas across places and time. The said aspects are revised through the different forms of policy transfer, such as lesson-drawing, policy diffusion, and policy convergence.

Moreover, the definition of policy transfer raised above remains unclear and calls for further clarification. In particular, questions such as who stays behind the policy transfers, what is the source of the transferred policy, what is the content of the transfer, why and to what extent the proposed policy solutions are transferred remain unanswered and for this reason, will be reviewed in detail in this chapter.

2.1.1. Lesson-Drawing

The concept of "lesson drawing" was elaborated by Rose (1991, p. 4, 1993, 2004). The author wondered about the state and dynamic within the importing country for the proposed policy solution to operate appropriately. His research concentrated on political establishment decisions intended to gain experience of the thriving states and looked for ways to integrate the mentioned success at home. Such integration would eventually raise questions regarding the inspiration source of the proposed program, depth of the suggested programs, the extent to which the imported programs will suit the borrowing country and the possible similarities between the importing and exporting countries in terms of political maturity and socio-economic development.

At this level of discussion, the mentioned questions would not depart from the mainstream literature of policy transfer issues. The significant discrepancies of Rose's term with the main idea of policy transfer would lie in the author's determination for a more detailed elaboration of the transfer process.

In so doing, Rose introduces the words "program" (in place of the policy) and "lesson." By program, the author intended to refer to the content of the will be imported policy or concrete steps that the policymakers will take in the course of the transfer process. Just the term "policy" was considered too broad and general (2004, p. 17). On the other hand, the term "lesson" points to something more than mere political preferences highlighting the need for the importing country to address the policy issue in greater detail. In particular, it requires to contemplate over the legislative features of the importing country, its institutional structure, and style of policymaking. It also reiterates the need to think over other principles and guidelines which have some bearing on the proposed policy issue (2004, p. 22).

2.1.2. Policy Diffusion

The first particular reference to the policy diffusion concept was made during the research, which focused on the circulation of policy solutions across the US. It also has

much to do with the writings on policy innovation since the policy is diffused from places where solutions are invented. The innovation is characterized as policy solutions that are considered a novelty in the importing states and studies why some countries lead the trend while others simply copy the stated policy solutions (J. L. Walker, 1969, p. 881).

Walker (1969, pp. 884–887) believes that innovation mostly occurs in large, wealthy, and industrialized countries with high political rotation and a competitive environment. These countries often have a cosmopolite population that manifests their will for change; moreover, they are eager to conduct extensive research and studies to continue the ongoing modernization efforts.

The author also lists how policy diffusion extends across countries or regions and why countries copy specific policy solutions. Thus, an importing country will prefer to emulate the policy solution if it believes that the exporting country is successful. In a federal system, the diffusion would go parallel to the central government's harmonization and standardization efforts. The diffusion is also prevalent when the borrower and lender have something in common (e.g., geographical location, political system) or share similar values (e.g., ideology). Besides these factors, countries often emulate since they prefer a handy shortcut, which is manifested through simple copying from someone with whom they already have developed a stable relationship, or if there is a risk that by ignoring the innovation the importing country would lag behind its rival states (e.g., neighbor countries). The literature on diffusion also noted cases of uneven distribution when policies across regions or countries are adopted in a patchy and irregular manner. Moreover, the writings on policy diffusion bring attention to procedural aspects of the policy dissemination. In particular, the research conducted in the field emphasizes the magnitude and rapidity with which policy solutions diffuse.

Since the preliminary research on policy diffusion focused on the examples from the US, tracking the diffusion patterns in countries with different political and socio-economic indicators becomes problematic. A simple example would be the difference between a federal and unitary government. Still, one can note general tendencies of policy diffusion across the globe. Firstly, there is a tendency that some countries (almost) always innovate

and lend while others persistently borrow and copy. Secondly, there are particular circumstances and reasons when diffusion is most likely to happen, especially when the interacting countries share proximate geographical locations (same region) or similar ideology. Thirdly, the literature on diffusion often questions the sources of inspiration. The importing country may wonder about the sources of the imported policy solution, as the origins of the said solution might go back to elsewhere rather than the exporting country itself (Eyestone, 1977, p. 441). Fourthly, the writings on policy diffusion draw a distinction between the phases of policy formulation and policy implementation. For instance, the consented decision on policy transfer may never be implemented or implemented only partially. Finally, the research on policy diffusion warns that similarity among the countries may not be a result of policy diffusion; the similarity may simply occur because the countries responded in a similar manner to the same policy problems (Berry & Berry, 2007, p. 232; Hoberg, 2001, p. 127; Holzinger & Knill, 2005, p. 786).

2.1.3. Policy Convergence

Policy convergence explains how a flow of policy solutions over time produces likeliness in policy outcomes across different places (i.e., countries, regions). In organizational literature, such resemblance is often noted as "isomorphism." The term was introduced for the first time in comparative politics, where it sought to explain the extensive similarity in policy decisions that were taking place over the globe. The global wave of similar attempts to challenge the existing socio-economic problems was justified with comprehensive advances in technology and rapid industrialization. Simultaneously, political and cultural causes were primarily neglected for some time (Bennett, 1991, p. 216).

Since the literature concerning policy convergence is closely associated with globalization and occurred before the discussion on policy transfer was developed, there is a risk that it might be considered independently from the policy transfer research. Several scholars such as Bennet (1991, p. 217), Hoberg (2001, p. 127), and Holzinger and Knill (2005, p. 777) reject the idea that policy convergence should be regarded separately. They also refute the proposition that similar circumstances lead to identical policy outcomes across

different places. The authors prefer to look for explanatory reasons behind the policy process, which eventually led to convergence.

For instance, Bennet uncovers several reasons for the policy convergence from the existing research. He claims that one of the most common explanations for convergence is the widespread copying of policy solutions from a single source. Usually, such solutions are seen as a model by the borrowing states. International policy networks are also closely involved in the dissemination of the prevailing ideas across the countries. Thus, most policies become cross-national in character. In such a setup, countries have strong ties with each other. It forces them to seek a mutual partnership, sometimes via international organizations (Bennett, 1991, pp. 221–226).

Holzinger and Knill (2005, p. 779) also argue that policy convergence should be considered as a part of policy transfer since the latter encompasses the explanations given for the former. They suggest that the concept used to explain policy convergence utterly coincide or repeat the terms used for policy transfer. For instance, a term like parallel domestic problem pressures actually refers to independent decision making not affected by emulation, informational networks can be replaced with the exchange of ideas, social emulation or mimetic processes are easily termed as emulation or copying, and the concepts such as international legal constraints, normative pressure or international economic integration would go for interdependence.

2.2. SOURCES OF POLICY TRANSFER

Countries are often used as a separate element for measuring the policy transfer since it is essential to know who imports and exports policy ideas. Another way to study the sources and destinations of policy transfers is through actors.

2.2.1. Countries

Some countries tend to create something new, while others tend to mimic what others do. In other words, some countries tend to come up with new ideas, and others tend to copy

well-established policy solutions. Most of the time, countries borrow and lend systematically on an ongoing basis.

Just like famous brands, some countries are renowned for exporting certain policy aspects or solutions in a particular policy field. In the 1990s, Sweden was prominent for exporting social democracy. Germany has been the source of effective inflation control, and Japan was well-known for innovation in general and innovative methods in public administration (Rose, 1993, p. 107). On the other hand, the relationship based on policy transfer may become an ongoing long-term research activity. For instance, Japan had borrowed Germany's police system. For this reason, the Japanese government also picked up some dimensions of German administrative law and the legislative framework for local government (Page, 2000, p. 6).

In some cases, countries develop their transfer partnership into higher stages of the steady exchange of policy solutions. That is to say, countries lending to other states may also be borrowing in return engaging in bilateral exchange (Dolowitz et al., 1999; Dolowitz & Marsh, 2000, p. 10; Hoberg, 2001). Such a close partnership was witnessed between Germany and Sweden (Dolowitz & Marsh, 1996, p. 352) and the UK and New Zealand (Common, 1998). In other cases, such a relationship may be restrictive and may be deemed coercive in nature. Thus, while the US lends several policy solutions, in some cases, it also renders it imperative to adopt the measures it offers (Cairney, 2012, p. 251).

The policy transfer may also take place in a random fashion; that is, countries may engage in exchanges with a diverse set of countries at different times for different reasons. On the other hand, similar conditions and circumstances, i.e., the intersections of identity, geography, and ideology, might be decisive for some countries when adopting a particular policy choice (Rose, 1993, pp. 98–99). Nowadays, however, the geographical proximity is ceasing to be a critical explanatory factor due to technological advances, especially in the fields of transport, information, and communications. This factor, along with the connections with/within leading international organizations, stretched the boundaries of transfer, allowing countries to work closely with their distant counterparts (Dolowitz & Marsh, 2000, p. 7).

In fact, the sense of similarity, including the one associated with geography, may be based on the perception of such proximity. Such proclivity may also stem from the inclination towards certain national identity and ideology or the way how countries handle policies. This factor explains the exchange of policy solutions taking place during the reigns of Thatcher and Reagan between the UK and the US (Dolowitz & Marsh, 1996, p. 350).

2.2.2. Actors

Primarily, the main actors behind national policymaking used to be politicians, top-ranking officials, political parties, and interest groups (Dolowitz & Marsh, 1996, p. 345). However, some actors are mobilized during the act of policymaking and have an indirect impact on the attitudes and behaviors of the primary decision-makers. Cairney (2012, pp. 252–253) singles out five types of actors who transfer policy solutions to national governments.

The first category includes supranational institutions, which are capable of defining the direction of how policies develop in a country. Among these, one can point out United Nations (UN), European Union (EU), World Bank, International Monetary Fund (IMF), Organization for Economic Cooperation and Development (OECD), as well as their professional bodies such as World Health Organization (WHO) and European Commission.

Policy entrepreneurs represent the second group of actors. The term is somewhat vague and ambiguous since it has different meanings in different contexts. In more general terms, the concept refers to individuals who sell policy solutions by coupling problems with solutions. Policy entrepreneurs may also be professionals or consultants who use their specialized background to sell similar policy resolutions to different countries (Common, 1998, p. 440; Dolowitz & Marsh, 1996, p. 345). They might promote their best practices as a part of some professional organization similar to some research institute or think tank, or a prominent NGO (Stone, 2000). Such specialists are often associated with the exporting country or have links to some supranational organization. Both, the exporting country and supranational organization, would back the qualifications and

professional background of the mentioned specialist (Dolowitz & Marsh, 2000, p. 10). Cairney (2012, p. 252) reminded of a famous example when a renowned professor from Harvard cruised the world, aiming at steering the countries towards NPM with the support of the US government.

The third category comprises international policy communities, a network of highly qualified professionals in a particular policy field and with certain international credibility, claiming to influence policymaking in a specific area in some country (Campbell, 2002, p. 25; Haas, 1992, p. 3; Holzinger & Knill, 2005, p. 784; Rose, 1991, p. 6). These actors are united via shared beliefs. The said beliefs are materialized through the ideas which domestic policy networks coordinate through international professional institutes (Bennett, 1991, p. 224). In line with this study's theses, the subject of policy networks was thoroughly elaborated in the previous section.

The fourth type falls under the category of multinational or transnational organizations. Such transnational conglomerates often hold vast sums of money in the third countries. They thus try to influence the policymaking processes of those countries usually by threatening to withdraw their investments if the regulations imposed on them are not abolished or minimized in a satisfactory way. However, the effects on which such large companies can have on the policymaking processes of the third countries are not permanent and are subject to considerable variation (Bennett, 1991, pp. 228–229).

The last and fifth group is composed of the countries that have the power to impact the borrowing states. They do this, either by setting an example, which is consequently mimicked, or by imposing pressure on borrowing countries, forcing them to change the way they conduct specific policies by threatening with sanctions. According to Holzinger and Knill (2005, p. 785), through exporting policy solutions to the third countries, the countries setting the example, often try to drop the expenditures on cooperation (lower the cost) to solidify the foundations for the further bilateral relationship. The authors give examples of Euro, a common currency of the European Union, and the US dollar, which is being used worldwide as proxy currency.

It is important to note that the role of the actors in the policy transactions is not unison; it may differ in some countries or be used in various combinations. For instance, some states may have their own way of perceiving policy issues imposed by supranational organizations. In some cases, policy transfer may be conducted without the full knowledge of the parties developing as a result of some hidden/latent agenda of national policy actors. In other cases, the policy solutions may be acquired through the mechanism elaborated by the (professional/transnational) policy networks who would present the policy issue as too technical and challenging for national policymakers to understand (Cairney, 2012, p. 253).

2.3. VOLUNTARY OR COERCIVE TRANSFER

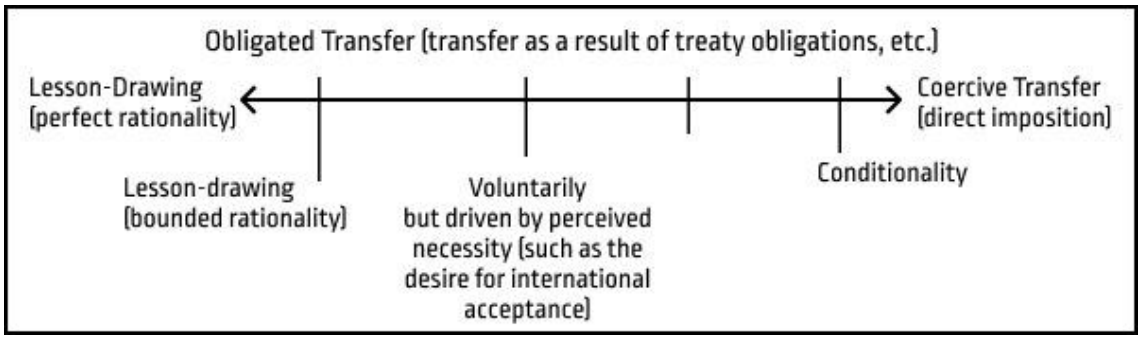
Why are policies transferred? To answer this question, it is necessary to comprehend whether policies are transferred voluntarily or coercively. In other words, the nature of policy transfers to a great extent depends on who stands for making individual policy decisions. On the one hand, important policy decisions may come from the importing country itself, which means that policy actions may be voluntary. On the other hand, some third parties may be held responsible for the transfer, meaning that policy solutions might be imposed coercively. In practice, both may take place at the same time as well. At the same time, it should also be noted that it is challenging to decouple acts of coercion from voluntary actions. Dolowitz and Marsh (2000, p. 13) produced a continuum that classifies policy transfers from the least to the most coercive to better understand the debate on voluntary and coercive transfer. The said continuum helps understand why specific policies are imported while others are neglected.

The left side of the continuum marks the policy transfers, which are made voluntarily (Dolowitz & Marsh, 1996, p. 346). Such voluntary transfer is associated with the "lesson-drawing" elaborated by Rose (1993). The primary feature of these transfers is that they are conducted on the accords of the importing countries. In this regard, the reason for importing specific policies may lie in the inability of the importing country to find policy solutions within its boundaries. At the same time, the existing domestic policy solutions are considered as either deficient or unsatisfactory. Not finding resolutions at home, the

policymakers start to seek answers from the outside (Dolowitz & Marsh, 1996, p. 347). In addition to this, Bennet (1991, p. 200) holds that some countries' reaction is a "natural tendency" to compare the response of the other states to similar policy problems. It should also be noted that adopting policy solutions of the developed and wealthy counterparts is often viewed and recognized by the citizens of the importing countries as legitimate and necessary.

Table 5

From Voluntary (Lesson-Drawing) to Coercive Transfer



Note. Adapted from “Learning from abroad: The role of policy transfer in contemporary policy-making” by D.P. Dolowitz and D. Marsh, 2000, *Governance*, *13*(1), p. 13.

While voluntary policy transfers counter no external pressure for the importing countries, the right side of the continuum corresponds to the means of transferring policy solutions in a coercive way. Such a method implies that the importing countries are forced to accept policy solutions embraced by other states or supranational organizations. Dolowitz and Marsh (2000, pp. 10–11) however, believe that situations of coercive policy transfer by other countries that could arise in practice do not happen very often. The policies imposed by the US after Iraq's invasion constitute the most extreme cases of such coercion. In most other cases, the authors argue that there is still room (although small) for the importing countries to maneuver.

In theory, coercive transfer implies that the agenda regarding some policy solutions is set elsewhere. The importing country likewise may be sanctioned in case it does not accept the conditions and obligations of the proposed policy solutions. In this regard, the most prominent example of penalizing the importing countries is demonstrated through the

terms that the IMF and World Bank oblige the said countries to accept when providing financial assistance to them. Complying with such conditions often includes adherence to "good governance," adopting NPM principles, and thus reducing the state's role in the economy (Hopkins et al., 1997). It should be noted that most supranational organizations fell under the direct influence of the US government (Wade, 2002).

Policy transfers authorized as a result of some treaty obligation may seem more coercive than the conditionality imposed by supranational organizations. However, they are considered less coercive in terms of conditionality because countries often choose voluntarily to become part of some binding document. At the same time, the states have some degree of leverage over the said documents. In other words, they can impact the international treaties they became part of (Bennett, 1991, p. 226).

The classification of Dolowitz and Marsh (2000, p. 13), which refers to the indirect coercive transfer posited at the heart of the continuum, is hard to operationalize and measure. Especially it is troublesome to decouple the voluntary aspects of the transfer from the coercive ones. During such transfer, the countries often perceive the need to import a specific policy solution. Apart from the scenarios of prospective voluntary transfers, such perception to adopt may develop separately from conceiving the fact that in the later stages, the importing country may become obliged to implement the proposed policy solution. It is the main reason the said classification is located in the middle of the continuum.

Such hidden pressure to employ policy solutions is explained by Dolowitz and Marsh (1996, pp. 348–349) through the effect of "externalities." The term, often used in economics, refers to the positive or negative unexpected/unplanned effects of some action. For instance, the burden to comply may turn up when the exporting countries adopt some set of behaviors, expecting the importing countries to follow the set example. Or, it may proceed due to the fear of the importing states to fall behind the critical (economic) decisions taken by the borrowing countries or some important regional trend. Such pressure is often felt by the smaller states with respect to the larger neighbor states (Hoberg, 1991). Hoberg (1991) alleges, for example, that Canada is continuously affected by the policy

decisions taken in the US as it often finds itself under pressure to closely monitor the US media and market, looking for possible sources of imitation and inspiration.

The mentioned perceived needs of the importing states explain the two distinctive features of lesson-drawing as well. During the first feature called the "comprehensive" type, the importing countries feel less pressure to transfer policy solutions. As a result, they are better informed about the policy details and are more aware of their decision. On the other hand, when the external forces represented by the exporting countries or supranational organization nudge the importing countries to assume specific policy solutions in a given period of time, then the policy transfers are conducted in more "bounded" circumstances. The first feature of lesson-drawing mentioned in this paragraph is located on the very left of the continuum of Dolowitz and Marsh.

2.4. TYPE AND EXTENT OF TRANSFER

It is very important to focus on the essence and depth of policy transfers. Since what countries choose to import or export and to what extent they prefer to do this varies greatly. In the two most extreme cases, countries may completely mimic all the policy solutions inflicting significant domestic policy change. They may avoid copying others' policy solutions learning from experience as a "negative lesson." Bennet (1991) highlights five main questions that should be taken into consideration when a policy is transferred: (1) what policy aims at achieving? (2) what are the policy contents? (3) how policy is carried out, and what methods are used? (4) what are the policy outcomes? (5) And, what is the style of a policy, or in what manner the policy is implemented?

Dolowitz and Marsh (1996, pp. 349–350) presented a more comprehensive catalog consisting of seven items: (1) the goals and content of a policy, (2) the instruments of policy, (3) institutional setup in the importing country, (4) mainstream ideology of the exporting state, (5) similarity of identity and ideas, (6) main concepts used in the policy solution and (7) negative lessons.

The components produced by Dolowitz and Marsh (1996, pp. 349–350) imply that an importing country would aim at achieving even greater convergence with the exemplar and foster harmonization over a long period of time. They highlight the procedural aspects of the transfer, emphasizing the partner countries' ideological basis and cooperation based on similar ideas. The Bennet approach, on the other hand, should be seen as a more demand-driven and result-oriented method, with a particular focus on getting the needed information and examples of best practice. The outcome of the proposed policy transfer is an important indicator as well.

The depth measuring to what extent the importing countries are committed to some policy solution from outside also has considerable variations. Rose (1993, pp. 30–32) offered a spectrum indicating the importing countries' choices, which range from inspiration to complete repetition. Before moving to the next paragraph, it should be noted that Rose admits that his categories might overlap, while some of their distinctive features may not be quite apparent.

Rose's classification starts with the cases of complete duplication, which are only possible within a federal system, such as that of the US, where there is a very close resemblance between governmental agencies and national legislation. Such complete duplication may be traced from the identical wording reflected in the laws.

On the other hand, whenever an importing country considers the peculiarities of its national policymaking during the policy transfer, it ceases to carbon copy the proposed solutions. In other words, the domestic circumstances compel the importing country to resort to selective copying.

The next step would be a hybrid model when an importing country incorporates and mixes domestic policymaking elements with the imported ones. Such a model is often adopted when policy solutions are transferred across countries with different political systems.

In case an importing country combines elements of best practices from a range of countries exploring the best solution suitable for itself, it makes use of a synthesis model.

Newly emerged democracies incorporating elements of electoral mechanisms and legislation to form a new system of government would constitute an example of such synthesis. A shallower version of such integration would occur when an importing country is only inspired and motivated by the ambient successes to come to its own policy resolution eventually.

2.5. DETERMINANTS OF SUCCESSFUL POLICY TRANSFER

Rose proposed a set of criteria that would determine the likelihood of successful policy transfer (Rose, 1993, p. 132). Firstly, the prospective policy solution should not be one of a kind. Secondly, an importing country should have instruments, i.e., capable governmental agencies, that the capacity to implement alternative policy solutions. The availability of key resources of an importing country is another inescapable element. Thirdly, the government officials should be fully cognizant of the privileges of the borrowed policy ideas. Fourthly, the working mechanism of the imported policy solution should be simple and understood in sufficient detail. And finally, there should not be significant disparities in the political systems, and the way policymaking is conducted in the exporting and importing countries.

The said conditions are similar to the determinants of successful policy implementation. The literature on policy implementation deems vital that the policy goals coincide with what policymakers intended to implement. On the other hand, the transfer literature considers important the political setup, administrative capacity, and the values that underpin the policymaking in the importing states. As a result, it is usually problematic to transfer policies from federal to unitary states. The introduction of NPM in the developing countries with undeveloped private sector and differences in fundamental values of policymaking would be challenging as well (Page, 2000).

The success of the transferred policy is also closely related to who implements the policy and how the said policy is implemented. To a great extent, the success of policy transfer relies on what extent the policy actors responsible for the implementation phase believe in the transferred policy solution and/or understand it. Dolowitz and Marsh (2000, p. 17)

suggest that insufficient data on the assigned policy solution, the loss of critical components of a particular policy solution during its transfer, and the lack of attention, commitment, and control during the implementation phase has a bearing on successful policy transfer.

On the other hand, the concerns associated with the implementation has much to do with the nature of the policy transfer itself. Findings indicate that policy transfers imposed as a result of a binding document or any other coercive way are often not duly executed or may not be accomplished at all. Cairney (2012, p. 260), for instance, examined the case of the EU, whose member states are often not encouraged to implement policy decisions aimed at further integration. In fact, the EU is remarkably fragile and experiences shortfalls when the issue concerns the order execution. It is problematic for the Union to supervise the implementation of its policy decisions by the EU member states. Member states are rarely penalized for disobedience.

On the other hand, the importing countries may interpret differently the ample wording of legislation determining for themselves the scope of implementation (Falkner et al., 2004). The discrepancy of similar magnitude between the policy transfer and implementation is observed across countries which have obligations before the IMF as well (Cairney, 2012, p. 260). The same disparity in execution is also seen among the developing countries, mainly due to the sense of alienation brought about by the policy solutions set elsewhere (Hopkins et al., 1997, p. 512).

2.6. CONCLUSION

There is uncertainty surrounding the discussion focused on the concept of policy transfer as a whole. The term does not look precisely like policy learning since the countries may learn but not copy or copy but not learn (Stone 2004: 549). Nor does it seem similar to policy convergence. Since in a more general form, convergence may simply indicate similarity across neighboring countries.

Policy transfer instead particularly refers to procedures taking place among the importing and exporting countries that swap policy solutions with each other. The said procedure is both complex and multidimensional. On the one hand, it involves the participation of several policy actors such as politicians, government officials, representatives of the private sector and NGOs, as well as supranational/multinational organizations, and other countries. On the other hand, it addresses different elements of policy transfer such as the similarity of ideology and ideas as a key factor for successful transfer, availability of capable institutions carrying out the implementation of the transferred policies, political setups of the importing and exporting countries as the vital aspect for successful transfer and the fact of negative learning which is followed by no action (i.e., abstinence from copying). It should also be noted that policy transfer may occur among countries with entirely different political, social, and economic characteristics.

The policy transfer is deemed insufficient as a fully-fledged approach to public policy. In particular, it is blamed for the lack of concentrating a clear-cut independent variable. Although the concept offers explanations and presents reasons for the transfer and subsequent modifications in the domestic policymaking, some authors assume that there is still not enough explanation for who or what is the prime mover of policy change.

The explanatory power of the term for policy change is still prominent, though. Through a particular set of actions, policy transfer ideas hinder us from thinking that inspiration for domestic policy change occurred by itself. It also helps understand why some policy solutions are preferred over others and why in some places, the said solutions take firmer root. The idea is also applicable in the context of an independent international framework, which was greatly facilitated by the development of information and communications technologies.

CHAPTER 3: E-GOVERNMENT CONCEPT

These latest and significant advances led to the introduction and development of an important area in the field of public administration—electronic government (e-government, in short). The idea of e-government is directly related to the development of ICT applications. The noted ICT applications concern the entire world community affecting people's lives, especially their method of communication. In a similar vein, the impact of the Internet and related technologies on political and socio-economic processes led to shifts at both national and global levels.

It happens then that ICT plays a critical role in significantly affecting the service quality in all spheres, and especially the public one. Advances in technology compelled to revise the role of the government and its interaction with citizens and the business sector. The pace of ICT development in all spheres of society inflicts changes to the field of public administration in the framework of reforms in the administrative processes designed to improve the quality and efficiency of public services and optimize the public administration in general, as already mentioned earlier.

The notion is indeed closely associated with a need to develop flexible ways and conduct mechanisms of reforming the government. That is why e-government should not be associated only with the innovations in the ICT sphere that shapes the work of public authorities, but it should also be bound to change the ideological, functional, organizational, and human resource status of the government structures.

Such a remarkable impact on the public administration stems from the multi-dimensional and heterogeneous nature of e-government (Bwalya & Mutula, 2014, p. 14). E-government undeniably has a wide range of values. It is progressively recognized as an umbrella term for the health sector and its management system (e-health), the democratic processes (e-participation, e-voting, and e-consultation), the judicial system (e-justice), data literacy programs (e-learning), the financial world and banking system (e-banking) (Bwalya & Mutula, 2014, p. 18; UN E-government Survey, 2016, pp. 26, 44, 122).

E-government, involved in almost all public domains, considerably mitigates earlier miseries caused by the inadequacies of the bureaucracy. It enhanced the interaction between the government and the public, improved the quality of services and work of government officials, mantled the responsibility for the bureaucrats by reducing their number, sharply decreased time and space of the public procedures and reorganized administrative practices (Brown, 2007, p. 188).

Another major priority of e-government implementation is its capacity to fight misconduct in the governmental sphere. For example, the realization of e-procurement and e-tendering is becoming a key instrument in reducing the level of corruption. On the other hand, e-government also integrates and coopts all social partners and non-profit organizations via active involvement in the decision making processes. Likewise, it promotes the values of social inclusion and equality. The opportunity to join the ranks of the government regardless of the socio-economic status of the prospective stakeholders that e-government provides enhances its value-added as well (Bertot et al., 2008, p. 137).

E-government is a collection of multiple systems that improves the delivery of public services through ICT projects, but it is not an end in itself. It is not a panacea either. Except for all the hurdles in the way of e-government implementation, the chief problem of which is the establishment of appropriate information architecture, the launch of e-government costs a fortune (Navarra & Cornford, 2007, p. 3). It entails the combination of expensive ICT installation, which should continuously be updated and integrated with other processes. Nevertheless, many countries every year spend more and more money on e-government implementation, believing that it would maximize the available resources (Basu, 2004, p. 116).

The successful implementation of e-government projects depends on several factors that may be unique, considering the local context since every government has its peculiarities. The contextual scenario for e-governmental projects is central, just as the need to understand the starting point for successful e-government implementation and the need to recognize what it entails.

This chapter intends to address this issue. In this regard, the definitions of e-government by prominent scholars in the field and descriptions of the concept by the major international organizations will be brought to the attention of the prospective reader. It is also planned to discuss various forms and maturity models of concept. The chapter describes the various preconditions for the successful execution of e-government applications. Before the main discussion, it is of no less importance to streamline e-government along its conceptual and technical understanding in an endeavor to find out why so many countries desperately intent to have it implemented along with their system of governance.

3.1. E-GOVERNMENT DEFINITIONS

E-government was one of the most appealing topics in the field of public administration in the 1990s. The development of technology in the private sector, known under the terms e-business and e-commerce, had prompted an interest in e-government (Moon, 2002, p. 425).

In general terms, the e-government term comprises internet-based public services on a local, state, and federal level (Palvia & Sharma, 2007, p. 1). Seeming adequate as it is, the literature shows no consensus over the single definition of the e-government though. A wide variety of scholars tried to describe the nature of e-government (Means et al., 2000; Sharma, 2004; Sharma & Gupta, 2003). Although these authors deserve to be mentioned here, this chapter will cover only some definitions based on the scope of the study.

One of the first descriptions of e-government was brought back in 1992 by pioneers in the field Osborne and Gaebler, who described the phenomenon as the use of cyber technology by a government. Technology run in the public domains evolved systematically to eventually produce better quality public services along with cataloging and distributing government information as part of democratic processes.

Sprecher defined e-government broadly as a technological tool that simplifies and improves the connectivity among the public sphere and other domains such as the private sector or NGOs. More narrowly, he sees e-government as a producer and conveyor of

public services through the help of IT applications (2000, p. 21). In a similar vein, Jaeger believes that ICT as a whole including "database, networking, discussion support, multimedia, automation, tracking and tracing, and personal identification technologies" should be regarded as an instrument in the implementation of the e-government projects (2003, p. 323; Yildiz, 2007, p. 650).

Table 6

E-government Definitions by International Organizations

Sources	Definition
2001 Benchmarking E-government: A Global Perspective (UNDESA, 2001)	E-government is 'a tool for information and service provision to citizens'
2003 World Public Sector Report: E-Government at the Crossroads (UNDESA, 2003)	E-government is what enhances the capacity of public administration through the use of ICTs to increase the supply of public value (i.e., to deliver the things that people want).
United Nations Global E-Government Readiness Report 2004: Towards Access for Opportunity (UNDESA, 2004)	E-government is what enhances the capacity of public administration through the use of ICTs to increase the supply of public value (i.e., to deliver the things that people want).
United Nations Global E-Government Readiness Report 2005: From E-Government to E-Inclusion (UNDESA, 2005)	The definition of e-government needs to be enhanced from simply 'government-to-government networking' or 'use of ICTs by governments to provide information and services to the public' to one which encompasses the role of the government in promoting equality and social inclusion.
United Nations E-Government Survey 2008: From E-Government to Connected Governance (UNDESA, 2008)	E-government is the continuous innovation in the delivery of services, public participation and governance through the transformation of external and internal relationships by the use of information technology, especially the Internet.

UN E-Government Survey 2014: E-Government for the Future We Want (UNDESA, 2014)	E-government can be referred to as the use and application of information technologies in public administration to streamline and integrate workflows and processes, to effectively manage data and information, enhance public service delivery, as well as expand communication channels for engagement and empowerment of people.
Organisation for Economic Co-operation and Development (OECD)	E-government is defined as 'the use of information and communications technologies (ICTs), and particularly the Internet, to achieve better government'.
World Bank (WB, 2015)	E-government refers to government agencies' use of information technologies (such as Wide Area Networks, the Internet, and mobile computing) that have the ability to transform relations with citizens, businesses, and other arms of government. These technologies can serve a variety of different ends: better delivery of government services to citizens, improved interactions with business and industry, citizen empowerment through access to information, or more efficient government management. The resulting benefits can be less corruption, increased transparency, greater convenience, revenue growth and/or cost reductions.

Note. Retrieved from *E-government in Support of Sustainable Development* by UN E-government Survey, 2016, United Nations.

In a book published by Jane Fountain, the author reflected on the notion of e-government. In her reflections, e-government takes the look of a "virtual state" with its structure and intra/interconnectedness among institutions. The form of statehood persists only in the virtual space owing to the performance capabilities of the Web and Internet resources (Fountain, 2001, p. 4).

Along similar lines, Yildiz argues that technology in the administration is responsible not only for information and service delivery but also for the establishment of an organized

system for interconnectivity among the government agencies. Developing the idea, he maintains that the ICT should help demonstrate high performance (efficiency and effectiveness), as well as prove the government to be transparent and accountable. Another point of Yildiz's argument is that technology plays crucial role in shifting the hierarchical structure of public administration towards the decentralized organization (2007, p. 650).

Prominent international organizations such as the UN, World Bank, or OECD issued several e-government definitions (see Table 6). Primarily, the e-government description evolved from simple to more detailed versions introducing new aspects to the given definition based on the agenda of the organization in a specific period. Besides the stress on better delivery of public services, the organizations made an emphasis on cost reduction, convenience, growth, and capacity building of e-government. In the later years, experts in the said international organizations also stressed greater involvement of public values such as democracy, equality, good governance, and social inclusion. Recently, there is growing support for the claim that the e-government should also promote the integration of workflow of government agencies and contribute to the continuous innovation in the public sphere.

3.2. E-GOVERNMENT APPLICATIONS

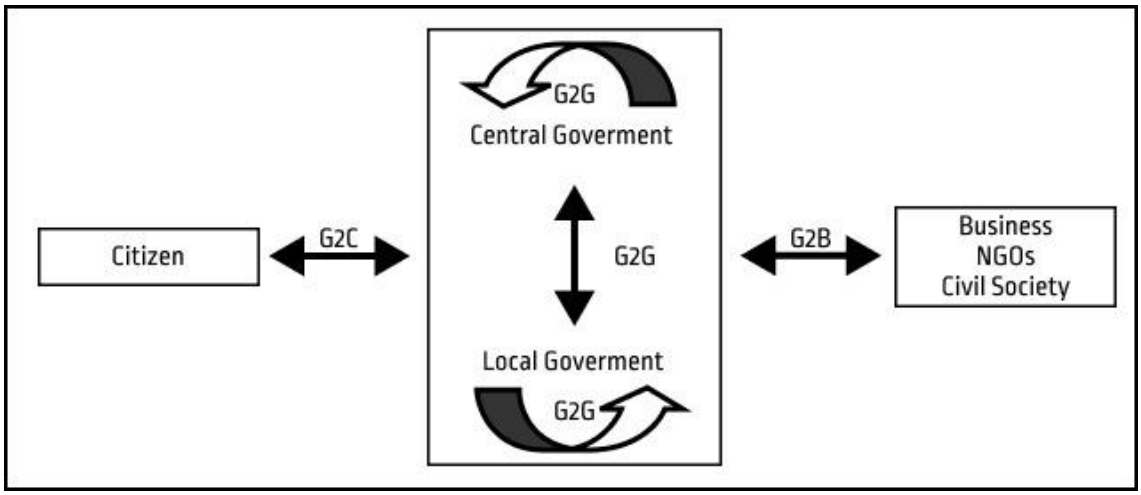
As reported above, the transfer of public services is characterized by the minimal personal interaction between the government and the applicant, which is possible through the extensive use of ICT. However, the automation of services and economic efficiency, as well as openness to public scrutiny, does not seem feasible without the permanent client base for the said public services. The most frequent receivers of such favor come to be the e-government stakeholders such as: citizens; business circles; civil servants; government agencies; non-profit organizations, trade unions, various communities; politicians and political parties; foreign investors and other.

The existing literature on e-government abounds with examples of interaction modules. However, not all scholars in the field would consent to the list above of e-government stakeholders. There are those who reduce the list of major public service users to three

(Backus, 2001; Iyer et al., 2006; Jaeger, 2003; Norris & Reddick, 2013; Reddick, 2004), four (Carter & Bélanger, 2005; Lofstedt, 2012; Palvia & Sharma, 2007; Siau & Long, 2005, 2006), five (Gupta et al., 2008; Yildiz, 2007), six (Belanger & Hiller, 2006; Hiller & Bélanger, 2001; Moon, 2002; Soliman et al., 2006) or even eight (Fang, 2002).

Figure 1

Interaction between Main Groups in E-government



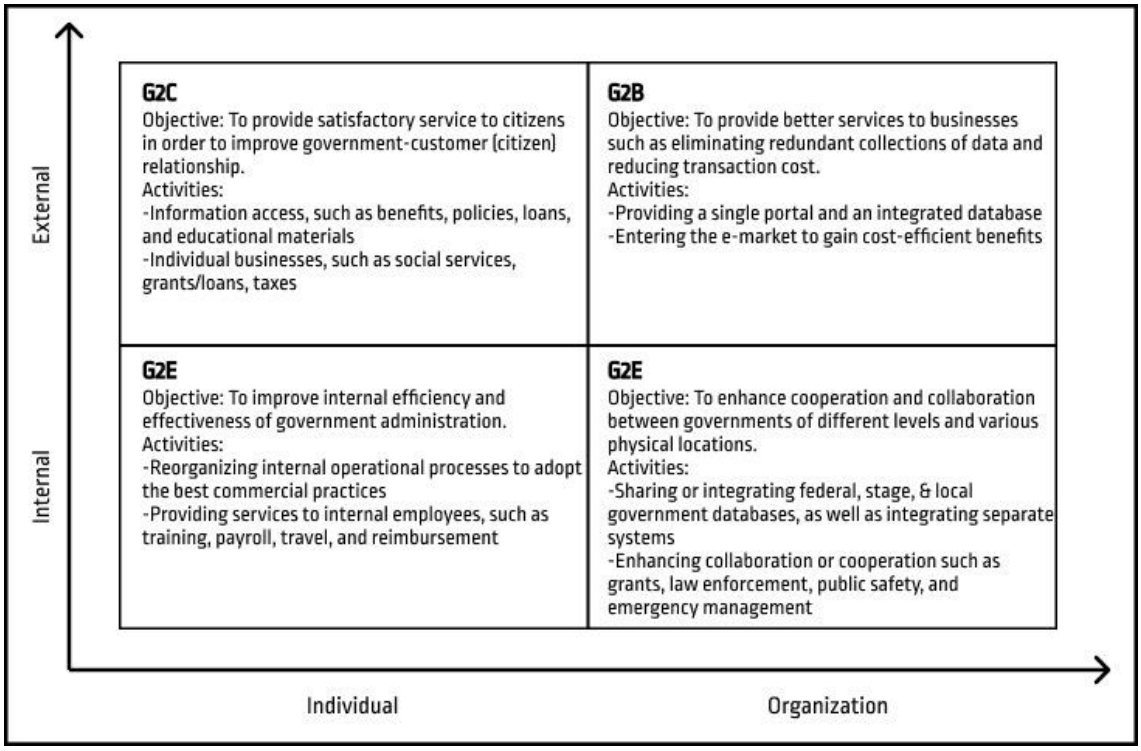
Note. From "E-governance and Developing Countries, Introduction and Examples" by M. Backus, 2001, *International Institute for Communication and Development, 1*(3), p. 4.

In some cases, the government plays an active role concerning other parties being the sole supplier of public services; in other cases, the government stands along with the consumers. Sometimes e-government acts as an intermediary between the parties concerned, as is in the case of interaction among citizens (Citizen to Citizen) and businesses (Business to Business). Studies such as that conducted by Backus have shown that most scholars tend to recognize only three primary user groups of public services, which are citizens, government, and businesses (see Figure 1). Backus introduced a classification system of e-government applications dividing them into two: external and internal. The external key target groups constitute the citizens and businesses, while the government on local and federal levels comes to be a part of the internal target group (2001, p. 4).

More recent studies confirm previous findings. However, they also offer additional evidence suggesting that government officials (Government to Employees) should also be regarded as actors of e-government reciprocity as citizens, business and governmental institutions (see Figure 2) (Carter & Bélanger, 2005, pp. 6–7; Lofstedt, 2012, p. 47; Siau & Long, 2005, p. 444, 2006, p. 48).

Figure 2

Summary of E-government Portfolios



Note. From "Synthesizing E-government Stage Models–A Meta-Synthesis Based on Meta-Ethnography Approach" by K. Siau and Y. Long, 2005, *Industrial Management & Data Systems*, *105*(4), p. 444.

An article by Palvia and Sharma adopted a different perspective; the authors drew attention to political processes such as government activities, electoral processes, and other involvement in democratic processes with an interactive point of view. E-democracy (Government to Constituents), the fourth element added by the academics, would involve online debate, conference or interaction between the government on the one hand and the constituents that use unconventional forms of communication such as Internet surfers or blog users on the other (2007, p. 6).

Further research in the area not only consolidated the current trend but also gave rise to new forms of interactions. New cooperation formulas gained inspiration from the endeavor to integrate the concept of governance into the e-government application scheme. For instance, in his study, Yildiz suggested that state might take advantage of external stakeholders such as civil society organizations (Government to Civil Society Organizations) along with the ordinary citizens (Citizen to Citizen). These agents enter eagerly into the plans of a government by coordinating and solving collective problems such as natural disasters or participating in the discussion of civic issues via social media. These institutions would also promote transparency and compensate for the lack of accountability in governmental institutions (Yildiz, 2007, pp. 650–651).

Some studies have attempted to categorize the e-government stakeholders into a typology of six different groups. These studies focus on the interaction between the government and government, government, and business, as well as government and citizens. The significant difference in the classification is that they describe the stakeholders more precisely. For instance, Hiller and Belanger divided the businesses and citizens into two subcategories. According to the authors, citizens who are delivered the public service (eGwIS) and citizens who are actively involved in the political process (GwIP) should be considered separately. A similar reasoning is valid for the business, which is also split into two parts: business as a citizen (GwBC) and business in the marketplace (GwBMKT). Scholars think that individuals taking part in the democratic processes, be it as a part of a company or as a citizen, should be regarded separately. Such intention is explained by the privacy concerns, and the impact of the citizens on the planning and decision making of the e-governmental processes (Belanger & Hiller, 2006, pp. 49–51).

Table 7

Subcategories of E-government

Parties of communication	Content	Dominant characteristics	Definition	Example
Government-to-Government	Government	Communication, coordination,	E-administration	Establishing and

(G2G)	information and services	standardization of information and services		using a common data warehouse
Government-to-Citizen (G2C)		Communication, transparency, accountability, effectiveness, efficiency, standardization of information and services, productivity	E-government	Government organization Web Sites, e-mail communication between the citizens and government officials
Government-to-Business (G2B)		Communication, collaboration, commerce	E-government, e-commerce, e-collaboration	Posting government bids on the Web, e-procurement, e-partnerships
Government-to-Civil Society Organizations (G2SC)		Communication, coordination, transparency, accountability	E-governance	Electronic communication and coordination efforts after a disaster
Citizen-to-Citizen (C2C)		Communication, coordination, transparency, accountability, grassroots organization	E-governance	Electronic discussion groups on civic issues

Note. Retrieved from “E-government Research: Reviewing the Literature, Limitations, and Ways Forward” by M. Yildiz, 2007, *Government Information Quarterly*, *24*(3), p. 651.

Another categorization of e-government stakeholders was made by Fang, who identified eight e-government models, depending on the type of interaction between the parties concerned (see Table 7). Fang does not compromise the justification that the government is the only supplier of public services. On the contrary, he believes that the government is in constant interaction with other stakeholders, including non-profit organizations. These institutions (citizens, businesses, NGOs) find themselves with the responsibility to assume the role of public agencies, especially in terms of information dissemination (Fang, 2002, p. 7).

In his review, Fang (2002, p. 10) identifies two types of partnerships: internal (the one based on coordination needs) and external (the one based on consumer needs). Partnership based on coordination needs aims to further collaboration between and among the branches of government, such as executive, legislative, and judicial. The partnership based on consumer needs involves the relationship of government with other stakeholders like citizens and businesses.

E-government levels vary depending on the author, the context, social and economic conditions in a country, and the level of participation of the population. Despite the great variety of classifications proposed by experts in the field, there are four main groups of e-government interaction: Government-to-Citizen (G2C), Government-to-Business (G2B), Government-to-Government (G2G) and Government-to-Employees (G2E).

3.2.1. Government-to-Citizen (G2C)

The G2C level of e-government is focused on improving and simplifying the processes of interaction between the citizens and public authorities. The aim of this category is also to provide access to government information through websites. It is projected that in the future, the government would offer all public services on the principle of "single window"

(one stop shop) on one resource. The citizens would not have to establish contacts with each institution separately, if necessary. Other services that will be available at this level are (Jaeger, 2003, pp. 324–325):

- Due to the simplification of the government procedures (primarily through one resource), time to appeal to the state institutions will be reduced. (e.g., application for various certificates, registration of passport, birth, death, vehicle, and so on.)
- A facilitated access to public information on different levels such as bills, laws, regulations, as well as the opportunity to vote online and influence the course of action adopted by the government (Bwalya & Mutula, 2014, p. 29).
- Implementation of the transparent government concept.
- Grant of rights and service delivery to the citizens residing or staying abroad, making the geographical location lose its relevance.

3.2.2. Government-to-Business (G2B)

The online operation of the G2B mode will reduce the time costs and simplify the procedures such as registration of companies and enterprises, declaration submissions, tax payment etc. (Bwalya & Mutula, 2014, p. 29; Mimicopoulos, 2004, p. 3; Palvia & Sharma, 2007, p. 5). The e-procurement model involves the establishment of greater transparency of public tenders, the development of fair competition, and equal opportunities for all participants. In this level, the private sector takes part in the interaction and decision making procedures of the governmental processes (Jaeger, 2003, p. 324).

3.2.3. Government-to-Government (G2G)

The main idea behind the G2G category is to increase the efficiency of interaction among government agencies. E-identity, e-security, and electronic document management would serve an identity column for the G2G application (Bwalya & Mutula, 2014, p. 30). The G2G category should also ease collaboration among public agencies through

improving the quality of planning and management in the field, forming credible information about public opinion, and reducing the cost of maintaining the state apparatus (Jaeger, 2003, p. 324). G2G also provides a solid platform for all levels of international diplomacy, including the discussion of developmental issues along with states (Ebrahim & Irani, 2005, p. 600).

3.2.4. Government-to-Employees (G2E)

G2E category determines priorities for industrial policy, as well as contributes to employment formulation, development policies (e.g., e-learning), and the relevant legal framework of public officers. This area also includes mechanisms of an evenly distributed provision of social services for the employees (Palvia & Sharma, 2007, p. 4). The e-government concept at this level can also be seen as an information system that focuses on the automation of managerial processes and optimization of resources (Iyer et al., 2006, p. 26).

This section concentrated on the literature review on the topic of e-government applications, which is central for the longstanding success of the e-government concept since it enhances efficiency and effectiveness, promotes democratic values such as participation. Typologies of various e-government applications by different authors were examined in greater detail.

It is necessary to note that there is a wide range of various existing categorization of e-government stakeholders, which differ from each other depending on the diverse e-government initiatives in a variety of countries. This section defined mostly general classifications in contrast to categorizations of a particular purpose, as stated in the work of Rowley (2011, p. 55). The repetition of categorization was observed during the literature review, with some articles overlapping the other.

Several field experts such as Jaeger, Hiller and Belanger, Palvia and Sharma, Yildiz, Gupta et al., attributed an active role for businesses and citizens in the public service delivery and political processes as a part of democratic practices. The involvement of the

public into the governmental processes via the social media and the phenomenon of citizen coproduction points at the need to rethink the traditional structure and boundaries of e-government stakeholder activities (Linders, 2012, p. 446). Technological advancement in the ICT sphere allowing more widespread public involvement will shape the impact of public contribution to the public sphere (e.g., finding affiliates with a shared interest, integrating individual contribution, making a decision on a grand scale, coordinating groups concerned without time and space constraints and supervise groups without a strict structure of rank) through much easier access to online collaboration platforms (Amichai-Hamburger, 2008).

3.3. E-GOVERNMENT MATURITY MODELS

There is a range of models that describe developments for measuring the e-governmental portals/projects. The main aim pursued is to develop effective approaches to the morphology and structure of e-governmental systems. Another reason for this evolving modeling is to help measure and establish the quality of e-governmental projects. Often called the "maturity model," this method implies that e-government initiatives usually progress, starting with simple patterns and continuing to develop into a more complex form.

The studies and analysis of e-government modeling have been reflected in several articles by various authors. The fundamental division of the maturity model is suggested in Fath-Allah's paper where he indicated that there are three significant distinctions among the maturity models: governmental model, holistic model, and evolutionary model (2014, p. 71).

Table 8

List of Maturity Models

Stage / Model	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5	Stage 6
Layne and Lee	Catalogue	Transaction	Vertical integration	Horizontal integration	NA	NA

Andersen and Henriksen	Cultivation	Extension	Maturity	Revolution	NA	NA
United Nations	Emerging information services	Enhanced information services	Transactional services	Connected services	NA	NA
Alhomod et al.	Presence on the web	Interaction between the citizen and government	Complete transaction over the web	Integration of services	NA	NA
Hiller and Belanger	Information	Two way communication	Transaction	Integration	Participation	NA
Almazan and Gil-Garcia	Presence	Information	Interaction	Transaction	Integration	Political Participation
Cisco	Information interaction	Transaction efficiency	Transformation citizen centric	NA	NA	NA
Gartner Group	Web presence	Interaction	Transaction	Transformation	NA	NA
West	Bill-board	Partial-service-delivery	Portal	Interactive democracy	NA	NA
Moon	Simple information dissemination	Two-way communication	Service and financial transactions	Integration	Political participation	NA
World Bank	Publish	Interact	Transact	NA	NA	NA
Deloitte and Touche	Information publishing	Official-two-way transactions	Multipurpose portals	Portal personalization	Clustering of common services	Full integration and enterprise transaction
Howard	Publish	Interact	Transact	NA	NA	NA
Shahkooh et al.	Online presence	Interaction	Transaction	Fully integrated and transformed	Digital democracy	NA

				e-govern-ment		
Lee and Kwak	Initial con-ditions	Data trans-parency	Open partic-ipation	Open col-laboration	Ubiquitous engagement	NA
Siau and Long	Web pres-ence	Interaction	Transaction	Transfor-mation	E-democ-racy	NA
Wescott	Setting up an email system and internal net-work	Enabling in-ter-organi-zational and public ac-cess to in-formation	Allowing 2-way com-munication	Exchange of value	Digital de-mocracy	Joined-up government
Chandler and Eman-uel	Information	Interaction	Transaction	Integration	NA	NA
Kim and Grant	Web pres-ence	Interaction	Transaction	Integration	Continuous improve-ment	NA
Chen et al.	Catalogue	Transaction	Vertical in-tegration	NA	NA	NA
Windley	Simple Web site	Online gov-ernment	Integrated government	Trans-formed gov-ernment	NA	NA
Reddick	Cataloguing	Transac-tions	NA	NA	NA	NA
Accenture	Online pres-ence	Basic capa-bility	Service availability	Mature de-livery	Service transfor-mation	NA
The UK National Audit	Basic site	Electronic publishing	E-publish-ing	Transac-tional	Joined-up e-governance	NA

Note. Retrieved from "E-government Maturity Models: A Comparative Study" by A. Fath-Allah, L. Cheikhi, R. E. Al-Qutaish and A. Idri, 2014, *International Journal of Software Engineering & Applications*, *5*(3) p. 81.

In the governmental model, bureaucrats, advisors, and scholars work on the ready e-governmental projects to help public organizations to identify and enhance their e-

government development level. The holistic approach intends to assess the operational capability and applicability of the e-governmental programs before their launch based on specific prerequisites and criteria. The evolutionary maturity model, which will be further elaborated in this chapter, concentrates on the notion that the process of e-government building starts with unsophisticated projects, perpetually developed and updated (Fath-Allah et al., 2014, p. 71).

Understanding how e-government systems develop, described by Fath-Allah and others as an evolutionary process, comes to be a fundamental issue when trying to define the concept of e-government as a whole and when determining the future development trends of e-governmental initiatives. There is a wide range of maturity models developed by scholars from different countries who used various practical examples as a basis for their prototypes.

However, covering all the maturity models does not fall within the scope of this study. Time constraints and study limits were taken into consideration when picking up the appropriate models instead. The pioneer models of Layne and Lee and Andersen and Henriksen, along with the more recent work by Chen and his colleagues, were given a more detailed and complete description. For convenience and representativeness, overarching examples such as the UN maturity model and an evolutionary approach of the World Bank were selected for a more detailed analysis as well.

3.3.1. Layne and Lee's Four-Stage Model

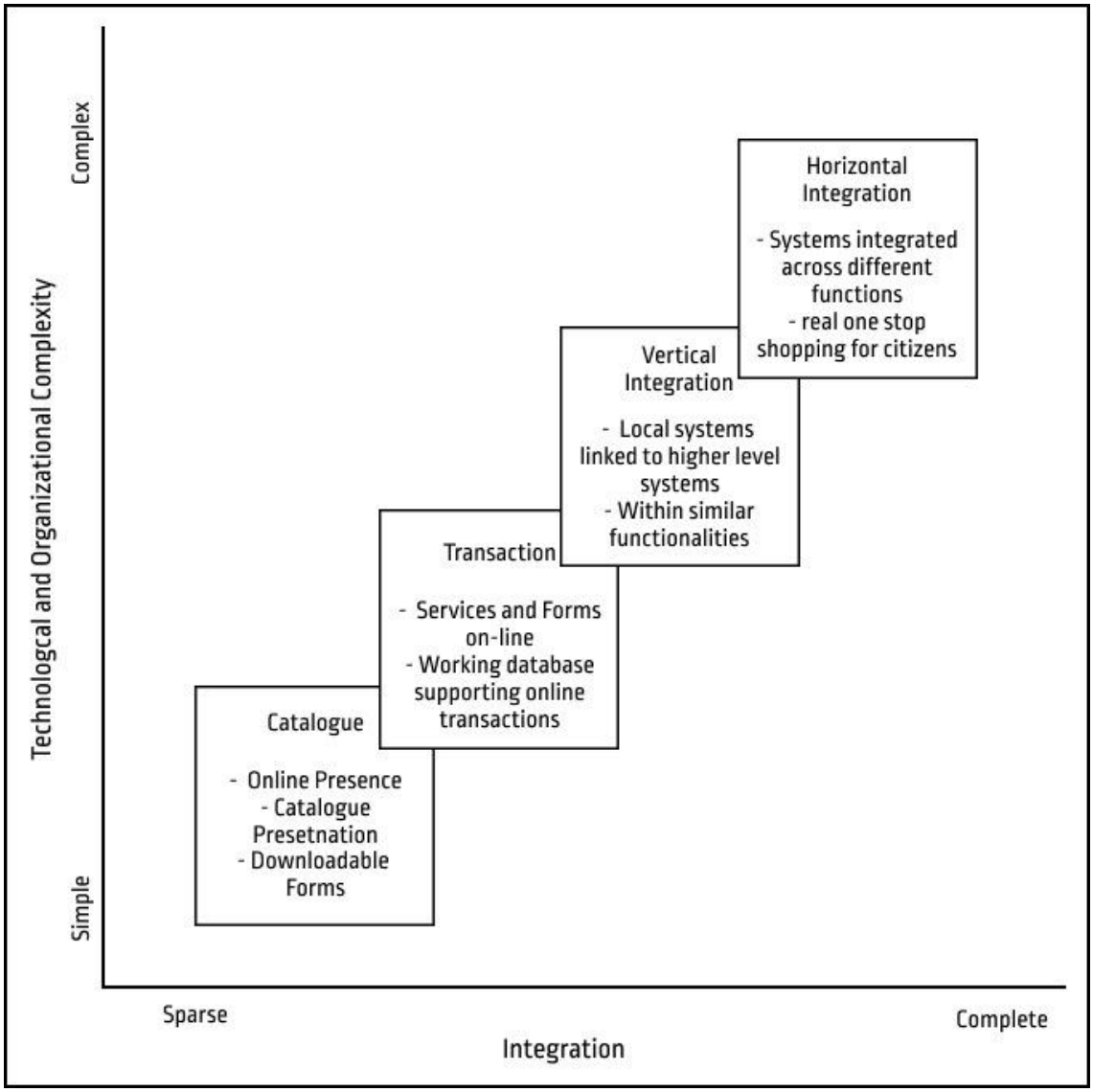
The four-stage model of e-government integration proposed by Layne and Lee presents one of the fundamentals of e-government development patterns. The scholars approached the study of e-government as an evolutionary phenomenon and technological development. They borrowed their model from the first-hand US political experience based on the technical, organizational, and administrative examples.

As can be seen in Figure 3, Layne and Lee single out four phases of e-government development considering the complexity of technological and organizational development on

the one hand, and integration, the degree of implementation into the control system, on the other.

Figure 3

Layne and Lee E-government Maturity Model



Note. From "Developing Fully Functional E-government: A Four Stage Model" by K. Layne and J. Lee, 2001, *Government Information Quarterly*, *18*(2), p 124.

The first stage of the model focuses on online-presentations of public services by the government via the Internet (Layne & Lee, 2001, p. 125). It is claimed that the idea of establishing a governmental website usually originates from the demand of the citizens

and the pressure from the media (Layne & Lee, 2001, p. 126). Due to this persistent request from the public, a government tries to present certain governmental operations, yet due to the lack of knowledge in this particular field, it usually limits its involvement with small projects. This stage also offers the option of searching the required information and downloading the related document blanks (Layne & Lee, 2001, p. 126). While over time, the capacity of the governmental services increases. The composition of content at the websites of the public entities with structurally more complex information starts to persist (Layne & Lee, 2001, pp. 126–127).

Government institutions interact with the public in an electronic format during the transaction stage. At this stage, the government offers online access to the people who can, as the authors say, prolong their licenses or pay the fines (Layne & Lee, 2001, p. 125). At the same time, while efficiency and saving are the key elements behind the initialization of this stage, the last steps of the transaction phase imply minimization of the personnel involved during the operations and establishment of an online interface with the related functional network (Layne & Lee, 2001, pp. 125, 128).

In Layne and Lee's vertical and horizontal stages of the model, the researcher assumes that, in response to the pressure from the public, the government will gradually transform its services, subsequently reaching the principle of a "single window." The vertical stage implies integration among different levels of a governmental organization with the same functions (Layne & Lee, 2001, p. 125). To be more precise, the authors maintain that the governmental agencies with the same functions have to interact with one another closely. This will, in turn, allow a person to finish his/her procedures such as a business license without the need to apply to a governmental body posited on a higher level of hierarchy for the second time (e. g. state and federal level) (Layne & Lee, 2001, p. 130). Moreover, the governmental services in this stage constitute more than just automation and digitization. In the vertical stage, in contrast to the transaction stage where services are disintegrated, what the government offers to people is a more complex structure of data unified under one roof (Layne & Lee, 2001, p. 129).

Horizontal integration is more complicated and complex in comparison with the vertical stage. This phase implies interconnection among different levels of authority with no less distinct functions (Layne and Lee, 2001, p. 125). This stage forces government to unleash all of its competitive potentials while fully realizing the Internet and making the most of it. In this phase, the government listens and responds to the people/customers' needs by offering multiple services through the "shop center" principle. During this last phase of e-governmental integration, any agency can verify the information with other state structures and even update it. In this phase, the people can receive multiple public services operations (from A to Z) in every corner of a country.

3.3.2. Andersen and Henriksen's Four-Stage Model

The model proposed by Andersen and Henriksen represents a refined government maturity model of Layne and Lee. In a larger context, the authors argued that the new developments in the IT sector transform and add new dimensions to Layne and Lee's model. They maintain that future use of IT technologies by citizens, private and public sector while performing the fundamental e-governmental activities, is a more critical phenomenon and has more significant functions rather than merely consolidating the e-government data (K. V. Andersen & Henriksen, 2006, p. 237).

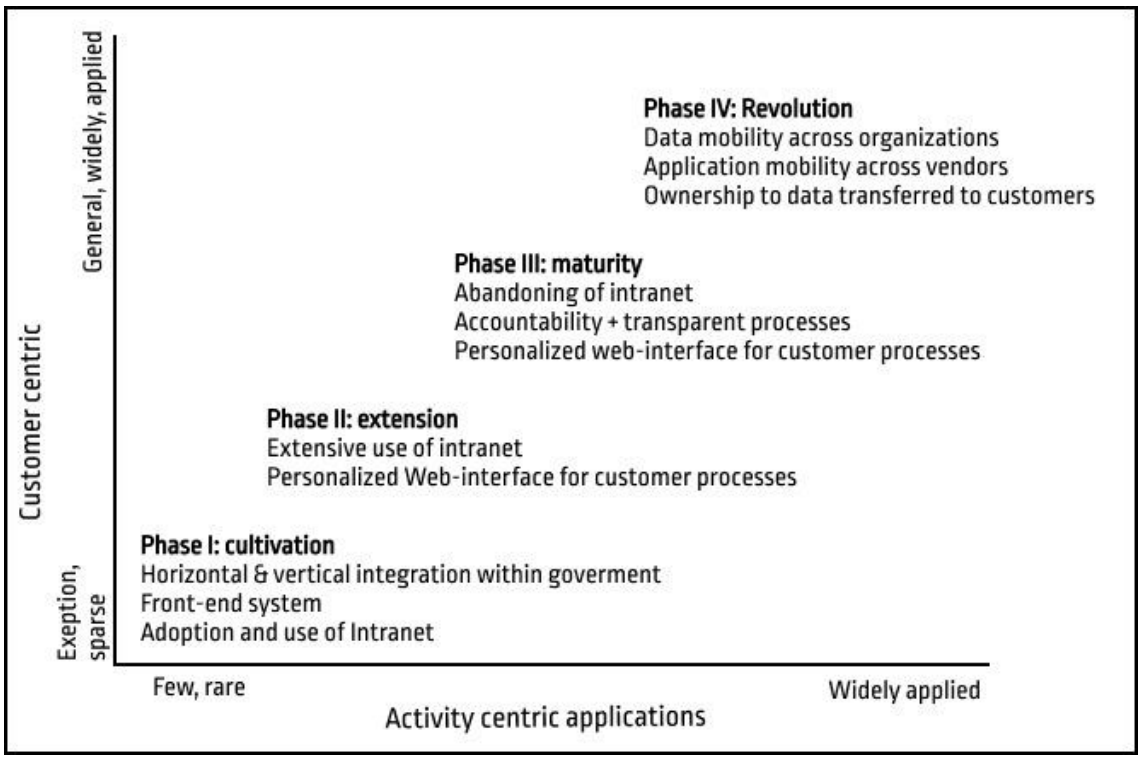
Following the fashion of the time, governments always seek to optimize technology by enhancing the performance of e-governmental services and increasing technical assistance such as depository of government records. The authors assume that this is the right thing to do, yet they are confident that governments should also pay close attention to the rapid technological change and the subsequent reach of customers who always take advantage of this technological change. Likewise, the issues of quality and collaboration between the state and the customer should take part in the e-government studies (K. V. Andersen & Henriksen, 2006, p. 237).

In their article, Andersen and Henriksen are in favor of not describing the given level of e-governmental projects as "mature" or "immature." Opposing the idea of using a normative value, which proposed that the higher the stage, the better it is, the authors admit

that in reality, more than one stage may take place at the same time and be a part of various components of e-government. From this point of view, the scholars opposed Layne and Lee's stage model, or other ideas based on an evolutionary perspective putting forward that stages in the maturity model may not be so easily distinguishable. According to the authors, the four levels of Layne and Lee's model are individually separate and keep the patterns of continuous development. These stages should serve as markers for situating the organization of the e-governmental projects and not been regarded as a final assessment (K. V. Andersen & Henriksen, 2006, pp. 239–240).

Figure 4

PPR Maturity Model by Andersen and Henriksen



Note. From "E-government Maturity Models: Extension of the Layne and Lee Model" by K. V. Andersen and H. Z. Henriksen, 2006, *Government Information Quarterly*, *23*(2), p. 241.

The Public Sector Process Rebuilding (PPR) model suggested by the scholars is developed along the two dimensions: governmental activities and orientation on the customer. Here it may be noted that the model also differs from the Layne and Lee's model in that

it does not pay significant attention to the technological capacity of governmental projects. Likewise, the variables used in the model assume an enduring pattern and are not detached from each other (K. V. Andersen & Henriksen, 2006, pp. 241–242). As can be seen from Figure 4, the PPR model consists of four phases: the cultivation, the extension, the maturity, and the revolution.

Most of the present governments find themselves in the cultivation phase. Other countries, which are not in this phase yet, wish to reach the level. This stage implies the strong desire of numerous public agencies to make the full use of ICTs and local network within the organization. This technological implementation leads to integration to a particular level within the organization in horizontal and vertical terms and interface mechanisms when working with customers. However, the authors state that government officials do not often perceive the essence of IT and its usage when offering governmental services. Thus, sometimes the use of IT results in the tendency of public authorities to control and usually limit access to governmental services (K. V. Andersen & Henriksen, 2006, p. 242).

The cultivation phase serves as a transition from ineffective and suboptimal use of the technological advantage to more active use of the local network, as well as the implementation of the user interface in order to provide better services through their involvement. In the second phase, citizens are trying to get information through the use of websites of the relevant organizations. Such a system of service delivery, seeming practical though, can bring many inconveniences for both sides, for example, continually redirecting the people who are trying to find the needed information to other institutions. The obsolescence of software and data and the costly upkeep are among the other issues to be solved in this phase (K. V. Andersen & Henriksen, 2006, p. 243).

In the next step, the extension phase, users can not only get specific information but also solve most of their problems. The system at this stage is already working only through the Internet without using a local area network and assumes a more open and accountable form. The only thing that remains to be solved - is to reduce the high cost of maintenance

and to provide independent operation of the system (K. V. Andersen & Henriksen, 2006, p. 243).

On the penultimate stage, one can check information about any online operation such as lawsuits. The maturity phase would make it possible since data and software easily travel between organizations. The Internet will also reduce the cost of service by grafting data ownership to the final users (K. V. Andersen & Henriksen, 2006, p. 243).

A long way shall be covered to reach the final revolutionary phase. Scholars maintain that, in reality, many countries do not overcome the cultivation stage. These countries are mainly trying to achieve full integration from the technical point of view, missing what is favorable and advantageous for end-users (K. V. Andersen & Henriksen, 2006, pp. 243–246).

3.3.3. International Institutions Perspective

This chapter will also review maturity models from the perspective of international organizations, specifically the World Bank and the United Nations, which have a long operational and reporting experience in this field. For example, the World Bank has introduced its three-stage model back in 2003 (Im & Seo, 2005, p. 190). Furthermore, since 2001, the United Nations compiles reviews of e-government transition processes on a global scale and measures e-government readiness of the countries in the world using the method of ranking distribution, which is called the "UN E-government Survey" (UN E-government Survey, 2016, 2018). The noted models, similar to the model of Layne and Lee, mainly focus on the technical capabilities of the countries, and their level of e-government development and ICT implementation.

The model of the World Bank, already fairly well-known to the public, consists of three stages. The first stage, which is called the "publishing," implies the presence of websites in public institutions and the distribution of information through these websites. During the second stage, citizens interact with the government through e-mail or feedback forms. The final "completing transaction" stage draws the point when people start conducting

complete, secure transactions via the Internet in order to get public services (Im & Seo, 2005, p. 190).

As already mentioned earlier, the UN E-government Survey is the main source of the e-government maturity model introduced by the United Nations. From 2001 to 2018, the UN issued ten reports, which represent the organization's view on the process of e-government development.

Moreover, the models presented by the United Nations are not static; they have changed a few times over the past years. For instance, a five-stage model of e-government development was described in the report of 2003 (UN E-government Survey, 2003). However, since 2010 the experts in the international organization inclined to a new four-stage model (UN E-government Survey, 2010). The UN measures the level of e-government development rather than the e-government readiness for the last five years since even the less developed countries tend to interact with their citizens in an electronic format. The 2016 report emphasized the need to focus on the real successes of the countries. This trend continues to this day (UN E-government Survey, 2016, 2018, 2020).

Here, it is necessary to understand that differences mentioned above did not completely alter the first actual model suggested by the UN in 2001. Therefore, the classic five-stage UN model of 2001 will be discussed in this section.

The countries that have just decided to use the e-governmental projects come to be located in the first section, the emerging presence. These projects generally represent no more than just a regular government website with a piece of unchanging information. These sites, in turn, are usually used to find an address or a phone number of the relevant organization. Very rarely, one can expect feedback on such sites. In the next stage, which is called the "enhanced presence" more and more government agencies are beginning to establish the official websites with up-to-date information. These sites already guide people to other government web portals offering problem-solving mechanisms. On such sites, one can go to a "search" menu and look for various institutions, most recent contact details, and publications, as well as relevant legislation. To move to the next stage, citizens

of the country have to use the Internet actively. During this phase of extensive internet use, the interactive stage, the feedback option begins to function. The number of updated materials on the sites increases as well. In the subsequent stage, the government provides a secure platform for citizens who can do the whole procedure, such as visa and passport applications, renewal rights, payment of fines, registration of cars and businesses, as well as birth and death records without getting out of the home via the Internet. Every citizen has a personal password and identification number. The next stage, the transitional presence, involves the use of electronic signatures. In this stage, when a citizen can achieve any service at any time through one domain, it means that public institutions and services have become "fully integrated" and reached the final destination along with the e-governmental development index (UN E-government Survey, 2003, pp. 12–14).

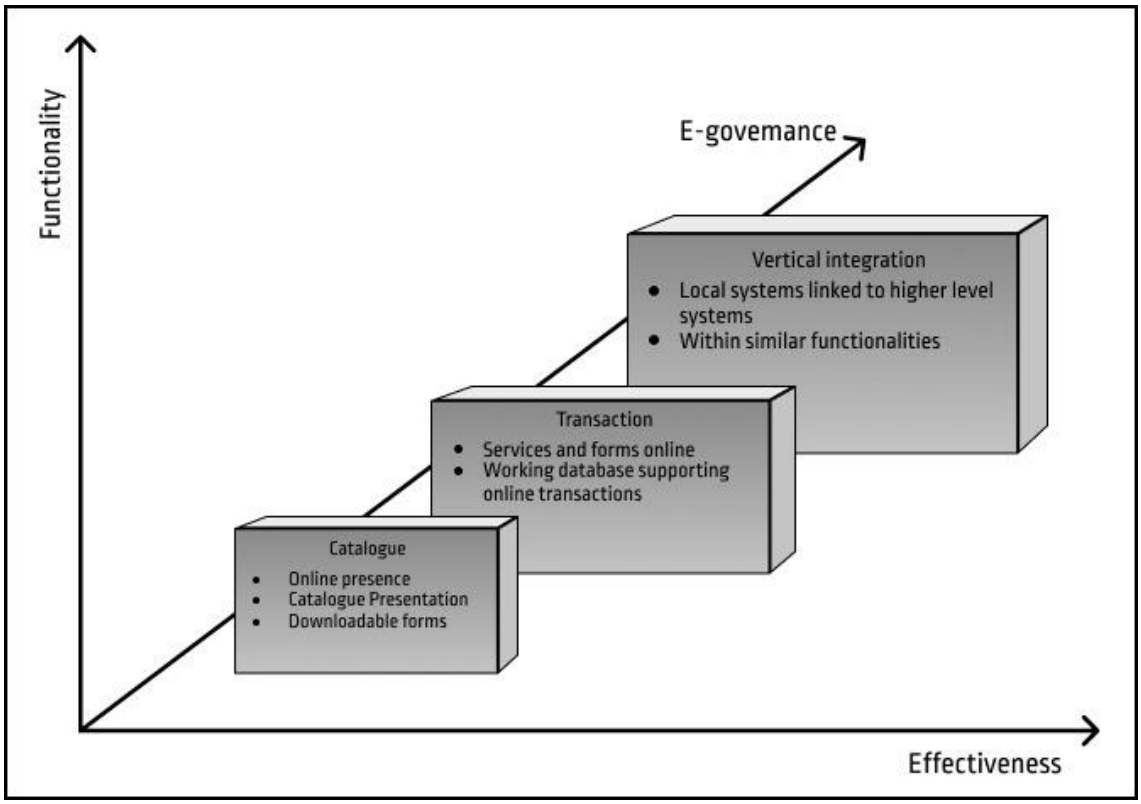
3.3.4. Chen et al.'s Three-Dimensional Development Model

Chen and colleagues' vision of a e-government development model originated from the synthesis among the theoretical approach on the technology/government relationship, the present literature on the developmental model on e-government, and the e-government practice in China with the focus on regional projects. In their article, the authors argue that considerable empirical data provided demonstrated inconsistency in the preceding models. They also claimed that the predictions of the existing maturity models do not match with the reality and not allowing to foresee the prospective e-government transformation. Besides this, these models place too much emphasis on the technological aspect of government and technology's impact on the administrative reforms, as well as the concepts of readiness and e-governance (Chen et al., 2011, p. 113).

The scholars, however, did not move far away from the backbone of the classical maturity model paradigm, on the contrary, they preserved the idea of considering the e-governmental modeling from an evolutional perspective (Chen et al., 2011, p. 113). Instead of a straightforward "step by step" approach, the scholars endeavored to integrate a technique based on dimensions.

Figure 5

Three-Dimensional Model for E-government Development



Note. From "A Three-Dimensional Model for E-government Development with Cases in China's Regional E-government Practice and Experience" by J. Chen, Y. Yan, and C. Mingins, 2011, *Fifth International Conference on Management of E-Commerce and e-Government*, p. 119.

As can be seen in Figure 5, the X-axis stands for the governing abilities of state institutions; other variables, namely the Y-axis, corresponds with the extent to which e-government applications serve a purpose and Z-axis indicates the assessment of service quality and effectiveness of these applications. All axes are closely interconnected with each other. For instance, impaired functionality of an application would harm the work of the staff in governmental institutions (e-governance), and the inadequate final product would lead to low customer satisfaction (effectiveness) (Chen et al., 2011, pp. 113, 115).

The three dimensions have to be developed at the same pace. For example, high-skilled staff will not improve the performance of state services, unless the government uses proper development strategies and management models. It should also be noted that

effectiveness itself has no causal relationship with the e-governance and functionality, especially in reverse order. In other words, high user satisfaction, an indicator of effectiveness, would not increase the functional capabilities of a governmental institution or improve its management system, yet it would imply its presence (Chen et al., 2011, pp. 115–116).

Some authors criticize the idea of modeling e-government via blaming the preceding theoretical models for their similarities and progressivist way of tackling the issue. It is also claimed that these models present difficulties in actually predicting the ordinary course of events calling these models rather descriptive and normative, and sometimes even speculative. Coursey and Norris (2008), in their article, maintain that most e-government development models lack theoretical analysis, empirical data, and useful literature review.

Maturity models presented by the World Bank and the UN are not that different from the models mentioned above. However, these models are more practical, as they are updated continuously, and countries always use these rankings to know their position among other countries in the world. The use of these models is convenient, especially for developing countries, as the mainstream of e-government maturity models primarily studied on the example of the developed countries. However, it does not always seem convenient to use these models because of the overgeneralization risks, considering the multitude of UN member states. The strength of this model lies in the fact that the report based on which they were formulated presents problem-solving mechanisms, especially for the developing countries, serving the exemplary for these countries and showing the way to develop. Although this has the risk of hindering unique development patterns, the model presented by global organizations is a good illustration, enriching literature, and remain relevant to this day.

3.4. CONCLUSION

After a thorough study of such related concepts as policy networks and policy transfer, the time has come to sort out the concept of e-government. The purpose of this chapter

was to review and understand what this concept means. However, it is important to mention that an extensive review of the subject was not the purpose of this chapter as well. Instead, the part of this work took into account the efforts in understanding how such a phenomenon as e-government can possibly be a part of public policy.

In this context, the analysis of the e-government definitions and consideration of an array of different classifications and characterizations presented by various scientific circles from different angles proved to be a helpful tool in the subsequent combination of the term with elements of public policy such as policy networks and policy transfer. In this connection, the section revising different applications and approaches in which e-government is used plays a paramount role.

The author also dealt at length with the e-government maturity models, which in simple terms implies that the phenomenon is not static and can constantly change. Thus, e-government policies can vary depending on the level of e-government development itself, which we will have the opportunity to observe on the example of Kazakhstan in the next chapter. It is worth noting that the author did not touch upon all the maturity models, of which there are a great deal of, staying only on classical and illustrative instances, which are quite sufficient within the framework of this dissertation.

CHAPTER 4: DEVELOPMENT OF E-GOVERNMENT IN KAZAKHSTAN

E-government has become a ubiquitous global phenomenon in 2010s. As the most important trigger, increasing globalization pressure required governments, including even the post-totalitarian ones, to be more efficient and compatible with the market forces. State authorities were quite aware that such requirements could be achieved through ICT use, especially by using ICT solutions to strengthen national institutions and modernize government practices, which would eventually end with setting up e-government projects and services (Maerz, 2016, p. 727).

Policymakers were hoping that ICT implementation will help enhance political processes as a part of wide-ranging public sector reforms. This new wave of reforms concurred with the initiative of several development agencies to promote e-government in developing nations, including countries of the Post-Soviet area (Bhuiyan, 2010, p. 32; Janenova & Kim, 2016, p. 323). International organizations such as the Asian Development Bank, European Bank for Reconstruction and Development (EBRD), IMF, OSCE, UNDP, and World Bank highlighted the importance of stimulating inclusiveness and transparency in decision making. Most of the time, this was a prerequisite for funding within the scope of good governance programs (Knox & Janenova, 2019). In many ways, such an approach enabled to promote citizen participation and plurality in politics. It also stimulated a more capable system of checks and balances, especially in transitional countries like Kazakhstan (Janenova & Kim, 2016, p. 323; Kassen, 2015a, p. 1; Knox & Janenova, 2019).

The pent-up internal pressures for increasing political legitimacy and trust in government stimulated e-government adoption. The successful implementation of ICT solutions in the public sector would contribute to the legitimacy of the states by making political processes more credible and transparent (Kassen, 2015a, p. 1). Evidence also suggests that e-government solutions help hinder corruption-related offenses (T. B. Andersen, 2009; Elbahnasawy, 2014; Sheryazdanova & Butterfield, 2017). Mainly, it allows to monitor the actions of the civil servants, at least to some extent, and remove adverse effects of the personal transactions (Knox & Janenova, 2019).

E-government is not only branded with the amelioration of the public sector. It has many promises, especially to the developing countries, to substantially improve critical humanitarian areas ranging from healthcare and social welfare to education and state housing (Knox & Janenova, 2019). Its rapid expansion in the developing nations represents the all-encompassing nature of e-government with its wide-scale impact on economic progress and market opportunities. As a phenomenon that stimulates socio-economic development by empowering the most vulnerable segments of society such as the poor and the women, and reaching the most remote regions of the country like small towns and villages (Bhuiyan, 2010, p. 44; Kassen, 2014, p. 52). Thus, e-government projects are also presented as a way to overcome digital divide in these countries.

In Kazakhstan, specifically, e-government implementation was regarded as a part of broader reforms in the public sector, including a significant overhaul of all governmental actions (Bhuiyan, 2011, p. 606; Knox & Janenova, 2019). This overhaul implied a shift from the Soviet-style administration system characterized by the excessive adherence to rules and strict bureaucratic procedures to the NPM reforms embarked in the western countries. Switching to more effective government operations with the introduction of e-government in Kazakhstan would include the reduction of unnecessary and repeating procedures; finding ways to implement government programs efficiently, increasing the accountability of civil servants and providing the transparency of governmental transactions, engaging the private sector and its practices to the work of the government through deregulation and privatization, and introducing the “modern service understanding” to the public sector (Knox, 2008; Monobayeva & Howard, 2015, p. 152).

In general, Kazakhstan followed the same e-government development path as other groups of developing countries (Kassen, 2016). For Kazakhstan, the launch of a series of e-government projects would become a lever for a smooth transition to the elite club and a list of best-faring world economies (Bhuiyan, 2010, p. 36, 2011, p. 606). Another critical factor adding more legitimacy and credibility to the e-government implementation would be the subsequent increase of the country’s authority and visibility among other nations and various e-government classification indexes (Kassen, 2016).

Within this context, this chapter aims to shed light on Kazakhstan's e-government development path, starting with the summary of the country profile and especially highlighting aspects that would be of particular interest within the framework of this research. It will then provide information on the foci of the previous studies conducted on the theme of e-government (development) in Kazakhstan. Such an approach will show which facets of e-government and its development had drawn attention among academic circles studying the phenomenon in Kazakhstan.

Other sections of this chapter will deal with the gradual expansion of e-government applications in Kazakhstan, highlighting distinct development features in the country. Special attention will be given to the legislative part of the phenomenon by emphasizing laws, presidential decrees, and state programs concerning e-government development. The chapter will also mention the involvement of different national and global e-government actors and their roles in the country's e-government development path.

The chapter also reviews Kazakhstan's positions in the international e-government rankings, based on data mostly drawn from the UN E-government Development Index. chapter significant amount of the discussion will apply the e-government stage approach to the overall expansion and development of e-government in Kazakhstan. It will do so by comparing the studies of several authors who are experts on the subject. Lastly, the chapter will illustrate the ongoing major e-government projects in the country as evidence of the discussions in the previous section.

4.1. KAZAKHSTAN IN CONTEXT

Kazakhstan is a Central Asian country bordering Russia in the North, China in the East, Uzbekistan, Kyrgyzstan, and Turkmenistan in the South and the Caspian Sea in the West. Embracing a territory of 2,725,000 square kilometers, Kazakhstan is the 9th largest country in the world, 2nd largest country of the Post-Soviet area after the Russian Federation and largest landlocked country in the world. The population of Kazakhstan comprises 18.63 million (2019), having shown only slight growth from 16.45 million in 1991. The density of the population is equivalent to 6.9 per square kilometer. The largest ethnic

minority groups are Russians (3.5 million), followed by Uzbeks (590 thousand), Ukrainians (270 thousand), and Uyghurs (270 thousand) (Bhuiyan, 2010, p. 34; Statistics Committee of Kazakhstan, 2020).

Box 1

Summary Information on Kazakhstan

Head of State	Kassym-Jomart Tokayev (elected on 9 June 2019)
National Legislature	Bicameral Parliament: Senate (47 seats), Majilis (107 seats)
Language	Kazakh (state language), Russian (widely spoken)
Population	18.63 million
Geographical Territory	2,725,000 square kilometers
Currency	Tenge
Unemployment Rate	4.9 (2017)
Literacy Rate	99.78 (2018)
Life Expectancy at Birth	72.95 (2017)
Corruption Perception Index	113 out of 180 (2019)
Press Freedom Score	158 out of 180 (2019)
Fragile States Index	116 out of 178 (2019)

Note. From *Measuring fragility: Risk and vulnerability in 178 countries* by Fund for Peace, 2019; *Country profile: Kazakhstan* by ILO, 2017; *Country profile: Kazakhstan* by Reporters Without Borders (RSF), 2019; *Country profile: Kazakhstan* by Transparency International, 2019; *Browse by country: Kazakhstan* by UNESCO, 2018; *The World Bank in Kazakhstan: Country context* by World Bank, 2018.

Kazakhstan gained its independence in 1991, following the disintegration of the Soviet Union. The country went through severe throes of formation to become slowly a dynamic and politically active actor in Central Asia (Dave, 2007). Over the years, Kazakhstan's economic performance has also been steadily improving, thanks in large part to its abundant natural resources, especially oil reserves (see Table 9) (Janenova, 2010; Janenova & Kim, 2016, p. 4; Knox & Janenova, 2019).

Table 9

Kazakhstan's Leading Natural Resources

Natural Resource	Global Rank	Percentage of Global Share
Chromium	1	40%
Uranium	2	14%
Copper	9	2.3%
Coal	10	2.4%
Oil	12	1.7%
Gold	13	2%
Natural Gas	26	0.5%

Note. Retrieved from *BP statistical review of world energy 2019* by BP, 2019, p. 14, 30, 42; *Mineral commodity summaries 2020: US geological survey* by US Geological Survey, 2020, p. 47, 53, 71; *Supply of uranium: Kazakhstan* by World Nuclear Association, 2019.

Most scholars agree that Kazakhstan is in transition (Bhuiyan, 2010, p. 33; Bhuiyan & Amagoh, 2011, p. 230). This transition was manifested through major political and economic transformations that have been taking place in the last three decades. From a political standpoint, considerable peer pressure (Knox, 2008) and general public frustration with the quality of available public services and the work of public institutions led the Kazakhstan government to take action and make an effort to reform and modernize the national administrative system (Jandosova et al., 2002, 2007). On the other hand, the Soviet legacy left severe economic challenges to which Kazakhstan responded with a shift from a socialist centralized to a market-based economy. The transformative steps included the broad implementation of privatization programs and creating favorable conditions for foreign investors (Bhuiyan & Amagoh, 2011, p. 230; Janenova, 2010; Janenova & Kim, 2016, p. 1; Janenova & Knox, 2019, p. 421; Knox & Janenova, 2018, p. 309). These circumstances would eventually have a lasting effect on the practices and nature of Kazakhstan‘s public administration (Bhuiyan & Amagoh, 2011, p. 230).

Kazakhstan is a presidential republic with a unitary form of government and a bicameral parliamentary system (Bhuiyan & Amagoh, 2011, p. 229; Parliament of Kazakhstan, 2020). President is the head of state, the highest official, who determines the main directions of the national public and foreign policy and represents Kazakhstan within the country and in international affairs (Parliament of Kazakhstan, 2020). This political model was inspired by the French constitution, which stresses the separation of powers between the legislative and executive branches of government. Independently elected president, who represents the executive power, is not directly politically responsible to the parliament and thus cannot be easily removed by it (Knox, 2008, pp. 483–484).

There are 17 territorial divisions in Kazakhstan. The country consists of 14 oblasts (regions) and three cities of special (republican) status: Astana, Almaty, and Shymkent (Parliament of Kazakhstan, 2020). These administrative units have equal powers irrespective of their size, population, and economic capacity. The president appoints the akims (governors) of oblasts and cities of republican status upon the nomination made by the prime minister (Makhmutova, 2001). President runs this administrative system with the help of parliament consisting of two Chambers: the Senate and the Majilis (Parliament of Kazakhstan, 2020).

The Senate is formed by deputies represented by two nominees from each region, a city of republican significance and the capital. President appoints fifteen deputies taking into consideration national and cultural aspects of the country and other interests of the society. The Majilis consists of one hundred and seven deputies, nine of whom are elected by the People‘s Assembly of Kazakhstan[2]. The deputies of the Senate are elected for a term of six years, the deputies of the Majilis for five years. At the time of writing, three parties were represented in the Majilis: Nur Otan (Radiant Fatherland) Party, Ak Jol (Bright Path) Party, and Communist People’s Party (Parliament of Kazakhstan, 2020). In reality, Nur Otan dominates local politics (Knox & Janenova, 2018, p. 309). The other political parties represented in the Majilis (Ak Jol Party and Communist People’s Party) are not viewed

[2] People’s Assembly of Kazakhstan is a presidential consultative body. It supervises the implementation of national policy to safeguard social and political stability in terms of interethnic relations within the country (Administration of President of Kazakhstan, 2020).

as genuine opposition, remaining faithful to Nursultan Nazarbayev (Puddington et al., 2016, p. 359).

In 2017, Kazakhstan engaged in constitutional reform, which granted more power to the Parliament. The amended laws indicated that the government would become accountable to the Parliament, not to the President as it was before. From that time on, the empowered Parliament could change the composition of the government through the dismissal of some of its members. The power to dismiss the government was still left to the President, though. The constitutional amendments also restricted the President's law-making capacity by taking away the right to issue decrees and the right to take over the legislative competence of the Parliament (Knox & Janenova, 2018, p. 309; Tukmadiyeva, 2018, p. 2).

Under this reform, the President would perform a strategic function. The President would become an arbiter, whose main duty would be supervising national interest issues, such as foreign policy and national security, and sustaining good relationships among different governmental bodies (Seisembayeva, 2017). For many experts, however, the suggested reforms implied that the presidential institution would have more real than symbolic power (Dubnov, 2017). This opinion was reinforced by the fact that the judicial system was only affected by the reform in a limited way (Pistan, 2017; Seisembayeva, 2017). That’s why many believed that the reform was the preparation to test the succession scenario in view of the fact that Nazarbayev’s long-time rival Uzbekistan President Islam Karimov passed away that year having ruled the country over 25 years (Pistan, 2017).

In effect, the shift to the new post-Nazarbayev era has begun (Financial Times, 2019). On 19 March 2019, after roughly a thirty-year rule, President Nursultan Nazarbayev, who inflicted the most severe political and socio-economic changes in Kazakhstan, resigned (Donovan, 2019). In line with the Constitution, the then Speaker of the Senate Kassym-Jomart Tokayev would become Kazakhstan’s interim President (Auyezov, 2019). However, Nazarbayev would not completely disengage himself from politics. He would still chair the mighty Security Council and remain the leader of the dominant Nur Otan Party. Apart from this, the amended Constitution would grant him the status of the “first

president," which would leave him considerable power and influence (Donovan, 2019; Roth, 2019). To honor Nazarbayev, the Parliament also voted to rename the capital from Astana to Nur-Sultan (Donovan, 2019).

The departure of Nazarbayev aimed at the methodical transition to safeguard the political and socio-economic stability leaving the successor who would keep things as they are while the former president would rule the country behind the throne (Roth, 2019). The initial steps of Tokayev did indicate that the successor would continue Nazarbayev's policies (Lynch, 2019). Most domestic policies would remain the same. In foreign policy, as an inventor of a multi-vector policy paradigm, Tokayev continued a balanced relationship with the neighbors and country's Western allies (Starr, 2019).

The first signs of Tokayev, the Reformer, however, started with his vows to reform the public administration. The noted reforms continued with the attempts to ameliorate the law enhancement and judicial systems (Lynch, 2019). In the administrative field, he set the task to form the Presidential Youth Personnel Reserve, a pool that would promote the selected talented youth to crucial government positions (Shayakhmetova, 2020). On the other hand, the government started to adopt a softer stance on small-scale protests and demonstrations. At the same time, several political prisoners such as Mukhtar Djakishev, former head of national uranium company accused of corruption, were pardoned by the President and released from prison (Gordeyeva, 2019; Sorbello, 2020).

Tokayev started to encourage more transparent and inclusive forms of politics. One such manifestation would be the establishment of the National Council of Public Trust. This consultative body will provide recommendations gathering data and input from the public and civil society (Boteu, 2019). More popular was his programs to write off the penalties for overdue bank loans for low-income and large families. Later, in his address to the nation, a regular practice of the former president, he pushed forward the "Listening State" notion, which would "quickly and efficiently respond to citizens' requests" (Starr, 2019).

The first glimpses of Tokayev's short reign ensured a positive outcome and a steady level of confidence among the public. Great credit for maintaining such a level of public trust

goes to his ability to respond to the first wave of crises turning out after the departure of Nazarbayev. Kazakhstan is at the crossroads and is being held at a turning point, both historic and complicated. The country has a new progressive leader, but he represents only half of the duopoly, vehemently denied both by Tokayev and Nazarbayev (Bohr et al., 2019).

In the post-independence period, it seemed that pluralism would thrive in Kazakhstan (Knox, 2008, p. 484). However, today the political system in Kazakhstan is a subject of intense concern, which is reflected in the state's reluctance to ensure free and fair elections (Bhuiyan, 2010, p. 34). The country policy making is criticized for being monopolized, at a time when corruption, clannism, and nepotism in government is pervasive (Bhuiyan, 2010, p. 45; Janenova, 2010; Perlman & Gleason, 2007; Schatz, 2004).

Despite some advances made by the constitutional reform and hype that came with the arrival of Tokayev, bidding for greater political transparency and inclusion, Kazakhstan is still, like any other authoritarian country, apprehended by paternalism with highly centralized political and social life (Frye, 2010; Maerz, 2016, p. 4). Key policy levers are concentrated in the hands of a small political elite (Cummings, 2005).

The most important decisions are taken within the Administration of President, where, along with the President, the State Secretary and Head of Administration become the critical policy stakeholders (Knox, 2008). The Administration of President, together with the Cabinet of Ministers and Security Council, forms a triad of political decision making at the institutional level (Knox, 2008, p. 484).

These political features affect the country's entire administrative system, in which the executive elite closely supervises public institutions. In such a political system, the government cannot guarantee the security of tenure. In the event of problems, the state compartmentalizes administrative units and (re)distributes responsibilities among civil servants instead of carrying out a full-scale reform. The government also prefers to use cabinet reshuffling as a political breakthrough. It is highly problematic for an opposition movement to develop in such a climate since there is no alternative political platform. If any

opposition happens to emerge, it is impossible to endure outside the privileged elite cirles (Cummings, 2005, p. 140).

Such an administrative system also had a considerable effect on economic development in Kazakhstan. After independence, Kazakhstan's economy was in decline. The Soviet economy was at the time of 1991 in a state of free fall—the real GDP fell by somewhere between 8-17%—leaving the country facing severe economic challenges. Between 1992-1995, Kazakhstan's real GDP also marked a steep fall by approximately 31%. Inflation soared to three- and four-digit numbers, while nearly a million and a half people become unemployed (OECD, 2017, p. 19).

The slow recovery that started in 1996 was overshadowed by the Asian financial crisis of 1997 and the subsequent Russian crisis in the following year. Recovered oil prices, along with the policy and legislative responses, helped Kazakhstan enter a phase of sustained and robust growth starting from 1998 (Bhuiyan, 2010, pp. 34–35). These policy and legislative changes provided incentives to attract badly-needed international investors in high-priority sectors such as oil and gas, the major factor stimulating Kazakhstan's economic growth (OECD, 2017, pp. 19–20).

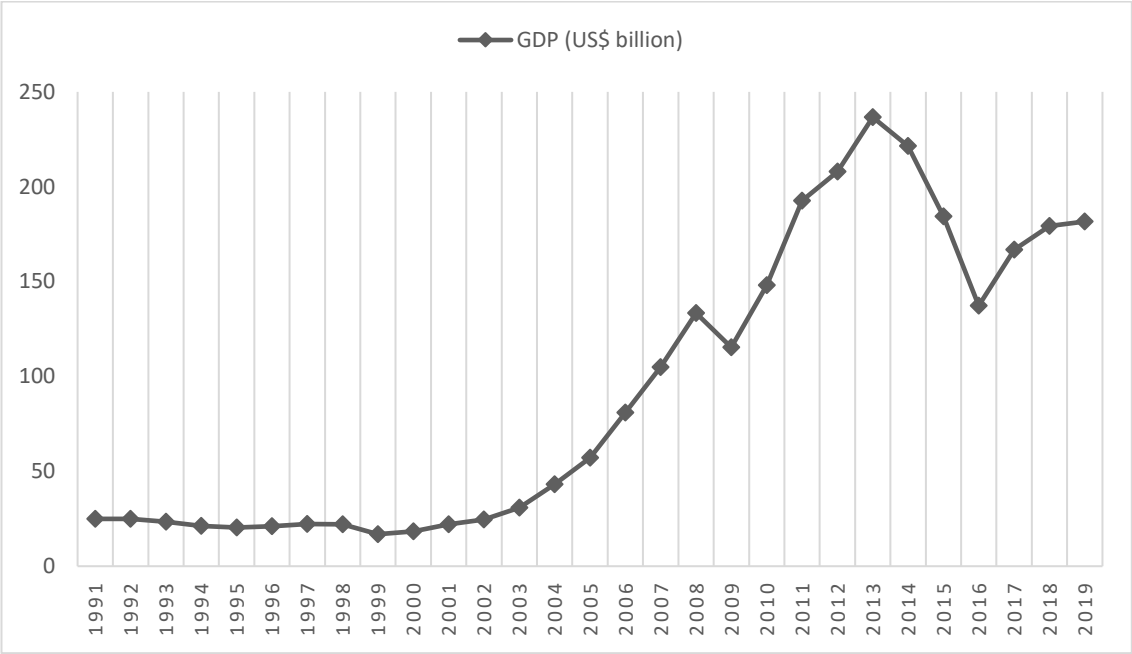
In the Soviet era, Kazakhstan produced about five hundred thousand barrels of oil per day. By 2014, Kazakhstan entered the top ten countries in oil export, producing more than 1.7 million barrels of oil per day (OECD, 2017, p. 21). Oil reserves played a unique role in the economic reconstruction of Kazakhstan. In two decades, the country has steadily elevated from lower-middle-income to upper-middle-income status (World Bank, 2019). The poverty rate fell significantly from approximately 47% in 2001 to 2.7% in 2015 (UNCTAD, 2020, p. 15). Moreover, GDP per capita rose substantially to almost US$ 28.000 in 2018, unemployment fell steadily to 4.8 in 2018, and real wages doubled in 1999-2014 (OECD, 2017, p. 26; World Bank, 2019).

Despite the interim crises in the global economy, at the time of writing of the thesis (late 2020), the economic outlook remains stable in the country. The recent presidential transition went smoothly and did not significantly alter economic indicators and trends

(World Bank, 2019). It should be noted however that, although Tokayev stressed the importance to minimize the role of the state in the national economy and stimulate the non-oil sector through diversification, Kazakhstan remains highly depended on the export of hydrocarbons and metals, whose share in the GDP growth rate continue to be significant (OECD, 2017, p. 18).

Chart 1

Kazakhstan's GDP Growth



Note. From *The World Bank in Kazakhstan: Country context* by World Bank, 2019.

Dependency on natural resources keeps the country under continuous pressure of being exposed to external shocks, including the "Dutch disease," and other system pathologies typical for resource-dependent countries (OECD, 2017, p. 18). At the same time, the share of public sector in the economy is enormous. According to UNCTAD (2020, p. 16), the state share in the national economic accounts for about 30-40% of GDP. National holding companies control more than half of national financial assets. The state is also the largest employer providing work for about one-third of the non-agricultural sector. The role of the government and the volume of resources it manages impacts the overall efficiency of the economy.

One way—the most common for Kazakhstan—to boost the government efficiency and turn the national economy around is to undertake perpetual reforms through adopting development strategies and visions, such as “Kazakhstan 2030”. This program was the first substantial effort for an overall process of full-scale reform towards market economy aiming, at the first place, at restructuring the state apparatus and bringing the progressive agenda into the realm of public services (Bhuiyan & Amagoh, 2011, p. 237; Knox, 2008, p. 477).

Kazakhstan 2030, which laid the ground for the future national concepts, strategies, and programs, among other things, designed to lift bureaucratic impediments by simplifying administrative procedures, improving quality of public services through imposing effective legislative measures and raising the efficiency of state machinery by making improvements in the system of government planning and budgeting (Knox, 2008, p. 477). It also tasked to improve the quality of life of ordinary citizens by reducing social exclusion and involving civil society in the system of governance (Bhuiyan, 2010, p. 35). By doing this, the program viewed modern information technologies as a critical next step in raising the government's effectiveness and regarded its implementation as a prerequisite for creating compelling and optimal state structures (Bhuiyan & Amagoh, 2011, p. 237). Using ICTs in public administration in Kazakhstan in line with the global trends would pave the way for the mobilization and popularization of the e-government notion. E-government in Kazakhstan, regarded as an integral part of the Kazakhstan government's subsequent efforts to reform and reorganize not only its administrative system but all spheres of public life, will be reviewed in the following sections.

4.2. PREVIOUS STUDIES ON E-GOVERNMENT IN KAZAKHSTAN

Revision of the major themes found in the studies on e-government in Kazakhstan is one way to showcase how the notion was conceptualized. Unfortunately, the record on e-government literature in Kazakhstan is not outstanding. As is shown in Table 10, the research on e-government was still inadequate at the time of writing.

Nevertheless, some progress has been achieved. In recent years, scholars touched upon certain aspects of e-government development in Kazakhstan. In particular, scholars in the field made notable efforts to elaborate e-government in terms of its effect on eliminating corruption, enhancing transparency and accountability, improving public service delivery. Several studies analyzed the throes of change that Kazakhstan encountered with the launch of the first series of e-government projects. Scholars also studied e-government in terms of modernization in the public sector and broader public administration reforms (including those of NPM). Moreover, Table 10 presents the latest e-government trends, such as e-participation, open/big data, and open government, and criticism regarding the state of e-government in Kazakhstan.

This study also examines e-government development in Kazakhstan in relation to other countries. Scholars compared Kazakhstan to other countries in many respects. Such literature often tested Kazakhstan's e-government development with countries having similar features. For instance, the authors studied Canada and Kazakhstan. Both are geographically big and have a similarly scattered population. Some studies compared Kazakhstan with countries having common historical legacies such as Russia or Estonia. In other cases, Kazakhstan's e-government was studied in the context of some supranational structures such as the Commonwealth of Independent States (CIS) and Cooperation Council of Turkic Speaking States (Turkic Council), or in terms of geographic location, when compared with other Central Asian states.

Table 10

Major Themes Found in the Literature on E-government in Kazakhstan

Major Theme	Source	Comments
Inadequate Research	Bershadskaya et al., 2013, p. 88; Bhuiyan, 2011, p. 605	Authors complain that there is a shortage of research on e-government implementation in Kazakhstan and across the CIS region.
Global Trend, International Pressure	Bhuiyan & Amagoh, 2011, p. 243; Janenova & Yesdauletov, 2017, p. 3; Knox, 2008	Literature suggests that e-government implementation evolved in line with the global trend and pressure from the international community.

Tool for Better Public Services	Bhuiyan & Amagoh, 2011, p. 228; Janenova, 2010; Janenova & Yesdauletov, 2017, p. 3; Knox & Janenova, 2019	Research shows e-government implementation was primarily motivated by its promises to faster, better, and cost-effective public services and the desire to avoid growing public discontent.
Legitimization Tool	Johnson & Kolko, 2010; Kassen, 2017	The authors maintain that countries in transition like Kazakhstan often use e-government projects to strengthen their legitimacy and standing among the local population.
Anti-corruption Tool	Janenova, 2010; Janenova & Kim, 2016, p. 327; Knox & Janenova, 2019; G. Sheryazdanova et al., 2016; G. Sheryazdanova & Butterfield, 2017, pp. 89–90, 92	Eliminating corruption was one of the reasons for more comprehensive e-government implementation in Kazakhstan (Janenova, 2010). Evidence suggested that e-government did reduce petty crime, especially in the health sector, the judicial system, public safety (traffic police), customs, higher education, automobile inspection, real estate, etc. (Sheryazdanova & Butterfield, 2017, pp. 89–90). The launch of a network of One-Stop Shops (OSS) across the country proved to be incredibly efficient (Janenova & Kim, 2016, p. 327). Knox and Janenova (2019) suggest that e-government in Kazakhstan as an anti-corruption tool yielded only a few significant results. This view is backed by Sheryazdanova and Butterfield (2017, p. 92), who argue that e-government did "little to curtail oligopolistic behavior, particularly in the state-owned business sector."

Transparency and Accountability	Bhuiyan & Amagoh, 2011, p. 243; Janenova, 2010	E-government's ability to facilitate the transparency and accountability of administrative processes was another critical priority for its implementation.
Part of Wider Reform and NPM	Bhuiyan & Amagoh, 2011, p. 228; Janenova & Kim, 2016, p. 327; Knox & Janenova, 2019; G. Sheryazdanova & Butterfield, 2017, p. 86	E-government is often seen as part of a more comprehensive reform process (Knox & Janenova, 2019). Janenova (2010), for instance, reviews e-government development in Kazakhstan in the context of the NPM. The author argues that the e-government phenomenon is positioned in line with traditional NPM practices such as performance standards, delegation of autonomy, outsourcing service delivery and the breakup of strategic and operational duties (Janenova & Kim, 2016, p. 327).
Challenges in Implementation	Bhuiyan, 2010, p. 31, 2011, p. 613; Janenova, 2010; Knox & Janenova, 2019; G. Sheryazdanova & Butterfield, 2017, pp. 86, 92	Challenges such as lack of political support, coordination failure among the bureaucracy, widespread corruption, digital divide, language barriers, lack of human resources, inadequate infrastructural development are cited in the earlier works (Bhuiyan, 2010, p. 31, 2011, p. 613; Janenova, 2010). Later research would also include problems in e-government implementation related to the "human factor" (Sheryazdanova & Butterfield, 2017, p. 86) and transition to open government, depicted "half-open" in the work of Knox and Janenova (2019).
Brand and Exemplar	Kassen, 2017; G. Sheryazdanova & Butterfield, 2017, p. 92	Kazakhstan's perspectives to become an exemplar for the regional country in terms of e-government implementation was

		mentioned in the works of Kassen as a poster child (2017), and Sheryazdanova and Butterfield as a brand (2017, p. 92).
Compared with Other Countries	Bershadskaya et al., 2013; Ismailova & Inal, 2017; Janenova & Yesdauletov, 2017; Johnson & Kolko, 2010; Kassen, 2019c; Knox & Janenova, 2019; Maerz, 2016; Monobayeva & Howard, 2015; Ulman et al., 2016	Comparative inter-country and intra-regional analysis of e-government practices was widely discussed in the literature. Kassen (2019c), for example, compares open data initiatives of Estonia and Kazakhstan, highlighting the driving force of highly centralized public administration in steering e-government development in both countries. Ulman et al. (2016) examine the delivery of online government series in the Czech Republic and Kazakhstan, arguing that on some levels, the Kazakh side ensures better quality services. In another study, Kassen (2015b) focuses on institutional analysis of e-government policies in the US and Kazakhstan. He argues that specifics of the administrative-territorial system and public administrative practices rooted in federalism (in the US) and unitary government (of Kazakhstan) have a tremendous effect on e-government development. Compared with another Northern American country, Canada, Janenova and Yesdauletov (2017) found similarities and differences in public service reforms in the states with similar large geographical areas and low population density. Similar studies were formulated at supranational levels. Brimkulov and Baryktabasov

		(2018) studied success factors for e-government development in Central Asian countries (see also Johnson & Kolko, 2010). In the work of Ismailova and Inal (2017), Kazakhstan was analyzed together with other member states of the Turkic Council—Azerbaijan, Kyrgyzstan, and Turkey. The authors reviewed the websites of these countries for accessibility and quality. A similar approach, yet for another intergovernmental organization, was reported by Bershadskaya et al. (2013), in their research on e-government development in the countries of CIS. The authors found similar key themes necessary for successful e-government development in the CIS countries. They contemplated that collaborative action would help solve the common challenges and facilitate further integration among the CIS member states.
Open Government and E-participation	Kassen, 2014, 2017, 2019a, p. 301, 2019c; Knox & Janenova, 2019	The research on e-government in Kazakhstan is now entering a new phase of its evolution. The professionals highly recognized the government's attempts for further inclusion of the public in state affairs as Kazakhstan was placed second in the UN e-participation ranking in 2012. Reassured by this success, Kazakhstan's other attempts to enhance interaction with ordinary people will be maintained through open data, open legislative acts, open budgets, open dialogue, and performance assessment of government

		agencies. For example, the open dialogue element stands for a platform that offers an environment for the public to interact with government officials via blogs and participate in the discussion of hot topics varying from public policies to complaints and opinion surveys (Kassen, 2019a, p. 301).
Criticism of E-government Implementation	Knox & Janenova, 2019; Morozov, 2011	Some works criticized e-government implementation in Kazakhstan. Morozov (2011) argued that Central Asian states, including Kazakhstan, go for modernization reforms to get financial support from supranational international organizations such as IMF and World Bank. Such an approach allows them to bolster their economy by facilitating administrative processes by eliminating bureaucratic red tape. On the contrary, Knox and Janenova (2019) criticize the government of Kazakhstan for unevenly approaching the modernization reforms as a whole. The authors maintain that too much hype is generated around the notion. Too many resources and attention is paid to the development of e-government in Kazakhstan at a time when essential public services are missing. They provided an example from the e-health sector, which promises to utilize mobile health programs, implement remote consultations, and use artificial intelligence to diagnose patients and handle the treatment programs. In reality, many doctors in Kazakhstan are underpaid, inadequately

		trained, and have to take part in corruption practices to make their earnings. According to the authors, e-government, as an application that should have taken public service delivery in the country to a new level, is another way to handle the existing practices. E-government in Kazakhstan, scholars argue, automatizes the administrative procedures. But it also supervises population and smothers political opposition.

Note. Illustrated by the author.

It should be noted that the table is not a minute and thorough examination of what the scholars who studied e-government (and its development) in Kazakhstan covered in their works. This account also does not present the complete record of what happened in Kazakhstan in the field of e-government over the past thirty years. A more detailed e-government review of Kazakhstan in the next section.

The table instead shows an extensive literature review on e-government in Kazakhstan and assesses the major themes highlighted by the e-government scholars, both local and foreign. It summarizes issues authors paid most of their attention and efforts. The most pervasive and repeated topics have been chosen and carefully analyzed. This analysis thus reviews the literature and offers an alternative perspective to look at how e-government evolved in Kazakhstan.

4.3. E-GOVERNMENT IN KAZAKHSTAN

The e-government implementation in Kazakhstan evolved under strong political will and guidance. Those who promoted e-government could rely on steady support of the Presidential Office and the President himself. The need to reform the administrative practices in the country was also reinforced by the growing dissatisfaction of the population with the government and its delivery of public services (Bhuiyan, 2010, p. 39).

To decrease this dissatisfaction, restore the population's trust, and being aware of the economic benefits embodied in e-government implementation, the top bureaucratic and political ranks of Kazakhstan were committed to solving all the inconveniences associated with the government's failures (Bhuiyan, 2011, p. 606; Kassen, 2017). The e-government implementation program initially focused on improving access to public services. It also involved increasing the efficiency and effectiveness of service delivery through widespread ICT implementation in the public sector and reducing corruption by minimizing interaction between the civil servants and population (Bhuiyan, 2011, p. 606; Knox & Janenova, 2019).

4.3.1. Top-down Approach: E-centralism

Kazakhstan's approach to e-government implementation was typical to its management of all other administrative reforms, especially when it comes to the development of innovative projects (Kassen, 2017). The top-down and centralized nature of handling e-government projects seemed critical to its successful implementation (Knox & Janenova, 2019).

Kassen remarks that such a top-down approach is represented through a mixture of presidential decrees, government directives, and centralized state funding (Kassen, 2016). He conceptualizes this management style of e-government implementation in Kazakhstan through the term "e-centralism." According to the author, e-centralism is a political pattern that demonstrates how a typical unitary state carries out e-government initiatives in the public sector. Kassen also maintains that the implementation of e-government projects depends mainly on the administrative and territorial divisions of a country and the way the central government administers regional authorities (Kassen, 2015a, p. 25). Paradoxically, this centralized approach proved to be an effective mechanism in fostering e-government implementation nationwide. Kassen especially notes the instrumental role of government directives in diffusing modernization reforms in the public sector (Kassen, 2017). Kassen also claims that e-centralism is deeply rooted in the reactive mindset of the population and the conventional way civil servants think. The Kazakhstan government

sought to implement innovative reforms in such a way since a typical public official in Kazakhstan, especially at the regional level, lacks flexibility and avoids taking the initiative in the agenda-setting and decision making processes. Regular public officers prefer to wait for first-hand instructions from the top echelon, getting overwhelmed even by everyday situations (Kassen, 2015a, p. 23).

Kazakhstan is not the only country practicing such a centralized top-down approach. Countries such as Estonia, Singapore, and South Korea, which inspired Kazakhstan in many ways, also devised their e-government policies through one administrative channel (Kassen, 2019b, p. 566). E-centralism helped reach quick and widespread penetration of e-government initiatives across the country. However, by resorting to such lopsided measures, the Kazakh government excluded the population and regional authorities from the decision making process. This approach hindered the understanding of the e-government concept and fostered their further exploitation from the e-government implementation process (Kassen, 2017).

Understanding the drawbacks of the centralized and top-down implementation, the Kazakh government was interested in the active involvement of the private sector in developing solutions to different e-government initiatives. That is why public authorities turned to organize unconventional contests and competitions such as e-government hackathons, startup battles, and open data hack days and to arrange multiple networking platforms among the local software developers. Such a strategy turned out to be a cost-effective practice that boosted the government's popularity among the public (Kassen, 2017).

4.3.2. Kazakhstan 2030 Strategy's Role in the Modernization Reforms

The vision of how the administrative integration in Kazakhstan should run in this top-down mechanism is set in the national strategy programs. The government has adopted three strategic plans so far, namely Kazakhstan 2020, Kazakhstan 2030, and Kazakhstan 2050 (Kudaibergenova, 2015, p. 441). Although the greater emphasis will be placed on the strategic documents that assess e-government in the later sections, the Kazakhstan

2030 Strategy worth special mention here since the idea of launching e-government initiative was voiced by President Nazarbayev in this program (Kazi & Chalgimbayeva, 2016).

Launched in 1997, the Kazakhstan 2030 Strategy[3] is a progressive and an exceptionally successful program in terms of its contribution to the institutionalization and nation-state building. The program was supposed to serve as an alternative to Soviet ideology and the legitimization of the regime. It was the first strategic paper in the post-independent history of the country, outlining Kazakhstan's future development goals, especially in the field of economy and administrative reforms (Kudaibergenova, 2015, pp. 440, 442). The program guides the government's endeavors towards a certain number of priority tasks and encourages daily and annual decision making to achieve these goals (Utegenova, 2011, p. 134).

This strategy program is an incredibly valuable instrument because it opened up a gateway for future modernization reforms in general (Bhuiyan, 2011, p. 605) and the first wave of e-government implementation in particular (Kazi & Chalgimbayeva, 2016). Many e-government programs, mentioned below, were developed following this strategy (Utegenova, 2011, p. 133). For example, the "State Program on the Forced Industrial and Innovation Development of the Republic of Kazakhstan for 2010-2014," an important strategic document that has affected almost all technological reforms in the public sector and which will be discussed later, is the direct product of the Kazakhstan 2030 Strategy (Utegenova, 2011, p. 142).

[3] The program's full name is "Kazakhstan 2030: Prosperity, Security and Ever-Growing Welfare of All the Kazakhstanis". The strategy identifies seven long-term priorities in areas such as, national security; economic development; health and education; use of energy resources; transport and communications; and public administration (Utegenova, 2011, p. 133). Utegenova (2011, p. 134) argues that there are two reasons for which the period of the program has been defined as 2030. Firstly, thirty years represent the active life of one generation. Secondly, experts project that Kazakhstan's oil fields will be depleted in the next thirty years. So, 2030 is the period when it will be necessary to find alternative energy sources.

4.3.3. First Steps in E-government Implementation

As mentioned earlier, one of the goals of the Kazakhstan 2030 Strategy was to ensure the implementation of reforms in the public sector. The e-government theme, or rather the digitalization of the public services, as a tool to achieve an open, transparent and citizen-oriented state (Bhuiyan, 2010, p. 45, 2011, p. 613; Bhuiyan & Amagoh, 2011) was addressed in the sixth long-term priority of the program, related to the development of transport and communications infrastructure. In particular, the document addressed the growing role of information technology in health, education, and the environment spheres. The strategy also focused on the strengths of information technology, considering Kazakhstan's main features of being a vast country with a scattered population (Kazakhstan 2030 Strategy, 1997).

The strategy touched upon the high tariffs for communication services, as one of the barriers to the delivery of public services in remote and underdeveloped regions. One of the government's strategies to respond to this problem was establishing its own independent and effective telecommunication services system. Despite the high prices of telecommunication infrastructure, the government committed to providing a minimum level of digital services. At this level, the program refers to the need to at least broadcast training programs for children and youth living in rural areas (Kazakhstan 2030 Strategy, 1997).

The Presidential Decree on the Formation of Single Information Space in the Republic of Kazakhstan expanded the provision for introducing technological solutions in the public sector. Approved on 9 December 1997, this program was an action plan for the first steps in the realization of the national e-government policy. The said program envisaged introducing draft legislative acts on e-government to the Parliament (Presidential Decree No. 3787, 1997).

The next step on implementing e-government in Kazakhstan was the Presidential Decree, which approved the "State Program on the Formation and Development of Information Infrastructure in the Republic of Kazakhstan." This program, targeting the period from 2001 to 2005, identified two critical areas in the further transformation of e-government.

Firstly, the program determined the gradual implementation of the public service delivery mechanism based on the principle of "single window." Secondly, it resolved to introduce structural tools for commercial transactions. It is worth noting that the program also mentioned essential concepts in terms of Kazakhstan's e-government development. Terms such as e-document management, e-signature, e-archive were frequently mentioned in the document (Presidential Decree No. 573, 2001). This program also paved the way for the adoption of relevant consolidating laws in e-government such as the Law on E-document and Digital Signature and the Law on Informatization, approved in 2003. More elaborate information regarding the state programs will be delivered in the section on state programs.

4.3.4. The National Web Portal and One-Stop Shops

The President announced the launch of the first significant e-government project, the national-level web portal that would provide public services, in his annual address in on 19 March 2004 (Sheryazdanova & Butterfield, 2017, p. 86). The Presidential Decree No. 1471 dated 10 November 2004 on the State Program for the Formation of E-government became the fundamental legal basis for the subsequent project implemented in the field (National Information Technologies, 2020a).

Started to operate in 2006, the web portal—working under the domain egov.kz—aimed at providing better quality public services facilitating the administrative procedures of a wide range of government agencies by offering access to the services on the principle of "single window" through only one access point. Available in three languages, Kazakh, Russian, and English, the web portal provided not only necessary information on the public services but also allowed the ordinary citizens to engage in interactional and transactional operations in the key areas ranging from education and health to culture and tourism. It also provided access to the ministries' websites, local authorities, and national companies (Janenova, 2010). At the initial phases, only a few government agencies had official websites providing only limited information, which most often included their jurisdiction and service catalogs. The integration of the governmental websites, designed

as separate entities at first, would take place at the later stages (Kassen, 2019a, p. 319; Sheryazdanova & Butterfield, 2017, p. 86).

In 2017, the web portal provided over 34 million public services annually. In comparison, in 2012, the web portal delivered only 10 million public services; over five years, the number grew 3.4 times. The total number of public services provided overall since the web portal's inception exceeded 200 million. In 2017, address certificates were the most popular document, requested more than 16 million times. Next came pension certificates, issued 2.77 million times, and guarantees of registered rights on real estate, delivered 2.64 times. Among the top ten most requested portal services were "registering on a waiting list for kindergarten" and "registering real property rights and transactions." Besides, in 2017, the web portal issued more than 6.5 million digital signatures, of which more than 1.5 million synchronized with ID cards. By the end of 2017, the number of registered users of the web portal in Kazakhstan reached 7 million. In 2017 alone, the number of registered users accounted for more than 1 million, which included 45.9 thousand legal entities (Ibrayeva, 2018).

Another major project evolving parallel to the web portal was the initiation of the Public Service Centers (Janenova & Yesdauletov, 2017, p. 3). The Public Service Centers, which for the convenience reasons hereafter will be referred to as one-stop shops (OSS), was another variation of the web portal delivering public services on the same principle, but in a physical environment (Bhuiyan, 2011, p. 611; Sheryazdanova & Butterfield, 2017, p. 89). Initially, the OSS operated as front-desks receiving customer applications and providing consultations. The reviews of the claims were done in the back offices, which were conventional government departments (Janenova & Kim, 2016, p. 328). This innovation saved time and reduced transportation costs, mostly when it was necessary to go to the capital to solve the documentation issues. It also lessened the number of contacts between the citizens and civil servants, eliminating corruption acts on the spot.

To some extent, the working principles of the OSS, which later became scattered across the country, were developing in line with the NPM ideas promoting flexibility, performance evaluation, and integration of customer approach in the public sector. The

personnel in the OSS were polite, friendly, and helpful as opposed to the traditional bureaucratic thinking in governmental agencies characterized by rigidity, rudeness, and lack of concern. Moreover, the OSS had modern and comfortable facilities and worked longer hours (Janenova & Yesdauletov, 2017, pp. 3–4).

Gradually the government decided to combine the functions of the back-offices with the OSS front-desks to integrate the administrative logic under the theme of public service delivery. This integration went further when public authorities decided to combine the web portal with the OSS into the one e-government program (Knox, 2008). A more detailed account of the initiative's development will be given in the section explaining e-government in Kazakhstan in the context of maturity phases.

4.3.4. Legal Framework

The activities of e-government were enshrined in a series of laws (see Table 11). A significant milestone in the legalization of technological solutions was the Law on Informatization, adopted for the first time in 2003 (Law No. 412, 2003).

Law on Informatization gives a clear notion of how e-government is understood in Kazakhstan. This legislative act defines e-government as a mechanism for government agencies' functioning to provide public services in a digital format. The law more specifically refers to the strategy and conditions for the formation of e-government in Kazakhstan.

Table 11

Essential Laws on E-government in Kazakhstan

Name of Law	Date Adopted
Law on E–document and Digital Signature No. 370-II	7 January 2003
Law on Informatization No. 412	8 May 2003
Law on Communications No. 567	5 July 2004

Law on Permits and Notifications No. 202-V (former Law on License)	11 January 2007 (Includes Law on E-license)
Law on Public Procurement No. 434-V	21 July 2007 (Includes Law on E-Procurement)
Law on Public Services No. 88-V	15 April 2013
Law on Access to Information No. 401-V	16 November 2015

Notes. Illustrated by the author.

According to the law, first, the government formed the Interdepartmental Commission, which coordinated activities in the informatization field and recommended specific solutions for the subsequent e-government implementation. Second, the law envisaged the setting up of informatization units in governmental agencies. Government institutions had to work with the pre-specified national operator on a contractual basis for the implementation in their structures decision making mechanisms for the successful launch of informatization units. Thirdly, the law conceptualized setting up chief executive boards for monitoring the implementation of e-government, where appropriate. Fourthly, the government set up a national company specially established to provide technical support of the essential e-government components. In general, the law covers all legal issues related to the implementation of e-government and regulates public relations arising from the use of digital resources in the public sector (Law No. 412, 2003).

Law on e-document and digital signature aims to regulate the relations arising from the provision and use of e-documents certified by digital signatures. It also provides for the establishment, amendment, or termination of legal relationships, rights, and obligations of the persons covered by the law (Law No. 370, 2003).

One of the law's principles lies in the use of e-documents in any activity field where ICTs are used to create, process, store, and transmit data. Besides, the law states that an e-document certified by a digital signature is equivalent to a signed document on paper. A digital signature is equal to the handwritten signature of a signatory and entails the same legal consequences. Government officials may use a digital signature when certifying e-

documents. In the nongovernmental sector, a digital signature is used in the manner prescribed by the civil legislation of Kazakhstan (Law No. 370, 2003).

Law on Access to Information regulates social relations arising from exercising the constitutional rights of everyone to freely receive and disseminate information in any way not prohibited by law. The Law on Access to Information is not the only source regulating access to information, though. In Kazakhstan, there are more than 60 legal acts that regulate the degree the data can be accessed. For example, access to information is mentioned in the Law on Informatization and the Law on Communications already mentioned here. Besides, access to information takes place in particular legislative acts such as the Law on the Mass Media, the Law on the Procedure for Considering Appeals of Individuals and Legal Entities, the Law on State Secrets, the Law on Administrative Procedures, the Law on Advertising, etc. (Tyunin, 2014).

The law on Access to Information refers to the obligation of the central executive bodies, except for the Ministry of Defense, akims (governors), and the leadership of national higher educational institutions to report to the population on the implemented activities. In the context of e-government, the law obliges the information holder, within his/her competence, to place information on the organization's website on the work done, organizational structure, information about the management, press releases about the activities, and activity reports. Such obligations also include reporting on the effectiveness of the implemented public policies, results of monitoring the quality of public services, and information about ongoing public procurement. The information holder should also share information on the organization's legal acts, except legal acts regulating personnel financial matters, and announced competitions for the vacant civil service posts. The law also obliges the information holder to provide information in two languages, in Kazakh and Russian. The Internet resource of the information holder may have versions in other languages as well (Law No. 401-V, 2015).

Law on Public Procurement applies to relations associated with the acquisition of goods and services necessary to ensure the functioning and administration of the state. The law sets out the principles and methods of public procurement. It obliges the ordering party

within five business days from the date of approval of the annual public procurement plan to post it on the web portal of public procurement (Law No. 303-III, 2007).

According to the law, except for some instances, all procurement activities should be carried out on the web portal of public procurement. The law spells out the powers of a single operator that controls the work and development of the web portal and approves the rules for its use. The single operator collects data, analyzes it, and evaluates information on public procurement for further inspection by the authorized body. Services on the web portal are provided for a fee determined by the operator. Participants have to submit applications in Kazakh and Russian in the form of an electronic document. The ordering party shall forward the tender winner a draft contract, certified by a digital signature, through the web portal (Law No. 303-III, 2007).

Law on Public Services contains information on the basic principles of how public services should be provided. According to the legislative act, the central intermediary for the provision of public services is one-stop shops. The law defines the competencies of one-stop shops. It should be noted that the competence of one-stop shops, among others, includes the coordination and development of draft sub-legislative normative legal acts that determine the procedure for the provision of public services, which covers the delivery of public services in electronic form. Among other duties, one-stop shops should ensure the smooth functioning of the information systems used to provide public services online. The law also sets forth the principles of a single contact center, affiliated to one-stop shops, and establishes a list of public services provided in one application form (Law No. 88-V, 2013).

The chief coordinator, prescribed by the law, is the authorized ministry that monitors the activities of one-stop shops and is entitled to receive information on the work of one-stop shops in the related fields from other governmental agencies. The ministry coordinates the optimization of the processes of rendering public services in the activities of central government institutions, local executive bodies, the capital, cities of republican significance, districts, and so on. Besides, the ministry develops and approves the rules for optimizing public services' automation and decides which services will be proactive. The

law also provides that the authorized body determines the pricing procedure and pricing policy for services provided by one-stop shops (Law No. 88-V, 2013).

Law on Permits and Notifications regulates social relations related to the implementation of permission and registration procedures. In particular, the bill directs the permits' receipt by individuals and private business entities who acquire the right to engage in regulated professional activities and are required to obtain permission to carry out the said activities (Law No. 202-V, 2014).

In terms of e-government, the law stipulates that the information held by public authorities should be available to the concerned individuals. In particular, information on issued permits, directed notifications, and conditions for their issuance should be placed on the e-government web portal and the Internet resources of government agencies in Kazakh and Russian (Law No. 202-V, 2014).

According to the law, the authorized body implements the government policy in the field of permits and notifications and manages the development and maintenance of the e-registry. More specifically, the institution responsible for issuing permits and notifications work with the authorized body in the field of informatization on the approval of the list of licenses, both subject to and not subject to automation. The automated list of permits and notifications is enshrined in the e-registry updated continuously (Law No. 202-V, 2014).

Besides, the law defines the activities of the information system, a web portal-like system accountable for issuing licenses and warnings. It provides detailed information about the functioning of the information system and competence of the body responsible for its supervision (Law No. 202-V, 2014).

One chapter of the law addresses the use of ICT in issuing licenses, licensing procedures, and notifications. According to the law, the applicant has the right to choose an electronic or paper-based application to obtain specific permission or give of a notice. In this case, the applicant may apply directly to the authority issuing licenses or submit documents for

permission receipt to the state corporation. The applicant has the right to contact the one-stop shops, regardless of its location. Permits issued in paper form can be morphed into electronic format. According to the law, permits issued in the form of an e-document are equivalent to paper-based permissions. Government agencies issuing licenses must include the information on the implemented licensing procedures in paper form in the e-registry. At the same time, the authorized body bears legal responsibility in case it fails to automate the information on issued permissions. As of 1 January 2016, all licensing procedures are carried out only in electronic form using the information system and e-registry of permits and notifications (Law No. 202-V, 2014).

Law on Communications does not directly address e-government; however, it establishes the legal framework for the activities in the field of communications around which e-government operates. In general, the law also defines the powers of government agencies regulating this field. For e-government, it can be noted that the law protects the rights and legitimate interests of users of communication services and creates the conditions for the provision of universal communication services in the communications field. The legislative act also stipulates that Kazakhstan should have a free flow of information over telecommunication networks, freedom of reception, delivery, and postage transit. Besides, the law provides for the increased international cooperation in the field of communications and integration into the global communications system. As with other e-government laws, the communications law lays down the centralized management of national communications resources (Law No. 567, 2004).

The way in which the laws promoting e-government in Kazakhstan were adopted is a separate projection presenting how the phenomenon has developed in the country. It is noteworthy that at the time of writing this dissertation, a significant amount of the legislative framework has already been assembled, helping overcome legal and departmental barriers on the way of implementing e-government in Kazakhstan. However, all the laws mentioned here only indirectly refer to e-government. As a result, the country still lacks and needs a legal framework that would target only e-government, that is, would compile and collect all the issues related to e-government in one place.

4.3.4.1. Government Programs

Strategic government programs created numerous political and economic discourses in Kazakhstan. In almost every policy field, a government program defines the structural framework for implementing policy goals and objectives anchored by the government. Previously, the author discussed the strategic papers like Kazakhstan 2020, Kazakhstan 2030, and Kazakhstan 2050, underlying ideological basis for further development of the government and serving as an embodiment for collective aspiration of Kazakhstan society. Similar to these programs, the government also adopted strategic documents like Nurly Jol (Bright Path), aimed at stimulating domestic and foreign investments, Nurly Jer (Bright Land), envisaging to increase housing infrastructure, and Nurly Kosh (Bright Resettlement), endeavoring to facilitate access to adequate housing through preferential credit mechanisms. Among the new programs, one can note "100 Concrete Steps, Plan for the Nation" and "Third Modernization Strategy" that would drive further technological modernization and institutional reforms (Janenova & Knox, 2019).

The stated examples, along with the e-centralism, a term dubbed by Kassen, demonstrates an approximate way of how policies are implemented in Kazakhstan. E-government is no exception. In every period, at least one leading strategic document paved the way for the subsequent e-government implementation in Kazakhstan. The first such document was adopted in 1997, as was mentioned earlier. After that, strategic papers were approved every three to four years (see Table 12). These programs will be mentioned in more detail in the section narrating e-government maturity. For illustration reasons, the author will review the latest document, the state program “Information Kazakhstan”.

The program, adopted in 2013, covered the comprehensive planning of e-government initiatives. Like other similar critical projects, the government closely monitored the implementation of the document. The mechanism for implementation also looked alike. The Ministry of Transport and Communications of Kazakhstan, responsible for its implementation, was to provide information on its performance to the presidential administration in due time. All government agencies, including central and local executive bodies, were required to take measures to implement the program.

Table 12

State Programs on E-government Implementation in Kazakhstan

Legal Instrument	Title
Presidential Decree No. 3787 (9 December 1997)	On the Formation of Single Information Space in the Republic of Kazakhstan
Presidential Decree No. 573 (16 March 2001)	On the State Program for the Formation and Development of the National Information Infrastructure in the Republic of Kazakhstan
Presidential Decree No. 1471 (10 November 2004)	State Program on the Formation of E-government in the Republic of Kazakhstan for 2005-2007
Government Resolution No. 1155-1 (30 November 2007)	Program on the Development of E-government in the Republic of Kazakhstan for 2008-2010
Government Resolution No. 983 (29 September 2010)	Program on the Development of Information and Communication Technologies in the Republic of Kazakhstan for 2010-2014
Presidential Decree No. 958 (19 March 2010)	State Program on the Forced Industrial and Innovation Development of the Republic of Kazakhstan for 2010-2014
Presidential Decree No. 464 (8 January 2013)	State Program “Information Kazakhstan – 2020”

Note. Illustrated by the author.

The main goal of the program was to create the conditions for the transition of Kazakhstan to the information society. The authors of the program do not give a clear definition of the term "information society", though. A brief description of the word is given only once, where the information society is characterized as a society with high socio-economic, political, and cultural development. Most probably the term was adopted from some international report such as that of World Bank.

According to the document, the information society is a large-scale phenomenon, much more comprehensive than the initiatives taken in the e-government and the telecommunications industry previously. The authors view the program as the continuation of the state's previous efforts to implement e-government. The term "e-government" mentioned in the document, in a narrow sense, implies simply the delivery of public services. E-government, as referred to in the literature, is replaced by the word "automation of information" in the document.

The program posits a broad spectrum of different challenges for the successful e-government implementation across Kazakhstan. These challenges are structured around four tasks: ensuring the government system's effectiveness, ensuring the availability of information and communication infrastructure, creating an information environment for the socio-economic and cultural development of society, and developing the domestic information space.

The program divides the set tasks into certain policy areas and demonstrates how to achieve them through different measures. For example, one of the policy areas for ensuring the effectiveness of the government system is the development of e-government, which implies the design of an effective method for public service delivery. To this end, the document gives a brief analysis of the current situation of e-government implementation and policies in Kazakhstan. This information includes the country's place in the UN rankings, recent launches of significant projects, and statistics regarding the previous and prospective public services. Further, the program determines the target indicators that the country should achieve in a certain period. For instance, the document sets goals for Kazakhstan to be among the first 30 countries in 2017, according to the UN E-government Survey Index, and in 2020 to be among the first 25 countries. Considering that Kazakhstan still was not in the projected list at the time of writing this dissertation, these target indicators seem to be too optimistic.

The critical point is that the program mentions Russia's information policies and the e-government policies of Belarus as a reference point. The experience of the leading countries in e-government, such as Canada, Korea, Malaysia, Singapore, and the US, was also

present in the document. The document also incorporated the main provisions of the Okinawa Charter on Global Information Society, Declaration of Principles Building the Information Society, Action Plan Tunisia, and other international records in its preamble.

4.3.5. Kazakhstan in International E-government Rankings

Many different rankings measure either e-government development or the progress of ICT infrastructure. In this section, the author will touch upon the most prominent ranking assessing the country's positions in e-government development, namely the UN E-government Development Index. The author will also outline in further detail on the broad ICT indicators such as the Networked Readiness Index, ICT Development Index, IMD World Digital Competitiveness Ranking, Global Innovation Index, and Bloomberg Innovation Index. In the final part of this section, the author will review other ranking systems not included in this study and analyze Kazakhstan's positions in the rankings as compared to the leading countries of the world and other countries of the region.

4.3.5.1. UN E-government Development Index

Every two year, the UN Department of Economic and Social Affairs publishes a report which demonstrates the e-government development of 193 countries. The e-government development index measures how countries use information and communication technologies to provide public services. It reflects the quantity and quality of online services, the status of telecommunication infrastructure, and existing human capital in the UN member states (UN E-government Survey, 2018, p. xx).

In addition to the e-government development index, the second part of the report consists of an e-participation index. This section analyzes citizens' involvement in state mechanisms and administrative processes, the degree of interactivity of information systems, and the participation of the population in the discussion and decision making of vital country issues. It is important to note that the report does not utilize an absolute scale for comparing countries. Instead, the report evaluates the effectiveness of e-government in the member states to each other (UN E-government Survey, 2018, p. x).

Table 13

Kazakhstan in 2018 and 2020 UN E-government Development Index

Year	Rank	EGDI Level	EGDI	OSI	TII	HCI
2018	39	Very High	0.7597	0.8681	0.5723	0.8388
2020	29	Very High	0.8375	0.9235	0.7024	0.8866

Notes. EGDI stands for E-government Development Index; OSI means Online Service Index; TII signifies Telecommunication Infrastructure Index and HCI implies Human Capital Index. Retrieved from *Gearing e-government to support transformation towards sustainable and resilient societies* by UN E-government Survey, 2018, United Nations; *Digital government in the decade of action for sustainable development* by UN E-government Survey, 2020, United Nations.

The methodology for information retrieval in the report has remained consistent for an extended period. However, there are cases when some components of the methodological framework are updated to reflect new trends in e-government. For example, the 2004 and 2005 reports reflected the "readiness" of countries for e-government. Since just "readiness" did not reflect the specific provision of e-government in the country, the methodological approach in the report changed; UN experts ceased to evaluate it. Instead, since 2008 the publication began to assess the actual development of e-government in the member states. The concept of "e-government maturity" changed in the report of 2014 as well. The term became obsolete since the goals and objectives of e-government are continually evolving in line with the population's expectations (UN E-government Survey, 2018, p. xxi).

Table 14

Kazakhstan in E-government Development Indexes Since 2003

Year	2003	2004	2005	2008	2010
Rank	83	69	65	81	46

Index Value	0.387	0.4344	0.4813	0.4743	0.5578
Year	**2012**	**2014**	**2016**	**2018**	**2020**
Rank	38	28	33	39	29
Index Value	0.6844	0.7283	0.7250	0.7597	0.8375

Note. Retrieved from *UN Global E-government Survey* by UN E-government Survey, 2003, United Nations; *Towards access to opportunity* by UN E-government Survey, 2004, United Nations; *From e-government to e-inclusion* by UN E-government Survey, 2005, United Nations; *From e-government to connected governance* by UN E-government Survey, 2008, United Nations; *Leveraging e-government at a time of financial and economic crisis* by UN E-government Survey, 2010, United Nations; *E-government for the people* by UN E-government Survey, 2012, United Nations; *E-government for the future we want* by UN E-government Survey, 2014, United Nations; *E-government in support of sustainable development* by UN E-government Survey, 2016, United Nations; *Gearing e-government to support transformation towards sustainable and resilient societies* by UN E-government Survey, 2018, United Nations; *Digital government in the decade of action for sustainable development* by UN E-government Survey, 2020, United Nations.

A meaningful change has also appeared in the index measuring telecommunication infrastructure. A new subindex “mobile broadband subscription” emerged in 2018 to replace the "wireless broadband subscriptions." This change happened since the International Telecommunications Union (ITU) stopped collecting wireless broadband subscriptions (UN E-government Survey, 2018, pp. xxi, 201).

In 2018, the 10th version of the report was released. The average indicator among the UN member states was 0.5490 (p. 146). Almost two-thirds of the countries have demonstrated a high level of e-government development, with indicators of a range of 0.5-1 (UN E-government Survey, 2018, p. 84). The share of countries with a low level of e-government development index, from 0 to 0.25, decreased by %50 (UN E-government Survey, 2018, p. 85). In 2018, Denmark (0.915), Australia (0.9053), and Korea (0.901) became the first

three countries in the ranking. They headed a group of 40 states where the e-government development index was rated as “very high” (above 0.75). Besides, Denmark got the highest score for online services, and Australia for human capital (UN E-government Survey, 2018, pp. 90, 91).

At the time of writing, in 2020, the UN Department of Economic and Social Affairs released the 11th version of the report. According to the authors, minimal amendments were applied to the methodology of the 2020 report (UN E-government Survey, 2020, p. 2). In 2020, the number of countries with a high EGDI value increased from 40 to 57, which made troublesome comparing countries by rank due to intimacy in terms of points. To address this issue, the authors have divided the four divisions (low, middle, high and very high) into equal quartiles. The countries such as Denmark (1st place), Korea (2nd place), Estonia (3rd place) and others with the highest points were located at the very top of the ranking in VH quartile. Among the countries with very high EGDI scores, Kazakhstan is in the second quartile (V3) along with countries such as Spain, France, Switzerland, Germany and Canada (UN E-government Survey, 2020, pp. 6–7).

The 2020 report emphasizes that top performers have demonstrated consistency in e-government policymaking at the national level. The report especially pinpointed at the tendency of high-ranking countries towards providing public services through one-stop shops. Successful countries adhered to a whole-of-government approach, supported by robust institutional reforms at central and local levels. They also emphasized e-participation and open government and offered simple yet comprehensive information to their citizens (UN E-government Survey, 2020, pp. 13–14).

Table 15

Kazakhstan’s E-participation Indexes Since 2003

Year	2003	2004	2005	2008	2010
Rank	31	29	31	98	18
Index Value	0.103	0.1311	0.2063	0.0909	0.5571
Year	**2012**	**2014**	**2016**	**2018**	**2020**

Rank	2	22	67	42	26
Index Value	0.9474	0.7647	0.5932	0.8371	0.881

Note. Retrieved from *UN Global E-government Survey* by UN E-government Survey, 2003, United Nations; *Towards access to opportunity* by UN E-government Survey, 2004, United Nations; *From e-government to e-inclusion* by UN E-government Survey, 2005, United Nations; *From e-government to connected governance* by UN E-government Survey, 2008, United Nations; *Leveraging e-government at a time of financial and economic crisis* by UN E-government Survey, 2010, United Nations; *E-government for the people* by UN E-government Survey, 2012, United Nations; *E-government for the future we want* by UN E-government Survey, 2014, United Nations; *E-government in support of sustainable development* by UN E-government Survey, 2016, United Nations; *Gearing e-government to support transformation towards sustainable and resilient societies* by UN E-government Survey, 2018, United Nations; *Digital government in the decade of action for sustainable development* by UN E-government Survey, 2020, United Nations.

In 2018, Kazakhstan became a part of the group of countries with a very high e-government development index, ranking 39th in the list (UN E-government Survey, 2018, pp. 90, 115). Compared to the 2016 report, the country fell by six positions and compared to the 2014 report by 11 points. In 2014, Kazakhstan was at 28th position in the ranking, rising by as much as ten positions since 2012 when it became 38th. So, in 2018, Kazakhstan's appearance in the UN ranking became worse, compared to the country's achievements in 2012 (UN E-government Survey, 2012, 2014, 2016, 2018).

Nevertheless, by getting 0.7597 points in 2018, Kazakhstan moved from the category of countries with highly developed e-government to the group of countries with a very high level of e-government. Among 40 countries with a very high score, only Kazakhstan and Belarus belonged to the group of states with an income level above the average; in the rest of the group, the income level was considered high. According to the 2018 index, the online services in Kazakhstan were rated as "very high," with the ratio being equal to

0.8681. The telecommunication infrastructure and human capital indexes were 0.5723 and 0.8388, respectively (UN E-government Survey, 2018).

Table 16

Kazakhstan Compared to Other Countries

Countries/Year	2020		2018		2016		2014	
	Rank	EGDI	Rank	EGDI	Rank	EGDI	Rank	EGDI
Kazakhstan	29	0.8375	39	0.7597	33	0.7250	28	0.7283
Selected Post-Soviet Countries								
Azerbaijan	70	0.7100	70	0.6574	56	0.6274	68	0.5472
Belarus	40	0.8084	38	0.7641	49	0.6625	55	0.6053
Estonia	3	0.9473	16	0.8486	13	0.8834	15	0.8180
Russia	36	0.8244	32	0.7969	35	0.7215	27	0.7296
Central Asian States								
Kyrgyzstan	83	0.6749	91	0.5835	97	0.4969	101	0.4657
Tajikistan	133	0.4649	131	0.4220	139	0.3366	129	0.3395
Turkmenistan	158	0.4034	147	0.3652	140	0.3337	128	0.3511
Uzbekistan	87	0.6665	81	0.6207	80	0.5434	100	0.4695
Other Selected Countries								
Canada	28	0.8420	23	0.8258	14	0.8285	11	0.8418
Korea	2	0.9560	3	0.9010	3	0.8915	1	0.9462
Singapore	11	0.9150	7	0.8812	4	0.8828	3	0.9076
Turkey	53	0.7718	53	0.7112	68	0.5900	71	0.5443
UK	7	0.9358	4	0.8999	1	0.9193	8	0.8695
US	9	0.9297	11	0.8769	12	0.8420	7	0.8748

Note. Retrieved from *E-government for the future we want* by UN E-government Survey, 2014, United Nations; *E-government in support of sustainable development* by UN E-government Survey, 2016, United Nations; *Gearing e-government to support*

transformation towards sustainable and resilient societies by UN E-government Survey, 2018, United Nations; *Digital government in the decade of action for sustainable development* by UN E-government Survey, 2020, United Nations.

According to the 2018 report, the Central Asian countries were at the bottom of the UN list. Kyrgyzstan secured 91st position. Tajikistan and Turkmenistan lagged behind being 131st and 147th, respectively. Among the Central Asian countries, only Uzbekistan worth getting extra credit. Uzbekistan's recent efforts paid off when the country entered the top ten countries in the world, with the most noticeable improvements in the e-government systems rising to 81st rank overtaking 20 positions in 2018 (UN E-government Survey, 2018).

Uzbekistan also showed growth in the component of e-participation leveling up to 59th position in 2018. The e-participation scores of Central Asian states were too far from satisfactory, including that of Kazakhstan becoming 42nd in 2018. It was still a better result than that of Uzbekistan. However, in 2012 Kazakhstan was 2nd in terms of e-participation, indicating that a precipitous drop-off in terms of e-participation performances necessitates structural adjustments in this area. Kyrgyzstan was 75th in e-participation, while Tajikistan and Turkmenistan were at 149th and 179th positions, respectively (UN E-government Survey, 2008).

In 2020, Kazakhstan continued to be among the countries with the highest EGDI score. Kazakhstan was the only CIS country with the highest score in the online services index (UN E-government Survey, 2020, p. 7). In 2020, in terms of online services, Kazakhstan (0.9235) stood above Netherlands (0.9059), Japan (0.9059), China (0.9059) and Sweden (0.9) (UN E-government Survey, 2020, p. 16). Kazakhstan had a highly developed human capital, and a slightly less developed infrastructure. In this regard, Kazakhstan was similar to countries such as Argentina, Brazil, Croatia, Thailand, and Turkey (UN E-government Survey, 2020, pp. 20–21). Among Asian countries, Kazakhstan (0.8375) hold sixth position in 2020 behind countries such as the Republic of Korea (0.9560), Singapore (0.9150), Japan (0.8989), Cyprus (0.8731) and the United Arab Emirates (0.8555) (UN E-government Survey, 2020, p. 48). Kazakhstan was the leader among landlocked countries in

terms of EGDI score and delivered good performance for e-participation (26th) and an open government (UN E-government Survey, 2020, pp. 56, 313, 319).

It is important to note that in 2018, the UN, besides countries, began to evaluate the development of e-government in 40 cities around the world. The cities were selected based on geographic coverage and population. The report examined the efforts of cities to develop online services. It assessed municipal web sites in terms of their content value, availability of language versions, ease of navigation, support for mobile accounts, and so on (UN E-government Survey, 2018).

In 2018, Moscow, Cape Town, and Tallinn became the first three leaders in the index. Almaty represented Kazakhstan. Almaty secured 25th position with 35 points, which meant that Almaty got a satisfactory score on 35 out of 65 indicators of e-government development indexes prepared by the UN. According to the report, the city has good technological and web content indicators. However, Almaty lagged behind other cities in terms of service delivery and involvement of residents in the city life (UN E-government Survey, 2018). In 2020, Almaty was 29th out of 89 cities (UN E-government Survey, 2020, p. 308).

According to the general ratings of the past UN reports, Kazakhstan has achieved considerable success in e-government. However, the same analysis also shows that Kazakhstan has reached its peak and started getting down slowly, giving worrisome signals to the policymakers. The recent fall of Kazakhstan from the second position in 2012 to 67th in 2016 on the e-participation rating is concerning, meaning that the country fails to address structural amendments in this area.

4.3.5.2. Networked Readiness Index

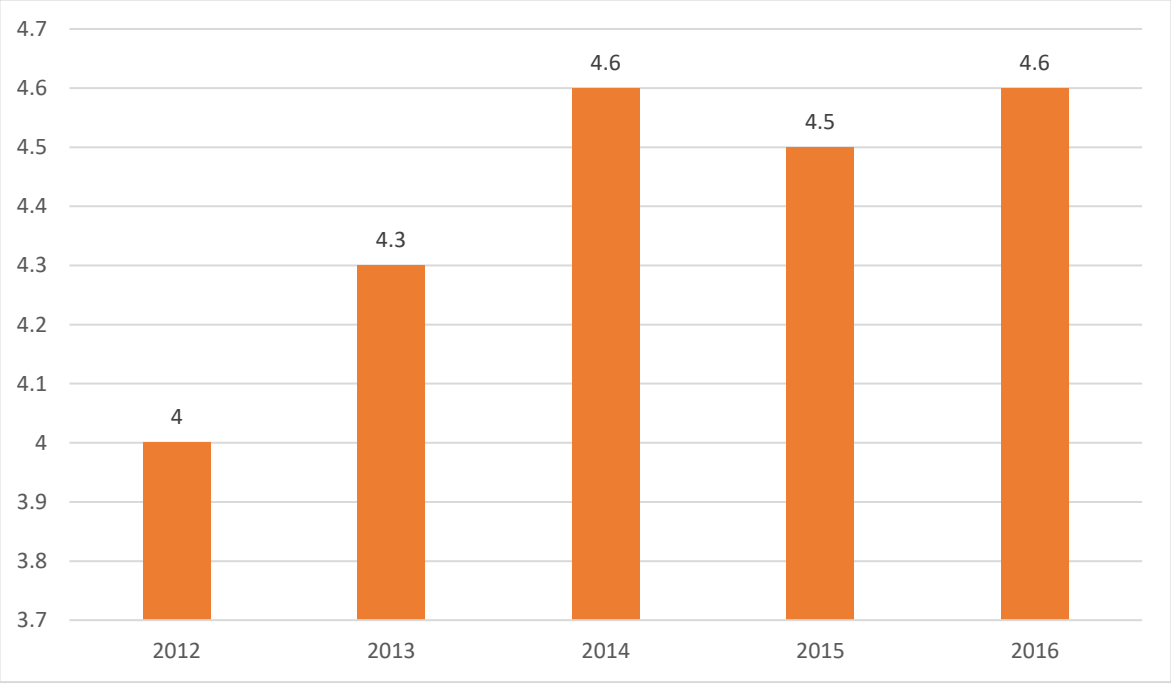
The Networked Readiness Index (NRI) is a broad indicator that distinguishes the development level of information and communication technologies (ICT) across the world. Since 2001, the World Economic Forum (WEF), the Business School for the World (INSEAD), and Cornell University published a ranking of countries in a special annual series

of reports on the development of the world's information society named the Global Information Technology Report. Even though since 2016, the WEF issued no updates on the report, the research is considered one of the most critical indicators of a country's potential and development opportunities in ICT sector (World Economic Forum, 2016).

The NRI is a composite index consisting of 4 main subindexes and 53 individual indicators dispersed among categories. The successive accumulations of scores from the indicators form the baseline for the NRI. About half of the 53 different indicators come from international organizations. The leading vendors are the International Telecommunication Union (ITU), World Bank, United Nations Educational, Scientific and Cultural Organization (UNESCO), and other specialized UN agencies. In case some data is missing, the WEF uses national sources to fill in the gaps. The other half of NRI indicators emanates from the annual World Economic Forum Survey. The survey, conducted annually with more than 14,000 business executives, evaluates concepts which are qualitative or if internationally comparable statistics are not available (Baller et al., 2016, p. 5).

Figure 6

Kazakhstan in NRI Rating for 2012-2016



Note. From *The global information technology report 2016: Innovating in the digital economy* by S. Baller, S. Dutta & B. Lanvin, 2016. World Economic Forum; *The global*

information technology report 2013: Growth and jobs in a hyperconnected world by B. Bilbao-Osorio, S. Dutta, & B. Lanvin, 2013, World Economic Forum; *The global information technology report 2014: Rewards and Risks of Big Data* by B. Bilbao-Osorio, S. Dutta, & B. Lanvin, 2014, World Economic Forum; *The global information technology report 2015: ICTs for inclusive growth* by S. Dutta, T. Geiger, & B. Lanvin, 2015, World Economic Forum; *The global information technology report: Living in hyperconnected world* by S. Dutta, & B. Bilbao-Osorio, 2012, World Economic Forum.

The report is a unique source to comprehend the idiosyncratic ICT aspects of a country. It estimates a favorable environment in a country such as the scope of red tape degree and protection of intellectual property. It reviews the degree ICT is used, primarily through innovative projects, and its impact on society via contribution to the development of new products and services. In some respects, the NRI is similar to the UN E-government Development Index, especially in its aspiration to assess the population's preparedness through the appraisal of the country's education system (Bilbao-Osorio et al., 2013, pp. 6–7).

According to the 2016 WEF report, Kazakhstan moved from the 40th position, which it occupied in 2015, to the 39th place among 139 countries. The country retained its traditionally leading position in the CIS region. In 2016, among the CIS countries, Kazakhstan had the highest index value. Russia (4.5), Azerbaijan (4.3), Armenia (4.3) followed Kazakhstan, while Singapore, Finland, Sweden secured the first three places (Baller et al., 2016).

From 2012 to 2016, Kazakhstan's index value increased by 0.6 points, while the country's place in the ranking had grown by 16 points. In the meantime, the number of countries evaluated in the ranking ranged from 139 to 148. The NRI assesses countries in 4 subindexes: environment, readiness, usage, and impact (Baller et al., 2016; Bilbao-Osorio et al., 2013, 2014; Dutta et al., 2015; Dutta & Bilbao-Osorio, 2012).

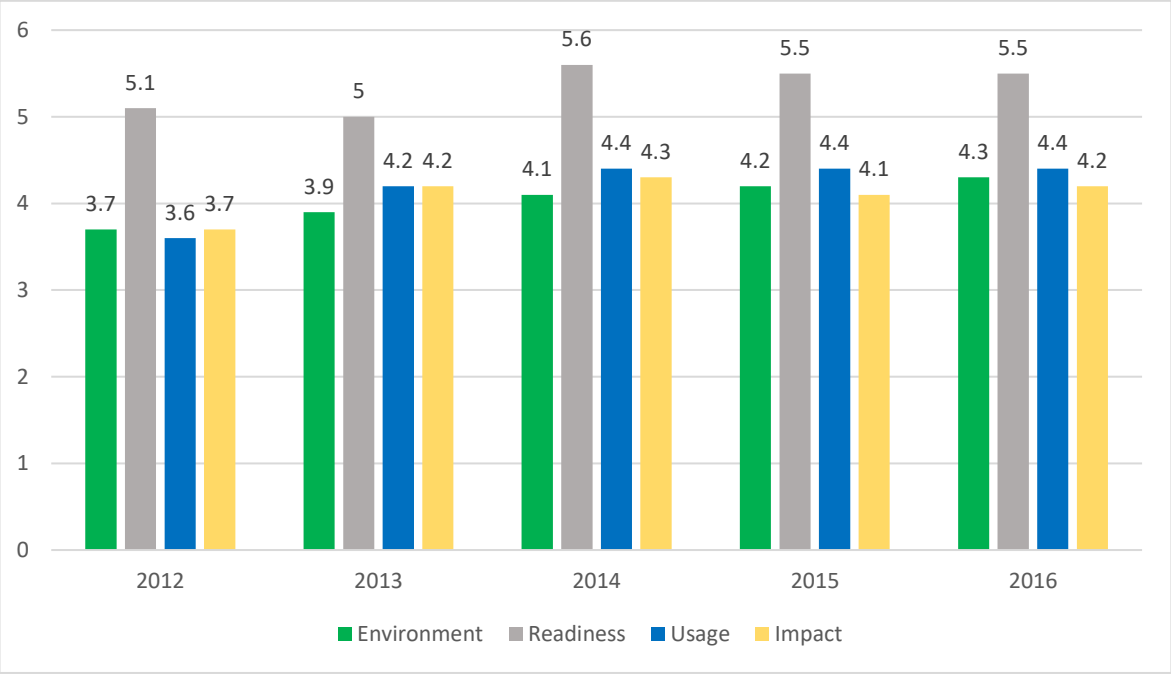
The environment subindex assesses the conditions for ICT development. In particular, the subindex evaluates the business environment, legal and regulatory framework, the

presence of healthy competition, innovative capacity, available facilities, funding opportunities for new projects, and so on. In 2016, Kazakhstan improved its position on this subindex compared to the previous year. The country had risen from 55th to 47th position with a value of 4.3 (Baller et al., 2016; Dutta et al., 2015).

The readiness subindex assesses the eagerness of citizens, business circles, and government agencies to use ICT. It appraises the state's position on the development of ICT and the government's readiness to spend on its progress. The note subindex also checks the accessibility of ICT for business, ICT's penetration degree, access to the Internet, and the cost of mobile telephony. On this subindex, Kazakhstan hopped down from the 35th in 2015 to 39th position in 2016 with 5,5 points (Baller et al., 2016; Dutta et al., 2015).

Figure 7

Kazakhstan in NRI Subindexes for 2012-2016



Note. From *The global information technology report 2016: Innovating in the digital economy* by S. Baller, S. Dutta & B. Lanvin, 2016. World Economic Forum; *The global information technology report 2013: Growth and jobs in a hyperconnected world* by B. Bilbao-Osorio, S. Dutta, & B. Lanvin, 2013, World Economic Forum; *The global information technology report 2014: Rewards and Risks of Big Data* by B. Bilbao-Osorio, S. Dutta, & B. Lanvin, 2014, World Economic Forum; *The global information technology*

report 2015: ICTs for inclusive growth by S. Dutta, T. Geiger, & B. Lanvin, 2015, World Economic Forum; *The global information technology report: Living in hyperconnected world* by S. Dutta, & B. Bilbao-Osorio, 2012, World Economic Forum.

The usage subindex tests the ICT utilization in the private, public, and social spheres. For this purpose, the subindex harnesses indicators such as the number of personal computers, Internet users, mobile subscribers, and the availability of Internet resources in government agencies. The subindex also measures the total production and consumption of ICT in the country. In 2015, Kazakhstan was 40th to go down to 44th position in 2016. The number of points remained the same 4.4 in both years, though (Baller et al., 2016; Dutta et al., 2015).

The impact subindex assesses the influence of technologies over economic and social spheres. It evaluates the impact of ICTs on competitiveness through technological and non-technological innovations in the country. The number of patents granted is the starkest illustration for this subindex. The subindex also assesses society's progress through the use of ICTs, for example, greater access to education and health care, and more active participation of citizens. Kazakhstan's positions in 2016 improved compared to the previous year. The country rose from 44th to 40th position with 4.2 points (Baller et al., 2016; Dutta et al., 2015).

4.3.5.3. ICT Development Index

Since 2009, the International Telecommunication Union (ITU) annually publishes the “Measuring the Information Society” (MIS) report. The report offers the ICT Development Index (IDI), which compares its member states by measuring their ICT infrastructure, and the ICT Price Basket Index (IPB), which tracks and analyzes the cost and availability of ICT services (International Telecommunication Union, 2018).

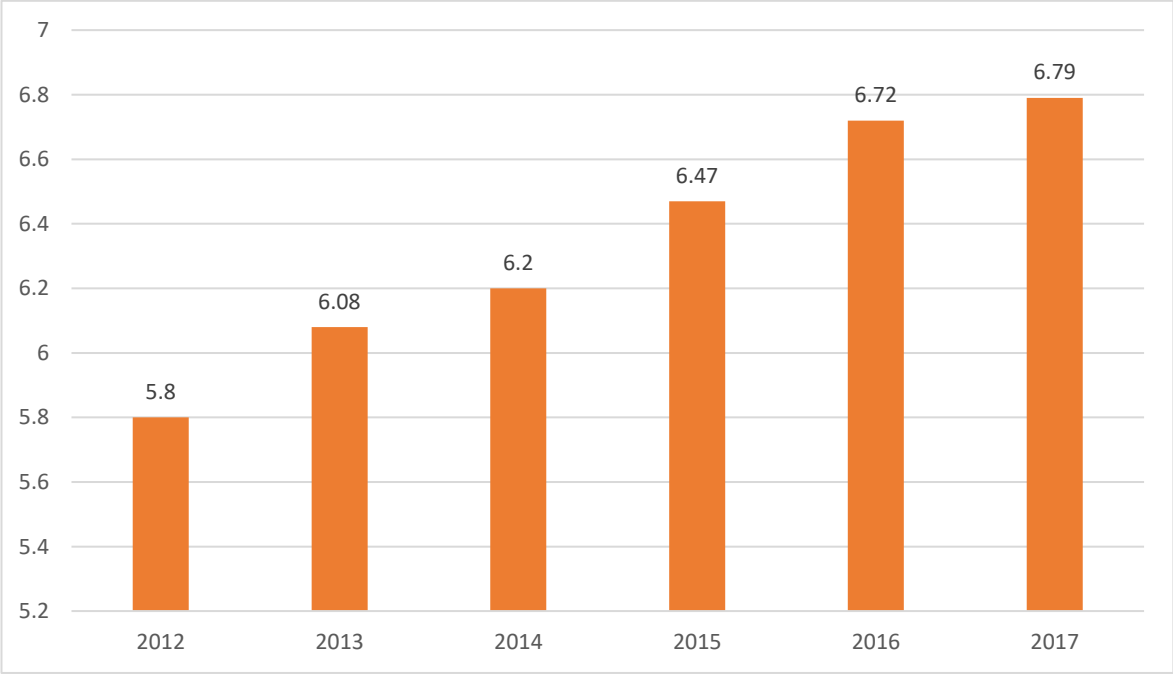
The organization published its latest report in 2018. However, this report did not include the IDI due to several reasons. The emerging challenges were primarily related to the quality and quantity of data. Some member states appealed to the ITU as the report had

several shortcomings regarding some of the new indicators included in the IDI in 2017. The countries were dissatisfied with the index as they believed that it did not reflect their real ICT progress. At the time of writing this dissertation, the plight over the data issue has not still been resolved. Nevertheless, the author decided to keep track of the IDI since it gives the general notion of ICT development in Kazakhstan (International Telecommunication Union, 2019).

IDI is a composite index calculated based on 11 statistical indicators characterizing access to ICT, the use of these technologies, and practical skills in using ICT by the population. These indicators aggregate into three subindexes, which, having particular values, form an integral index (International Telecommunication Union, 2015, p. 187).

Figure 8

Kazakhstan in IDI Ranking for 2012-2017



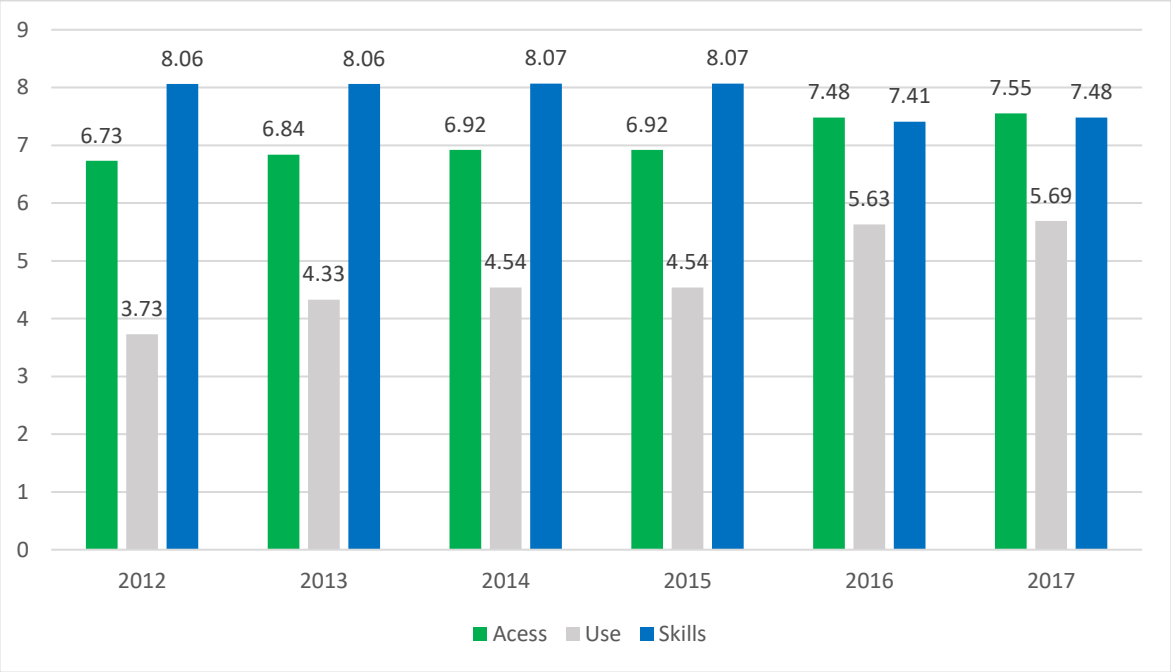
Note. From *Measuring the information society 2012 report* by International Telecommunication Union, 2012; *Measuring the information society 2013 report* by International Telecommunication Union, 2013; *Measuring the information society 2014 report* by International Telecommunication Union, 2014; *Measuring the information society 2015 report* by International Telecommunication Union, 2015; *Measuring the information society 2016 report* by International Telecommunication Union, 2016; *Measuring the information society 2017 report* by International Telecommunication Union, 2017.

Although the basic IDI methodology has remained the same since its first publication, the ITU regularly makes annualized adjustments on the evaluation strategy, trying to reflect the dynamic nature of the ICT sector and the availability of relevant data. ITU regularly reviews the indicators included in the IDI and its subindexes in consultation with experts. Expert Group on Telecommunication/ICT Indicators (EGTI) and Expert Group on ICT Household Indicators (EGH), created in 2009 and 2012, regularly discuss and evaluate the relevance of the indicates and the IDI methodology. These expert groups also review the general statistical framework, the ITU harness, and the prospective inclusion of new indicators into the IDI (International Telecommunication Union, 2017, p. 25).

According to the latest ITU report of 2017, Kazakhstan secured the 52nd position. The first three countries on the list were Iceland, South Korea, and Switzerland. Among the CIS countries, Belarus gained a leading position with the 32nd position followed by Russia, which occupied the 45th rank (International Telecommunication Union, 2017).

Figure 9

Kazakhstan in IDI Subindexes for 2012-2017



Note. From *Measuring the information society 2012 report* by International Telecommunication Union, 2012; *Measuring the information society 2013 report* by International Telecommunication Union, 2013; *Measuring the information society 2014 report* by International Telecommunication Union, 2014; *Measuring the information society 2015*

report by International Telecommunication Union, 2015; *Measuring the information society 2016 report* by International Telecommunication Union, 2016; *Measuring the information society 2017 report* by International Telecommunication Union, 2017.

The IDI consists of three subindexes: access subindex, use subindex, and skills subindex, each of which reflect various perspectives of ICT development. According to the 2017 ITU report, Kazakhstan ranks 43rd in the access subindex with a value of 7.55. The access subindex estimates the level of access to information and communication technologies and consists of 5 indicators: fixed telephone lines per 100 inhabitants, mobile cellular contracts per 100 inhabitants, bandwidth of international Internet traffic per Internet user, percentage of households having a computer, and rate of homes having both a computer and Internet access (International Telecommunication Union, 2017).

Kazakhstan occupied the 58th position with 5.69 points on the subindex of use in 2017. The use subindex is an indicator characterizing the intensity of ICT utilization, consisting of three indicators: number of Internet users per 100 inhabitants, number of subscribers with fixed high-speed Internet access per 100 inhabitants, and number of subscribers with high-speed mobile Internet access per 100 inhabitants (International Telecommunication Union, 2017).

In 2017, Kazakhstan ranked 55th in the skills subindex having 7.48 points. This subindex characterizes the level of literacy of the population. The skills subindex includes the following indicators: average length of schooling, percentage of students in secondary schools, and percentage of students in higher education. It is worth noting that one of the subindex's indicators has changed from "adult literacy rate" to "average length of schooling" (International Telecommunication Union, 2017).

4.3.5.4. IMD World Digital Competitiveness Ranking

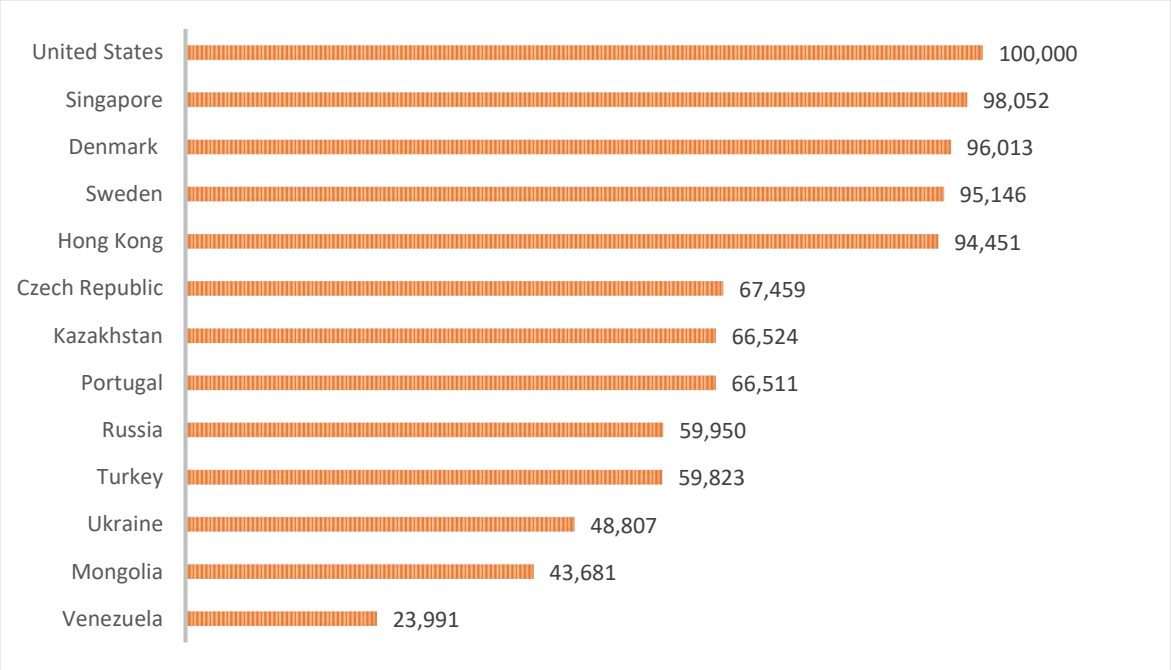
Every year, the Swiss Business School IMD publishes the new edition of the IMD World Digital Competitiveness Ranking, which it has been publishing for four years in a row. The ranking measures the ability and willingness among the selected number of different

world countries to implement and analyze digital technologies as a critical factor in economic transformations in private and public sectors, and society in general (IMD, 2019b).

The IMD World Digital Competitiveness Ranking is compiled in three areas. The first component of the ranking is knowledge, which consists of talent, quality of training and education, and investment in science. Technology, the second component, covers regulatory environment, financial capital in the IT industry, and the development of the Internet and communication technologies. The future preparedness, the third subfactor, measures the integration of IT technologies, willingness to adapt to digital transformation and maneuverability of the private sector (IMD, 2019a, p. 29).

Figure 10

Kazakhstan in 2020 IMD World Digital Competitiveness Ranking



Notes. From *IMD world digital competitiveness ranking 2020* by IMD, 2020.

In 2019, Kazakhstan was 39th, ahead of Portugal and behind Latvia. Among the regional contenders, Russia held 38th position, Turkey was 52nd and Ukraine was 60th. Besides Kazakhstan, Russia, Ukraine, and Latvia, the list included no other countries from the post-Soviet space. The United States ranked first in the overall standings. Next came

Singapore, Sweden, Denmark, and Switzerland, while Mongolia and Venezuela bring up the rear (IMD, 2019a, pp. 26–27).

In 2020, Kazakhstan dropped one position, assuming 36th place in the ranking. Right ahead of Kazakhstan settled Spain (33rd), Saudi Arabia (34th) and the Czech Republic (35th), while Kazakhstan outstripped such countries as Italy (42nd), Russia (43rd), Turkey (44th) and Ukraine (58th) (IMD, 2020, p. 24). Among countries with a population of less than 20 million, Kazakhstan ranked 22nd and ranked fifth among countries with a GDP per capita of less than $ 20,000 (IMD, 2020, pp. 33, 35).

The IMD uses a total of 51 criteria to produce the ranking, 31 of which build on statistical data, such as the speed of broadband Internet and expenditure on research and development. The remaining 20 indicators stem from survey results. In 2020, Kazakhstan ranked 34th in the knowledge category, occupied 33rd in future preparedness indicator and held 41st in the technology category (IMD, 2020, pp. 38–40).

According to the 2020 IMD report, Kazakhstan has succeeded winning entrepreneurial fear of failure and enforcing contracts. Kazakhstan is the leader in the category of women with degrees and women researchers and in terms of achievements in higher education. The authors of the ranking suggest that the weaknesses of the country stem from small among of investments in telecommunication, widespread software piracy, low R&D expenditure and small amount of high-tech patent grant (IMD, 2020, p. 105).

4.3.5.5. Global Innovation Index

In 2020, Cornell University, INSEAD, and the World Intellectual Property Organization (WIPO), a specialized agency of the UN, jointly released the 13th edition of the Global Innovation Index (GII). The index, which covered 130 countries in 2020, reviews various aspects of innovation and provides recommendations for the development of policies to promote economic growth. Even though the rating measures innovative capacity and the impact of innovation on the development of the global economy, it also provides a broader view of ICT development (Dutta et al., 2020).

In other rankings, auxiliary indicators such as level of education, economic development, political environment, and social activity are used as additional indicators for measuring the level of ICT in the country. In GII, ICT is utilized as a data source to indicate the level of innovative progress in conjunction with the educational, economic, and other indicators mentioned earlier. Therefore, this index measuring innovation is useful to understand how ICT and online public services contribute to a country's economic sustainability from a different perspective. In the previous rankings, ICT was the focal point; in GII, ICT is analyzed as a reference point (Global Innovation Index, 2019).

The GII is continuously evolving, basing its calculations on previous issues and, whenever possible, incorporating newly available data on measuring innovation. The index consists of two subindexes: innovation input and innovation output, which are formed around critical components. The five input components that have a significant impact on innovation are institutions, human capital and research, infrastructure, market forces, and business environment. Output components consist of knowledge and technology outputs and creativity outputs. Each critical component consists of additional elements, which in turn comprise individual indicators (Global Innovation Index, 2019).

There were 80 such individual indicators. The scoring of additional elements consists of the weighted average value of individual indicators, while the scores of the critical components are calculated as the weighted average of the additional elements. Five input components average the input subindex, while two output components equate the output subindex. The overall assessment of the global innovation index is the average number of input and output subindexes (Global Innovation Index, 2019).

According to the ranking results, in 2020, Kazakhstan occupied the 77th position, moving up two spots compared to 2019. For comparison, in 2020, Turkey was in the 51st position, Russia was the 47th, and Ukraine held the 45th place. Among the former Soviet Union countries, one can note Latvia, which occupied the 36th rank in the list in 2020. Azerbaijan and Kyrgyzstan follow behind, taking 82nd and 94th positions, respectively. According to the ranking authors, the first three countries that use innovation most effectively in

2020 were Switzerland, Sweden, and the United States. It is worth noting that Kazakhstan is the third country in Southern and Central Asia after India and Iran; however, the country's indicators are below expectations as regards economic development (Dutta et al., 2020, pp. xxxii–xxxiii).

The experts point to Kazakhstan's high results in critical components such as education and the openness of business to innovation. In general, the country established a strongpoint as regards the development of ICT infrastructure. Experts note the quality of online services provided by the government. By ease of protecting minority investors, Kazakhstan secured the leading positions in the ratio of students to teachers in secondary education. Despite the decline in research and development indicators, Kazakhstan has achieved sound results in terms of quality and scientific publications in the country's three largest universities. Among the individual indicators, which also demonstrate the country's strong positions, are the ease of starting a business, cost of redundancy dismissal, the growth rate of GDP per worker, utility models by origin, and net inflows of foreign direct investments. Among the drawback, experts note the low level of production of mobile applications, low level of ICT services, a small degree of expenditures on software development, the scarcity of venture deals, reduced number of generic top-level domains, the inadequacy of patents-analogs, and the lack of printing and other media manufacturing (Dutta et al., 2019, p. 277).

4.3.5.6. Bloomberg Innovation Index

Other rankings that indirectly measure a country's position in terms of ICT preparedness include the Bloomberg Innovation Index (BII). In 2020, Bloomberg published its eighth regular annual innovation index. The BII tests dozens of criteria using seven metric indicators, including expenditure on research and development, production capacities, and concentrations of high-tech companies (Jamrisko & Lu, 2020).

In 2020, Kazakhstan entered the BII for the first time, occupying the 59th position. According to the Bloomberg expert group, things stand the best on the higher education indicator in Kazakhstan. On university attendance rate and proportion of graduates,

Kazakhstan holds the 8th rank. The added value of the production of goods in Kazakhstan was rated 41st among the most innovative economies. In terms of productivity, the concentration of high-tech companies, and activities in the field of patent registration, Kazakhstan is in the 41st, 53rd, and 44th spots, respectively. The first place in the ranking in 2020 belongs to Germany who stands ahead of South Korea and Singapore. In 2020, Russia is at 26th, and Turkey is at the 35th position in the ranking (Jamrisko & Lu, 2020).

4.3.5.7. Other ICT Rankings

The most prominent and steady is the ranking measuring the e-government development, contained in the UN E-government Survey reviews prepared by the UN Department of Economic and Social Affairs almost every year since 2001. This section provided details about this index, while the focus is on Kazakhstan's positions in the ranking, delivering a comparative analysis. Kazakhstan's e-government development is compared with the leading countries and other countries in the region.

The author also evaluated Kazakhstan in other ICT rankings, which include the major ICT indexes such as the Networked Readiness Index, ICT Development Index, IMD World Digital Competitiveness Ranking, Global Innovation Index, and Bloomberg Innovation Index. The UN index reviews the e-government positions of a country, while other rankings presented here provide broad information on the ICT preparedness, which in itself is closely related to e-government implementation.

There are myriad of other ranking systems having some or any relation to e-government and ICT development, however. Among different classifications that are worth noting but which were not included in this study is the Startup Ecosystem Ranking. This ranking system evaluates startup ecosystems in 100 states and 1000 cities by productivity, investment, market features, level of communication, and other criteria (StartupBlink, 2020). On the other hand, for some time, the World Bank had been publishing the Knowledge Economy Index until the organization ceased to do so. The index described the extent a country or region was moving towards a knowledge-based economy and included four basic subindexes: education, innovation, ICT development, and economic and

institutional regime (UN Data Catalog, 2012). The European Bank for Reconstruction and Development (EBRD) developed a similar index on a one-time basis. The index measuring technological development on the Eurasian continent from 2011 to 2018 contained 38 different indicators divided into four pillars: institutions of innovation, skills for innovation, innovation system, and ICT infrastructure (EBRD, 2019). One would also mention the Global Innovation Policy Index prepared by the Information Technology and Innovation Foundation (ITIF), an independent think tank based in Washington. But, the last time ITIF released the index was in 2012; and, it did not include Kazakhstan (R. D. Atkinson et al., 2012).

On the indexes measuring e-government and ICT readiness, Kazakhstan is a leader among the countries of Central Asia and the CIS. The country has reached a certain level of development and moving up in the ranking lists has become more difficult. Kazakhstan needs to make large-scale changes to improve its standings in the rankings, continuing to reform not only e-government but the entire ICT structure. Kazakhstan needs to build on its existing successes. The country has good indicators in the development of human capital and the delivery of online services. Besides, recently, Kazakhstan has made a significant tilt toward the field of big data analytics. Despite some initial achievements, a significant overhaul is needed in the e-participation sphere. The country also needs to develop a business environment and promote ICT innovations and research and development. The reports also identified the need to enhance technology and creativity output in the international market through the promotion of policy solutions, invest in software development, especially the mobile apps, develop startup ecosystems and high-tech firms.

4.3.6. Application of the Stage Approach to E-government Development in Kazakhstan

From the very beginning of this chapter, the e-government development has been discussed in terms of various topics (or themes). These topics characterize the e-government phenomenon in Kazakhstan with its inherent features. For example, the top-down approach shows the way e-government was implemented. This perspective, mentioned above, will also be frequently mentioned in this section. Laws, presidential decrees and

government resolutions related to e-government also reveal the hard specifics of e-government in Kazakhstan. These notions, therefore, were discussed as a separate topic above. However, a special focus will be attributed to them in this section as well.

Another issue worth mentioning is the positions of Kazakhstan in the UN ratings. A topic that was also widely discussed above shows the e-government development path of Kazakhstan on a global scale. The noted UN cases will be occasionally mentioned in this section, as UN ratings occupy an essential part in the country's history of e-government formation. The Kazakhstan government undertook several policy measures regarding e-government duly reacting to the report analyses prepared by the UN experts. To sum up, the stages approach is a separate topic in itself, disclosing details regarding e-government in Kazakhstan from a different perspective.

The development of e-government in Kazakhstan through stages has been addressed in studies by several authors. Such early works of Janenova (2010), Bhuiyan (2010), and Bhuiyan (2011) describe the development of e-government in Kazakhstan in three stages. Later, articles by Kassen (2010) and Sheryazdanova and Butterfield (2017) highlighted four stages of development. Finally, the most recent work of Kassen (2019a) reviewed the e-government in Kazakhstan by offering a six-stage model.

This chapter will include a synthesis of the mentioned works. This synthesis will be substantially based on the work of Kassen (2019a). However the stage approaches developed by the scholars mentioned will be modified for this dissertation. For instance, meaningful information about e-government, which one of the authors regarded as the achievement of the second stage, might be located in the first or third stage, based on the requirements of this scientific work. The author will indicate arguments in case such a replacement takes place.

4.3.6.1. Stage 1 (1997-2001)

The adoption of several important laws is regarded as a good starting point for Kazakhstan's e-government development. The initial premise for the development of the legal

foundation was the presidential decree on the formation of single information space and government resolution on the concept of single information space and its implementation steps. The presidential administration and central government agencies became the critical drivers in laying the framework for future e-government reforms. Such a framework included the construction of different telecommunication networks, purchase of essential computer equipment (including servers) for government agencies, establishing Internet connectivity, the launch of first website and corporate emails, both at central and local levels (Government Resolution No. 715, 1998; Presidential Decree No. 3787, 1997).

The automation of administrative processes in Kazakhstan was closely associated with the strengthening of national economic competitiveness, especially in the telecommunications sector. This factor eventually became an additional incentive for the state to take part in the global race for e-government implementation (Kassen, 2019a, pp. 306–307).

4.3.6.2. Stage 2 (2001-2004)

The next stage of e-government development in Kazakhstan was marked by the process of informatization in the public sector. The main legal framework of this process was laid out by the presidential decree, which coordinated administrative initiatives on informatization (Presidential Decree No. 573, 2001). One of these initiatives was the development of databases such as a register for natural and legal persons, land cadaster, property taxes and taxpayers, and so on. The implementation of such databases was to become the cornerstone for the prospective single electronic ecosystem (Kassen, 2019a, p. 307).

A significant milestone in the e-government development in Kazakhstan was also the Law on Informatization, adopted in 2003, which provided a basis for technological innovation (Law No. 412, 2003). The law regulated the protection of government Internet resources and the development of information systems and settled the rights and obligations of natural and legal entities during electronic transactions. According to the document, all electronic resources and information systems had to be protected from hackers and other external attacks to ensure the security of personal data and confidential state documents to prevent leakage and further misuse. The record, by the way, emphasized

the centralized implementation of informatization initiatives. It can be said, therefore, that the state abandoned the decentralized form of implementing e-government at this stage. However, the law did not indicate how exactly the said centralized electronic services should be provided (Kassen, 2019a, p. 308).

The establishment of the Law on Electronic Document and Digital Signature in 2003 was not only a critical regulatory benchmark in Kazakhstan's e-government development but also a significant factor in terms of reforming the administrative processes as it introduced changes in the functions of the public authorities. With this law, a unified system of electronic documents began to operate in all organizational units (Law No. 370, 2003). However, due to regulatory collisions, this law could not ensure the equality between electronic and paper documents. It required an additional government resolution on the approval of the rules of electronic document management (Government Resolution No. 430, 2004; Kassen, 2019a, p. 308).

4.3.6.3. Stage 3 (2004-2006)

Kassen (2019a) believes that the third stage of e-government development in Kazakhstan began in 2004. The previous two steps described above were organizational foundations for the third one. Other authors consider 2004 as the starting point in the e-government development in Kazakhstan, since that year witnessed the adoption of the first e-government strategy, which kicked off the implementation of an electronic ecosystem for the delivery of public services. The report of the World Bank of the time also considers 2004 as the starting point for the inception of e-government in Kazakhstan (Bhuiyan, 2010; Janenova, 2010; Kassen, 2010; Presidential Decree No. 1471, 2004).

The e-government strategy was a political tool for introducing technological reforms in the public sector, a roadmap showcasing steps for the implementation of e-government, providing an initial set of governmental services to be delivered online (Kassen, 2019a, pp. 308–309). It also structured the eradication of the digital divide within the population (Bhuiyan, 2010, p. 40). The digital divide shows the difference between people who can and cannot take advantage of information technologies (Van Dijk, 2006). This problem

was considered as one of the main challenges for successful e-government implementation. That’s why the document offered training programs and specialized courses to overcome the gap, which was high in Kazakhstan. The percentage of those who could be considered educated in computer use was 4.3, while only %2.8 of the population actively used the Internet (Janenova & Kim, 2016, p. 329).

The document's main focus was the development of the national e-government web portal, which was eventually launched in 2006. The web portal's development went through under the supervision and control of one command point and cost the country approximately 400 million dollars in 2018, a tremendous amount of money for one project. The money was spent on technical groundwork and organizational aspects to secure a timely launch of the project (Kassen, 2019a, p. 309). One of the costly elements was the transition of the previously registered database, a broad spectrum of information including taxpayer and social security data, into a consolidated block of data where information on one citizen could be reached through only his/her identification number. The construction of a database for online transactions required a certain investment (Kassen, 2016, pp. 54–57). The project was implemented by a working group, which included the Agency for Informatization and Communications, Office of Prime Minister, Ministry of Justice, National Security Committee, Ministry of Economics, Kazakhtelecom, and the state-owned joint-stock company National Information Technologies. The leading developer of the portal was National Information Technologies. The company has developed an e-government infrastructure and prepared its main components (Sheryazdanova et al., 2013, pp. 52–53).

On the other hand, there was a need to address the other obstacles related to Internet penetration. National companies, Kazakhtelecom and Nursat, monopolized the sector as the leading Internet providers that control all telecommunications networks in Kazakhstan. Understanding that the e-government implementation requires broad access to the Internet and an increase in the number of users, the government tried to find alternative ways to promote the Internet usage (McGlinchey & Johnson, 2007). For example, free Internet access points started to take place in public schools (Kassen, 2016). Parallel to this, the government made arrangements to reduce the cost of cable and mobile Internet,

diversify the Internet service providers, and established Internet access points at convenient locations such as One Stop Shops (Government Resolution No. 479, 2005; Janenova & Kim, 2016, p. 330).

The state employing a traditional top-down approach became the principal locomotive of the e-government implementation. It issued different regulatory documents, such as presidential decrees and government resolutions. These documents enabled wider penetration of e-government and other technology-based administrative reforms and provided necessary financial support for crucial e-government projects such as the web portal (Bershadskaya et al., 2013; Bhuiyan, 2010; Kassen, 2010; Knox, 2008, pp. 487, 493; Linde & Karlsson, 2013). For example, the concept of e-government development was designed by the Agency of Informatization and Communication. The Agency also carried out administrative supervision and control over the proper implementation of e-government projects, in particular the web portal. Being the de facto administrator of the entire new e-government ecosystem, the Agency was guided by Presidential Administration and Office of the Prime Minister. Besides, government agencies such as the Ministry of Economy, National Security Committee, and the Ministry of Justice assisted in e-government implementation (Kassen, 2016, pp. 59–61).

The government was in charge of the technical side of e-government implementation as well. The state-owned company National Information Technologies carried out the operation and maintenance of the e-government projects. The experts from this company oversaw the integration of the e-government platforms and databases (Bhuiyan, 2011, p. 609; Kassen, 2010; National Information Technologies, 2020b).

Such an approach is a typical example of a strategy for the centralized e-government implementation inherent for unitary states. In such a setup, the role of the government—both political and technical—is dominant. The participation of regional authorities in the implementation of public policies, including e-government policies, is kept minimal and outside critical decision making processes (Kassen, 2010, 2016).

As already mentioned in the previous sections, the government paid close attention to international ratings, including the UN E-government Development Index. The country's successes in the international arena developed parallel to the national efforts to implement e-government. In 2003, Kazakhstan was 83rd on the UN's e-readiness index (UN E-government Survey, 2003). The government's reaction with the implementation of prompt strategic decisions, in line with the ongoing realization of the web portal, allowed Kazakhstan to rise to 69th and 65th positions in 2004 and 2005 UN rankings, respectively (UN E-government Survey, 2004, 2005). It should be noted that the UN experts praised the efforts of the government to keep the official websites multilingual, in three languages Kazakh, Russian, and English (Bhuiyan, 2010, p. 37).

4.3.6.4. Stage 4 (2007-2009)

The integration of previous e-government initiatives into a single digital ecosystem marked the transition of Kazakhstan to the fourth stage of e-government development. The implementation of the e-government strategy, incepted at the previous stage, were starting to show positive effects. On the one hand, the number of e-services provided to the population increased, on the other hand, steps taken to prevent corruption and the red tape began to reap results. Besides, the government started to pay attention to individual e-government projects.

The government's most noteworthy initiative was the e-procurement project, the foundation for which was laid in a particular law (Law No. 303-III, 2007). The project resulted in a more effective system of budget planning and control over financial transactions in all government agencies. It also successfully integrated the registries of databases of all government agencies and potential government contractors (Kassen, 2019a, p. 311).

At this stage, the government adopted the second e-government strategy. This one highlighted the realization of technological reforms in the public sector for 2008 and 2010. The new document placed an emphasis on the collaborative efforts to develop various e-government programs concerning the state apparatus (civil servants), public administration, and legislation in the field of e-government. Although the document emphasized the

collective participation in the implementation of various e-government projects, the interaction of the interested parties had to take place under the logic of a centralized ecosystem. Two times less money was allocated for the implementation of this strategy (190 million US dollars). The reason is that previous efforts were aimed at developing the physical infrastructure and technological base and needed more generous financial support (Government Resolution No. 1155-1, 2007).

The Agency of Informatization and Communication was still actively involved in all e-government programs. However, over the past few years, the dynamics behind the e-government penetration and its growth has changed. In general, the number of implemented e-government programs has increased not only in the public sector but also throughout the country. Because of such circumstances, the Agency of Informatization and Communication had to report to the central government twice a year. Such changes also enhanced the importance of some state institutions and resulted in the emergence of new policy actors. For example, after the launch of the e-procurement program, the visibility of the Committee for Financial Control and Public Procurement under the Ministry of Finance significantly increased, since the Committee played an essential role in the development and integration of the program. Later, the E-Commerce Center under the Ministry of Finance was established to supervise the e-procurement project. This was due to its narrow specialization and calls for tremendous effort and resources. Amid such a general attempt to introduce technologies in the public sector, the Ministry of Finance's role increased significantly as well. Given the wide range and scope of implementing technological solutions in the public sector, the government saw the need to establish national information and communication holding Zerde (Zerde, 2020). The holding reported to the government regarding the projects carried out in the field of informatization. It approached the e-government implementation according to the logic of project management. The holding also led the realization of a broad spectrum of projects in the field of information and communication technologies such as the International University of ICT established in Almaty and the training of professionals in satellite communications technology (Kassen, 2016, pp. 61–64).

During this period, Kazakhstan was not doing very well on UN E-government Surveys. In 2008, Kazakhstan fell to 81st position. This decline is mainly attributed to the country's late transition to online transactions (Bhuiyan & Amagoh, 2011, p. 239; UN E-government Survey, 2008).

4.3.6.5. Stage 5 (2010-2012)

The challenges of the next stage would be strengthening the capacity of the existing e-government ecosystem. The primary duty was to transfer the current e-government ecosystem to the next level. Earlier, the emphasis was on information and interactive services, but later the government dealt with promoting transactional services. For this reason, public authorities launched new projects authorizing online operations such as tax reporting and payment of bills, municipal services, education, and healthcare fees (Bhuiyan, 2011). Upgrading the layout of the web platform and educating the public on how to use the electronic access tools, particularly through exclusive videos and manuals, were among the steps taken during this stage (Kassen, 2016).

The government paradigm on how technological reforms should be implemented also changed at this stage. The technological reforms in the public sector began to be perceived as an integral part of the country's modernization effort, with its potential impact on the national economy. As a result, the government changed the customary practice of developing a regulatory framework in which it announced a package of e-government deals, replacing it with a strategic document that focused on all aspects of Kazakhstan's technological development, especially in terms of overall state planning. This document, entitled "Forced Industrial and Innovative Development of the Republic of Kazakhstan for 2010 and 2014", considered government reforms more broadly, with particular emphasis on developing public-private partnerships, mapping industrial zones, and using information and communication technologies to preserve the country's cultural heritage (Kassen, 2019a; Presidential Decree No. 958, 2010).

Another legal instrument that explicitly outlined the reforms related to the penetration of ICTs in the public sector was the “Program for the Development of Information and

Communication Technologies in Kazakhstan for 2010-2014". This document analyzed the risks associated with ICT use in the public sector and developed specific standardization benchmarks and protocols regulating operations related to the ICT sector. The provisions in the documents also applied to the then novel ICT concepts such as e-commerce and e-banking. Also, this document focused on the country's operational needs determining priorities for further development of ICT considering world practice. Another critical point to mention in the document was the rising role of social media and blogs of government officials for discussing social issues and country matters (Government Resolution No. 983, 2010).

The pervasive nature of e-government was most felt in this stage since a growing number of stakeholders started to be involved in the process of ICT implementation across government agencies. Even though the Agency for Informatization and Communications was the main administrator of the e-government implementation in the country, other ministries, local government authorities, and national companies actively participated in the reform processes. The importance of a government agency depended on how popular its e-services were in a particular area of e-government. The widespread implementation of technological reforms resulted in the need to provide greater autonomy to the Agency of Informatization and Communication, which was the primary stakeholder of the whole e-government ecosystem. Hence, its status was changed, and the agency became the Ministry of Investment and Development, continuing to monitor the cohesive development of the digital transformation in the public sector. The government established two new government institutions, the National Agency for Technological Development and Center for Engineering and Technology Transfer, to respond to the increasing demand for technical support appearing as a consequence of widespread effects of the nationwide ICT implementation (Kassen, 2016; QazTech Ventures, 2020).

The above-mentioned organizations provided scientific support and technical expertise and was involved in the projects related to the e-government implementation across the country (Kassen, 2016, pp. 68–71). Among the national companies that actively involved the digitalization of the country, one can distinguish the KazPost. This national postal company controls the mainstream of postage and parcel delivery in Kazakhstan. The

company made considerable efforts to automate the mailing processes to increase the efficiency of postage delivery. One of the avenues for contributing to the nationwide e-government movement was the launch of modern electronic methods for tracking and controlling mail deliveries. The company also integrated many of its services with the national e-government web platform. As mentioned earlier, Kazakhtelecom continued to provide Internet services through various technologies such as broadband, fiber optic, and 4G Internet. In addition to Kazakhtelecom's endeavors to abridge the digital divide by connecting remote rural areas of the country to modern telecommunication networks, also worth mentioning is the launch of Kazakhstan's satellites KazSat-2 and KazSat-3, whose purposes, among others, was to provide low-cost cellular communications and dissemination of cheap mobile Internet (Kassen, 2019a).

A series of recently launched transactional operations, especially the e-procurement project, pulled Kazakhstan to a record 46th position in the UN e-government ranking in 2010. The country’s achievements in the e-participation part of the same UN hierarchy were even more striking. In 2010, Kazakhstan was 18th in the e-participation index, and in 2012, the country made more remarkable strides securing second place after Korea and the Netherlands, who shared the first position. The reason for such success is that the leading politicians and bureaucrats acquired interactive dialogue platforms blogs, providing a means for an instantaneous personal discussion with the population (Linde & Karlsson, 2013; UN E-government Survey, 2010, 2012).

4.3.6.6. Stage 6 (from 2013 to the present)

Advancements in open government and open data fields characterize the final period in the development of e-government in Kazakhstan as of 2020. This phase is especially beguiling since e-government in Kazakhstan is no longer only associated with technological reforms in the public sector. Through society's engagement in the development of various projects, the government has a chance to promote e-government among the population.

One of the latest documents mentioned in detail above was a strategy paper that regulated technological reforms based on ICT for subsequent periods. In addition to focusing on

reducing red tape and other administrative impediments in the delivery of public services, the document encouraged the growth and implementation of various civilian projects based on open data (Kassen, 2019a, p. 315).

One of the noteworthy features of this period is the launch of open legislation discussions. This project provides free access to the depository with the full texts of laws, resolutions, charters, rules, and other legal acts elaborated and adopted by government agencies.

Another important initiative of this period was the emergence of a non-profit organization, the government-owned corporation Government for Citizens. The corporation consolidated almost all of the public services available online, becoming the only depository of the entire e-government ecosystem in Kazakhstan. More elaborate information about the corporation will be given in the next section.

It is important to note that the Ministry of Investment and Development mainly represented the central government in the field of e-government. The Ministry indirectly controlled the development of open data projects and almost all initiatives in the field of e-government through specialized quasi-public institutions and government agencies. Among these organizations, one can distinguish already frequently mentioned National Information Technologies, National Agency for Technological Development and Fund for ICT Development. These quasi-public companies, by and large, were held responsible for the development of public projects related to ICT area. The main activity in the realization of e-government lied on Zerde, national information and communication holding. Despite their quasi-public and quasi-private status, all of the noted institutions had uninterrupted access to government funds. In this regard, the country leadership quickly realized that such a mechanism of administrative control and direct financing from the national budget could also serve a powerful tool for promoting open data as well. The dissemination of open data concept in Kazakhstan is advancing with the help of traditional administrative resources (Kassen, 2017).

4.4. PROMINENT E-GOVERNMENT PROJECTS

In different periods and countries, the e-government institutionalization process proceeds in different ways. Each state rationalizes the methods of implementing various e-government projects, trying to maximize the relevance of the national policy and impact of its deliberations, which showcases how flexible the concept may be.

As a unitary state with a steady central administration, high-level officials regard e-government in Kazakhstan as a common platform, which develops consistent and standardized ICT based projects and monitors the implementation of public policies in the field (Bershadskaya et al., 2013; Maerz, 2016, p. 732). Any public policy somehow related to the use of ICT would be considered a part of the reflection of a global e-government strategy to the country (Bhuiyan, 2010, p. 36). This approach suggests that all national databases and registers are interdependent and integrated into the wholesome e-government implementation described above.

It is thus clear that an integrated approach to what e-government projects realized in the country would provide a formative assessment to understand the link to how specific policies are carried out in Kazakhstan. The most significant e-government projects will be addressed in the chapter's context to support these requirements.

4.4.1. E-procurement

In essence, e-procurement is an internet portal. It provides access to information on public procurement, where users (e.g., government agencies, state-owned corporations, etc.) at local and national levels bid on procurement contracts, ensuring transparent and competitive transactions (Hardy & Williams, 2008, p. 156; Public Procurement, 2017). The functioning of the portal is regulated in the Law on Public Procurement, discussed above.

The project was shown an impressive pride in Kazakhstan due to the topic's sensitive nature. Apart from providing essential public services, the e-procurement model cuts down on significant expenses in the sale or purchase processes of state property. It also

began catching eyes of the public, since previous designs of procurement mechanisms were highly ineffective, contributing to a history of corruption and bureaucratic hassle (Sheryazdanova & Butterfield, 2017, p. 88).

The process of establishing the e-procurement system passed through an extremely turbulent period, becoming one of the most controversial and divisive issues among the Kazakhstani public. Various accusations were directed against government authorities, who were accused of lobbying in favor of particular political groups and business circles. The business communities requested full disclosure and transparency in the sector to set standards of fair tendering rules and ensure competitive bidding (Kassen, 2016, pp. 86–88). The industry is critical since the market is profoundly impacted by state management, while the government is the main engine of the national economy. The survival of many local businesses depends on fair access to public procurement (Mouraviev et al., 2012, p. 412).

The way how e-procurement operates is quite simple. Its primary objective is to ensure ongoing cost-effectiveness for the acquisition of public goods and services through electronic reverse auctions. A prospective purchaser places the lowest price on the enterprise. Those registered in the system, through the electronic signature, may participate in the online tenders. The scheme aims to provide the public with different statistical information and statements on the ongoing and completed bids and plans on future applications. The portal contains all legal and regulative documents of the sphere, giving a full guide for potential users to use the system (Public Procurement, 2017; Public Procurement in Kazakhstan, 2018).

4.4.2. E-learning

E-learning is the platform, which offers all types of services in the field of secondary education from a single source. The project's primary focus is to improve quality and raise capacity in the sphere of education in the state-run schools by getting the benefits of the best technology (E-learning, 2018).

Apart from the schools' staff, the primary beneficiary of the platform were students and their parents. Teachers also use the system to do their routine duties and organize extra activities online (e.g., online meetings with parents, webinars, etc.). Students benefit from the platform by using it for online homework assignments, as a reminder of changes in the schedule, an electronic textbook library, grade tracker in the electronic journal, etc. For parents, the project offers more viable opportunities such as tracking their kids' progress in the school, watching classes online, contacting the teacher and the school's other administrative staff online, and so forth. The schools' executive staff can lessen their workload when arranging the schedules for booking the classes or giving accounts of students' progress. They can also use the program to get in touch with parents, organize online distance-learning programs, discussions, and video conferences and regulate the work of e-libraries and so on (E-learning, 2018).

The project stood high on the priority list of the public authorities, who poured vast sums of money into the project. A large number of private ICT firms were outsourced in the course of the process. One billion dollars allocated for the platform made it the most expensive project in the field of ICT within the public administration ecosystem. The need to develop a network of wireless hot-spots, upgrade the hardware equipment and modify the software in public schools were among the main reasons for the large payout (Tengrinews.kz, 2011).

However, in the following years, the e-learning program was criticized by the public and deputies of the Parliament, who condemned the system’s inefficiency and low value for money (Tengrinews.kz, 2014). During the meeting of a competent parliamentary commission, the deputies found that the program did not meet the requirements and goals set for it in the year of its launch (Zakon.kz, 2015). Consequently, complaints were filed with the company, which was the developer of the program, the National Information Technologies. The company also conducted its research and found that the school staff was resisted against using the program, ignoring to update the indicators such as student diaries (Nur.kz, 2013). Thus, even though this project was one of the most promising in the field of e-government, improving its relevance and sustainability are still on the government's agenda (365info.kz, 2015).

4.4.3. E-licensing

E-licensing was developed with the view of automating the licensing processes, and thus, helping establish efficient and transparent mechanisms of strong information ties between the government agencies and the business community (E-licensing, 2018). After its launch in 2008, the project quickly became popular with the business community as it allowed to issue all the permission documents and licenses on a single platform; both nationally and locally (Kassen, 2016, p. 89; Sheryazdanova & Butterfield, 2017, p. 86).

Among the most concerned were the businesspeople who had to travel long distances from their place of living to the country's administrative centers. Physical constraints like the vastness of the country's lands, short transport links, and severe weather conditions would often compound the licensing procedure (Bhuiyan, 2011, p. 606).

From March 2014 onwards, only a single identification document is required to start the application process, relegating the prospective middlemen to the sidelines and bypassing the cadres of bureaucratic courtiers. The officials claim that document fraud is virtually impossible as the client keeps track of his/her application status through the web portal. Almost all fields ranging from education, culture, health, and environmental protection to transport, imports/exports, agriculture, and natural monopolies comprise the capacity to apply for a permit on the electronic platform. The design approval of land use, notifications for startup businesses, permission paper to start clinical practice, permission documents for non-military weapons and ammunition, as well as the authorization documents for the employment of foreigners were among the most sought-after online services (Egov.kz, 2017).

As scholars put it, e-licensing is a significant project in terms of its potential to influence the overall state of the population's happiness, within the e-government ecosystem. The project received a positive assessment from the International Telecommunication Union, which granted the relevant ministry an accolade, an award of the World Summit of the Information Society for 2013, in the e-business category (World Summit on Information Society, 2013).

4.4.4. E-notary

E-notary is the data system that regulates the interaction between the notarial clerks with the National Chamber of Notaries and the Ministry of Justice. Since it is primarily a G2B platform that arranges all activities of the notaries in the country into the national databases and registries, the project also allows citizens to get information about the notarial procedures (Kassen, 2016, p. 94). Assuring diploma copies, issuing documents needed for pursuing education abroad, documentation required during all kinds of commercial transactions—buying and selling goods and services—or acts of will and donation, are all examples of these services (E-notary, 2018).

The integration with other state information systems also allows ending the notarial operations in the clerk's office. Previously, spending a couple of days for collecting the right papers was a custom arrangement. The system helps to protect the clientele against the significant acts of fraud since, through the program, the notaries can request information about individuals, their legal entities, and real estate, online (National Information Technologies, 2018b).

4.4.5. Mobile Government

Mobile gadgets currently provide direct access to the Internet, simultaneously becoming an essential yardstick for measuring how well governmental service is delivered to the public online. Extensive usage of smartphones and tablets revealed the need to develop programs to facilitate the access of telephone users and target specific solutions through mobile devices.

The government offers a wide range of e-government services through the mobile applications. The users can get any operational and general information on public services through the mobile app E-gov. This app also allows performing online transactions like paying fines for traffic violations and subscribing to various notifications from government agencies.

One can also match one’s phone SIM card with one’s electronic signature and perform more general operations. For instance, one can initiate the processes of issuing birth and marriage certificates, obtaining a license, and paying customs duties. The mobile signature allows one to receive electronic services from any cell phone models, as well as some services through SMS. For example, by sending SMS to a short number 1414, one can check the availability of kindergartens and housing, and view the expiration date of vehicle inspection (National Information Technologies, 2018a).

Currently, the mobile e-government application provides more than fifty e-services to citizens of Kazakhstan. The next stage in the development of the mobile government is the launch of USSD commands, as another channel to obtain public services (Sheryazdanova & Butterfield, 2017, p. 88). To be more precise, by dialing a specific digital combination on one’s mobile phone, one will receive a list of available services, from which one can choose the needed option. Having a mobile phone is enough to carry out this action (National Information Technologies, 2018a).

4.4.6. Public Service Centers and Corporation for Citizens

The Public Service Centers, or the One-Stop Shops, are operated on a "single-window" principle (Hagen & Kubicek, 2000). It has been a significant component of initiatives for e-government reform efforts (Bhuiyan, 2010; Janenova, 2010; Knox, 2008), with the primary aim to prevent and combat corruption in the public sphere, so often addressed in grievances of international observers (Janenova & Kim, 2016, p. 326).

The One-Stop Shops became a regular and popular feature of the delivery of online public services nationally. For various reasons residents not having access to PC or other devices or unfamiliar with ICTs, could receive all kinds of public services through these centers, which in turn have a direct link to all state servers and information bases. Such a comprehensive and ingenious approach to public services' delivery has gained extensive support among the population, bringing tremendous popularity to all administrative reforms of the time; since previously, citizens had to go to another city to receive any public good or service. These circumstances were very inconvenient and troublesome for the local population, taking into account Kazakhstan's geographical peculiarities. Some services

nonetheless require the applicants' presence. Issuance of a passport, national ID card and driver's license, for instance, could only be acquired at these centers through physical presence. Such documents could not be sent through the postal system due to security purposes. In a similar vein, the residents could get the digital signatures allowing to obtain a handful of online public services through application at the One-Stop Shops (Janenova & Kim, 2016, p. 323).

Initially, in 2005, there were four pilot offices. By 2011, the government had opened 30 more centers. All documentation at the beginning was in paper form. But as of 2011, the government emphasized reducing paperwork (Sheryazdanova & Butterfield, 2017, p. 6). In 2013, the state legally secured a public service register available through the One-Stop Shops or the e-government web portal (Knox & Janenova, 2019). In 2015, the number of centers increased sharply to 300 offices in all regions. As of the noted date, the offices provided more than 200 government services, such as registration of legal documents, opening new businesses, and applying for social benefits (Janenova & Yesdauletov, 2017, p. 4).

The concept of public service centers is of strategic value to the government. Its coordinating role is to ensure the coherence of the activities and all involved actors in the public services domain. Three official government institutions coordinated the project in addition to the Agency for Informatization and Communication. The Ministry of Justice was responsible for essential services such as issuing passports and birth/marriage/death certificates, and business registration. The Agency of Land Resource Management carried out a record for the rent of real estate and its acquisition. At the same time, the Ministry of Defense was accountable for registering prospective military personnel (Janenova & Kim, 2016, pp. 323–324).

At the beginning of their activities, the One-Stop Shops competed with traditional government agencies for the best service. Traditional government agencies could not compete with One-Stop Shops because they worked longer hours; there were more comfortable places to wait, while the staff was more polite and attentive. This demeanor

contrasted sharply with the bureaucrats' behavior in traditional public institutions (Jandosova et al., 2002).

In addition to the One-Stop Shops, which assist the residents as a whole, there are specialized centers that serve only car owners (Zakon.kz, 2013). Common standards and certifications such as road safety, vehicle and driver testing, road permits, driver licensing and vehicle registering, paying customs duties, etc. are offered to the public by road police personnel. Since the centers involve driver training for the driving test, driver examination, subsequent driver training, the cabs inside the center are designed to minimize the interaction between the officials and applicants (Public Service Centers, 2018).

Besides this, the centers provide extra services such as technical guidance and free Internet access, and serve as social gathering places, where city dwellers interact by sharing the latest news about the public administration and the informal city stories. Sometimes, the centers serve to be the only place of dialogue of normative and informative relevance leading to sui generis interaction between the government and the people living in the countryside (Kassen, 2016, pp. 91–92).

As mentioned earlier, the policy concerning One-Stop Shops was initiated by Nazarbayev in 2005 simultaneously with the e-government web portal providing online public services. Later, both initiatives were merged in the framework of the Information Kazakhstan 2020 program (Janenova & Yesdauletov, 2017, pp. 1, 3). Then, in March 2016, the government established a new state corporation named Government for Citizens, combining four state enterprises: One-Stop Shops, Scientific-Industrial Center for Land Cadaster, Property Center, and State Center for Pension Payments. The new enterprise has 21,000 employees and provides more than 700 public services (Janenova & Yesdauletov, 2017, p. 4).

In doing so, the government integrated the delivery of services such as land and property registration, and pension services with other public services. One such merger's goal was to reduce corruption. In particular, land registration services are considered very corrupt (Jandosova et al., 2007). On the other hand, Janenova and Yesdauletov (2017, p. 4)

believe that, in such a way, the government will tighten the centralized control over public services.

The Government for Citizens provided over 15 million public services as of 1 July 2019. The said number accounted for almost 86 percent of all public services offered in Kazakhstan. Of these, about 72 percent were delivered in electronic form. In 2019, the Government for Citizens operated 329 One-Stop Shops and 23 specialized centers providing services for car owners. The corporation owns around 70 mobile groups ensuring public services to residents of remote settlements (Ospanov, 2019).

Currently, the government is optimizing business processes for the provision of public services. This optimization aims at reducing the time for the provision of public services targeting an average of 10 days. The previous term for the delivery of public services was 19 days. Besides, these days the government is integrating public services to reduce the number of required documents. As of 2019, the average number of papers submitted ranged from three to four. In this regard, the central administration is also trying to consolidate and integrate public services by transforming them into composite substances, which will considerably ease the application processes (Ospanov, 2019).

It is also worth mentioning that social platforms like Telegram are viral among Kazakhstan society. Thus, for convenience reasons and a part to automate public services, the corporation launched Telegram bot (@EgovKzBot). The bot allows citizens to get 16 types of different public services, which includes booking an appointment with a doctor, getting an address certificate, and even finding a job. At the time of writing this dissertation, more than 24 thousand people have signed up for the Telegram bot, which, since its launch, has received more than 27 thousand requests (Ibrayeva, 2018).

Janenova and Kim (2016) reviewed the effects One-Stop Shops had on Kazakhstan's public service delivery sector over the last years. With One-Stop Shops, the authors argue that the knowledge of public service delivery has become more open and transparent. The authors noted that the physical environment and staff demeanor within the centers have changed in the right way. Government services have become more accessible, both physically and online. Center employees have gained new extensive knowledge regarding the

public services provision in various fields. The authors, in particular, mention that the staff of the centers was trained in countries such as Germany, the Netherlands, Great Britain, and Singapore. One can note an advancement in specialization in the delivery of public services, while consultations and transactions have become transparent.

4.5. EVALUATION OF E-GOVERNMENT DEVELOPMENT IN KAZAKHSTAN

The purpose of this chapter is to review the development of e-government in Kazakhstan. Starting with the general concept of what e-government means for Kazakhstan, this chapter provides general information about the country's political, economic, and social specifics. This information is critical for understanding the context as it draws a parallel with the e-government development. For example, it is essential to know that in Kazakhstan, a country with an ethnically diverse population scattered over a vast territory as large as Western Europe, improving the quality of public services while decreasing the costs is particularly difficult (see also Janenova, 2010). The fact that almost half of the population lives in remote rural areas enhances the importance of promoting e-government (Trading Economics, 2019).

After reviewing Kazakhstan's hallmarks, it was imperative to analyze other academic works that touched on the development of e-government in Kazakhstan from different perspectives. An analysis of previous studies was not presented here in classical form. Instead, the chapter summed all the academic works in the field of Kazakhstan e-government in one table, classifying them across the central themes. Among various topics, one can highlight the practices which focused on e-government as a means of improving public services, an effective mechanism for combating corruption, a tool used to legitimize existing power, or part of an extensive public administration reform. Besides, authors often criticized various aspects of e-government implementation in Kazakhstan and compared e-government in Kazakhstan with other countries. Recent work on e-government mainly concerned open government and e-participation.

Despite a relatively small set of academic articles, e-government in Kazakhstan is already adequately explored. The work of several authors revealed the defining characteristics of e-government implementation in Kazakhstan. In particular, scholars indicate that majority of Kazakhstan's e-government projects were implemented through central government funding with a litany of presidential decrees and government resolutions established in conjunction. Such features of the e-government administration style in Kazakhstan was dubbed e-centralism (Kassen, 2015b).

The chapter elaborated on Kazakhstan's e-centralism in the e-government field in line with other characteristics featuring the implementation of technological solutions in public administration in this chapter. In this regard, the author also referred to the crucial role of various strategy papers on country modernization such as Kazakhstan 2030. Considering the literature on e-government in Kazakhstan, the central hypothesis of this work was that the initial steps in launching e-government were reflected in this strategy and provided an essential springboard for the development of other state programs and laws related to e-government in Kazakhstan.

In this regard, the author reviewed in detail how e-government implementation began in Kazakhstan. Further, the author provided exhaustive information about the main legislative acts in the field of e-government, indicating their distinctive features. In a separate section, he discussed the leading presidential decrees and government resolutions concerned with e-government policies.

It is worth noting separately the positions of Kazakhstan in the international e-government and ICT rankings. In this chapter, the author elaborated more on the UN E-government Development Survey, as it is the most referenced ranking study in Kazakhstan. By doing so, the author intended to determine the point of reference in e-government development and compare Kazakhstan's e-government achievements in other frameworks. For comparison reasons, the author also indicated other ICT rankings.

Taken as a whole, Kazakhstan is a leader among Central Asian countries and other regional organizations in these rankings. The country has delivered an excellent

performance on the development of human capital and the provision of online public services. Kazakhstan has also made a pretty good move in the big data analysis sector.

However, Kazakhstan has reached a certain development level, after which promotion in the rankings has become increasingly difficult. The country needs to make significant changes in public administration, in particular in the field of open government and e-participation, the involvement of citizens in discussions on the implementation of technological solutions in the public sector. Besides, the country needs to develop a business environment and promote innovative solutions in the ICT sphere. In almost all reports, Kazakhstan underperforms in the development of research and development. The country also has to develop local software, in particular mobile applications and startup ecosystems.

After the author raised the subject of rankings, he analyzed e-government in Kazakhstan in terms of its maturity, adding that e-government development in Kazakhstan was similar to cases in other developing countries. Early works in e-government in Kazakhstan considered the development of the phenomenon in three or four stages. The author of this dissertation examined the development of e-government in Kazakhstan using a six-stage model, which he believes best outlines a set of benchmarks in the development of technology implementation in the public sector.

This section also acts as a review of the entire chapter since it briefs on what the author already discussed above. In particular, the offered maturity model demonstrates how various players, that is, different institutions and organizations, were included in and excluded in the process of e-government development in Kazakhstan. On the other hand, the stage model helps understand the transformation of several primary institutions responsible for implementing e-government. It also assists in understanding the logic of the central apparatus in promoting various e-government initiatives in Kazakhstan.

In the final section of this chapter, the author provided information on the leading e-government projects in Kazakhstan, both successful and failed. Projects such as e-procurement and e-licensing are considered flagship e-government projects. On the other hand,

projects like e-education became a total flop; the project did not meet society's expectations despite its high financial costs.

One should mention Public Service Centers or One-Stop Shops project, which is considered one of the first and most successful projects in the field of e-government in Kazakhstan. The project was launched simultaneously with the web portal for the provision of public online services, but later the said two initiatives transformed into one organization. At the time of writing this dissertation, Public Service Centers were merged with other government agencies providing public services in different fields and morphed into a large corporation named Government of Citizens and responsible for delivering public services on the principle of one window. In fact, the Government for Citizens is an excellent example of understanding the work and interaction mechanisms of Kazakhstan e-government.

The development of e-government has become an essential link in the state's intention to transform all state administration. The highest echelons of the country's authorities, such as the Presidential Administration and the Office of the Prime Minister, closely followed developments in this sector, encouraging institutional mechanisms with legislative guarantees. At the same time, the newfangled Ministry of Informatization and Communication and other quasi-public institutions such as Zerde and National Information Technologies were responsible for the coordination in the coherent implementation of e-government across the country.

This way of administering e-government continue to be open for discussion. For instance, Kazakhstan has a developed e-government system and high Internet penetration, but still lags in many primary areas. The solid centralized management still contrasts with the relatively underdeveloped private ICT sector. On the other hand, there is an apparent lack in the involvement of local government in making administrative decisions in the field of e-government.

Each of the mentioned initiatives, launch of new organizations and strategic papers, is considered as an essential stage in the large-scale policy of applying ICT in government processes leading to the automation of processes. Beyond the ones already mentioned,

there are other projects in the spheres ranging from the technical inspection of vehicles and documentation flow among the public bodies to the registration of certain types of petroleum products and registration of ethyl alcohol and other alcoholic products.

In this case, it is true that e-government became a new dimension within the public sector reforms in Kazakhstan. Nevertheless, it is still impossible to assert that ICT somehow changed the traditions of the bureaucratic class. Although the country has digitized the majority of state activities through the implementation of new technologies in recent years, there is still no sign of the significant political transformation in government values.

In the context of this chapter, the author agrees with Janenova and Knox (2019) on the fact that e-government implementation in Kazakhstan has considerably addressed improvements in public services that require automated document flow and certificate exchange. In particular, the authors indicate that services such as obtaining a driving license, marriage certificate, or real estate registration have become much more affordable. In contrast, human services that affect personal interaction in the fields such as health and education are still underdeveloped.

In this regard, although not mentioned in the chapter, the author agrees with the synopses of other works that the term public service has a very narrow definition in Kazakhstan. This argument is a severe blow to the development of education, healthcare, social security, and other fields that do not affect citizens' quality of life directly. When the government invests vast amounts of money in the digitalization of public services and public sector innovation, while more critical services receive less attention, the authors call this the “iceberg effect” (Janenova & Knox, 2019).

It seems that the same can be said about the term e-government. In Kazakhstan, the term determines public services that are delivered either through One-Stop Shops or the web portal. Although the name has a broader scope, indicating the use of technology in public administration. The e-government term was used interchangeably with other names such as information, which was frequently utilized between 2005 and 2010. After 2010, the

term digitalization occupies a commonplace in government programs and other documents. However, digitalization simply means automation of the state's administrative processes and does not sufficiently cover the changes that e-government implies, especially the reforms it brings to the public administration and its effect on the fundamental transformation of the public sector.

CHAPTER 5: METHODOLOGY

This chapter explains why qualitative research method and the grounded theory as an approach of qualitative study are chosen in collecting and analyzing the data. In particular, the grounded theory advises to collect and analyze data simultaneously in an effort to present a substantive theory. Then it is described in detail how the data are collected using observation, content analysis and interviews. In this regard, the reasons why each data collection method is chosen are listed. To be more specific, this chapter describes why semi-structured interviews were applied in the research, preparation processes for the interviews, elaboration of the interview questions, methods used to collect the samples, how the first pilot interviews were conducted and how and why certain guiding questions were applied, but not.

The chapter then highlights how the interviews were conducted identifying the main obstacles and challenges that lay ahead of the researcher. Afterwards, the data was transcribed and analyzed through the constant comparative method developed by Glaser and Strauss (1967). The researcher also explained his vision regarding his role in the research process in the section entitled “Researcher’s Role”, after which he wrote about standards for scientific rigor of a qualitative research, namely the internal validity, external validity and reliability. Finally, the last section of the chapter touches upon the ethical considerations of the dissertation.

5.1. WHY QUALITATIVE RESEARCH

This topic of this dissertation is rather complicated due to the cross-cutting nature of the phenomenon under scrutiny. Besides the two critical concepts—e-government and public policy—there is a bundle of elements that may influence the process and outcome of the study. Due to its wide applicability, qualitative research seems appropriate in deriving the research question and hypotheses of the given empirical evidence.

First of all, qualitative research looks to be an appropriate choice in view of the relative novelty and complexity of the studies in the field of e-government policies (Ritchie &

Spencer, 2002). The proper analysis may be complicated by the fact that resources allocated for the evaluation of the study are scarce and limited in number. In particular, it concerns the limited number of publications dedicated to the field that have been released around the globe and especially in and about Kazakhstan in recent years.

On the other hand, the dissertation features an implied appeal to qualitative research methods since its focus was to explore the activities and roles of the decision makers from a procedural perspective. The researcher believed that qualitative research would prove a useful tool in understanding the decision making process in the development and implementation of e-government policies. It would also help figure out how certain issues became of primary relevance and took their place on the agenda of Kazakhstan's policy makers. In this context, the author assumed that the operational modalities of e-government and technological reforms in the public sector cannot be viewed separately from the political perspective. Such an assumption was developed in line with the concern to examine the process rather than outcomes of e-government policies in Kazakhstan.

Thirdly, qualitative analysis is applicable to this study due to the constantly changing nature of e-government policies. On the one hand, the existing data may not respond quickly enough to the rapidly changing processes in the technology sphere and the results produced from the previous studies may become out of date quickly. On the other hand, it is hard to catch up with the essential developments in the organizational structure of e-government, which are always in transition and subject to continuous reforms.

Fourthly, the diverse essence of the policy actors in line with the combination of decisions they make—which may be both ambiguous and ambivalent—sometimes lead to the loss of the initial argument in the course of the research. Qualitative research, and especially the grounded theory approach, provides a practical analysis for understanding the diversity of the public policy issues. Since every step of the e-government policy process offers a welter of political diversity—top level government officials, semi-independent middlemen, e-government techies, representatives of NGOs and international organizations—each claim to assume their share of responsibility in developing and implementing e-government solutions in Kazakhstan. That is why qualitative methods, and constant

comparative technique in particular, will help understand and give the notion what stake each shareholder consolidate in the course of the e-government implementation process.

Finally, though at a time qualitative research was given a supportive role to the quantitative research methods, now the approach can provide a crucial new insight and explanation of a certain social behavior (Ritchie & Spencer, 2002). Furthermore, the qualitative data analysis can bring systematic coordination and structural handling of the raw data collected, subsequently turning it—with the help of the researcher—into patterns of systematic interrelationships. These patterns will either contribute to the existing research or lay the foundation to a solid grounded theory. As evidence to the stated above, Walker puts it (1985, p. 19):

> What qualitative research can offer the policy maker is a theory of social action grounded on the experiences—the world view—of those like to be affected by a policy decision or thought to be part of the problem.

5.2. RESEARCH APPROACH: GROUNDED THEORY

The grounded theory, developed by sociologists Glaser and Strauss as a novel research approach, was originally described in their book “The Discovery of Grounded Theory” published in 1967. Just like in any other type of qualitative research, the researcher is a central figure in collecting and analyzing the data and then drawing up conclusions from it by adopting an inductive approach. By doing this, the primary endeavor of the researcher is to find out a theory, which will spring up out of the data or will be “grounded” in it (Merriam & Tisdell, 2015, p. 31).

The grounded theory questions the assumption of unity and equity between theory and practice unless based on sound evidence. It viewed qualitative research as a separate research modality different from quantitative research. It also challenged the view that qualitative research operates in a disorderly manner advocating that qualitative methodology is a legitimate and effective technique of data collection and analysis. It is especially specified that data collection and analysis should not be unnecessarily viewed as an integrated whole. Last but not least, it is argued that qualitative research is something beyond

simple descriptive analysis quite capable of leading to the development of a theory on its own (Charmaz, 2000, p. 511).

Theory building is a hallmark of the grounded theory among other qualitative research approaches (Corbin & Strauss, 2015). However, the theory that derives from data is neither unifying nor grand; it is rather a “substantive” meaning that it refers to the specific situations of everyday life. In other words, the theory is modelled around many factors that might hinder its global applicability. This nevertheless still allows it to remain a powerful tool proving effective for practitioners and policymakers owing to its specific characteristics. The substantive theory is helpful when studying processes since it helps track changes taking place over time (Merriam & Tisdell, 2015, p. 31).

Data in grounded theory can be retrieved through interviews, observation or document review just as in other qualitative research approaches. There are, however, some procedures that are common only for grounded theory. First, a researcher evaluates the data from theoretical sample as he/she collects it and then decides whether to continue and in which direction to move forward. Secondly, the data is analyzed through a constant comparison technique indicating that different data segments are continuously cross-checked with one another to identify structural similarities or potential differences. After similar patterns are found, they are converted into named categories. The said categories are then put in order with regards to the existing literature (if any) to eventually build a grounded theory (Merriam & Tisdell, 2015, p. 31).

Charmaz (2011, p. 360) argues that although only few studies based on the grounded theory led to theory building until now, the grounded theory approach pushed forward the thematic analysis. Moreover, the inductive comparative analysis proposed by the grounded theory helps adopt a systematic strategy to review any sort of data. Merriam and Tisdell (2015, p. 32) on the other hand argue that if the inductive comparative analysis do not lead to substantive theory eventually, it should at least be identified with some sort of substantive theory when a study is finally presented.

Substantive theory building is drawn up on the core category, detected during the inductive comparison analysis. The core category is in fact a principal conceptual element that binds other categories and characteristics. Strauss (1987, p. 36) argues that the core category must be central meaning that it must associated with the maximum number of other categories and characteristics, must appear frequently in data and must provide a firm foundation for substantive theory building.

Besides other categories and characteristics the substantive theory consist of hypotheses. Identified inductively during data analysis, the characteristics and hypotheses are considered conceptual elements just like the core category. The hypotheses test the relationship between the categories and characteristics. In contrast to the quantitative study, where hypotheses are presented at the beginning of the research, the hypotheses in grounded theory are established after the research is finished and are extracted from the data (Merriam & Tisdell, 2015, p. 33).

5.3. DATA COLLECTION

The data for this dissertation research was collected in line with conceptual underpinnings of the grounded theory in three different ways: through observation, content analysis and open semi-structured interviews.

Observation. Observation was not the primary data collection method for this study. Nevertheless, the author decided to mention the observation, as the field researcher often include both interviews and observation (Merriam & Tisdell, 2015, p. 137). Often an informal setting, casual chats and conversation and office setup became a fertile learning environment for the researcher to provide useful information on the phenomenon. The researcher also had opportunities to obtain valuable information as part of his professional activities being able to meet and observe the work of the prospective respondents during summits, different ministerial meetings, forums and conferences and have talks with the interview targets on the sidelines of these events.

Content Analysis. Many of the documents used by the author were already mentioned in the chapters related to literature review. These include material such as books, scientific articles, reports, conference proceedings and so on. The author thoroughly examined a plethora of official records; organizational promotional materials, such as presentations used in forums; newspaper articles and reports; press releases; corporate records that some of the respondents shared with the author; government documents, including state programs on e-government development or on the implementation of technological reform in public sector; legal documents such as presidential decrees and government resolutions. Most of these documents, of which there were about a thousand, were either in Kazakh or Russian language.

In the context of Kazakhstan, when it is difficult to find the necessary information, resources such as autobiographies, personal blogs of ministers and vice ministers on Facebook and Instagram, as well as interviews that can be found on the websites of public TV channels or on YouTube, were also very useful primary sources for the author. It is worth noting that most of the above-mentioned documents were available online, which in many ways allowed to produce better global analyses from different theoretical perspectives, especially since the author was in another country at the time of writing this dissertation.

Box 2

Questions Used for Analyzing Documents

1. Is the document relevant to concepts of e-government, public policy, policy networks, policy transfer and the theme of e-government policies in Kazakhstan?
2. Does the document give information about e-government processes in Kazakhstan, especially about policy making, decision making, the roles of policy actors?
3. Does the document provide timeline/historical and legal evidence of e-government processes in Kazakhstan?
4. Does the document help track the role of international organizations, international policy networks and transfer of e-government policies from/to Kazakhstan?
5. What is the role of other stakeholders, e.g., NGOs, private sector and academia in the e-government implementation in Kazakhstan?

Note. Illustrated by the author.

Bearing in mind the definition of Krippendorf (2013, p. 49) that the content analysis is "an obtrusive technique that allows researchers to analyze relatively unstructured data in the view of the meanings, symbolic qualities, and expressive contents they have and of the communicative roles they play in the lives of the data's sources ", the author focused on five questions when analyzing the collected data, which are indicated in the box 2.

The data found in the documents were used by the author to verify/triangulate the data of interviews and observations. In the case of this research, these data provided rich descriptive information, with the help of which the author not only tested the emerging hypotheses, but also put forward new categories as required by the comparative analysis recommended by Glaser and Strauss (1967).

Interviews. Interviews were considered of primary importance, since they provided the most critical information for the dissertation. Observation and content analysis were mostly applied either to devise the theoretical framework for the dissertation or provide secondary, i.e. background, evidence to the study, with the exception of personal records of the respondents such Facebook/Instagram blogs or interviews found on YouTube (Parikh, 2002, p. 366). Such diversity allowed to increase the quality and relevance of research on the one hand, and ensure credibility and trustworthiness on the other (Creswell & Miller, 2000, pp. 126–127; Golafshani, 2003, p. 603; Krefting, 1991, p. 217).

5.3.1. Reasons for Using Semi-structured Interviews

One of the main reasons open, semi-structured interviews are preferred is because it is an effective tool in understanding e-government policies. In many ways, an open, semi-structured interview helps achieve this thanks to its structure, where everything is conditional. In order to achieve the most productive results, the interviewer may ask questions depending on the respondent's answers. In line with the interviewer's strategy, some questions can be altered or repeated, or completely set aside. Meanwhile, questions such as why or what happened next can help uncover some level of political process (Hammer & Wildavsky, 1993, p. 57).

Table 17

Types of Interview

Highly Structured	Semistructured	Unstructured
Wording of questions is preestablished	Interview guide includes a mix of more and less structured interview questions	Open-ended questions
Order of questions is fixed	All questions used flexibly	Flexible, exploratory
Interview is oral form of a written survey	Usually specific data required from all respondents	More like conversation
In qualitative studies, usually used to obtain demographic data (age, gender, ethnicity, education and so on)	Largest part of interview guided by list of questions or issues to be explored	Used when research does not know enough about phenomenon to ask relevant questions
Examples: US Census Bureau survey, marketing surveys	No predetermined wording or order	Goal is learning from this interview to formulate questions for later interviews
		Used primarily in ethnography, participant observation and case study

Note. Retrieved from *Qualitative research: A guide to design and implementation* (4th ed.) by S. B. Merriam and E. J. Tisdell, 2015, John Wiley & Sons, p. 110.

Closed standardized interviews have fixed questions, which are compiled in light of the research objectives and are asked in a specific order, while the answers are recorded in accordance with the given structure. In contrast, semi-structured interviews allow to choose a specific approach not only for the entire research, but also for the individual respondent, given that policy processes, especially that of e-government, are complex and multi-faceted. Semi-structured interviews are also particularly effective since respondents' temperament, relationship dynamics among actors, organization features and other

sensitive issues can significantly affect the course of the interview (Hammer & Wildavsky, 1993, p. 58).

On the other hand, the author of this dissertation dismissed using unstructured interviews. Unstructured interviews are especially effective when the researcher knows little about the phenomenon. Using flexible and open-ended questions therefore allows to enquire about unfamiliar environment (Merriam & Tisdell, 2015, p. 110). Since some aspects about the e-government policies in Kazakhstan already adequately explored and well known due to previous studies, the researcher had to focus on his research question to avoid spending time on the already well-known information on the one hand and excessive analytical depth on the other. It should be added nevertheless that the author used open unstructured interviews when he was conducting preliminary interviews and piloting his interview questions. More information about piloting interviews is available in the next sections.

5.3.2. Preparing for Interviews

Careful initial preparation for the interview is at least as important as the interview itself (Hammer & Wildavsky, 1993, p. 60). Before meeting with respondents, the author of this dissertation carefully examined the organizations where the respondents were working. The researcher thoroughly analyzed the websites of the organizations he was about to visit and collected detailed information about the respondents by studying their biographies and examining their personal social network pages, if available. Personal social pages of top officials along with the official websites of organizations in Kazakhstan are valuable sources of information portraying loads of useful data on the e-government implementation under study.

The top officials in Kazakhstan working on e-government implementation are actively involved in disseminating information about their projects. The Vice Ministers responsible for digitalization are especially highly active across social media platforms. Considering this, the researcher carefully studied Facebook and Instagram pages of high-level bureaucrats before meeting with them. This helped understand the overall picture of the

organizations' activities and the respondents' latest involvements. Such an approach also showed the preparedness and seriousness of the interviewer and allowed the interlocutors to skip right to the topic saving time and energy. This was especially helpful during meetings with Vice Ministers. Prior knowledge therefore helped direct the person the researcher was talking to towards the relevant direction, continuously reminding him/her on hard specifics or situations that are relevant to the topic (Hammer & Wildavsky, 1993, p. 61).

5.3.3. Preparing Questions for Interviews

Prior knowledge of the organizations' activities also helped select the right questions for the interviews. Despite the temptation to ask questions such as, who is responsible for the failure of that project or which of the mentioned characters have the most impact, the researcher asked generic questions like how you carried out the project, which encouraged respondents to describe the phenomenon. Generic questions helped reveal important details of the process and avoid biased interpretations.

On the other hand, the author was acutely aware that generic questions may show him as if he was unprepared for the interview and thus may result in the respondent's unwillingness to conduct a more detailed and technical conversation. The researcher therefore tried to maintain a delicate balance between the generic and technical questions. This compounds the situation when the research faced the aspects during the interview which he did not fully understand, mainly due to the information asymmetry between the interlocutors. For this reason, to be sure that the conversation was moving in the right direction, before proceeding, the author asked clarifying questions to avoid convoluted statements.

It was very important for dissertation purposes to know the structure of the organizations before the interviews. Considering the need to find out the presence of network approach in Kazakhstan e-government decision making, it was important to have a clear idea not only of the formal hierarchy within organizations, in particular the ministries responsible for the implementation of certain e-government projects, but also to comprehend the informal social relations among the involved actors. The researcher therefore first studied

the organizational chart of administrative machinery before taking interviews. After examining the structure of the organizations, the author developed questions that would help him understand the social relations of the involved stakeholders as well. For this, the author first asked a generic question, such as “Tell me how you carried out your project/program”. When the respondent was telling about how a certain project or program was performed, the author elaborated on the role of people directly involved by asking for instance whose role was critical for the implementation of the project, who was closely involved in the project and why, and how did this person contribute to the implementation of the project, etc.

Knowing about professional relationships in the organization helped the author understand with whom to conduct interviews in the first place and what questions to ask to certain individuals. Despite the fact that a semi-structured interview includes pre-established questions, the researcher used the individual approach to each respondent asking questions depending on the course of the interview.

Although interviews most often started with generic questions and questions that are relatively easiest to answer, the author also regularly asked questions that required reflexive answers. The researcher used this strategy to stimulate the interest of the respondents reserving questions of least interest for later. Almost in every interview the author had to remain flexible adapting to the environment, unforeseen circumstances and personal characteristics of the respondents.

5.3.4. Sampling and Research Participants

A sample in a qualitative study does not answer the questions of how much and how often as in a quantitative study. Instead, it helps to understand the problem, its causes and consequences (Honigmann, 1982, p. 84). In qualitative studies, samples tend to be non-probabilistic. The most common non-probabilistic sample is called purposeful. In this kind of sampling, the researcher aspires to derive the maximum benefit from the purposeful sample aiming to understand the nature of the problem. In fact, the reason such a sample is called purposeful is because it responds to the purpose of research as it provides a deep

understanding and extensive knowledge of a particular case through questions prepared by the researcher (Patton, 2015).

LeCompte and Schensul's (2010) sample called criterion-based selection plays a similar role. Primary importance of such a sample is attached to the criteria people in the sample have. Criteria determining the sample allows to achieve the study objectives and serves as a guidance for identifying information rich cases. Doing the research, it is necessary to give explanation for why the selected criteria are considered important for the sake of the study (Merriam & Tisdell, 2015, p. 98). For example, the first important criterion for selecting people for the sample of this study was their extensive experience in the implementation of technological reforms in the public sector of Kazakhstan. Secondly, the researcher was interested in people who were well-versed and knew thoroughly the process, preferably the whole process of e-government implementation in the country (second criterion). Thirdly, the more important source of information for the purpose of this research were senior executives, such as Vice Ministers, heads of departments and presidents of national companies, who were responsible for the development of e-government policy in Kazakhstan, in part or in whole (third criterion). The last and fourth criterion focused on the people who could share information about the structure of e-government policy network/s in Kazakhstan and could explain its working modalities.

In this case, the criteria appear in order of specificity. With every next step, the broad mandates of the previous criterion are narrowing down. The last criterion is thus the most specific and far more focused on the most challenging research hypotheses. Such a strategy was chosen in line with the capacity of the author to gain access to critical information. Since the author of this dissertation began the research with the belief that the sample meeting all four criteria would be ideal for the given research question, while the sample based only on a limited number of criteria, let's say only the first two criteria, would be less sufficient giving answers only to some of the research hypotheses.

The author used four typologies of purposeful sampling for this research: unique sample, maximum variation sample, convenience sample and snowball sample. Unique sample consisted of top-echelon specialists, who were making important decisions regarding the

implementation of technological reforms in the public sector and belonged to e-government policy network/s. These are atypical and rare features, that's why only a limited number of people with the proximity to primary decision making in e-government such as vice ministers, presidents of national companies and sometimes experts from international organizations were considered unique.

On the other hand, people who does not make major policy decisions but can offer their perspectives on the matter represent the sample based on maximum variation. The maximum variation sample helped identify general patterns through the review of different circumstances of the e-government phenomenon and a wide range of the characteristics of the people surveyed in the sample.

Besides unique and maximum variation samples, the author used convenience and snowball samples. For convenience sample, the author of this dissertation used acquaintances and friends who work in ICT sector. In this regard, sometimes the author managed to interview some respondents on the margins of various events that he happened to participate in as a part of his professional work. Such first contacts using the snowball technique helped a lot to find other potential interview participants who met the criteria set by the researcher. Through the snowball method, the researcher found several other informants for the sample.

The researched compiled a list of preliminary respondents, interviews with whom would be consistent with the overall objectives of the dissertation. The list consisted of e-government professionals working in the public sector, including the quasi-public sector, private sector, nongovernmental organizations, universities and international organizations. Most of these people are Kazakhstan nationals who work within the country. Some are international e-government experts who, for some reason, cooperated and helped the Kazakhstan government implementing e-government solutions. Unlike surveys, where the number and representativeness of the sample are the key factors, in this study the decisive factor was not the number of respondents, but the potential of each person to contribute to promote a better understanding of the phenomenon.

Relying on the research hypotheses, the author of this dissertation decided to conduct interviews with individuals who worked on e-government projects/programs in central administration units such as ministries and government agencies. To this aim, the researcher selected 7 out of 17 existing ministries as well as the Office of Prime Minister and Agency for Civil Service Affairs (see Table 18). While ministries were selected with the view to maximize the sample variation, the agency and prime minister's office were picked with the belief that it would help cross-check the interview results due to nature of their activities.

Table 18

List of Ministries and Selected Ministries for Sample (in protocol order)

List of Ministries	List of Ministries Selected for Sample
1. Foreign Affairs	-
2. Defense	-
3. Internal Affairs	-
4. Information and Social Development	-
5. Agriculture	-
6. Justice	1. Justice
7. Education and Science	2. Education and Science
8. Health	3. Health
9. Labor and Social Protection of Population	4. Labor and Social Protection of Population
10. Industry and Infrastructure Development	5. Industry and Infrastructure Development
11. Culture and Sports	-
12. Trade and Integration	-
13. National Economy	-
14. Finance	6. Finance

15. Digital Development, Innovation and Aerospace Industry	7. Digital Development, Innovation and Aerospace Industry
16. Ecology, Geology and Natural Resources	-
17. Energy	-

Note. Illustrated by the author.

The author also met with the experts working in the specialized agencies operating under the auspices of the central government. Among others, these include institutions such as Zerde, national holding which is responsible for the implementation and coordination of ICT related reforms in the public sector, Nitec, a subsidiary company of Zerde which offer technical support and solutions, or Center for E-health, a company with Ministry of Health's full shareholding which provides services for the realization of e-health projects in particular. For triangulation purposes, the author also met with about 30 representatives of private sector, NGOs and academia.

Table 19

Other Public and Quasi-public Institutions Selected for the Sample

Name of Institutions	Goals of Institutions (briefly explained)
Office of Prime Minister	Coordinates the activities of governmental agencies
Agency for Civil Service Affairs	Administers the work of civil servants across governmental agencies
National Company Zerde	Coordinates and monitors the development and implementation of ICT solutions across country
National Company Nitec	A subsidiary company of Zerde that provides technical support for ICT solutions nationwide
Center for E-health	A company with Ministry of Health's full shareholding that implements and coordinates e-health projects
Center for Health Development	Semi-autonomous governmental body that develops and implements health policies
Astana Hub	International technology park of IT startups

Note. Illustrated by the author.

During field research, respondent lists often changed to a certain extent. Some respondents refused to be interviewed after initially giving consent, while others were reluctant to agree to an interview from the very beginning. The researcher could not meet with some of the interviewees due to their absence in the workplace or the country at the time period chosen by the author of this dissertation for the field research.

The researcher determined the sample size in accordance with the recommendations of Lincoln and Guba (1985), who argued that the sample could be completed when the saturation point is reached. At such point the researcher no longer receives new information from the respondents during the next interview. Thus, if a researcher receives the same answers to his questions again and again, then it means that a point of saturation is achieved, which in turn means that the data collection can be halted. To this end, the author of this dissertation conducted data analysis simultaneously with data collection.

It should be also added that the researcher had prior knowledge about how many people approximately he would need to interview, since before leading the research, he had discussed this issue with his supervisor and dissertation committee who helped the author determine the needed number of people for the interview in order to address the dissertation question. However, the author was well aware that the final figures would be adjusted to the conditions of the field as the research continues.

In accordance with the legal procedures of the organizations where the researcher held interviews and in line with the ethical considerations of Hacettepe University, the author of this work was required to obtain permission to conduct research. For this, he in advance called respondents by phone or sent an email to them, where he also provided information on research objectives and questions he was going to ask during the interview. In the later stages of the research some of the interviews were conducted online via applications such as Skype or WhatsApp due to the outbreak of Coronavirus taking place across the globe.

5.3.5. Piloting Interviews

The piloting of interviews had been carried out in two stages. At the first stage, the preliminary questions had been agreed upon with the thesis supervisor to make sure that the questions allow to understand in greater depth the political life in Kazakhstan and develop the research hypotheses for the study.

Conducting preliminary interviews was the second stage as a part of the effort to pilot the interviews. Since several respondents have high status and time constraints owing to their professional activities, the researcher understood that he may never see them again and thus lose the chance to obtain information critical for dissertation purposes. To maximize his chances, the author carried out several preliminary interviews.

Preliminary interviews were conducted with already familiar people, experts who work in the e-government field. If the author did not achieve the desired result from these interviews, he would have a second chance to redo them. Most of the time such conversation were held in an unstructured and informal manner. In many ways, these interviews were exploratory helping test the questions in advance and predetermine the course of the interviews. After preliminary interviews were conducted, some questions had to be reformulated, as the author found out that they were either misinterpreted or were inconsistent with the aims of the study. Such practicing also helped anticipate the challenges and fallouts that might appear in the ensuing interviews. Suffice to say that the author had been constantly improving his working methods for the subsequent interviews.

5.3.6. Guide Questions

Moreover, to avoid distancing from the main discussion or conversely, the excessive depth, the researcher prepared guide questions that would gear the respondent towards the needed conversation depth or concreteness. Broadly speaking, the guide questions is a list of preestablished questions that the author of this work intended to ask during the interviews. The order in the guide questions is based on the principle of progressing from easier issues to more difficult ones. Depending on the nature of respondents' professional

activities, at the beginning of the interviews, the author usually asked for descriptive information, which usually included the activities or chronicles of the organization, some event and specific project or program. Next came more specific questions that would seek more analytical information and expertise. These laid the foundation for questions requiring an assessment, opinion or commentary of the respondent. Questions that would trigger emotional reactions and strong feelings of the respondents would be postponed until the end of the interview.

The guide questions were not addressed identically to respondents. Questions involving detailed information about e-government, its planning and implementation, the role of policy actors in the development of e-government in Kazakhstan and other specific features of policy making in this field were addressed to respondents working in governmental agencies and national companies. These are the people who take critical decisions on the implementation of e-government or work directly on e-government projects. Such questions were directed to individuals who might know the modalities of the e-government policy networks such as presidents or executive directors of national companies. All other questions were addressed either to cross-check the collected data or hear different perspectives on the e-government implementation, especially on the evaluation of e-government projects. Some specific questions such as what would you have changed in my questions or what are the main obstacles of studying e-government in Kazakhstan were addressed to the academics to be sure that the researcher used the right kind of questions to avoid misinterpretations and improve the quality of the research with the feedback of these professionals.

Table 20

Guide Questions, Type of Respondents and Rationale for Questions

Type of Question	Type of Respondent	Rationale
Tell me about your organization, project and briefly about yourself?	All respondents, if applicable	Generic "warm-up" question stimulating familiarization with the researcher
What role do you play in your organization?	All respondents, if applicable	Generic question encouraging the respondent to

		rethink his responsibilities at the workplace. This question also allows you to determine the next question. For instance, if a respondent occupies a senior position, he or she would also receive questions about decision making.
How are you involved in e-government projects? Tell me about the project you are currently working on.	Respondents working in the governmental agencies not directly involved in e-government implementation, for instance, Office of Prime Minister or Agency for Civil Service Affairs	Specifying question
What do you think about e-government in Kazakhstan?	All respondents, if applicable	This question allows to receive the descriptive information about the e-government in Kazakhstan and measures the knowledge of the respondent from the general perspective. It also helps direct the following specifying questions. It is an appropriate question in case the researcher is already acquainted with the respondent.
How do certain administrative mechanisms or	Respondents occupying senior positions in	These questions address the specific features of

structures influence your work? What can be changed in the work of ministry and supplementary governmental agencies, and why?	governmental agencies and national companies	Kazakhstan's policy making, e.g., government's plenary sessions and work of ad hoc governmental commissions, and the attitude of the superiors on it. For instance, in such context specific follow-up questions for the Vice Minister of health responsible for digitalization would also include: tell me about the E-health Center its work; what is the role of the Supervisory Board at the E-health Center? Are there similar public, quasi-public institutions responsible for e-health?
How are decisions generally made at your organization?	Respondents working in governmental agencies and national companies	This direct question is asked in case the respondents did not give clear answer to other question implying how decisions are made within the organization.
What is your role in the specific project?	All respondents, if applicable	Although looks similar to the question: what role you play in your organization, this question is often asked to middle-level managers and operating expert with

		the view to determining the responsibility level of the respondent in the particular project and the policy making (decision making) processes as well.
If it happens that you have to choose one project from several? How does the selection process take place?	Respondents working in governmental agencies and national companies	The question is oriented on determining the level of responsibility in the process.
How a certain public service is digitalized? How do you know if you need a proactive public service? What factors helps determine this?	Respondents occupying senior positions in governmental agencies, especially Vice Ministers and Heads of Department	This question measures the decision making within the organizations or within the government. It also assesses to what extent the government officials are ready and willing to take initiative.
Does it happen that you deviate from the already agreed Road Map? How fast can you respond to changes in the project during the process?	Respondents working in governmental agencies and national companies	This question aims to determine the role of the respondent in the decision making mechanisms within the organization.
Have you ever abandoned a project on the halfway? Why? *Clarifying question: tell me about unsuccessful projects, if any.*	Respondents working in governmental agencies and national companies	These questions explore the process of both decision making and implementation from different perspectives.

From whom did you learn the most during your time as Deputy Minister, Head of Department or President of Company? What was the most informative? Can you say that you have your own style of leadership unlike your other colleagues in similar positions?	Vice Minister, Head of Department, President of Company	The question is focused on defining the source of inspiration or/and source of authority in the decision making.
How do you think Kazakhstan circumstances (weather conditions, geographical location, vastness of the country, political system, personality of the people) influence the decision making in the field of e-government? *What are the major impediments in doing your job/carrying out your project (e.g., bureaucracy, lack of funding, lack of coherence among colleagues)? What would you change to overcome these impediments?*	All respondents, if applicable	These questions are closely associated with the factors that affect the policy making and decision making within organization and aims at receiving the perspective of the respondent.
Have you worked with colleagues from other departments, organizations or representatives from other	Respondents working in governmental agencies, national companies and international organizations	These questions would reveal working methods and procedures helping understand the process of e-

countries? Can you tell in detail? What project did you work on? *Clarifying questions: Who was the easiest to work with? What is the difficulty of working with other partners?*		government policy. It also sheds light on the prospective policy networks in the field of e-government.
What is the role of the staff in the decision making? What is the role of advisory bodies or mechanisms in the decision making? What is the role of data in decision making? How are new ideas generated?	Respondents holding senior positions in governmental agencies and national companies	These questions measure the level of responsibility of top-echelon bureaucrats through different perspectives ranging from the role of the subordinates to the extent idea holder impact the policy making.
What role do you play in the project? How do you influence the working process? What is the role of you superiors?	Respondents not holding senior positions in governmental agencies and national companies	These questions are oriented at weighing the roles of the experts in the development and implementation of e-government projects
What is the role of benchmarking and/or other indicators and rankings in the development of projects?	All respondents	This question assesses overall policy making and especially whether the areas specified in the benchmarking or rankings are emphasized over other areas.

Did you study other examples (of other organizations, countries) before developing the project/s? Who could you personally mention?	Respondents working in governmental agencies and national companies	These questions measure the transfer of e-government policies within organizations, Kazakhstan and among countries.
Can we talk about the Kazakhstan model of e-government, or some hybrid model?	All respondents, if applicable	Other way to look at the policy transfer issue.
Which countries have you visited most during your term of office? From what countries come to visit you most? Why?	Respondents working in governmental agencies and national companies	These questions assesses the lesson-drawing in e-government policies from different perspectives. Similar answers from different organizations would reveal patterns for lesson-drawing.
Can you tell me about international cooperation? How international cooperation affects the work of your organization? Does international cooperation help improve certain projects? Are there binding documents that Kazakhstan should comply with? What is the role of international organizations, including World Bank or IMF?	All respondents, if applicable	These questions addresses the impact of the international organizations (coercive, voluntary policy transfer) and exemplary countries on the implementation of e-government policies in Kazakhstan. These questions also define the policy transfer. It also touches upon the prospective international policy networks.

Can we talk of e-government network in Kazakhstan? If yes, who are they and what is their impact on e-government policy making?	All respondents, if applicable	These question help disclose the e-government policy network/s and its/their effect on the e-government policies in Kazakhstan
What are the main obstacles in doing research on e-government (policies) in Kazakhstan?	Academia	This question helped to plan the research more efficiently and avoid mistakes of previous researchers.
As a scholar, what would you have changed in my questions? Or, what questions would you add?		
With whom could I continue the conversation in Kazakhstan and abroad, i.e., the post-Soviet space?	All respondents	This is snowballing technique helping find other respondents suitable for the dissertation purposes.
Can you share with me any information, e.g., some document, report or presentation, that could be useful for my research?	All respondents	This technique helps obtain rare information which might not be available for public access.

Note. Illustrated by the author.

Focusing on dissertation purposes during the interview was sometimes troublesome. The details that the respondents were sharing with the author would sometimes not meet the criteria set for this study. Given the breadth of e-government topic, the respondents occasionally shied away from the main discussion to irrelevant areas of conversation. In such cases, if a respondent deviated from the topic, the author would nudge him/her by clarifying questions such as what you can tell specifically on this issue or can you tell in more detail about specific problem, which you mentioned earlier in the conversation.

5.3.7. The Interview Process

Interviews of about 40 respondents were conducted in three languages in Kazakh, Russian and English. The researcher interviewed in Kazakh and Russian languages mainly Kazakhstan nationals. In English language, the author interviewed experts working in international organizations and foreign academics working in Kazakhstan.

5.4. DATA ANALYSIS

Patton (2002, p. 432) claims that there is no single recipe or formula for analyzing qualitative research. In qualitative research, each researcher approaches the issue differently and uses different analytical strategies despite the fact that literature bounds with corresponding prescriptions and guidelines.

The author of this dissertation transcribed the collected data verbatim using the Microsoft Word program. The author made the records with precision. To preserve the authenticity of the interview, he did not correct or fix the text writing down slips of tongue or grammatical errors as they were.

Excerpts in Kazakh and Russian languages, used in the dissertation, were translated into English by the author. The translated excerpts were numbered, and their analogs in the original language were archived so that could easily be reached and searched later.

The author concealed the identities of the research participants so as not to violate their personal rights and preserve their anonymity. The author did not indicate the participants' names in the results of the study, while the names of organizations were used in general terms. The author used identification numbers instead of the participants' names such as R1, R2, R3 and so on. On the other hand, institutions such as the World Bank or IMF were indicated as "credible international organizations" or other similar terms; public and quasi-public institutions were referred to as government agencies; and national companies and private firms were used without mentioning their names. Such practice was applicable unless it was necessary to emphasize a specific project or program in order to

disclose the research hypotheses. In this case, the author took prior permission from the respondents. Here, it is worth mentioning that the Vice Ministers responsible for digitalization allowed to be specified and quoted in the study.

5.4.1. Coding

The author of this dissertation tried to adhere to the constant comparative method of data analysis developed by Glaser and Strauss (1967). This means a thorough examination of the transcribed texts and their repeated rereading began immediately after obtaining the first data, in particular after the first field research.

The author read, reread and commented on the data obtained from the first interviews and observations, constantly reviewing them with regards to the dissertation purposes. After the author took the first notes and had some ideas and clues on the basis of the first data set, he stressed the points he wanted to ask or observe in the next round of data collection. After the second round of interviews and observations, the author compared the first data set with the second. After comparing the data, the author decided whether he should continue the research.

After conducting four rounds of interviews and observations, the author already had the data to analyze and summarize the findings. At this stage, the author had already sketched a set of preliminary categories and had a certain vision regarding the organization and data management strategy. This is the first step in data analysis that Corbin and Strauss (2015) call open coding.

Further, all data relevant to the study was highlighted and separated. The selected data was specified by different aspects so that it could be easily retrieved later. These designated data were defined and described by phrases that had any connection with the research. These phrases in turn would serve as useful bases for the prospective categories.

After the researcher finished collecting data and all the necessary variables have been selected, he moved into the stage of axial coding. At this stage, the author started to match

categories with properties of the selected data and the systematized and classified them. Such comparisons were constantly made within and between levels of conceptualization. These conceptualization or conceptual levels consist of hypotheses that, as noted in previous sections, measure the relationship between the categories and properties. The path to a sound substantive or "grounded" theory lies through testing the relationships between categories and their properties.

In addition to the preliminary categories, properties and hypotheses, a grounded theory consists of the main category. The main category is the central defining aspect of the research, with which all other categories and hypothesis are closely interconnected. The main category is tested against the other categories in the third stage of selective coding. Finally, when the author has nothing to compare between the levels of conceptualization, a new substantive theory is formulated, or a statement arises that confirms the existing material or subject theory.

5.5. RESEARCHER'S ROLE

Researcher's role in conducting a study is a distinctive one, especially in qualitative research. Patton argues that the researcher is an important tool in qualitative research. The skills and competence of a researcher strongly influence the quality of qualitative research, while his or her values and beliefs greatly shape the research content (Creswell et al., 2007, p. 238; Patton, 2002, p. 14).

Personal and professional credentials of the author of this work seeded the initial set of assumptions and is closely linked to the conduct of this dissertation. The author learned a lot about e-government and the impact of technology on the work of public sector while in his term of office. Working for an intergovernmental organization the author had the chance to participate in many ministerial meetings and professional forums and partner with several ministries responsible for the implementation of e-government from different countries. This experience gave the first insights about policy and decision making in regard to e-government projects implemented in Kazakhstan.

On the other hand, the researcher had closely observed the developments taking place around the integration of technological solutions within the public sector as a Kazakhstan national. Over the last 7 years, the researcher closely followed the news feed related to e-government initiatives, including both successful and failed projects, since they figured prominently on the agenda. Given his long-standing interest as a concerned citizen and public administration student, the author thereby became interested in answering several questions that popped into his head with regards to the nationwide implementation of e-government projects such as who stands behind the key decision making on technological reforms in the public sector, how these decisions are being made, is there a systematic relationship among the key decision makers, does Kazakhstan import e-government policy solutions and if yes, then how and from where.

The urge to answer these questions pushed the researcher to study this topic. The author also approached technological reforms with an assumption and belief that they would become, one way or another, a trigger for widespread reform movement across the country, Kazakhstan was on the brink of change where technology, especially the ICTs, was viewed as an opportunity to join the ranks of the developed countries. Being a part of such transformation was both inviting and inspiring for the researcher. In addition, the researcher held the view that with such a study he would help in his position to understand what could be done better and humbly assist Kazakhstan with its modernization efforts, especially since no one studied previously the policy making processes in Kazakhstan as they has been happening behind closed doors.

The author of this dissertation was keenly aware that despite his initial knowledge about the e-government in Kazakhstan, it was not enough to answer the research questions. Therefore, to keep his personal prejudices out, the researcher tried to maintain a neutral and critical position towards the examined topic during the data collection and analysis. Moreover, despite the fact that the author was previously aware of the e-government realization in the country, he held several pilot interviews to make sure that he was on the right track.

5.6. TRUSTWORTHINESS

The level of trustworthiness in qualitative research depends on how the noted research was conducted. Qualitative research is based on the assumptions about reality, therefore the standards for scientific rigor of such a study markedly differ from quantitative research. Also, the criteria and terminology for assessing the rigor of qualitative research are subject to frequent change. As a result, the author of this dissertation used the traditional terminology as noted in the work of Merriam and Tisdell (2015). The author thus used internal reliability, reliability and external reliability as an assessment of his research rigor while recognizing that these are challenged terms.

Internal Validity. Internal validity is closely related to how the results of this work correspond to reality. In other words, internal validity measures how much the research results are comparable to what actually happens in the real world (Merriam & Tisdell, 2015, p. 244).

The most popular strategy for checking the internal validity of a study is triangulation. Four types of triangulation can be used to confirm the results of the research: using several methods, several data sources, several researchers or several theories (Norman K. Denzin, 1978). All four types were applied to this study.

Richardson (2000) and Richardson & St. Pierre (2005) argue however that triangulation alone is not enough since it focuses on fixed objects. The authors contend that it is troublesome to triangulate social phenomena in postmodern studies offering to supplement it with crystallization. According to the authors, crystallization is a strategy of checking internal validity, which implies a variety of methods, perspectives and multidimensionality, in contrast to triangulation, where at least three different sources are utilized to verify internal validity (as cited in Merriam & Tisdell, 2015, pp. 244–245). Suffice to say that the author used the maximum number of tools verifying internal validity he had at hand.

The author of this dissertation verified the internal reliability of the research results through open interviews, close observation of the e-government phenomenon in Kazakhstan and careful analysis of the documents related to implementation of technological reforms in Kazakhstan's public sector. For the entire time of writing this work, the author did a careful and timely follow-up and obsessive study of academic journals, books, conference papers, newspaper articles, magazine articles and reports. The author did his utmost to ensure that the most recent literature resources related to the implementation of e-government in Kazakhstan were included in this work.

In addition, the author used extended sampling to test the hypotheses of the study. In order to enable the tentative comparison of results and cross-check data, the author met with various people who work in various professional environments, ranging from public and private sectors to nongovernmental organizations and international institutions. The author also interviewed academics and independent experts who specialize in e-government.

The author also applied the respondent's check strategy. To that end, he compared the answers of the interviewed people, receiving information from different perspectives about the phenomena with the view to excluding misunderstanding, incorrect interpretation of the meaning and prejudice of the author himself.

Taking advantage of the multifaceted nature of subject matter, the author supported the internal validity by cross-checking the study results through various theoretical concepts. The author used different public policy concepts and tested them on e-government phenomenon in Kazakhstan. This assessment was manifested through different themes such as national policy making and decision making in e-government, transfer of e-government and e-government networks.

It was not always easy to determine how much time is needed and how many people should be interviewed to display the greatest possible understanding of e-government phenomenon in Kazakhstan. To that end, the author extracted material until he began to

notice that the acquired results started to repeat, and that new information no longer came from data collection.

Finally, the expert assessments, especially the thesis supervisor and dissertation committee, helped achieve the internal validity of this work. Each major step in the thesis preparation was coordinated with the supervisor and members of the dissertation committee who were constantly updated on the process and were giving feedback when needed.

Reliability. Reliable research is one that can be replicated. Reliability addresses the question will the results be the same if the research is repeated. The understanding that repeated outcome leads to reliability assumes that there is some kind of single reality, and that if studied repeatedly, it will bear the similar results. However, reproducing research and repeating observations in the social sciences are problematic, since a person is not a static concept being prone to constant change and making errors (Merriam & Tisdell, 2015, p. 250).

Nevertheless, the reliability of literature in the social sciences, just like in internal validity, can be verified through various methods of analysis and triangulation. Strategies such as peer examination, researcher's position, and the audit trail, which were previously discussed in the section devoted to internal validity, can also be utilized to test the reliability of the study.

On the other hand, realizing that repeating research in the social sciences is unpractical, it is proposed to follow the approach of Dey (1993, p. 251) who expresses that "the best we can do [regarding reliability] is explain how we arrived at our results". In this regard, this chapter acts as the audit trail of this work describing in detail how data were collected, how certain categories were picked, and how specific decisions were made during the study. To maintain the reliability of this work even further, the author saved and archived all of his original sketches and raw, unprocessed information extracted during data collection, including interviews.

External Validity. If the results of one study can be applied to other situations, then this study is considered externally reliable. However, Guba and Lincoln (1981, p. 115) believe that it does not make sense to inquire to what extent a research is externally reliable, if it is not valid internally, since "there is no point in asking whether meaningless information has any general applicability."

The generalization resulting from data analysis is one of the dimensions of external validity demonstrating the applicability of the research results to other situations. Although generalization, as it occurs in quantitative research, is hard to achieve, it cannot be said that qualitative research does not raise awareness regarding certain social phenomena (Merriam & Tisdell, 2015, p. 254). In this regard, Eisner (Eisner, 1998, pp. 103–104) puts that "generalization is a ubiquitous aspect" and "no one leads life by randomly selecting events in order to establish formal generalizations. We live and learn. We try to make sense out of the situations in and through which we live and to use what we learn to guide us in the future." Therefore, generalization in qualitative research helps achieve the external reliability of a research. On the other hand, Lincoln and Guba (Lincoln & Guba, 1985, p. 298) propose the concept of transferability, in which the main burden lies not with the researcher, but with the person who will benefit from the research by applying its results elsewhere. However, for such a transfer to occur, the researcher must provide sufficient descriptive data. In addition to transferability, Patton (2015, p. 713) pushes forward the concept of extrapolation. Extrapolation is also closely associated with the applicability of the research results in other situations, but only under similar rather than identical conditions. Extrapolations are "logical, thoughtful, case-derived, and problem oriented rather than statistical and probabilistic" (Merriam & Tisdell, 2015, pp. 254–255). In order to ensure generalization from the standpoint of qualitative research, the author, as suggested in the theoretical literature, tried to take the perspective from the reader point of view, illustrating detailed examples of context and circumstances in which the results of the study could be applied.

To ensure the prospective dissemination and transfer of the research results, the author tried to use some strategies. One of such strategies, coined by the philosopher Gilbert Ryle (1949) implied the use of "rich, thick description." Lincoln and Guba (1985, p. 125)

gives the account of a thick description as the "sending context so that someone in a potential receiving context may assess the similarity between them and the study." To this end, in this chapter, the author of this dissertation thoroughly described the research settings and gave detailed information about the interview participants. He also detailed the research results with evidence presented in the form of quotes from interview participants and document clippings in the next chapter related to the findings.

Another transferability strategy is closely related to the research sample. Patton (2015) suggests that an extensive sampling would include "purposefully picking a wide range of cases to get variation on dimensions of interest." The author included the extended sampling possible trying to ensure the maximum sampling variation suggested by Patton. Hence, the wide range of people who participated in the interview would enhance the possibilities for continued and further application of this study in other circumstances. In this regard, this work provides a forceful illustration for the prospective transfer and implementation of the research results in other developing countries, in particular in the post-Soviet countries.

5.7. ETHICAL CONSIDERATIONS

The internal validity and reliability of a study largely depends on the ethics of the researcher himself. Patton (2015, p. 760) believes that the researcher ethics, like any other pillars of research trustworthiness, is an important component ensuring its quality: "ultimately, for better or worse, the trustworthiness of the data is tied directly to the trustworthiness of those who collect and analyze the data — and their demonstrated competence."

Marriam and Tisdell (2015, p. 260) specify that all studies should bear a belief that they were carried out with integrity and clearly evolved ethical position of the researcher. Tracy (Tracy, 2013, p. 243) suggests that ethical issues mainly arise during research procedures. To avoid such ethical issues many organizations and institutions have guidelines and review committees that test the study for problems related to ethics. Therefore, issues such as protecting subjects from harm, guaranteeing the right to privacy, ensuring the right to informed consent and cheating problems are considered by organizations, in

particular research centers or universities, in advance, before they might take place in the process of data collection.

In this regard, before starting his research, the author of this dissertation applied to the Ethics Committee of Hacettepe University to obtain permission to collect data. Although the main method of data collection was an interviewing, the author provided detailed information about other methods of data collection that would be used in the study. In addition, the Hacettepe Ethics Committee received thorough information about the objectives and design of the study, interview participants, expected outcomes, and prospective implications that might arise after the study. The author also explained in detail how he would ensure the confidentiality of research and avoid violating the rights and privacy of interviewees. As a consequence, the proposal submitted by the author was approved, while the Ethics Committee granted the permission to conduct the study.

The author also asked the permission to conduct research at the organizations where interview participants work. Before the interview, each participant was informed that no harm would be done to his/her mental state and physical conditions, that his/her name would not be specified in the research findings and that he/she could leave the interview upon their will and at any time. In addition, each interviewee was informed in advance about the objectives of the study and research questions.

5.8. CONCLUSION

This chapter revised the reasons author chose to use qualitative method and more precisely the grounded theory during data collection and analysis. The data collection process included sections explaining why semi-structured interviews were chosen, how the preparation process for the interviews went underway, how the basis for the interview questions was formed and how the first set of interview questions were tested. The procedures during data collections also embraced the list of guide questions and general framework of the interview process. After the data collection section, this chapter outlines the basic principles of data analysis, which especially focuses on coding techniques. The

final part of the chapter leads to the description of important aspects of every methodology literature, such as researcher's role, trustworthiness and ethical considerations.

CHAPTER 6: FINDINGS

This chapter explains in detail why and how policy networks provide a solution to the organizational problems being faced by decision-makers during the formation, reformation, implementation, and evaluation of e-government policies in Kazakhstan. Within this framework, the statement of Smith (1993, pp. 66–74) that policy networks are formed because they offer four advantages to the government, such as an advisory environment for policymaking, depoliticization of policy domains makes perfect sense. Smith's categorization very relevant for Kazakhstan, at least in terms of e-government policy making.

Collective behavior often occurs when developing traditional organizational solutions to overcome the underlying problem becomes problematic. This is when policy networks as a form of collective action arise as a result of an intention to address public policy issues. Policy networks, however, are not homogenous in their formation and functions, thus they may be formed differently within different contexts. In some cases, policy networks develop independently from government or arbitrarily. In other cases, the government contributes to the emergence of policy networks due to the absence of alternative solutions to the problem at hand (see Carlsson, 2000, p. 511).

The Kazakhstan context illustrated that the people responsible for implementing e-government belong to different sectoral groupings. In the literature, the term is also known under the terms of constellations, sectoralization (P. Kenis & Schneider, 1991), or functional differentiation (Mayntz, 1993). In theory, these groupings are "bred" by the government, as a part of modernization efforts, in response to a growing resource dispersion and to increase the capacity and effectiveness of the government.

The example of e-government in Kazakhstan shows how over time, the central authority realized that the existing chain of command is not successful in meeting the challenges posed in the field. The e-government characteristics required rapid movement of extensive information. The need to quickly process a large amount of information prescribed establishing liaison arrangements that would allow maintaining intensive communication and building trusting relationships among the policy actors.

Another requirement that would eventually lead to the emergence of the e-government network/s was the need for policy actors to have specialized expertise and knowledge of the area. The objectives set by the government were unrealistic about solving the problems of e-government policy making with the existing staff and the decision making system. In particular, the bureaucracy responded too slowly and did not understand the essence of the reforms, often opposing the innovations that came with the initial wave of project implementation in the field of e-government (R1).

The Kazakhstan government's inability to mobilize administrative and political resources within the framework of its responsibility made it dependent on the cooperation and involvement of the aforementioned stakeholders. Particularly in the context of e-government, the central government had to hinge upon the joint resource mobilization outside its traditional setup and hierarchical structure.

It should be noted that for the central government the decision to share control and responsibility was not an easy one. Considering the traditional unwillingness of the bureaucratic cluster to share its reserved capacity with the new policy actors, the analysis of this dissertation showcases that the e-government network/s evolved several times following a complex development path until it/they reached the form it/they was/were at the time of study (R2).

Within this context, it may be deemed appropriate to say that the distinctive features and complexity of e-government rendered (policy) network approach as the most likely delivery mechanisms among other alternatives. The approach helped execute the e-government policy as was planned and especially achieve the much needed resource pooling. The fact that e-government is cross-functional in nature and that a large stack of its policy resources are widely dispersed and depend on several other actors reinforces this trend.

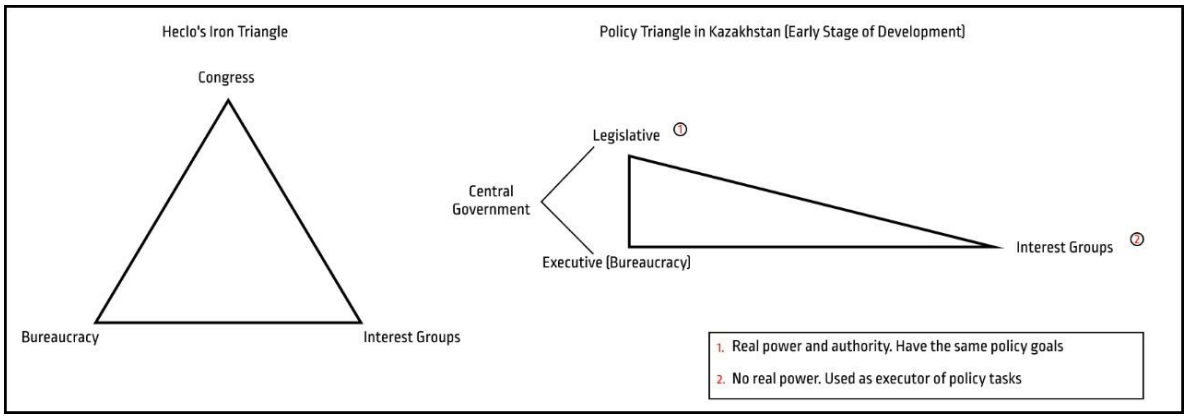
6.1. THE STATE OF E-GOVERNMENT POLICY NETWORKS IN KAZAKHSTAN

The conducted study shows that e-government policy networks in Kazakhstan are in their infancy. This assumption is supported by the study of Yael Yishai (1992), who elaborated on the consistency of the policy networks concept. Yishai, giving the example of public health in Israel, claimed that when the new state of Israel was established, its public health policy had not yet been developed. At the beginning of the policy formulation phase, only a limited number of policy actors were allowed in the process to form an iron triangle. The next step of this development phase was emergence of an issue network and after that only in the early seventies a policy community formed.

As mentioned above, despite the fact that nongovernmental organizations occupy a formal role in the structures of the newly established quasi-public institutions responsible for the implementation e-government solutions across Kazakhstan, in reality, their participation in decision making remains limited (R3). In practice, decision making takes place in a very narrow circle, almost in a black-box.

Figure 11

Policy Triangle in Kazakhstan E-government



Source: Illustrated by the author.

Considering Yishai's idea that policy networks might grow over time, it can be maintained that the current e-government policy network in Kazakhstan resembles the iron triangle

of Heclo (1978). However, in Kazakhstan, using the example of e-government, Heclo's iron triangle works bit a little differently than the proposed model.

In Heclo's iron triangle, the basic assumption is that all sides of the triangle, that is, the bureaucracy, congressional committees and stakeholders, are roughly equal in power and they try to consolidate their own power base by trying, through the power given to them by law, to influence policy outcomes as it is beneficial to them or as they think it is correct. In Kazakhstan, however, as illustrated in the example of Kazakhstan e-government in Figure 11, the political power is unevenly distributed among the actors of the policy triangle. In Kazakhstan, the executive (bureaucracy) and legislative authorities are essentially representatives of one group in which the result of politics is almost always the same and is dictated by the central administration in the person of the Presidential Office. The third side of the triangle is represented by interest groups that have no real power vis-à-vis the government and, in fact, in most cases is used as an executor of policy tasks. These interest groups often include representatives of private sector, nongovernmental organizations, and transnational institutions (R4, R10).

6.2. THE MAKEUP OF E-GOVERNMENT POLICY NETWORK/S

In this dissertation, the author brought up the topic of how processes are modeled within policy network/s. The author however believes that it is too early to speculate on particular strategies, based on power or interest, manipulation methods, or advocacy coalitions techniques within the network, as depicted in the literature, since e-government policy networks in Kazakhstan are still in their infancy. In addition, the processes of policy network formation and functioning in Kazakhstan should be studied in detail in separate research efforts.

At this point, it can be noted however that Kazakhstan's e-government policy network/s has a relatively homogenous makeup (R5, R6, R7). The actors within the e-government network share the same mentality, mindset, and ideological convictions, which, in general, results in increased consistency and coherence of the network's activities (see A.

Smith, 2000, p. 97). In theory, this convergence in the actors' functions is usually achieved in self-organized networks (see Carlsson, 2000, pp. 514–515).

In the case of Kazakhstan, e-government network coherence can be explained by the participants' uniformity and their homogeneous identity. The internal consistency of the network is supported by the state, which acts as a change leader of the nationwide e-government movement (see Milward & Provan, 2003; Raab, 2002, p. 610). In this regard, it is appropriate to assume that the country's highest-ranking officials would immediately rule out potential dissidents and inconvenient policy actors to ensure the current system operate as they want.

This involuntarily suggests that ICT, associated with the spirit of change and modernity, can be considered and, if necessary, studied more closely, within the framework of such well-established elite theories of Pareto and Mosca, which allude to the fact that there is no real big transformation in power change (see Zuckerman, 1977). Despite the suggestive way this work holds, it is not yet entirely clear whether e-government leads to fundamental changes in Kazakhstan policy making. Thus, it will be useful to draw out on this issue in the framework of other further studies.

6.3. THE ROLE OF INSTITUTIONAL BONDS IN THE FORMATION OF E-GOVERNMENT POLICY NETWORKS

Similarities in the preferences and/or utilitarian motives alone are not sufficient to predict the formation of contacts within policy networks. Leifeld and Schneider (2012, p. 1) believe that networking is an important pillar in minimizing information costs and maximizing the reliability of data received. According to the authors, contacts, formed to promote certain policies, should be built around institutional and social structures. In this context, these institutional bonds will have a strong influence on the interaction among the network participants (see also Raab, 2002, p. 581).

In this regard, this study shows that Kazakhstan's e-government policy implementation to a large extent evolved according to the logic mentioned in the previous paragraph. In

other words, institutional framework was a very influential factor in the formation of e-government networks. In this connection, the quasi-public institutions responsible for e-government implementation served as organizational channels and platforms for the exchange of expert opinions. Positions in the Board of Directors, Advisory Boards or Supervisory Boards across these organizations were often occupied by prominent entrepreneurs, businessmen, social activists, and other representatives of the private sector. Theses organizational setups allowed a large number of policy actors to participate in the policy making process and granted regular access to senior levels of decision making, which in normal circumstances is atypical for Kazakhstan (R11) (see Figure 12).

In Kazakhstan, formal designation of policy actors enshrined in particular laws is a significant factor in policy making (R8). In the country, informal relationships, similar to negotiations taking place between the state on the one side and private sector, or some prominent public figures or opinion leaders on the other side as more or less equal parties, as addressed in modern literature on policy networks, is still not a common phenomenon (see Raab, 2002, p. 619). Therefore, when it comes to important public policy issues, in the context of Kazakhstan, it is more likely that formal institutional structures and bonds will be the dominant factor in the policy making process.

Figure 12

Exemplary Managerial Composition in Quasi-Public Organizations

Board of Directors of National Infocommuncation Holding "Zerde"

- Chairman - Vice Minister of Digital Development, Innovation and Aerospace Industry of Kazakhstan (Responsible for Digitalization)
- Member - Chairman of the Executive Board of National Infocommunication Holding "Zerde"
- Member - Executive Secretary of the Ministry of National Economy of Kazakhstan
- Member - Vice Minister of Finance of Kazakhstan (Responsible for Digitalization)
- Member - Independent Director, Chairman of the HR and Remuneration Committee
- Member - Independent Director, Chairman of the Strategic Planning Committee
- Member – Independent Director, Representative of Private Sector (It was Sayasat Nurbek at the moment of writing)

Supervisory Board of E-health Development Center

- Chairman – no information at the moment of writing
- Member - Director of the Department for E-health Development of the Ministry of Health of Kazakhstan
- Member - General Director of the E-health Development Center
- Member - Chairman of the Board of Regional Public Organization "Kazakh Alliance of Medical Organizations"
- Member - Vice President of the Association of Legal Entities "Eurasian Medical Association"
- Member - Director for Strategy and Science of the JSC "National Center for Neurosurgery"
- Member - Specialist in Public Health and Informatization of the Project "Social Health Insurance"

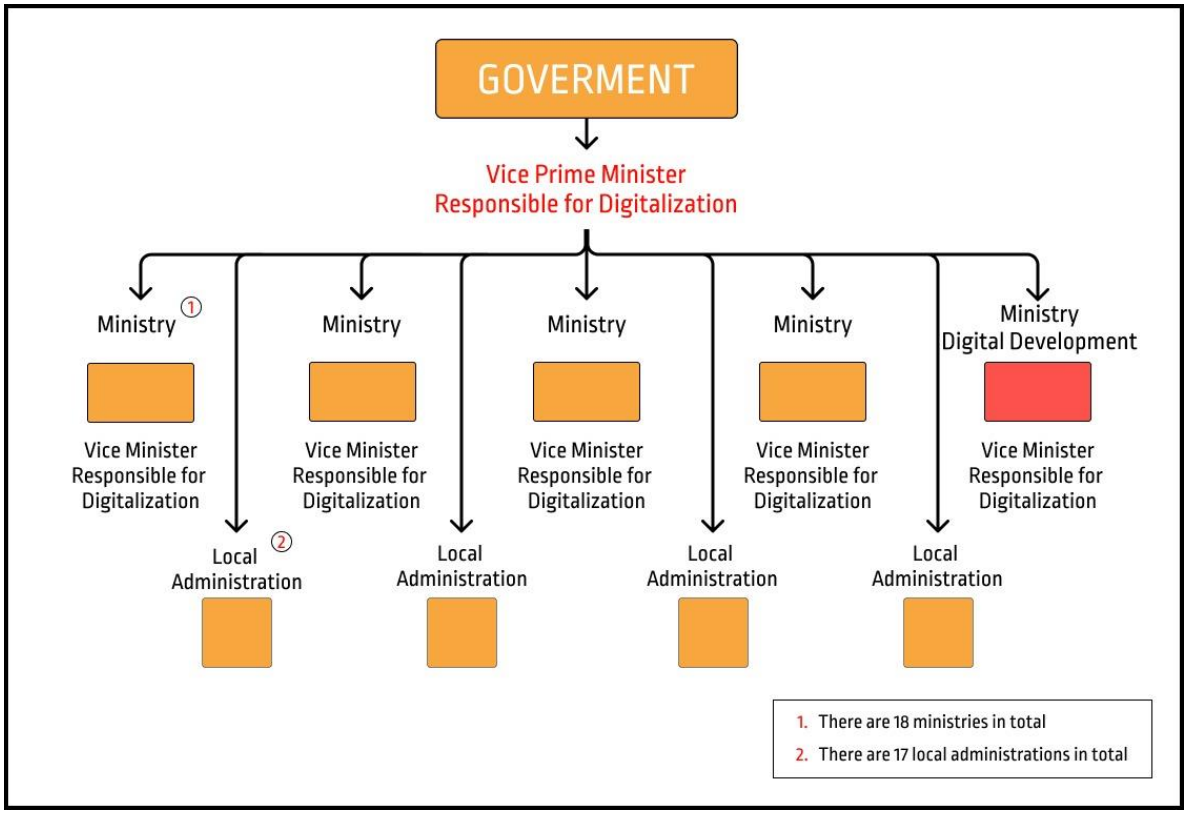
Source: Illustrated by the author.

These pitfalls in Kazakhstan policy making are widely known and accepted by the private sector or nongovernmental organizations. This mechanism of political decision making is a common phenomenon in the daily routine of the bureaucrats and is widely accepted by the senior government officials as well. To overcome the difficulties related to red tape and other administrative pathologies, the central government often designates different institutional roles and responsibilities. In fact, the government has often used this tactic when implementing e-government in various sectors.

The most obvious example of such an approach was the establishment of the position of the Vice Prime Minister, who was responsible for the implementation of e-government across ministries (see Figure 13). This position, which was later abolished, was for a long time occupied by the e-government guru and political doyenne Askar Jumagaliev (R1).

Figure 13

Illustration of the Role of the Vice Prime Minister Responsible for Digitalization

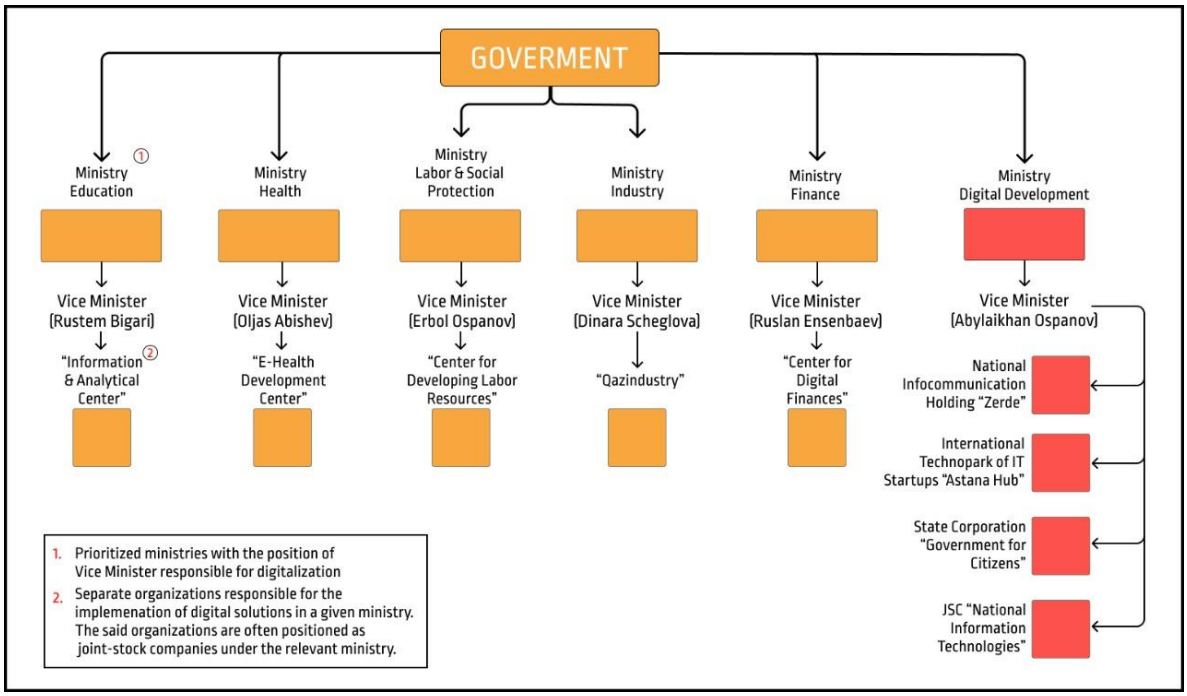


Source: Illustrated by the author.

Later reforms in the government led to a gradual weakening of the role of the Vice Prime Minister in charge of e-government, and in the further complete elimination of such an institution. This change may have taken place due to the fact that e-government has not yet become sufficiently popular and advanced in order to have its own separate political niche. On the other hand, the constant political pressure that has been exerted with the help of the Vice Prime Minister to advance in terms of realization of e-government projects has made significant progress. In other words, the Vice Prime Minister achieved the objectives set for him. This meant that instead of a strong politician, who would be too many for the field of e-government alone, the state needed implementers of the ideas sown in the field at that stage (R1).

Figure 14

The Positions of Vice Ministers and Organizations Responsible for Implementing E-government in Prioritized Ministries



Source: Illustrated by the author.

Instead of the role of Vice Prime Minister responsible for e-government implementation, the government formed a strong Ministry of Digital Development, Innovation and Aerospace Industry, which was again chaired by Askar Jumagaliev (Figure 13). It should be

noted that after this bureaucratic reshuffle, Jumagaliev, as a previously dominant e-government policy actor, lost all or most of his influence over other ministries (R1).

Now, he could not set tasks for other ministries, as he became on a par with other ministers. In other words, Jumagaliev was a supervisor in the role of Vice Prime Minister. However, after he took over the Ministry of Digital Development, Innovation and Aerospace Industry as the principal enforcer of e-government implementation across the country at institutional level, his role became more of a coordinator (R1).

In this regard, it is also worth mentioning about the establishment of the positions of Vice Ministers responsible for the implementation of e-government across different ministries of strategic importance, which, at the time of this research, included the Ministry of Health, Ministry of Labor and Social Protection, Ministry of Education, Ministry of Finance, Ministry of Industry and Infrastructural Development and Ministry of Digital Development, Innovation and Aerospace Industry (see Figure 14).

Mainly key figures, who had extensive experience in the implementation of technological solutions in the government were nominated to the positions of Vice Ministers. Here, it is also important to note that the Vice Ministers had backgrounds in quasi-public institutions. In particular, the Vice Ministers responsible for digitalization in key ministries came from the oldest institution among the category of organizations responsible for the implementation of e-government, that is, the JSC National Information Technologies (R12).

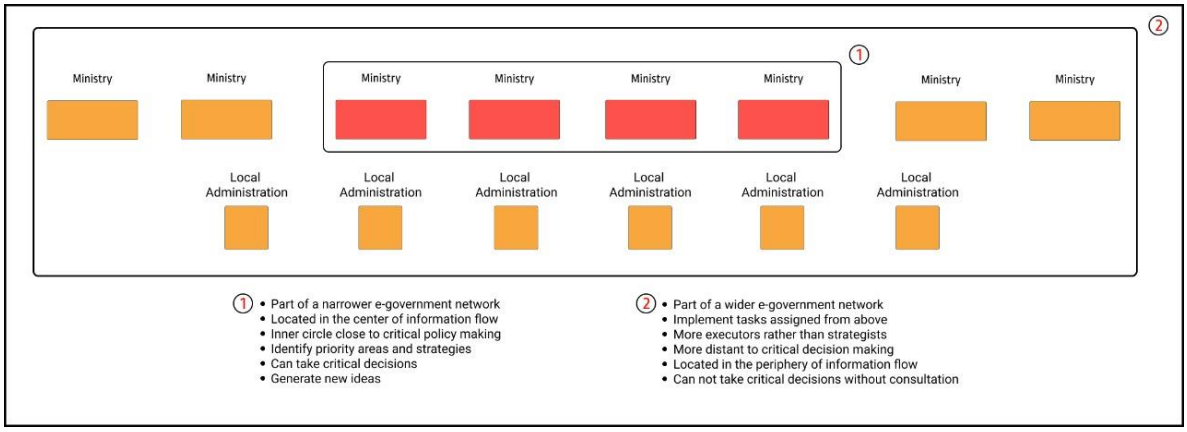
The experience of working in the field of e-government had an obvious effect when choosing candidates for the position of Vice Ministers. Besides this, the candidates for the Vice Minister positions should also have had knowledge of administrative management and coordination of business processes, the conventional qualities of a Chief Digital Officer[4].

[4] Typically Chief Digital Officer (CDO), or Chief Digital Information Officer, is a person, often a managing director, who helps an organization, i.e., government institution or a company, to manage administrative processes using digital technologies. Besides having a profound knowledge of ICTs, the CDO should also understand the administrative processes within an (preferably government) organization.

The newly appointed Vice Ministers were very different in many aspects from their counterparts who worked in the same ministries. The majority of the Vice Ministers responsible for the implementation of e-government had significant experience of working in the private sector or academia. For example, one of the interviewed Vice Ministers had a PhD, which is an obvious rarity for civil servants in Kazakhstan. This background enabled the Vice Ministers to become a sort of intermediaries between the government and other sectors interested in e-government, often allowing them to act as a loosening agent in-between the dense structures of the state, helping reduce the heavy centralization of power emblematic for Kazakhstan (R13).

Figure 15

Narrower and Wider Policy Networks in the of Kazakhstan E-government Ecosystem



Source: Illustrated by the author.

During the field research of uncovering e-government policy networks in Kazakhstan, it became apparent that policy making occurs at two levels or between two policy networks. One of these groups is the narrower policy network, which consists of policy actors who have access to critical information and is close to decision making. Such policy networks are personified by the presence of important policy actors in critical ministries, such as the ministry of health, ministry of finance, ministry of education.

Key figures in these ministries identify priority areas and strategies not only in their own ministries but also across the whole government, e.i., all other ministries and local

administrations. They are also responsible for innovative ideas and new approaches to the implementation of e-government. For example, the policy actors of such narrow circle, that is Vice Ministers of certain ministries, have a separate WhatsApp chat group in which only certain policy actors from certain ministries can be members (R14).

Other similar policy actors from other ministries or local administrations who are also involved in the implementation of e-government are not so close to the decision making process of critical information and therefore are mainly executors of certain policy decisions. They cannot take critical decisions without consultation from above and are located on the periphery of information flow concerning the e-government realization across Kazakhstan (R14). Shortly, it can be kept that the first narrower circle of e-government policy actors, the primary policy network, take (key) decision/s, while the second larger group of e-government policy, the secondary policy network, implements decision set by the primary policy network.

6.4. POLICY ENTREPRENEURS IN KAZAKHSTAN E-GOVERNMENT

The activities of Vice Ministers are closely associated with the term “policy entrepreneur” or “knowledge brokers” (Cairney, 2012, pp. 271–272; Kingdon, 1984, pp. 21, 104). Policy entrepreneurs are people who use their knowledge and apply innovative methods in developing policy solutions. Entrepreneurs can be politicians, leaders of interest groups, or some unofficial representatives (Jones, 1994, p. 196). In the context of this study, the Vice Ministers responsible for e-government implementation within specific ministries are fit to be called the policy entrepreneurs; since they were responsible not only for the e-government implementation in Kazakhstan, but also for applying innovative ideas and solutions in the field.

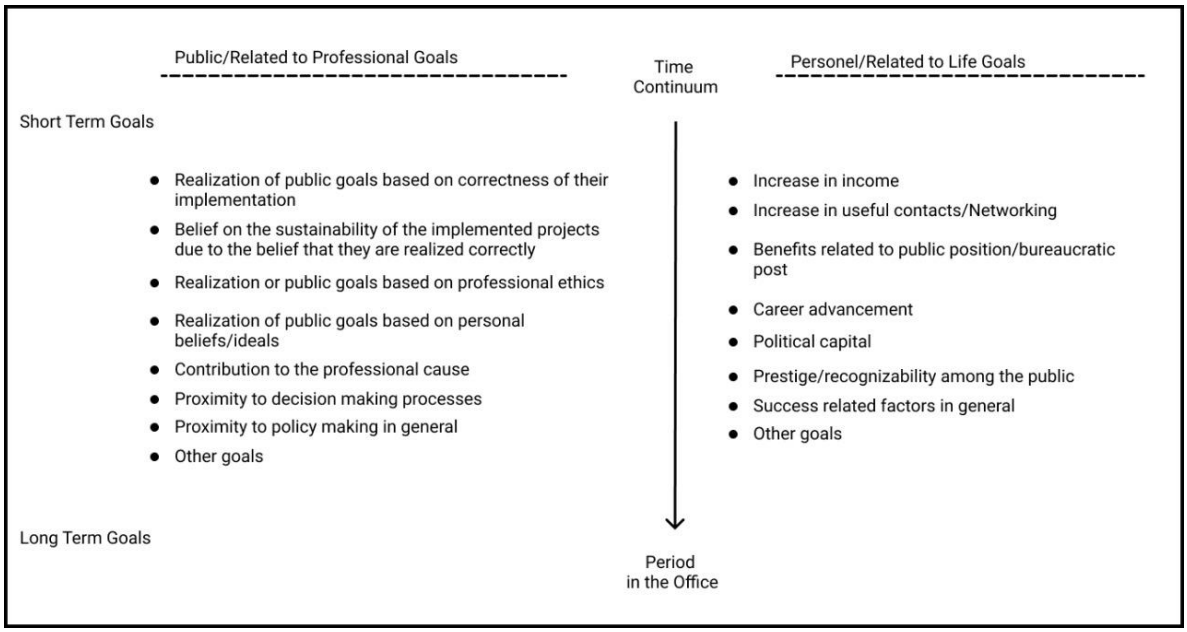
The literature often discusses the motivation of policy entrepreneurs. Typically, policy entrepreneurs are offered remuneration, contracts, or other various incentives (Mintrom & Norman, 2009; Mintrom & Vergari, 1996, p. 431, 1998, p. 138). In the Kazakhstan context, especially in the case of Vice Ministers responsible for digitalization, as

represented by the evidence found during research, the main incentive was driven by opportunity to gain political capital and certain preferences in policy making.

The aforementioned motivation for executing e-government policies is also often embodied with the ideology of the newly appointed senior management. Specifically here, the term “ideology” refers to the set of beliefs and ideals relating to the appointed Vice Ministers. These policy actors often consider their appointment as the chance to promote and disseminate ideas used in the private sector across the public sector.

Figure 16

Public and Personal Drivers/Goals of National Policy Entrepreneurs in Kazakhstan E-government Ecosystem



Source: Illustrated by the author.

In one particular case, one of the interviewed Vice Ministers compared the experience of working in the private sector and the representative monopoly. He expressed himself as follows (R13):

> When I worked at the bank, I received a salary two and a half times higher than the one that was offered to me in the position in KazPost. But when I thought about the impact of Kazpost. There are 1300 branches. Social work. Issuance of pensions to pensioners. Working with the entire population.

> Acceptance of payments throughout Kazakhstan, including at the rural level. And the bank. Then I decided for myself that from the point of view of intrinsic motivation, I was interested in the post office, because this is the place where I can come and, in a year or two, look back and say that something useful and good has been done. And that this something has improved the lives of millions of people.

The research also showed that the policy entrepreneurs in Kazakhstan do not directly benefit from the policy results. Expressed differently, the results of the study show that policy entrepreneurs, especially the Vice Ministers, newly appointed CDOs, often do not have an immediate interest in policy outcomes, at least in the short term. Most of the interviewed Vice Ministers were ideologically driven, being motivated to influence the policy making the way they think will be the best, especially in view of the fact that they are professionals in the e-government policy domain. According to the reckoning of some academics, this particular circumstance has a positive effect on the overall policy making in the context of Kazakhstan e-government, since the policy actors in charge of e-government policies can go beyond quick-wins and do not have to rely on tactics oriented on achieving rapid outcomes (R8, R9, R13, R14).

The data obtained during the study regarding the motivation of policy actors in e-government, especially at the highest level, closely correlates with the concept of Public Service Motivation. There is ample evidence that monetary rewards are not the main incentive why, for instance, certain professionals come to the position of vice minister or department head in the field of e-government. Instead, it can be argued that the positions of the drivers of changes in the field of e-government allow policy actors to use their experience and develop as efficiently as possible. In addition, as mentioned above, and in parallel with the concept of Public Service Motivation, another important motivating factor for e-government policy actors is commitment to the cause or organizational goals. However, it is worth noting that such behavior, that is, a high motivational atmosphere, was not noticed among lower-level employees, although a certain amount of enthusiasm and commitment due to the actions of managers was noticed (see Crewson, 1997).

It should also be noted that the case of Vice Ministers as policy entrepreneurs in the example of Kazakhstan e-government can also be used in describing collective action problems in order to explain changes in ACF (Kingdon, 1984; Mintrom & Vergari, 1996, p.

431). The prospects of furthering this argument was seized in the data collected by the author. These prospects however are simultaneously limited by the specifics of the ACF since the theory necessitates an analysis across a longer period of time.

Another point to note is that the Vice Ministers responsible for digitalization can only be considered policy entrepreneurs at the national level. They often acted as policy brokers when they dealt with international policy entrepreneurs represented by employees of international organizations, different policy advisors, consultants from other countries, professional think tanks or experts from nongovernmental organizations, who promote best practices on a global scale (R15).

The policy entrepreneurs at the international level are often closely associated with supranational bodies such as the World Bank or IMF (Dolowitz & Marsh, 2000, p. 10). In the case of Kazakhstan, the collaboration with such international agents often took place in the process of e-government policy development, especially when there was a need to generate innovative ideas, to include particular policy problems and solutions in the agenda or to speed up the process of implementation. In this regard, it should be noted that national policy entrepreneurs such as Vice Ministers responsible for digitalization often came into action and set to facilitate the adoption of imported policy solutions, especially when they had to be supported through legislative action or longer and sustainable nation-wide backing (Mintrom & Vergari, 1998, pp. 138, 141, 144).

Representatives of international organizations and prominent consulting firms in the context of Kazakhstan e-government can also be termed as active policy entrepreneurs at the moment when Kazakhstan government wanted to import policy solutions. In this respect, many of the respondents with whom the author met claimed that the presence of specialized international actors such as representatives of the UN or the World Economic Forum was a significant factor in bringing forward specific e-government projects, especially at the initial stage. The leading international organizations have often helped change the entire approach of ministries, not only to the execution stage, but to the entire vision of e-government implementation. A good illustration of this can be the cooperation in the

implementation of a number of joint projects of the Ministry of Health of Kazakhstan with the World Bank, which began in 2009.

In the early 2000s, the Ministry of Health of Kazakhstan undertook a number of small projects in the field of e-health, many of which were extremely unsuccessful. Later in 2006, the same ministry launched an ambitious project, the purpose of which was to digitalize processes in all medical institutions. This project was also futile, after which the ministry began to work with the World Bank. The Bank offered favorable financial conditions at the time (R19).

The Ministry of Health and the representatives of World Bank analyzed the work done by the Ministry in the early 2000s and realized that the chosen path for e-health implementation was unsuitable in terms of best practices and innovative solutions available at the time. The parties realized that it was necessary to significantly change the strategy for the development of e-health in Kazakhstan. During the assessment and analysis processes, the Kazakhstan side and representatives of the World Bank involved various consulting organizations. For instance, the audit of the then existing e-health system in medical institutions was carried out by the Swiss Tropical and Public Health Institute (Swiss TPH) (R6, R19).

After the analysis was done, the parties began to work on a joint document, which included a plan and strategy for the implementation of technological solutions in the health sector. The result of such cooperation was a crucial document titled "Concept of E-health Development of Kazakhstan", which was endorsed in 2013 at a governmental meeting and approved by the ministry in the same year. One of the stakeholders described the work of a consultant from the World Bank as follows (R19):

> A World Bank consultant attended meetings at the Vice Prime Minister level. This meeting discussed the introduction and strategy development of e-health in Kazakhstan. How we were going to reform all the stuff. What we will reflect in the said strategy. What institutional reforms we will implement. It is one thing when it is said by someone among the locals, it is another thing when it is said by a professor from the University of Washington, a professional in his field.

Many functional reforms have been implemented on the basis of this strategic document. The document spelled out the establishment of the E-health Development Center, a specialized quasi-government agency that was only responsible for the realization and implementation of e-health in the country. Also, within the framework of this document, the Department for E-health was established within the Ministry, which did not exist before (R6, R19).

In addition, experts from the World Bank helped to completely revise the implementation strategy of the existing e-health system. For example, in the past, the managers of the Ministry of Health thought that they could establish one large organization which will provide services for all medical institutions in the country. However, after consulting with the World Bank, the ministry decided to allow medical organizations to receive services from private suppliers using the market and select software products in terms of the price and quality set by the market forces. This shift from a monopoly to an open market model has changed the e-health landscape of Kazakhstan in a few years. If previously e-health systems were introduced only in a couple of dozen medical organizations, at the time of writing almost all medical organizations that provided free medical care had own e-health systems (R19).

The example of collaboration of the Ministry of Health with the World Bank clearly demonstrated that policy entrepreneurs play an important role not only in consulting e-government projects in Kazakhstan, but also in their planning and implementation. Most of the processes during the implementation of projects were personally controlled by the representatives of the World Bank, despite the fact that the main administrator was the ministry, which is dictated by the conditions of the loan, where the project is implemented not according to the rules of the borrower, but according to the rules of the World Bank. This case shows how the mandate of potent transnational organizations can be forcibly executed. The implementation of professional standards by the Ministry of Health of Kazakhstan using the transnational policy networks therefore characterizes the coercive isomorphism described in the famous article of DiMaggio and Powell (1983).

6.5. CORPORATIST AND CLIENTELIST FEATURES OF E-GOVERNMENT POLICY NETWORKS

E-government networks in Kazakhstan have features of corporatist networks described in the works of Schneider (1992). According to Schneider, the term "corporatist network" is used to showcase the involvement of interest groups in the policy making process. The prevalence of intermediary organizations having representative monopolies is the main feature of the corporatist network. Such monopolistic organizations often do not compete with each other since they have a certain market share. They often assume brokerage positions between the government and the members they represent. Having provided a guarantee of the contract from the government, these organizations distribute government orders among their members, tightly controlling the hierarchical relationships among their subjects (Schneider, 1992, pp. 113–114).

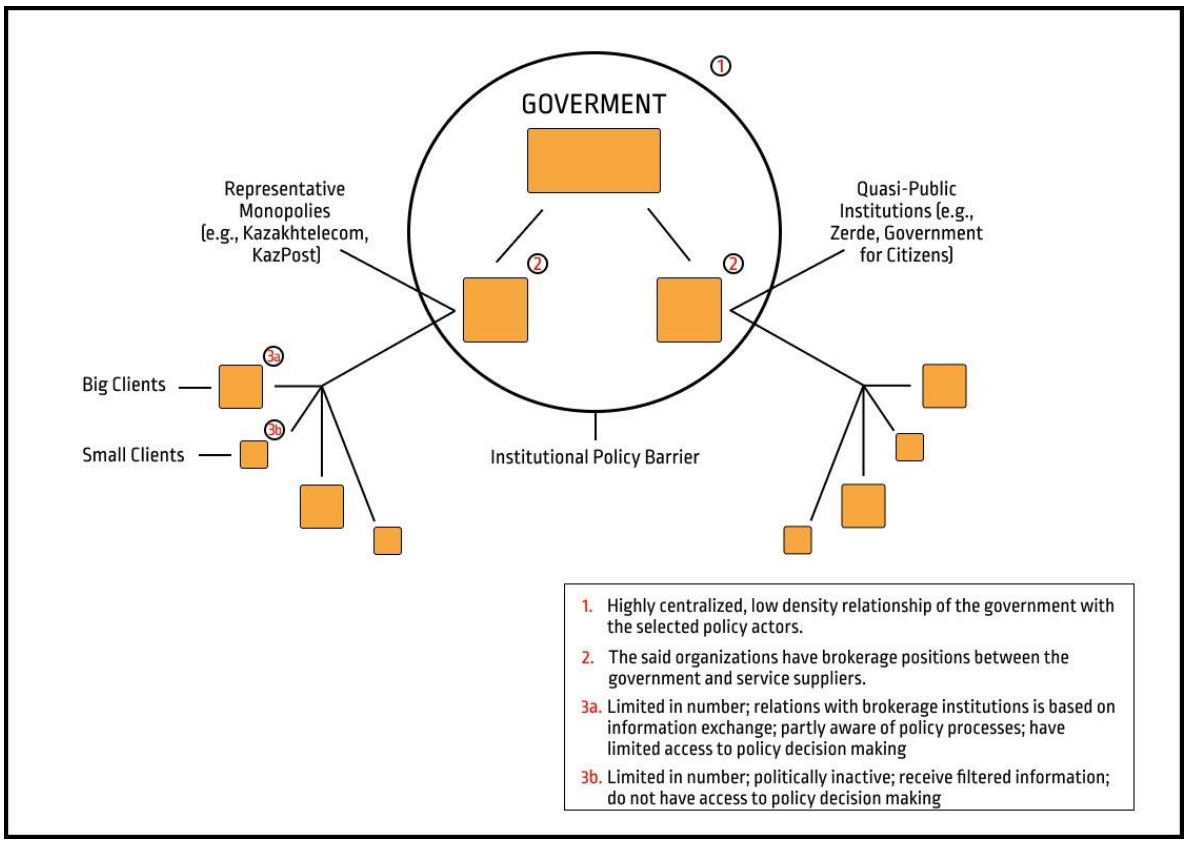
Corporate networks in the case of e-government in Kazakhstan do not fully describe how policy making actually takes place. However, they are useful since certain features of corporate networks to a certain degree resemble the intrinsic characteristics of e-government networks in Kazakhstan.

In Kazakhstan, at least regarding e-government, the government did not use intermediary organizations with representative monopolies to reach different segments of the population. The role of intermediary in Kazakhstan is assumed by the strong state. Within the state, the intermediary function was delegated to a number of self-regulatory, quasi-public enterprises, which were responsible for the implementation of e-government projects in various fields. These organizations were largely independent from the ministries, since many of them had a certain status backed by law, which determined a certain freedom of action for them. The role of the ministries was most often limited to defining the e-government development strategy and action plan for such quasi-public organizations, which often had their own budget and conducted their daily operations autonomously. For instance, such semi-independent organizations hired employees based on the goals and objectives of the organization. These hired employees often had the job experience in the private sector, especially in representative monopolies, and often had little in common

with the ministry under the realm of which such a quasi-public organization operated (R11).

Figure 17

The Brokerage Role of Representative Monopolies and Quasi-Public Institutions in the Kazakhstan E-government Ecosystem



Source: Illustrated by the author.

In this context, two aspects should be noted. Firstly, the government did not have any intentions in any way to represent certain segments of the population, as is often done in the framework of corporate networks depicted by Schneider. The main goal of the Kazakhstan government was just the successful implementation of e-government projects in particular policy domains. Secondly, taking into consideration the particular features of e-government, the government was well aware that much of what was intended to realize would be difficult to implement without the involvement of the private sector. This, however, did not mean that all functions for the implementation of e-government would be transferred to the private sector (R9). In the Kazakhstan context, such an understanding

meant the involvement of the private sector under the direct monitoring and control of the government itself through the instruments such as representative monopolies or quasi-public institutions.

Despite the fact that the leverage was in the hands of the government, which retained the role of both the initiator and the main implementer of e-government policies, the operational activities over e-government projects implemented across the ministries were left to quasi-public organizations (Figure 15). These governmental units were directly involved in the development of e-government policies having ample political support and access to the necessary resources. The political backing and public status helped in many ways overcome different bureaucratic obstacles related to office politics (R11).

Through the brokerage role of corporatist networks the government manages to represent a variety of different interests and control its members (Figure 16). Such brokerage positions allows policy actors to be actively involved and have access to important policy decisions. Not everyone gets access to the political arena. Only a small number of chosen can take part in decision making. Such a setup allows the government to make the struggle among interests more predictable and to prevent information overload. By doing this, the government transfers the main burden of interest aggregation and numerous conflicts to the level of intermediaries. In the course of intermediation process, the information is filtered and only a very limited, summary data are transferred to the other counterparts as illustrated in Figure 15 (Schneider, 1992, p. 114).

Roughly the same happens in the framework of the implementation of the e-government policy in Kazakhstan. In Kazakhstan, only a certain number of policy actors have access to the decision making process. Usually important information does not transcend institutional policy barriers (Figure 15). Quasi-public institutions or representative monopolies are the only stakeholders who might have access to critical phases of e-government policy formulation. Other potential policy participants receive only carefully filtered information and take part in political decision making only when it is wanted from the higher echelons (R16).

The representative monopolies have access to critical information, but they are not used to control or closely monitor other policy actors, especially its members, since subjects of representative monopolies are not active policy participants by nature and are not actively involved in political decisions due to the specifics of Kazakhstan policy making. On the other hand, the diversity of interests in e-government is still limited. Therefore, one of the goals of key policy actors, especially the quasi-public institutions and representative monopolies, in brokerage positions is to provide an environment for increasing prospective e-government stakeholders (R16).

The e-government networks in Kazakhstan also have the basic characteristics of clientelistic networks, which are distinguished by the bilateral relationship between a strong patron and a number of weak clients. Depending on the number of clients, they can compete with each other. The clientelistic features, just like corporatist characteristics of Kazakhstan e-government networks, are depicted in Figure 15.

In Kazakhstan, the patron role is often assumed by governmental agencies, while clients are usually individual organizations or individuals seeking privileged access. Such relationships are based on an exchange mechanism where the privileges of the state are exchanged for specific services on the part of the client. In such a relationship, there is no mediation and aggregation of interests or industry control, and each client approaches the patron directly for their specific purposes. Density in clientelistic networks is quite low, while centralization is high (Schneider, 1992, p. 116).

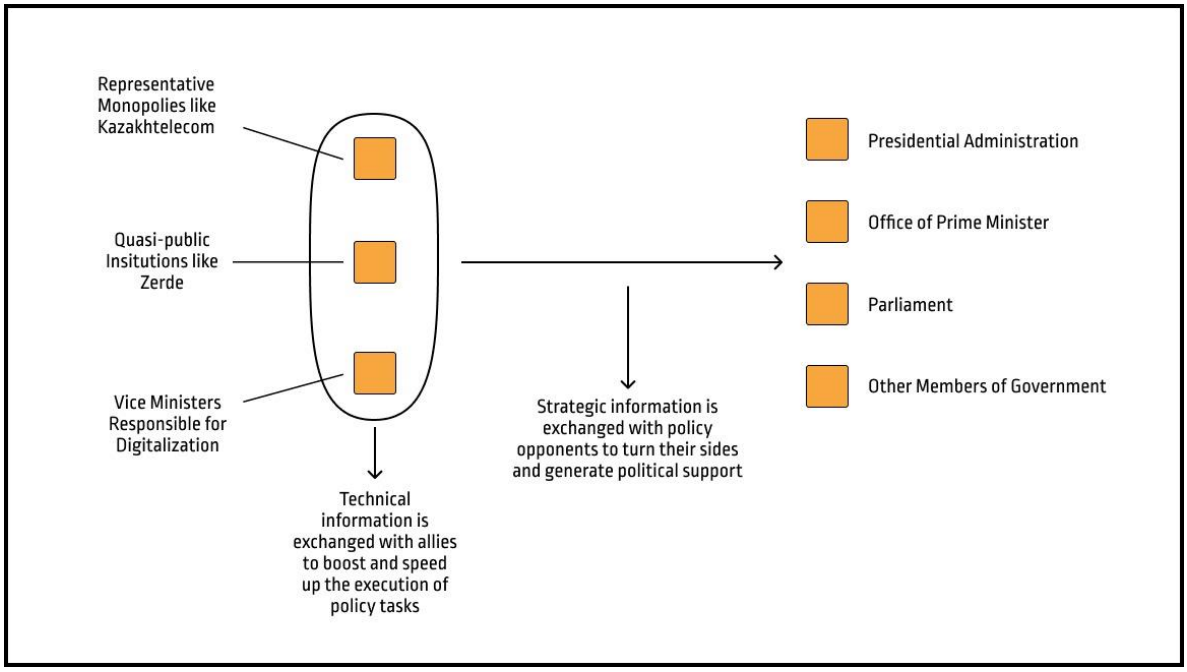
In this respect it should be noted that the cooperation between the Kazakhstan government and large clients such as big companies like cellular operators is determined by the interdependence of interests and the dynamics of exchange (R18). The government allows these groups to participate in policy formulation processes in exchange for information and self-binding behavior. Such cooperation helps the government to implement technological up-to-date reforms and control the ICT sector.

6.6. POLICY NETWORKS OPERATIONS ACROSS DIFFERENT POLICY DOMAINS

Using the example of e-government in Kazakhstan, the researcher fully agrees with Leifeld and Schneider (2012, p. 12) that there is no single policy field in which policy networks operate. The authors assumed that policy networks will function in a certain space depending on the exchange of information that needs to be shared with other actors to exchange policy solutions. However, previous studies have ignored this phenomenon and the exchange of information has been viewed as a homogeneous phenomenon. If two denominators such as institutional roles and similarity of preferences are kept still, then the essence and properties of information exchange between policy networks will change. In this context, the researcher agrees with the authors' opinion that the exchange of technical information differs in some respects from strategic information.

Figure 18

The Exchange of Technical and Strategic Information Depending on the Type of Policy Actors and Policy Task



Source: Illustrated by the author.

In the context of e-government policy in Kazakhstan, technical information is often exchanged between allies and is used to enhance coherence between policy actors within and between similar networks. Thus, specific information on the implementation of e-government in Kazakhstan is exchanged between the actors who are directly responsible for the implementation of e-government (R17). These are, in particular, the Minister of Digital Development, presidents of national companies such as Kazakhtelecom and quasi-public agencies like Zerde, as well as Vice Ministers responsible for digitalization in various ministries.

Strategic information on the other hand is exchanged with potential opponents in order to change their views on policy design (R17). In the context of Kazakhstan, these can be government officials working in the Presidential Administration, Office of Prime Minister, other members of government and Parliament involved in e-government implementation.

6.7. E-GOVERNMENT POLICY NETWORKS AND GOVERNANCE

The e-government networks in Kazakhstan can be characterized as hybrid structures used as a tool of political governance with the distinctive ability to include various combinations of bureaucracy, the market, and different sectors of society (see Falkner, 2000, p. 100). This logic of integration of various structures is the result of the vision of the Kazakhstan government in solving problems and tasks that are being under pressure from society. This vision of using policy networks as new forms of political governance marked a changed attitude of the Kazakhstan government towards other segments of the population, especially the role of the private sector.

In this regard, the author agrees with Kenis and Schneider (1991, p. 41) that policy networks emerge amidst state's fragmentation and the desire of society to participate in policy making. However, in Kazakhstan it is still too early to announce a verdict about the dominance of some organizational actors in the development of policy or the blurring of boundaries between the state and other sectors of society. In Kazakhstan, centrist traditions are still observed, as a result of the Soviet legacy, and a corresponding desire of the

state to control all aspects of the economic and social life of society. If, especially using the example of e-government in Kazakhstan, organized societies arise as a result of institutional interdependence artificially formed by the state, resources are still produced and controlled at the top echelons, while most social and economic issues are formed by decisions of the central administration (R18).

During the study, the author noted that although the participation of the private sector in decision making has increased, the presence of such stakeholders as nongovernmental organizations is practically not taken into account (R17, R18). Taking the example of e-government in Kazakhstan, it is still too early to talk about the emergence of an organized society ready to take an important part in political life, and especially in fundamental policy decisions. Sectoralization, coupled with the growing interdependence and involvement of new policy actors that occurs in the field of e-government in Kazakhstan, is more a result of a shift in responsibility due to the increased social complexity and technical characteristics of technological reforms, rather than the emergence of an organized social movement in the ICT sector in the country.

6.8. DECENTRALIZED CENTRALIZATION

The presence of e-government policy networks in Kazakhstan can be explained with the overall growth of different policy domains, including these, which are chiefly dependent on technology-based solutions. The increasing number of policy domains automatically increases the scale of government policymaking. Despite such growth of policy domains, the government resources remain the same, which, as noted by Heclo (1978), often leads to tension and political overhaul. According to Kenis and Schneider (1991, p. 35), this administrative strain can be avoided through state decentralization and fragmentation.

This political scenario is vital in the context of this study since it demonstrates that policy networks come to be a useful tool in explaining policymaking in Kazakhstan through the example of e-government. In the framework of policy networks, the government is not a single entity; instead, it is a set of relatively different institutional units that differ by sector and composition of policy actors. Many of these institutional structures, such as

various committees and advisory boards, operate through informal channels rather than formal structures like national councils and legislatures (P. B. Evans et al., 1985; P. N. Kenis, 1991; Skocpol, 1985). In this regard, decentralization blurs the lines between the state and other parties involved. In the literature, the moment informal processes start influencing policymaking, subsequently leading to quasi-legislation or self-regulation sponsored by the state, is called "informal administrative actions" (Hanf, 1978; Hucke, 1982, pp. 130–140). The cooperative state that comes about in such setup delegates and supports self-organized regulation replacing the government, which is traditionally regarded as guiding, planning, and assuming full responsibility for society (P. Kenis & Schneider, 1991, p. 35).

Informal administrative actions are definitely well illustrated in Kazakhstan's e-government policies. Upon inception of major e-government projects, the Kazakhstan government started to delegate some of its powers and responsibilities to the self-regulatory actors, both institutional and individual.

This was however only a preliminary form of self-regulation in contrast to the informal processes influencing formal policymaking and it was to a large extent inherent to Kazakhstan's circumstances. As part of the e-government strategy, the government established a number of quasi-public institutions, which became responsible for technological implementation, especially in notable ministries such as the Ministry of Labor, Ministry of Health, and Ministry of Education.

During this process of reorganization, the government had also realized that critical policy actors from the private sector had to be incorporated in the policy process, which was one of the means at achieving the envisioned results. As a result, many representatives of private groups actively involved in the ICT sector were accommodated in the government structures at various levels and in different policy domains, in particular within the fabric of the quasi-public agencies, which provided ample room for maneuver to create successful e-government policies. For example, the E-health Development Center, a joint-stock company owned by the Ministry of Health, has the Advisory Board, which includes representatives of the private sector and NGOs. In Zerde, the national holding accountable

for nationwide ICT implementation, prominent ICT figures comprise Boards of Directors, which supervises the management of the holding and has a direct impact over the implementation of technological solutions across the country. Another illustration posit Vice Ministers responsible for digitalization in different ministries. The Vice Ministers, having a private sector background, are imbued with high-level responsibility and discretion at the ministerial level. In fact, the positions of the Vice Ministers responsible for digitalization constitute a separate layer with independent decision making powers at the departmental level within the given ministries (see also Figure 12).

6.9. TRANSNATIONALIZATION AND E-GOVERNMENT POLICY TRANSFER

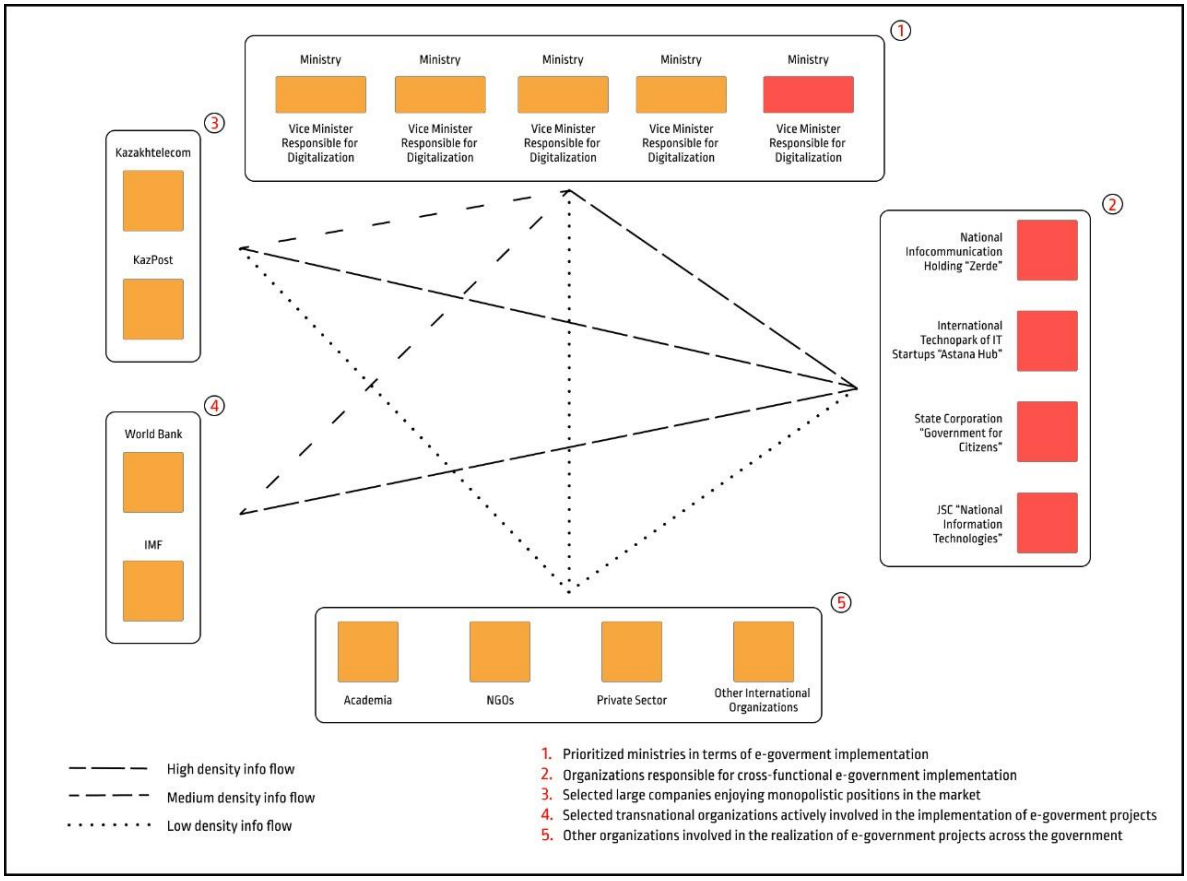
Transnationalization, as illustrated by e-government, represents another dimension in the modern policy making of Kazakhstan. A study of e-government in Kazakhstan showed that national policy processes are deeply integrated into the international political environment. The country's volitional membership in supranational organizations, international institutions, and participation in different summits directly affects national policy choices to a great extent.

In this respect, the e-government case confirms the correlation between international policy networks and domestic policymaking. In this regard, the increased interdependence in policy fields/subfields across the globe, especially in e-government; plus, the complexity of social and political relations, as an additional variable in policymaking, has a particular influence on decision making in Kazakhstan's e-government.

Such affiliation with the international community helps Kazakhstan develop access to vital information to coordinate and control its domestic policy issues. This rapport between the individual countries and international professional communities is widespread in the world and extensively studied in the literature. Kenis and Schneider (1991, p. 36) call “informatization” the competition of individual countries for information as a vital prerequisite to develop its national policy.

Figure 19

The Information Exchange Among Different Public, Quasi-Public Agencies and With International Organizations in the Kazakhstan E-government Ecosystem



Source: Illustrated by the author.

In this context, the role of intergovernmental agreements, international treaties, and other binding mechanisms, especially their power to limit national governments' capacity to pursue their policies should also be noted (see Coleman et al., 1996, p. 297). In the context of Kazakhstan, international restrictions often affect the methodology for implementing e-government solutions. In many cases, supranational organizations such as the World Bank or IMF urged the Kazakhstan side to strictly adhere to the regulations set by these organizations when developing specific e-government projects or programs. These supranational organizations often give loans at a low-interest rate in exchange for pre-arranged agreement between the parties. At this point, the lending party often sends an emissary, a field specialist, who monitors the implementation of the measures provided in the

regulation and as agreed in the stipulated document, which, as was mentioned in the previous examples, can be attributed to the acts of coercive isomorphism as well.

6.10. E-GOVERNMENT POLICY NETWORKS AS A DECISION MAKING FORUM

Policy networks help understand how decisions are made and circulated among different governmental institutions. They allow to overcome the structural dilemma, when negotiations among or between different institutions are difficult to provide. In this case, policy networks provide an opportunity for interaction and open collaboration among different institution aimed at solving common problems.

Although Börzel (1998, p. 262) argues that policy networks do not serve directly as decision making bodies; they only provide space for information, communication and influence and act as forums of preparatory process of decision making; in the case of Kazakhstan, policy networks were established precisely for making effective decisions in the field of e-government. Policy networks reduce transaction costs in complex decision making situations because they serve as a kind of pool of shared knowledge, experience and regulatory mechanism. At the same time, although policy networks reduce the level of security through mutual exchange of information and often are used to balance power asymmetries, in the Kazakhstan context these two aspects remain irrelevant.

In this context, the researcher agrees that policy networks institutionalize over time, acquiring their own structure of conflicts and coordination. In this regard, the author agrees that policy networks, especially the e-government policy networks, are not an alternative that can replace formal institutions because of their own shortcomings. In particular, regarding policy networks as prospective institutions, it is necessary to define the conditions for their greater effectiveness and to resolve the issue of their legitimacy (see Börzel, 1998, p. 263).

6.11. E-GOVERNMENT POLICY NETWORKS & POLICY OUTCOMES

This dissertation assigns a special role to policy networks, using the example of e-government in Kazakhstan, not only in policy formulation, but also in its emergence and outcome. Although in the Kazakhstan context, policies most often arises as a result of centrally coordinated actions of the central administration, in the process of this study there were examples of how the autonomous interaction of actors within the e-government networks led to the independent emergence of policy outcomes.

Thus, the Ministry of Social Security and Labor, together with the Ministry of Health, worked to ensure that graduates of medical universities within the framework of the program “with a diploma to the village” could choose the region where they would like to go to work based on the proposed support measures. Previously, for this it was necessary to apply to various akimats. It happened that the aforementioned support measures were not actually provided by akimats. Within the framework of this program, in the personal account of students, the opportunity was organized to leave feedback from the place of work and indicate what conditions were provided as part of the support measures. All this information in the program, the main developer of which is the Ministry of Social Security and Labor, can be seen by the Ministry of Health, which in turn can take appropriate measures. Such a joint project was a personal initiative of two vice ministers who are responsible for digitalization in their ministries (R9 and R13).

6.12. E-GOVERNMENT POLICY NETWORKS & POLICY INNOVATIONS

Porter's work (1990, 1998) is based on the statement that policy networks are closely related to policy innovation. In particular, the author argues that the collective action taking place among policy networks is a precondition for innovative solutions and capacity building of the political community.

In this regard, it can be said that the Kazakhstan government promotes e-government policy networks with the hope that they will bring innovative and sustainable solutions to

the public sector. To this end, the government has provided the leading policy actors and other stakeholders a certain margin of discretion. The government helped to generate an environment where the involved e-government actors could freely share information, hold meetings, organize joint events such as international seminars, workshops, forums in Kazakhstan, initiate joint projects and solutions at the intersectoral level, for example, between the Ministry of Health and Ministry of Social Protection and Labor.

This dissertation shows that e-government networks in Kazakhstan lead to the development of innovative solutions and ideas. So, along the promotion of policy networks in e-government, a number of joint projects were launched among different institutions and a large number of decisions were made that have not yet been used or practiced in Kazakhstan.

Nevertheless, it remains unclear whether innovation is possible without the institution of policy networks. In other words, it remains uncertain whether policy networks are the only policy actors that can offer innovation. In this connections, one can argue that while e-government networks were established since governments were unable to take collective actions in the field of ICT, it is still not enough evidence to argue that there would be no innovation in the absence of policy networks. On the other hand, it is also still remaining unclear how effectively policy is developed with the presence of policy networks. In this regard, the author is left to assume that the presence of policy networks at this point is a certain stage of development for Kazakhstan. Anyway, this issue remains unresolved since the dissertation does not aim to study policy networks operating at different sectoral fields.

6.12. E-GOVERNMENT POLICY NETWORKS & POLICY ACCESS

The case of e-government networks in Kazakhstan also allows to disclose the topic of access to a specific policy process. The topic of policy access in the work of Maloney et al. (1994, p. 18) is explored through particular key terms like insiders and outsiders, also widely discussed by Schattschneider (1935). Insiders are bureaucrats or policy actors who have privileged access to key decision making and broad-based information on certain

policy issues. Unlike insiders, outsiders have limited access to policy formulation process.

Maloney et al. (1994, p. 24) cite contributing factors regarding the reason why so much attention is paid to insiders and outsiders. The main rationale is that identifying the key players in policy making helps analyze and understand the existing policy making in the country. This approach paints a different view on the structure of public administration in Kazakhstan as well. Using this method is critical for the native policy making, since there are not many alternative options of challenging the traditional way of studying public administration in Kazakhstan, especially in terms of tracking the changes in political and administrative structure of the government (R16).

It is also important to consider that although some actors have some access to policy formulation, they may not influence the overall outcome. Maloney et al. (1994, p. 24) explain this distinction in terms of consultation and negotiation. Actors who have simple access can only advise key decision makers, while stakeholders who have privileged access can bargain and negotiate along with other important policymakers. In the Kazakhstan's political setup, explicit negotiations can be conducted by individuals who come to be close to the central administration. These policy actors include ministers, vice ministers and heads of national companies. Representatives of international companies and organizations and those of nongovernmental organizations located in Kazakhstan, heads of departments responsible for the implementation of e-government in ministries and various quasi-state institutions, various academics, as well as some segments of the private sector can play a consulting role. The author also believes that certain representatives of local authorities responsible for the implementation of e-government in the regions are also more of an advisory nature, since they mainly implement what has been decided elsewhere. In Kazakhstan, policy decisions are developed in the central administration and slowly diffuse across regions.

The insider category has also several variations. In this respect, Grant's (1989) classification who identified several insider subcategories can explain some aspects of e-government policy making in Kazakhstan. Grant's first subcategory refers to a group of

prisoners. This is a group of policy actors who has so closely merged with the public sector that their existence totally depends on government aid (as cited in Maloney et al., 1994, pp. 27–28). For example, insiders in Kazakhstan e-government policy making fit better with the classification of this subcategory. In this category, the state is highly dependent on the backing of e-government policy actors and their performance in the public sector. Another category of insiders, low-profile insiders, depicted by Grant (1989: 16), also characterizes e-government policy making in Kazakhstan. This insider group places great emphasis on behind-the-scenes engagement with the government and does not usually use the media as a policy strategy. The activities of the third group of insiders tamed as high-ranking insiders are not typical for Kazakhstan. Such insiders usually seek to convince the government by appealing to public opinion (as cited in Maloney et al., 1994, p. 28).

It is important to note that in the Kazakhstan context, consultation does not imply the involvement of a large number of different groups. In other words, public challenging of the state policy is not widespread in Kazakhstan. Here, policy strategies of the insider group mentioned in Vogel’s (1986, p. 276) work describe Kazakhstan's realities fairly well. If, for some reason, the government decides to request the consultation of a certain individual/group, then most likely that the said individuals will develop a certain policy keeping track all the way down. When choosing such local consultants, the government often bases its criteria on certain aspects such as security (technical and political), competence (knowledge of the field) and convenience for the system (actors integrated with the system are preferable) (R16).

The final point regarding the access to policy actions is that by its very nature, Kazakhstan politics is covert and restrictive. In Kazakhstan, persons who do not participate in the development of a certain policy not only have no influence on its outcomes but may not even be aware of its existence. In some cases, policy outsiders may not even know where to go for information. Such situation can also explain the inaction of some potential policy actors regarding certain policies. Since, to put a certain social problem on the agenda, one first needs to have some idea on that problem and have some knowledge regarding its current stage of development (R16).

6.13. DIFFUSION OF E-GOVERNMENT POLICIES

The literature bristles with the reasoned opinions that policy networks foster the diffusion of policy solutions. The dissemination of policy solutions in Kazakhstan e-government occurs in several ways.

Policy entrepreneurs, as mentioned earlier, play an essential role in the dissemination of policy solutions. They serve as a proxy leverage or channel for transferring policies from the outside. In the context of Kazakhstan, policy entrepreneurs facilitate the innovation and diffusion of e-government policy decisions coming via transnational policy networks. They also constitute a source of legitimacy for the domestic policy networks in implementing the adopted policy decisions at home (Mintrom & Vergari, 1998, p. 145).

In the notable ministries, Vice Ministers responsible for the implementation of e-government are the leading domestic brokers and transmitters of policies adopted from the outside. In other government agencies with no such position, the department of informatization is often the essential intermediary in the policy adoption mechanism. Evidence suggests that Vice Ministers' presence as a more superior bureaucratic rank helps cut through the red tape and facilitates the smooth adoption of e-government policy solutions without too much resistance (R20, R21).

In the course of the research, the author did not note cases of systematic transfer nor the continuous influence on the domestic e-government politics by the policy solutions developed in the neighboring countries, including Russia and China, as well as other Central Asian states (Mintrom & Vergari, 1998, p. 144). Nevertheless, several countries stand out among the others that inspired Kazakhstan the most. The choice for specific countries is determined in different ways. International e-government rankings, especially the UN E-government Development Index, is referred to as a good starting point for identifying the sources for inspiration or merely copying. For Kazakhstan, the most highly cherished countries on the list are South Korea, Great Britain, Australia, Canada, the USA, Japan, and Singapore. These countries are continuously cited in the government programs,

strategic papers and legal documents. Such states were also often mentioned in the press and frequently indicated by respondents during the interviews.

The respondents noted that in the case of the proposed transfer, Kazakhstan public officials consider national circumstances and requirements before importing and adopting particular policy solutions. In this regard, Australia and Canada are often included in the policymakers' consideration list due to their geographical similarities and similar climatic conditions. In particular, the digitalization of the Kazakhstan postal system was based on the Australian model due to population sparseness and vastness of the country's territory (R13).

The similarity in the structure and functions of the state apparatus was another major contributing factor in prospective lesson-drawing. Kazakhstan has analogous political and administrative systems with South Korea and Singapore. For instance, the existing e-government web portal responsible for the delivery of online public services was modelled on the South Korean analogue.

The mindset and shared historical past also contribute to decision making when adopting an e-government policy solution. Among the post-Soviet space countries, Estonia stands out among others for its successes in the field of e-government. The idea for the current identification cards was by and large borrowed from the Estonian counterparts (R22).

During the field research, the author received many comments regarding the neighboring countries. The respondents also shared their views on the regional organizations such as the Eurasian Economic Union, Shanghai Economic Cooperation, or the Turkic Council. According to the respondents, none of the neighboring countries or countries from the same regional affiliations are considered by Kazakhstan officials as a source for importing e-government solutions. Except for Estonia, other neighboring countries or post-Soviet countries are viewed to be on the same level as Kazakhstan. However, the respondents often indicated that they follow the successes of the regional countries in international rankings. These countries often serve as a yardstick against which the progress Kazakhstan achieved can be measured. These countries are also a useful tools to

understand Kazakhstan's current state and progress of e-government and identify the backlogs in technological competition across the region.

6.15. LIMITATIONS

This dissertation did not include cross-sectoral research. The available data on Kazakhstan's e-government does not allow the researcher to indicate the tendency of the central administration to amplify further diversification in policy networks in Kazakhstan. Therefore, whether the Kazakhstan government will strengthen industry differentiation trends, which in this study can only be verified through the example of e-government and which is not enough to draw additional conclusions, can be shown by further studies. Such further studies should focus on the activities of policy networks in Kazakhstan in different sectors and analyze their functions over a more extended period.

This dissertation does not discuss the efficiency, effectiveness, and legitimacy of the policy networks in e-government policies. Even though the case of the Kazakhstan E-government Ecosystem illustrates that policy networks thrive both in the national and international context, and emphasize their role in the policy process, especially in the policy formulation and implementation, it is still unclear to what extent such a setup remains efficient.

At the same time, although the author has demonstrated that the policy networks occupy an intricate part in Kazakhstan's policy process and that such process imbues particular aspects of policy transfer, mostly inflicted by major supranational organizations like the World Bank and IMF, it is still necessary to open up the discussion how the effectiveness of policy networks can be increased in the Kazakhstan context. The issue of policy networks' legitimacy in policymaking also remains controversial and requires to be investigated further.

In a sense, this leads to another limitation of this work, the normative aspect of the e-government. This paper did not discuss e-government as something good or bad. Instead,

e-government was used as an already existing phenomenon and a case for studying policy making.

Likewise, other important concepts and aspects of e-government such as e-participation or how it correlates with transparency or accountability have not been touched upon. The author believes that this topic should be studied separately.

One of the other disadvantages of this work, which also had to be studied separately, is closely related to the sample size. The sample on which the conclusions of this work were based mainly affects high-level bureaucratic positions. The questions aimed at answering the research question were selected on the basis of such a sample. This means that different approach to sampling would lead to absolutely different research design transgressing the scope of this dissertation.

6.15. CONCLUSION

Policy networks, in the example of Kazakhstan e-government, allows to analyze complex political processes and open up opportunities for a deeper understanding of political phenomena from a different point of view. In particular, it helps disclose the mechanism of interactions among various actors, especially government agencies, the private sector and other stakeholders operating in the field of e-government.

In the Kazakhstan E-government Ecosystem, the formal boundaries between policy formulation (i.e., planning) and its implementation are often not clearly defined. There have been instances where actors collaborated during policy implementation in exchange for taking part in its subsequent formulation and development. In addition, in reality, sometimes e-government policy in Kazakhstan is implemented simultaneously with its planning. This mainly applies to small projects.

This example shows that it is not always relevant to study certain policy when it is divided into policy cycles[5]. Studying e-government policies in Kazakhstan using a step-by-step

[5] This example refers to the classic policy cycle term developed by Harold Laswell in the 1950s

approach might be instructive in terms of showcasing separate procedures at each stage of policy cycle. However, in reality this may lead to the loss of critical information, as is shown in the framework of this work, due to the complexity and multifaceted nature of e-government (in Kazakhstan). This is also an indication that this topic can be discussed in more detail in further studies related to e-government and the theory of policy cycle, especially in Kazakhstan.

On the other hand, e-government networks help shed light on how problems are defined, and in what way the agenda is formed in Kazakhstan. In the country, as elsewhere, a policy issue in the governmental context will be considered a problem only after it is included in the government's agenda. The e-government policy example demonstrates that although many issues are not discussed in society and/or in the media, the policy issues are often raised and identified within limited e-government policy networks.

It should be added however that in Kazakhstan the formation of the agenda is determined by a narrow circle of people within the network, while a large number of policy actors are often excluded from the process. It is not clear to what extent such way of policy making is effective. This dissertation was not intended to evaluate the effectiveness of e-government policies. Nevertheless, in general, the agenda setting using the example of e-government networks provides some understanding of how policies are formulated and implemented in Kazakhstan.

The emergence of policy networks in Kazakhstan were the result of a purposeful policy of the government. Here, however, it is important to understand that the ultimate goal of the institutional reforms that led to the establishment of e-government policy networks was the successful implementation of e-government policies. The emergence of certain policy networks, although expected, was only a secondary effect of the institutional endeavors. It is also important to understand that when various institutions in the field of e-government were established, the administrative elite had a clear understanding that policy networks in the field of e-government are a global practice, successfully implemented in other developed countries. Thus, in addition to focusing on productivity and efficiency, the illustration of e-government implementation in Kazakhstan also demonstrates

ordinary copying of symbolic and normative aspects of certain policy solutions (Marsh & Sharman, 2009, p. 272).

Understanding trends within a network is important for explaining the emergence of the phenomenon, However, in Kazakhstan, the institutional context remains the most important factor in understanding policy processes in the context of the ongoing e-government implementation (Henry, 2011, pp. 362, 378). It thus can also be said that institutional design within e-government was a decisive factor during the inception of e-government networks in Kazakhstan. Endogenous relationships within the policy network will definitely become an important aspect of policy making in the subsequent stages of e-government implementation. In other words, although policy networks come to be an integral part of informal relationships that also successfully influence policy outcomes, they are still self-organizing structures that are influenced by institutional rules.

The policy networks as an organizational concept were used to understand how relationships are built and how e-government policies operate in Kazakhstan. An important contribution of this dissertation is to demonstrate that the concept of policy networks remains relevant for understanding the complex relationships taking place among different policy actors and other stakeholders in the context of Kazakhstan.

The author of this dissertation is fairly convinced that this study has contributed to an better understanding of how policy networks are formed and operated within the context of e-government, in particular in developing countries like Kazakhstan. This dissertation has provided a basic model considering its prospective use and replication in other policy sectors, especially in the context of Kazakhstan. However, one should not forget that studies of policy networks can only be regarded as a case study, since different (policy) networks may work very in a distinct way in unique institutional contexts and other various circumstances (Baumgartner & Leech, 1996, p. 531; Leifeld & Schneider, 2012, p. 12).

The concept of policy networks has proven to be a good choice for learning about e-government policies. Nevertheless, in Kazakhstan, the existing political direction, in

particular, predominance of elitist politics, does not allow transforming the local bureaucracy into a legally rational bureaucracy, which Weber regards as the most effective tool and form of achieving managerial goals (1978). Thus, bureaucratic inefficiency forces the state in Kazakhstan to take ways to bypass the classical model of development of bureaucracy in favor of such more modern, but not yet fully studied approaches like network analysis.

CONCLUSION

The aim of this work was to study the e-government policies in Kazakhstan through the prism of two key concepts such as policy networks and policy transfer. In order to make such an analysis, the author made a detailed analysis of the concept of policy networks in the first chapter of this dissertation. It is important to understand that the literature on policy networks is abundant and diverse, therefore the concept was presented how it healthier fits framework of this work. In addition to the abundance of information on policy networks, there is a vast array of views and opinions regarding the concept. As part of this work, the author based the narration in terms of historical development of the concept, using the most common and credible sources. As a result, the author highlighted definitions that are most convenient to use in tandem with the concept of e-government and other features and priorities within which these concepts were tested. In this connection, it was also important to analyze with what other terms and in what other conditions the concept of policy networks was previously utilized.

The policy networks includes a large number of different elements such as actors within a network, network structure, network functions, and power relations within a network. It was important to mention them since such subcategories can affect the whole essence of the disclosed topic. For example, the number and type of different actors inside and outside the network, or the size of network and the movement of information within and among networks, can have a significant impact on the e-government policy change, and therefore on the research question.

These moments led to the need to analyze the existing typologies of policy networks in order to compare and, if possible, identify the presence of such policy networks in the context of e-government in Kazakhstan. For these purposes, the author reviewed the existing body of literature on the typologies of policy networks including these of Heclo (1978), Rhodes and Marsh (1992) and other prominent scholars. In this endeavor, van Waarden's (1992) work on the typologies of policy networks proved to be a practical tool helping match the types of policy networks valid in theory with the studied e-government network/s operating in Kazakhstan.

In this regard, it also deemed appropriate to study and review the levels at which policy networks are usually approached academically. It was interesting to find out that most of the research, including this one, is done on a meso-level. This also helped not to confuse foci between the approaches and not to mix up various concept of different levels, especially when studying such multi-disciplinary subject such as public policy and e-government.

Ut until this point, the focus was on the policy networks and its internal dynamics which included important aspects such as actors, their structure and actors' maneuver for resource allocation. However, it was also important to address the topic of policy networks within the international interdependency because the term is also widely used in the transnational context. The said perspective of looking at policy networks proved to be obliging especially when the role of policy entrepreneurs and other international stakeholders became apparent.

When studying the presence of policy networks in terms of global interdependency there was a need to understand the reason why policy networks are formed or established. The reason why policy networks operate can be explained with their ability to bring change in the political environment in particular owning to their aptitude to produce innovation. This aspect was thoroughly studied in the dissertation. Especially imperative was to study the topic of diffusion in the context of innovation, which was also described in detail in the second chapter, since the e-government networks often assumed the role of a reflection tool in the dissemination of policy decisions in the process of implementation of various e-government projects in Kazakhstan.

On the other hand, it was interesting to observe whether the e-government networks in Kazakhstan lead to serious policy changes. Despite that it is still difficult to say whether the formation of policy networks on the example of e-government in Kazakhstan lead to serious changes in the long term, it is possible to assert that policy networks are formed with the intent that their presence will lead to any positive changes. In doing so, Kazakhstan e-government networks are used as a tool for change. In particular, through the

example of this dissertation, one could see how policy networks lead to changes in political instruments such as certain laws or institutional frameworks. It can also be said that these two elements, policy networks on one side and political instruments on the other, complement each other. Although policy networks, in Kazakhstan's example, lead to legal modifications, it cannot yet be said that policy networks, as a stand-alone policy element, is a significant factor in bringing sizeable adjustments to the Kazakhstan policy making and politics. Likewise, it is still too early to talk about serious long-term changes within the Advocacy Coalition Framework.

The next chapter deals with the concept of policy transfer, which was already partially covered in the previous chapter, when the author addressed the relationship of policy networks with policy innovation and policy change. In this regard, the topic of policy transfer was raised within the framework of the topic of policy networks, since there was an initial assumption that there is a systematic transfer of policy decisions into Kazakhstan from outside. In order to verify this assumption and analyze whether policy transfer take place hand in hand or within policy networks, it was necessary, just as in the example of policy networks mentioned above, to determine what policy transfer is and what forms it has.

In this regard, the topic of policy transfer proved to be handy in the framework of the study of e-government networks, since, as mentioned in the previous chapter, the policy transfer within the framework of e-government in Kazakhstan does exist. In this regard, the author did not detect a systematic political similarity due to policy transfer and certain policy diffusion towards Kazakhstan or from Kazakhstan. Nevertheless, Kazakhstan at certain periods imported a certain number of policy decisions from different countries, where e-government networks played pivotal roles. In this connection, one could observe a specific priority in relation to certain countries during policy transfer where local factors were considered as well. To sustain and consolidate what was said previously, one can mention the emphasis on geographic, demographic and cultural components during transfer of e-government policy solution from a borrower into Kazakhstan. However, benchmarks such as international ratings published by transnational organizations also play an important role in the decision making process.

In the second chapter, the author also pays attention to the fact that policies can be transferred freely or by force. In this context, the author did not observe elements when policy transfer was imposed. The evidence used to support this study showcases that policy transfer was usually done at the request of the Kazakh side without any pressure. Nevertheless, some element of interdependence, or dependence of Kazakhstan, in particular on international organizations such as the World Bank, shows a certain conventionality during some policy transfers. It was also noted that there is no contractual obligation in the field of e-government, in which Kazakhstan was obliged to import particular policy decisions.

The type and volume (quantity) of policy transfer also have direct effect and applicability in the framework of policy transfer research. Particularly Kazakhstan most of the time adhered basically adhered to a hybrid model, when the country borrowed certain policy decisions, and often left it to itself to decide how and to what extent it will implement the available or proposed policy decisions.

The third chapter discussed the concept of e-government in detail. Considering that the next chapter deals with the development of e-government in Kazakhstan, it was important to study the concept as it introduced in theory. Like the two previous concepts, the term e-government has a multidimensional and heterogeneous structure and can be used in a wide range of ways being concurrently involved in almost all areas of government.

The third chapter thus helped define the starting point for defining what is e-government and in what context it is used. It was also important to learn how the successful implementation of e-government projects is going on in order to at least to some extent understand the influence of policy networks on the implementation of e-government in Kazakhstan.

The classical analysis of e-government maturity models is also convenient to understand at what state the e-government in Kazakhstan is and to find out if there is a connection between the e-government maturity model and policy making, and especially how

maturity perspective can affect the use of policy networks with e-government. The maturity help find out whether the e-government development can be a significant determinant in terms of different political scenarios and policy outcomes.

The fourth chapter of the dissertation covers in great detail the development of e-government in Kazakhstan. Before shedding light on the path of e-government development in Kazakhstan, this chapter provides a brief overview of the country and outlines the political situation over the past few years, as it may be important in terms of purposes this study set at the beginning.

Further, the author provided information on previous studies on the topic of e-government in Kazakhstan in the form of a table. In addition to the fact that this table shows that the topic of e-government in Kazakhstan has already been studied well, it also demonstrates that the combination of policy networks with e-government is a new phenomenon, especially in Kazakhstan. This section of the chapter also showed that the topic of e-government as a part of public policy is still relatively little studied, while the concepts of policy networks and policy transfer within the framework of e-government has never been addressed in Kazakhstan.

In the fourth chapter, the author describe the distinctive characteristics of e-government in Kazakhstan. At this stage, it can be noted that e-government has developed within the framework of the Kazakhstan 2030 strategy and as an element of the country's modernization reforms. In addition, it was emphasized that the e-government project in Kazakhstan is being implemented through top-down approach, which was dubbed by Kassen as e-centralism. In this respect, it was important to touch upon and highlight the legislative aspect of e-government, paying special attention to laws, presidential decrees and state programs related to the development of e-government, since they contain a lot of information regarding the e-government policy making in Kazakhstan.

The author also gave detailed information about Kazakhstan's position in international e-government ratings. This helped understand the level of development and position of Kazakhstan in terms of the e-government development as opposed to other countries. It can

be noted that Kazakhstan has achieved significant success in promoting e-government in the country and occupies a leading position among other post-Soviet states and Central Asian countries across various e-government ratings. However, it has become increasingly difficult to achieve further success in recent years. In order to proceed beyond the current positions, Kazakhstan needs to make significant changes by advancing reforms in public administration.

To leave no questions about e-government in Kazakhstan, the author used e-government maturity model approach to describe how the concept developed in Kazakhstan. Giving the historical perspective of e-government development the author especially highlighted the role of several major institutions responsible for the implementation of e-government projects in Kazakhstan. Drawing a parallel in terms of changes and development taking place around these institutions gives a certain understanding regarding the transformation of the entire e-government cluster in the country. It also helps figure out the logic and trajectory the Kazakh government has adhere while realizing nationwide activities on the e-government adoption. This reasoning is especially well reflected in the last section of the fourth chapter, which provides information on the leading successful and failed e-government projects in Kazakhstan.

The fifth chapter deals with the empirical part of the dissertation and narrates about the way how information was gathered and systematized in the process of the research. This chapter at the first place explains why qualitative research and grounded theory as a research approach was prioritized over other types of analyses.

Other important aspects this chapter concerns are date collection and data analysis. In this regard, it can be noted that the author has studied the question posed in the dissertation for many years, using different types of data collection. The main method for collecting data was through a series of interviews, which the author conducted in a few years with various experts representing the government, private sector, nongovernmental organizations, academia, international institutions and other organizations.

This basic method of collecting data was supported by two others: observation and content analysis. The author secured an advantageous position by having opportunity to observe many processes related to e-government policy making from the inside, having five years of experience of working in an intergovernmental organization where he could have frequent contacts with the governmental experts responsible for the implementation of e-government projects in Kazakhstan. In this regard, it is also worth mentioning that the documentation regarding e-government in Kazakhstan has been studied from different points of view and sometimes in different languages: in Kazakh, Russian and English.

It should be added that the interview processes proved to be both complex and challenging for the author, since many of the respondents refused or agreed to participate in the interview reluctantly. Many of the difficulties associated with data collection in studying the research question of this dissertation are very closely related and reflected in Kassen's (2018) paper entitled “What Does It Mean to Be a Political Scientist in a Transitional Society? Reflections from Kazakhstan”. In this regard, it should be noted that despite the difficulties, considerable progress has been achieved on certain issues, the analysis of which was presented in the last chapter of this dissertation.

As has already been stated in the previous paragraph, the author encountered certain difficulties during data collection. However, despite these difficulties the research conducted delivered quality results. The main thing with the study was to find out that e-government networks are present in the framework of Kazakhstan e-government. On the other hand, the study showed that detected e-government networks are constantly evolving. In fact, the e-government networks in Kazakhstan are still in their infancy.

As shown in the evidence portrayed in the sixth chapter, it turned out that policy entrepreneurs are very active and dynamic in the implementation process of various e-government projects. Policy entrepreneurs play an important role not only at the international but also at the local level, especially when it is necessary to consolidate imported policy decisions. In the context of Kazakhstan e-government, sometimes policy entrepreneurs can become gate keepers for other non-government players, allowing them enter or

facilitating their unhindered flow through institutional policy barriers, which is typical for clientelist and corporatist networks.

The study also mentioned different strategies e-government networks utilize in the process of implementing policy decisions, and how information channels determines the tightness of circles in term of different levels of access within the network and between narrower and wider e-government networks. In addition to this, the government, as it turned out, contributes to the development of policy networks across/within governmental agencies responsible for the realization of e-government project. In other words, it can be said that in Kazakhstan the environment where policy networks could self-organize is still insufficiently developed. The government involved various circles of specialists working in the field of e-government from the private sector and nongovernmental organizations, often providing them with positions within the structures of governmental agencies responsible for the implementation of e-government projects nationwide and across different ministries.

In this respect, it should be noted that in the context of Kazakhstan one still need to conduct a comparative analysis of policy networks in other areas, which will help identify the distinguishing features of e-government networks. Although, it is already becoming obvious that the involvement of a large number of actors outside the public sector is a bold innovation for Kazakhstan, which offers hope by becoming a system-changer for the other policy domains. On the other hand, there is a concern that this experiment will fail and the Kazakh government will return to old fashion of public administration.

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APPENDICES

APPENDIX 1: TYPOLOGY OF POLICY NETWORKS BY VAN WAARDEN

Policy network type	Statism, Pantouflage	Captured statism	Clientelism	Pressure pluralism
Actors (in addition to state agencies				
-Number	Very limited	Limited	One	At least 2, usually more
-Type	Mainly state agencies	State agencies firms	Major interest group	Conflicting interest groups
-Representational monopolies	No	No	Yes	No
Function	Not many			
-Channeling access	No	Yes	Yes	Yes
-Consultation	No	Yes	Yes	Yes
-Negotiation	No	Yes	Yes	No
-Coordination	No	Yes	Yes	No
-Cooperation in policy formation	No	Yes	Yes	No
-Cooperation in policy implementation +delegation of public authority	No	No	Usually not	No
-Broadness of policy issues	Broad	Narrow	Narrow	Narrow
Structure				
-Boundaries	Closed	Fluent	Closed	Relatively open
-Type of membership	Involuntary	Voluntary	Voluntary	Voluntary
-Ordered relations?	Low	Low	Medium	Low
-Intensity	Low	Mixed	High	Low
-Multiplexity	Low	Mixed	High	Low
-Symmetry	None	None	Low	Low
-Subclustering?	?	Yes	Possible	Possible
-Linking pattern	Hierarchic authority, interlocking leadership	Hierarchic authority, interlocking leadership	Horizontal consultation, intermobility personnel	Horizontal consultation
-Centrality	High	Low	Medium	Low
-Stability	Low	Low	High	Low
-Nature of relations	Conflictual	Cooperative	Cooperative	Conflictual
Institutionalization				
Conventions of interaction				
-Adversarialism/consensus-search	Adversial	Both	Both	Adversial
-Idea of serving public interest?	Yes	No	No	No
-Formal or informal contacts	Informal	Informal	Informal	Both formal and informal
-Secrecy?	Yes	No	No	No
-Attempts at depoliticization?	Yes	Yes	Yes	No
-Ideological disputes?	No	No	No	Possible
Distribution of power				
-Autonomy of state re society	High	Extremely low	Low	Possible
-State dominant	Yes	No	No	Possible
-Societal interests dominant (capture)	No	Yes	Yes	Possible
-Balance, symbiosis	No	No	No	Unlikely
Strategies of public administration				
-Being accessible	No	Yes	Yes	Yes
-Recognition of interest groups	No	Yes, informally	Yes	No
-Active support of interest associations	No	No	Possible	No
-Creation/changing interest associations	No	No	No	No
-Delegation of state authority	No	No	Usually not	No
-Attempts at destroying interest associations	Yes	No	Only competing associations	Possible

Typology of Policy Networks by van Waarden (continued)

Policy network type	Sectoral corporatism	Macro corporatism	State corporatism	Sponsored pluralism
Actors (in addition to state agencies				
-Number	At least 1	At least 2	Several	Many
-Type	Major interest associations	Major interest associations	State-created interest associations	Interest associations
-Representational monopolies	Yes	Yes	Yes	No
Function				
-Channeling access	Yes	Yes	Yes	Yes
-Consultation	Yes	Yes	No	Yes
-Negotiation	Yes	Yes	No	Yes
-Coordination	Yes	Yes	Yes	Yes
-Cooperation in policy formation	Yes	Yes	Yes	Yes
-Cooperation in policy implementation +delegation of public authority	Yes	Yes	Limited	No
-Broadness of policy issues	Medium	Broad	Narrow-medium	Narrow
Structure				
-Boundaries	Closed	Closed	Closed	Relatively open
-Type of membership	De facto/formal compulsory	De facto/formal compulsory	Formally compulsory	Voluntary
-Ordered relations?	High	High	High	Medium
-Intensity	High	High	Medium	Medium
-Multiplexity	High	High	Medium	Low
-Symmetry	High	High	Low	Low
-Subclustering?	Likely	Likely	Likely	Possible
-Linking pattern	Horizontal consultation	Horizontal consultation	Interlocking leadership	Horizontal consultation
-Centrality	Medium	Medium	High	Low
-Stability	High	High	High	
-Nature of relations	Cooperative	Cooperative	Forced cooperative	Conflictual/ cooperative
Institutionalization	High	High	High	Medium
Conventions of interaction				
-Adversarialism/consensus-search	Search for consensus	Search for consensus	Forced consensus	Adversarialism/ consensus
-Idea of serving public interest?	No	Yes	Yes, forced	No
-Formal or informal contacts	Formal	Formal	Formal	Formal and informal
-Secrecy?	Yes	Yes	Yes	No
-Attempts at depoliticization?	Yes	Yes	Yes	No
-Ideological disputes?	Possible	Possible	Not allowed	Possible
Distribution of power				
-Autonomy of state re society	High	High	High	Somewhat
-State dominant	No	No	Yes	No
-Societal interests dominant (capture)	No	No	No	No
-Balance, symbiosis	Likely	Likely	No	Possible
Strategies of public administration				
-Being accessible	Yes	Yes	Yes	Yes
-Recognition of interest groups	Yes	Yes	Yes	Yes
-Active support of interest associations	Yes	Yes	Yes	Yes
-Creation/changing interest associations	Yes	Yes	Yes	Yes
-Delegation of state authority	Yes	Yes	Yes	Possible
-Attempts at destroying interest associations	Possible	Possible	Yes	Possible

Typology of Policy Networks by van Waarden (continued)

Policy network type	Parental relations	Iron triangles	'Issue networks'
Actors (in addition to state agencies			
-Number	Limited	Two	Unlimited, very high
-Type	At least a dominant political party	Interest associations + party/parl.ctee	A.o. individual experts
-Representational monopolies	Possible	Yes	No
Function			
-Channeling access	Yes	Yes	Yes
-Consultation	Yes	Yes	Yes
-Negotiation	Possible	Yes	No
-Coordination	Possible	Yes	Possible
-Cooperation in policy formation	Possible	Yes	Yes
-Cooperation in policy implementation +delegation of public authority	No	Usually not	No
-Broadness of policy issues	?	Narrow	Narrow
Structure			
-Boundaries	Relatively closed	Closed	Extremely open
-Type of membership	Voluntary	Voluntary	Voluntary
-Ordered relations?	Low	Medium	Extremely low
-Intensity	Low	High	Mixed
-Multiplexity	Possible	High	Medium
-Symmetry	Low	Low	Diffuse
-Subclustering?	Possible	Possible	Possible
-Linking pattern	Hierarchic authority	Horizontal consul-tation, intermobility of personnel	Horizontal consultation, intermobility
-Centrality	High, party focal organization	Low	Extremely low
-Stability	Low	High	Extremely low
-Nature of relations	Conflictual and cooperative	Cooperative	Cooperative
Institutionalization	Low	High	Extremelly low
Conventions of interaction			
-Adversarialism/consensus-search	Both	Both	Consensus on technocratic norms
-Idea of serving public interest?	No	No	Yes, possible
-Formal or informal contacts	Formal	Informal	Extremely informal
-Secrecy?	No	Yes	No
-Attempts at depoliticization?	No	Yes	Yes, turning in technical problems
-Ideological disputes?	Possible	No	No
Distribution of power			
-Autonomy of state re society	High, if party considered state	Low	Low
-State dominant	Yes	No	Diffuse
-Societal interests dominant (capture)	No	Yes	Diffuse
-Balance, symbiosis	No	No	Yes, by collective technocracy
Strategies of public administration			
-Being accessible	Possible	Yes	Yes
-Recognition of interest groups	Possible	Yes	Yes
-Active support of interest associations	Possible	Possible	No
-Creation/changing interest associations	Possible	No	No
-Delegation of state authority	Possible	Usually not	No
-Attempts at destroying interest associations	Possible	Only of competing associations	No

Note. Adapted from "Dimensions and types of policy networks" by F. van Waarden, 1992, *European Journal of Political Research*, *21*(1-2), p. 39-41.

APPENDIX 2: LIST OF INTERVIEWEES

R1 – Representative of Non-governmental Organization

R2 – Representative of Academia

R3 – Representative of International Organization

R4 – Representative of International Organization

R5 – Representative of Governmental Agency

R6 – Representative of Ministry

R7 – Representative of Ministry

R8 – Representative of Ministry

R9 – Representative of Ministry

R10 – Representative of Non-governmental Institution

R11 – Representative of Quasi-public Organization

R12 – Representative of Academia

R13 – Representative of Ministry

R14 – Representative of Ministry

R15 – Representative International Organization

R16 – Representative of Academia

R17 – Representative of Academia

R18 – Representative of Academia

R19 – Freelancer

R20 – Representative of Quasi-public Institution

R21 – Representative of Quasi-public Institution

APPENDIX 3: ETHICS COMMISSION FORM

Tarih: 17/04/2020
Sayı: 35853172-300-E.00001075685
0001075685

T.C.
HACETTEPE ÜNİVERSİTESİ
Rektörlük

Sayı : 35853172-300
Konu : Dastan ALMEN (Etik Komisyon İzni)

SOSYAL BİLİMLER ENSTİTÜSÜ MÜDÜRLÜĞÜNE

İlgi : 16.03.2020 tarihli ve 12908312-300/00001049066 sayılı yazınız.

Enstitünüz Siyaset Bilimi ve Kamu Yönetimi (Kamu Yönetimi) Doktora programı öğrencilerinden **Dastan ALMEN**'in **Prof. Dr. Mete YILDIZ** danışmanlığında hazırladığı **"Planlama ve Uygulama Boyutlarıyla Kazakistan'ın E-Devlet Politikaları: Uluslararası Örneklerden Alınabilecek Dersler"** başlıklı tez çalışması Üniversitemiz Senatosu Etik Komisyonunun **07 Nisan 2020** tarihinde yapmış olduğu toplantıda incelenmiş olup, etik açıdan uygun bulunmuştur.

Bilgilerinizi ve gereğini saygılarımla rica ederim.

e-imzalıdır
Prof. Dr. Rahime Meral NOHUTCU
Rektör Yardımcısı

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Sevda TOPAT

APPENDIX 4: ORIGINALITY REPORT

HACETTEPE UNIVERSITY
GRADUATE SCHOOL OF SOCIAL SCIENCES
MASTER'S THESIS ORIGINALITY REPORT

HACETTEPE UNIVERSITY
GRADUATE SCHOOL OF SOCIAL SCIENCES
POLITICAL SCIENCE AND PUBLIC ADMINISTRATION DEPARTMENT

Date: 1/05/2021

Thesis Title: The Role of Policy Networks and Policy Transfer in Kazakhstan E-government Policies

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Name Surname: Dastan ALMEN
Student No: N13145185
Department: Political Science and Public Administration
Program: Public Administration

ADVISOR APPROVAL

APPROVED.

Prof.Dr. Mete YILDIZ