MODELING G2G USAGE AMONG GOVERNMENT EMPLOYEES IN KUWAIT: THE CONTINGENT ROLE OF USER MONITORING, USER RESISTANCE, AND TASK INTERDEPENDENCE

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by

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LIST OF ABBREVIATIONS

AVE	Average Variance Extracted
CAIT	Central Agency for Information Technology
CB-SEM	Covariance-based structural equation model
CITRA	Communication and information technology regulatory authority
CMV	Common method Variance
CR	Composite Reliability
D&M	Information systems success model
DAW	Documented automated workflow
DV	Dependent variables
e-democracy	Electronic democracy
e-Government	Electronic government
E-Payment	Electronic payment
f^2	Effect size
G2B	Government to business
G2C	Government to citizen
G2E	Government to employee
G2G	Government to government
GCI	Global Competitiveness Index
GDP	Gross Domestic Product
GGC	Gulf Cooperation Council
HTMT	Heterotrait-Monotrait ratio of correlations
ICT	Information and communication technology
iGA	Information & e-government Authority
IQ	Information quality

IT	Information technology
ITU	International telecommunication union
IV	Independent variables
KGCC	Kuwait government call center
KGO	Kuwait government online portal
KUNA	Kuwait news agency
KIN	Kuwait information network
M	User monitoring
NEAF	National Enterprise Architecture Framework
NOIE	National Office for Information Economy
OECD	Organization for Economic Cooperation and Development
P	Employee performance
PACI	Public Authority for Civil Information
PLS-SEM	Variance-based structural equation model
Q^2	Predictive Relevance
R^2	Coefficient of determination
RTC	User resistance
Sat	User satisfaction
SEM	Structural Equation Model
SerQ	Service quality
SPSS	Statistical Package for Social Science
SQ	System quality
TAM	Technology Acceptance Model
TI	Task interdependence
TPB	Theory of Planned Behavior
TR	User training
TRA	Theory of Reasoned Action

U	Usage
UN	United nation
UTAUT	Unified Theory of Acceptance and Use of Technology
VIF	Variance Inflation Factor

LIST OF APPENDICES

PEMODELAN PENGGUNAAN G2G DALAM KALANGAN KAKITANGAN KERAJAAN DI KUWAIT: PERANAN KONTINJEN PEMANTAUAN PENGGUNA, RINTANGAN PENGGUNA DAN SALING BERGANTUNGAN TUGAS

ABSTRAK

Pada tahun 2017, Kerajaan Kuwait melaksanakan sistem G2G di kementerian kerajaan untuk menyokong pencapaian wawasan Kuwait 2035 dan untuk mengatasi kelewatan transaksi kerajaan yang dilakukan oleh kakitangan. Wawasan Kuwait 2035 baharu terdiri daripada banyak matlamat yang perlu dicapai, dan matlamat yang paling penting adalah untuk menjadikan Kuwait sebagai sebuah pusat kewangan dan komersial dengan meningkatkan perkhidmatan kerajaan dalam talian yang disediakan oleh kakitangan. Walaupun pembangunan berterusan kerajaan Kuwait dibuat terhadap sistem e-kerajaan, transaksi kerajaan masih dilewatkan oleh kakitangan. Oleh itu, kajian ini tertumpu kepada faktor yang mempengaruhi prestasi kakitangan menggunakan sistem G2G di kementerian Kuwait. Model DeLone and McLean (2003) digunakan dalam kajian ini untuk menentukan prestasi kakitangan di kementerian Kuwait, dan lima belas hipotesis dibangunkan berdasarkan model yang dibangunkan. Model ini juga telah dikembangkan dalam kajian ini dengan menambah saling kesandaran tugas, pemantauan pengguna, rintangan pengguna, dan latihan pengguna untuk model asal. Pra-ujian telah dijalankan dalam kajian ini dengan beberapa pakar akademik, pakar bidang, dan responden untuk memahami sepenuhnya konsep asas. Tinjauan digunakan sebagai instrumen kajian dan unit analisis adalah kakitangan yang menggunakan sistem G2G di kementerian Kuwait, dan 290 responden diperoleh daripada 500 soal selidik bercetak yang diedarkan di 5 buah kementerian (terdiri

daripada 73% pengguna di semua kementerian negeri). Data yang diperoleh daripada kajian ini dianalisis menggunakan Kuasa Dua Terkecil Separa (PLS-SEM). Keputusan menunjukkan bahawa hanya kualiti maklumat, kualiti perkhidmatan dan latihan pengguna mempengaruhi penggunaan G2G secara positif manakala kualiti sistem tidak mempunyai kesan positif terhadap penggunaan G2G. Tidak seperti kualiti sistem dan latihan pengguna, kualiti maklumat, penggunaan G2G, dan kualiti perkhidmatan mempengaruhi kepuasan pengguna secara positif. Di samping itu, penggunaan G2G dan kepuasan pengguna mempengaruhi prestasi pekerja dengan positif. Walau bagaimanapun, antara pemboleh ubah penyederhanaan, (saling kesandaran tugas, pemantauan pengguna, dan rintangan pengguna) hanya saling kesandaran tugas menyederhanakan hubungan antara penggunaan G2G dan prestasi kakitangan, manakala tahap yang tinggi saling kesandaran tugas melemahkan hubungan positif antara penggunaan G2G dan prestasi kakitangan. Sumbangan teori dan praktikal dapatan kajian turut dibincangkan dalam kajian ini. Batasan kajian telah dijelaskan dan cadangan kajian lanjutan turut dikemukakan.

MODELING G2G USAGE AMONG GOVERNMENT EMPLOYEES IN KUWAIT: THE CONTINGENT ROLE OF USER MONITORING, USER RESISTANCE, AND TASK INTERDEPENDENCE

ABSTRACT

In 2017, The Kuwait government implemented the G2G system in government ministries to support the achievement of the 2035 Kuwaiti vision and to overcome the delay of the government transactions done by employees. The new Kuwait vision 2035 consists of many goals to be achieved, and the most important goal is to make Kuwait a financial and commercial center by improving the government online services provided by employees. Despite the continuous development that the Kuwaiti government made to the e-government system, government transactions were still delayed by employees. Therefore, this research focused on identifying factors affecting the performance of employees using G2G system in Kuwait ministries. DeLone and McLean (2003) was utilized in this research to determine the employee's performance in Kuwait ministries, and fifteen hypothesizes were developed based on the model developed. The model also has been extended in this study by adding task interdependence, user monitoring, user resistance, and user training to the original model. pre-test was conducted in this study with a number of academic experts, field experts, and respondents to fully comprehend the underlying concept. Survey was used as the research instrument and the unit of analysis is employees using G2G system in Kuwait ministries, and 290 respondents were obtained out of 500 printed hardcopy questionnaires distributed in 5 ministries (consisting of 73% users of all state ministries). The data obtained from the survey was analyzed using Partial Least Square (PLS-SEM). The result revealed that only information quality, service quality, and

user training positively influence G2G usage, where system quality has no positive effect on G2G usage. Unlike system quality and user training, information quality, G2G usage, and service quality positively influence user satisfaction. In addition, G2G usage and user satisfaction positively influence employee's performance. However, among the moderating variables, (task interdependence, user monitoring, and user resistance) only task interdependence moderated the relationship between G2G usage and employee performance, where the high level of task interdependence weakened the positive relationship between G2G usage and employee performance. Theoretical and practical contributions of the research findings were also discussed in this research. Limitations of the research were explained and suggestions for future research were also presented.

CHAPTER 1

INTRODUCTION

1.1 Introduction

The aim of this chapter is to provide an overview of this study. Firstly, it starts with the background of this research, followed by an overview of the e-government with highlights on the problem statement. Moreover, the research objectives with the research questions are presented in the next section. After that, the next section including theoretical and practical contributions are presented. Finally, the scope of this study, definitions of key terms, and organization of the thesis are demonstrated at the end of the chapter.

1.2 Background of the Study

1.2.1 Introduction of e-Government

In the early 1990s, the Internet was used by many people around the world, which led to the creation of the World Wide Web (WWW), enabling Internet users to advance from simple text transfer to multimedia exchanges. As such, the term 'e-government' began to take place in late 1990s, as a result of technology advancement in the United States of America. For example, in February 1997, the National Performance Review reported the initialization of the concept of electronic government in the United States of America, where citizens would be able to benefit from governmental online services such as applying for or receiving education and home loans (Hernon, Dugan, & Government, 2015). Furthermore, the development of Information and Communication Technology (ICT) led the federal government to introduce a number of laws to regulate and manage the use of ICTs, namely the

Government Performance Results Act of 1993. Also, the rapid changes of the ICTs during the 1990s became an important reason behind the development of nations. Indeed, it has changed how governments interact and caused their people to be more efficient, reliable, and communicative (Dodd, 2000). This development resulted in governments introducing the e-government with various categories (i.e., G2G, G2C, G2E, and G2B) as a means of improving governmental transactions and information sharing between governmental agencies. The e-government categories will be explained in more depth in section 2.6.

It is noteworthy to mention that the e-government has different terms found in previous literature. For instance, several studies use the terms Electronic Government, Electronic Governance, Digital Government, Online Government, and e-Government (Gronlund, 2004). As such, E-Government can be defined as the use of Information and Communication Technology (ICT) to enhance governmental services (Saha, 2008). A myriad of benefits can be observed by applying e-government systems since they can improve the government's services, policy outcomes, and policy objectives (Alshehri & Drew, 2010).

1.2.2 Kuwaiti e-Government

The Kuwaiti government realized the importance of the e-government and, therefore, introduced it in the 2006 Central Agency for Information Technology or "CAIT", which was responsible for e-government implementation (Central Agency for Information Technology, 2018). CAIT has been attached after its introduction to the Minister of State for Cabinet Affairs to gather all strategies needed for implementing the e-government project in the state of Kuwait (Central Agency for Information

Technology, 2018). The introduction of CAIT had a number of objectives listed as follows:

- Improving IT management to enhance IT quality services provided by governmental agencies.
- Handling risk management to meet the expectations of government entities.
- Coordination between IT and the strategic plans of government entities.
- Ensuring compliance with regulatory standards among government entities.
- Enhancing usage of IT resources in governmental agencies.

Furthermore, introducing CAIT contributed to an increase in the trend of e-government over a decade (from 2004 to 2014), as shown in Figure 1.1. In this figure, the yellow line signifies a steep increase between 2008 and 2014.

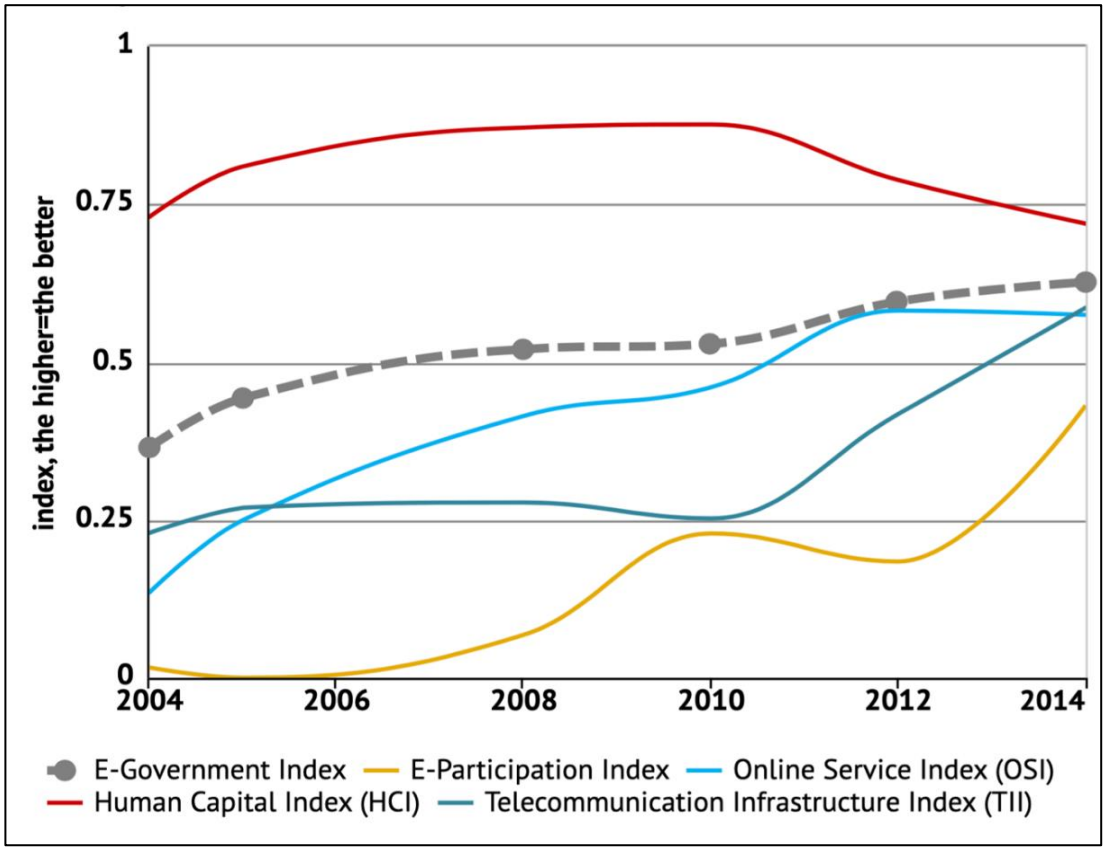

Figure 1.1. Kuwait Ranking Indexes (UN e-government development index 2018)

Since 2006, CAIT implemented a number of national projects to develop electronic services in the state of Kuwait, such as Kuwait Information Network (KIN), Kuwait Government Call Center (KGCC), and Kuwait Government Online portal (KGO).

With this respect, KIN is a network that allows governmental and non-governmental entities to exchange highly-secured information with higher connection speeds. Kuwaiti governmental and non-governmental agencies are required to use this network to communicate with any government entity. Moreover, the goal of this common network is to enhance online services in Kuwait for better government service delivery (Central Agency for Information Technology, 2018).

In addition, the KGCC was established by CAIT to implement strategic programs to develop the Kuwaiti e-government initiative in collaboration with all government ministries. This system is available 24 hours to serve clients with e-government services deployed through the Kuwait Government Online Portal website. Also, it provides online customer service support for the inquiries of citizens and visitors of Kuwaiti electronic services (Central Agency for Information Technology, 2018).

Aside from that, the most important national project introduced by CAIT is the Kuwait Government Online portal (KGO). This project was introduced in 2006 to provide governmental information and services to all citizens, residents, the government sector, and business sector in the state of Kuwait. The KGO portal consists of general information about KGO announcements or news, the Kuwait News Agency (KUNA), Kuwaiti newspapers, and sea status and weather (Central Agency for Information Technology, 2018). Also, CAIT made further improvement to the KGO portal by introducing electronic payment services (Tasdeed) to improve governmental online services. The Tasdeed electronic payment service include:

- E-payment and inquiry about electricity and water bills.
- E-payment and inquiry about state property fees.
- E-payment and inquiry about credit banks in Kuwait.
- E-payment and inquiry about phone bills.
- E-payment and inquiry about civil ID renewal.

Statistically, the continuing improvement of electronic services by CAIT has led to advancements in the global Kuwaiti e-government index. For instance, according to the United Nations e-government index, Kuwait's ranking with respect

to e-government development advanced to top 40 worldwide in 2016, as compared to being 90th in 2008 (UN, 2016). In addition, the annual report of Kuwait Government Online (KGO) shows that the e-government portal of Kuwait introduced 905 electronic services in 2017 (compared to only 105 services in 2012) and 993 information services in 2017 (compared to only 511 in 2012) (KGO, 2018b). Furthermore, the total amount of transactions in using electronic payment services (Tasdeed) increased to 94,849,129 Kuwaiti Dinars (KD) in 2017, compared to only 19,378489 KD in 2012. Also, the overall number of transactions via electronic payment services (Tasdeed) reached 2,243,663 processes in 2017, compared to only 321,700 processes in 2012 (KGO, 2018b).

In 2014, Kuwait introduced a legislation to use the G2G system in all government agencies (Central Agency for Information Technology, 2018). The G2G system was introduced by the Kuwaiti government to improve the process of all governmental transactions, enhance governmental services. Since 1960, government employees have been completing government transactions manually, which caused to slowdown the completion of transactions (AlAwadhi, 2007). Consequently, with the passage of time, the government decided in 2014 to introduce G2G services to improve employees' performance, improve the linkage between ministries, and to achieve Kuwait Vision 2035 (Kuwait National Development Plan- New Kuwait, 2018). In this regard, the new Kuwait vision of 2035 consists of many goals. However, one of the most critical objectives that needs to be achieved by 2035 is to make Kuwait a financial and commercial center by improving its online governmental services. As such, introducing the G2G system was an essential step to reach the government's new vision.

According to the Central Agency for Information Technology (2018), the G2G system represents a software that electronically links all governmental agencies together, enabling them to transfer governmental transactions 24 hours a day, seven days a week. Moreover, this system is developed by CIAT and is connected to Kuwait Information Network (KIN). In addition, the G2G system includes two separate systems, namely the external system (G2G system) o link different government entities, and the internal system (i.e., Documented Automated Workflow or DAW) to internally connect entities within the same organization. Hence, all government entities need to use the G2G system by law to make transactions among various ministries. As a result, to complete any transaction, employees are required to use the internal system (DAW) to process transactions within the same ministry and then send them to other ministries via the G2G system.

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During the conference of Kuwaiti G2G in March 14, 2018, the director of the Central Agency for Information Technology stated that the state of Kuwait is paying more attention to G2G services for better public performance (Central Agency for Information Technology, 2018). This means that G2G e-government is a decisive factor in enhancing the performance of this country's government. Therefore, it implies the objective of the current study and serves as a justification for the comprehensive examination of the G2G e-government concept.

1.3 Research Problem

As mentioned earlier, G2G system has been introduced in 2014. However, it took three years to activate the use of G2G system in Kuwait Ministries, as the CAIT announced that the 1st of January 2017 would be the first day that all government agencies would activate the use of G2G system (Central Agency for Information Technology, 2018). Although the G2G system has been activated in Kuwait, it is still not fully implemented in all government agencies, and it has some problems. In the 12th of August 2017, the Minister of Justice stated in an interview in Alqapas newspaper that the e-government does not exist when he was appointed officially in the Ministry of justice (Al-salamah, 2017). He emphasized the crucial role of e-government and its necessity to improve the government's services. He also admitted that the full implementation of e-government did not take effect as expected and there should be an electronic linkage between all government agencies to improve the government performance (Al-salamah, 2017). On the same matter, The Deputy Minister of the Ministry of Public Works in Kuwait announced in Al-Rai newspaper on November 2017 that the Ministry of Public Work is still having problems in

completing its projects because of the poor electronic linkage between the different Ministries (Sabah, 2018).

On the other hand, the partial implementation of G2G system in Kuwait was aligned with the inclined ranking in the Global Competitiveness Index (GCI). That is, the GCI report stated that out of 137 countries, the Kuwait rank in the competitiveness index dropped to 52nd in 2017-2018 compared with 38nd in 2016-2017 (World Economic Forum-The Global Competitiveness Report 2017–2018, 2018). To explain, the GCI report measures 12 competitive indicators and unfortunately the Kuwaiti rank dropped in most of them. For example, the report shows that Kuwait has some improvements in the innovation indicator in 2017-2018 compared with 2016-2017 but its rank still lagging far behind the Gulf Cooperation Council (GGC) (i.e., Arabian Gulf countries which include Kuwait, Saudi Arabia, Oman, Bahrain, Qatar, and United Arab Emirates).

The most important indicator in GCI report is the technological readiness indicator, which measures the ICT usage. The report stated that the Kuwait rank in the technological readiness dropped to the 60th position in 2017-2018 compared with the 56th in 2016-2017. This reduction led Kuwait to lag behind all the GCC countries in 2017-2018. Furthermore, the Kuwait ICT development index has been declined in 2017 compared with 2016. For example, the international telecommunication union stated that the ICT development index of Kuwait declined in 2017 to reach a position of 71 compared with 70 position in 2016 (ITU, 2018a). The above figures clearly show that the recent usage of the G2G system by employees in Kuwait ministries does not help them to improve their performance in processing government transactions, and as a result the rank of Kuwait in GCI index and ICT development index fall down

compared with the last few years. This caused an alarming sign for the Kuwaiti government to investigate this issue.

In addition to the sharp reduction of Kuwait rank in GCI index and ICT development index, Kuwait also showed a decline in the rank of e-government index. To clarify, the world e-government index report showed that Kuwait ranks in e-government declined from 38 in 2016 to 41 in 2018. This decline of e-government position highlights many concerns related to e-government implementation in Kuwait. Figure1.2 shows the reduction of the rank in Kuwait e-government in the year of 2016 and 2018.

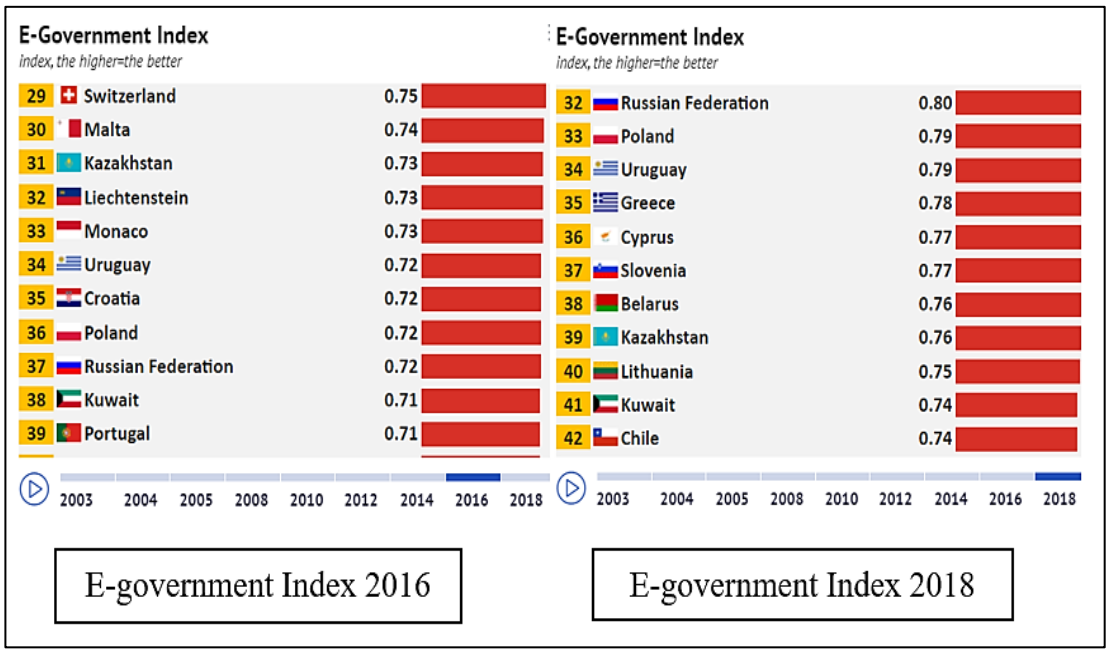

Figure 1.2. World e-governance Index (2018)

Past studies on G2G e-government showed that G2G studies were limited, and most of the previous studies focused on factors affecting the successful implementation of e-government (Al-khafaji, Jaleel & Shittu, 2014). However, it has been also noticed from the literature that the issue of G2G usage and its effect on

performance was a gap in the literature (Fahrianta, Chandrarin & Subiyantoro, 2018). This grabs the researcher attention to investigate the issue of G2G usage and its effect on performance in depth.

Moreover, most of past e-government studies focused on G2C and G2B e-government, but only few focused on G2G e-government. For example, Al-khafaji et al. (2014); Pandey and Gupta (2017) stated that most of scholars focused on studying G2C and G2B e-government, and few of them examined G2G e-government. Furthermore, Rai, Ramamritham and Jana (2020) , Chen, Huang and Davison (2016) asserted that there is a lack of understanding G2G e-Government, as most studies focused only on G2C and G2B e-government. Most importantly, the majorities of scholars examined the issue of e-government in the developed countries and few of them examined the e-government in the developing countries (Hamza, Sehl, Egide & Diane, 2011; Rabaa'i, Zogheib, Alshatti & Jamal, 2016). As example, Rabaa'i et al. (2016) and Hamadi, (2018), stated that only very few studies have discussed the issue of e-government in Kuwait and most of them focused mainly on G2C e-government. Conducting studies about e-government in developing countries especially in Kuwait are important to improve the e-government initiatives in developing countries. The limitation of e-government studies in developing countries presents another gap that interested the researcher to fill it in the current study.

The recent introduction of G2G system in Kuwaiti Ministries was expected to improve services delivery of government employees and help the Kuwaiti government to achieve its 2035 vision. Furthermore, the tangible benefits of e-government did not appear efficiently and effectively as expected and there were incidents support the poor performance of government employees. As an example, Kuwaiti Labor efficiency rank in the global competitiveness report decreased to 120 in 2018 compared to 117 in 2016

(World Economic Forum, 2018), and this reduction led to poor performance of Kuwaiti employees in Kuwait ministries. In this light, the Kuwaiti Minister of Information announced in Al-anbaa newspaper in the 19th June 2017 that Kuwaiti agencies suffer from a delay in governmental transactions done by employees, and the G2G system adopted by Kuwait agencies to overcome this problem (Magrabi & Mahmood, 2018). In this regard, the Kuwait prime also announced in Alrai newspaper that the electronic services need to be fully utilized by government employees to improve the delivery of government transactions (Abdullah, 2021). Thus, This highlights the need for timely service delivery by the government employees.

Additionally, it has been found that there is a gap in the literature in studies related to e-government implementation from the perspective of employees and this gap should be filled out (Barua, 2012; Batara, Nurmandi, Warsito & Pribadi, 2017). Therefore, the issue of employees' performance needs to be investigated from the perception of the employees as they are the main yardstick of the system.

The efficient use of G2G system by employees in Kuwait Ministries can help to improve all types of e-Government interactions. Zheng et al. (2013) stated that the successful usage of G2G system can determine the performance of other e-government interaction types such as G2C and G2B. Al-khafaji et al. (2014) and Hamza et al. (2011) also asserted that governments rely on the information that come from all government agencies by employees and, therefore, the successful usage of G2G system by employees is important to improve government's performance. This is a clear indication that the effective use of G2G system can help to improve the performance of employees in the Kuwaiti Ministries. All the above examples indicate

the importance of highlighting the performance of employees using the G2G system in Kuwait ministries.

The literature showed inconsistency on the relationship between technology usage and performance (Isaac, Abdullah, Ramayah, Mutahar & Alrajawy, 2017a). The inconsistency between two variables can be improved by introducing a moderator (Baron & Kenny, 1986). Task interdependence is suggested to be added as a moderator to strength the relationship between G2G usage and employee performance. when employees are highly depending on each other in completing their work tasks, any absence of the information or the absence of any team members, can delay the completion of the task (Vijfeijken, 2004). The issue of task interdependence will be discussed extensively in the next chapter.

G2G user monitoring is another important construct suggested to be introduced to improve the inconsistency between G2G system usage and employee performance in Kuwaiti ministries. In a complex working environment such as public organizations where mangers have different administrative responsibilities other than monitoring G2G usage performance, the introduction of such a system can enables managers and supervisors to control employees working activities, which can lead to improve employee performance (Rubenstein, 2016). The issue of user monitoring will be discussed in depth in the next chapter.

The prior researches also showed weak relationship between technology usage and user satisfaction (Jeyaraj, 2020; Petter & Mclean, 2009). User resistance to change is another important construct suggested to be introduced to improve the inconsistency between G2G system usage and employee satisfaction in Kuwaiti ministries (Alzahrani, Mahmud, Ramayah, Alfarraj & Alalwan, 2019). The unacceptance of G2G

system by users can reduce the users' satisfaction of the system, and this may lead to reduce their work performance. User resistance will be discussed more in depth in the next chapter.

User training is considered another important variable in technology usage where the technology is mandatory to be used. Fitriani, Kumaralalita, Hidayanto, Herkules and Putra (2016), Al-naimat, Abdullah and Ahmad (2013), Alassim and Alfayad (2017) stated that user training is important in mandatory e-government usage and individual performance. Furthermore, Ghosh and Woodfork (2012) asserted that user training is important in during implementation and post implementation of technology. In G2G context, training programs can help G2G users to acquire the necessary skills for successful implementation of G2G system. user training will be discussed more in more details in the next chapter.

It has been found in the past studies that information system success model (D&M) is the most suitable model to evaluate the successful implementation of e-government from the perspective of employees (full details in the next chapter in section 2.10) (Veeramootoo, Nunkoo, & Dwivedi, 2018; Yamin & Sweiss, 2020). Therefore, this study aims to use D&M to investigate factors that can lead to improve employees' performance using G2G system in Kuwaiti Ministries from the perspective of employees.

1.4 Research Objectives

The main objective of this study is to determine relationships among independent variables that positively influence the performance of G2G users in Kuwaiti Ministries. In this research, the updated information system success model (D&M) of DeLone and McLean (2003) is used to examine factors that lead to

improvements in employee performance using the G2G system in Kuwaiti Ministries. Hence, this study's objectives are listed as follows:

1. To examine the relationship between system quality and the use of G2G system in Kuwait Ministries.
2. To examine the relationship between system quality and user satisfaction in Kuwait Ministries
3. To determine the relationship between information quality and the use of G2G system in Kuwait Ministries.
4. To determine the relationship between information quality and user satisfaction in Kuwait Ministries.
5. To investigate the relationship between service quality and the use of G2G system in Kuwait Ministries.
6. To investigate the relationship between service quality and user satisfaction in Kuwait Ministries.
7. To investigate the relationship between the use of G2G system and user satisfaction in Kuwait Ministries.
8. To examine the relationship between use of G2G system and employee performance in Kuwait Ministries.
9. To examine the relationship between use user satisfaction and employee performance in Kuwait Ministries
10. To investigate the effect of task interdependence as a moderator on the relationship between the use of G2G system and employees' performance in Kuwait Ministries.

11. To investigate the effect of G2G user monitoring as a moderator on the relationship between the use of G2G system and employees' performance in Kuwait Ministries.
12. To investigate the effect of user resistance to change as a moderator on the relationship between the use of G2G system and user satisfaction in Kuwait Ministries.
13. To examine the relationship between user training and G2G usage in Kuwait Ministries
14. To examine the relationship between user training and user satisfaction in Kuwait Ministries
15. To examine the relationship between user training and employee performance in Kuwait Ministries

1.5 Research Questions

Based on the above discussion, the research questions asked in this study are as follows:

1. Does system quality affect the use of G2G system in Kuwait Ministries?
2. Does the system quality affect user satisfaction in Kuwait Ministries?
3. Does information quality affect the use of G2G system in Kuwait Ministries?
4. Does information quality affect user satisfaction in Kuwait Ministries?
5. Does service quality affect the use of G2G system in Kuwait Ministries?
6. Does service quality affect user satisfaction in Kuwait Ministries?

7. Does the use of G2G system affect user satisfaction in Kuwait Ministries?
8. Does the use of G2G system affect employee performance in Kuwait Ministries?
9. Does user satisfaction affect employee performance in Kuwait Ministries?
10. Does task interdependence moderate the relationship between the use of G2G system and employees' performance in Kuwait Ministries?
11. Does G2G user monitoring moderate the relationship between the use of G2G system and employees' performance in Kuwait Ministries?
12. Does user resistance to change moderate the relationship between the use of G2G system and user satisfaction in Kuwait Ministries?
13. Does user training affect G2G usage in Kuwait Ministries?
14. Does user training affect user satisfaction in Kuwait Ministries?
15. Does user training affect employee performance in Kuwait Ministries?

1.6 Scope of the Study

The domain of this research involves factors that influence employee performance using the G2G system in Kuwaiti ministries from the perspective of employees. Specifically, the sample population represents employees working in departments using the G2G e-government system in Kuwaiti ministries. Moreover, this research develops a framework based on the updated information system success model (D&M) and includes quantitative analysis based on data collection in this field in the form of surveys. As such, questionnaires are created and transformed according to the G2G system context in Kuwait. Additionally, structural equation modeling is

used sing SmartPLS 3.2.1. Furthermore, discussion and direction for future research in G2G system usage as well as its effects on employee performance in Kuwaiti ministries is addressed.

1.7 Significance of the Study

This research seeks to add to the body of information system knowledge from the theoretical and practical perspective. Hence, the expected contribution of this study can be beneficial for researchers, Kuwaiti policy makers, managers, and employees in Kuwaiti ministries.

1.7.1 Theoretical Contribution

This study provides an in-depth understanding of issues concerning the usage of e-government in Kuwaiti ministries. Also, it provides particular comprehension regarding the current usage of the G2G e-government system and its impact on employee performance. In addition, this study adds knowledge to the corresponding literature by examining factors that lead to improvements in employee performance using the G2G system in Kuwaiti Ministries.

This research is based on the updated information system success model (DeLone & McLean, 2003) and enriches this model with other elements, namely task interdependence, system monitoring, and user resistance. Also, this study attempts to discover new relationships in the context of G2G system usage and employee performance through examining the moderating effect of task interdependence, system monitoring, and user resistance on the relationship between G2G system usage and employee performance. Another subject of analysis in this research is the moderating effect of user resistance on the relationship between system usage and user satisfaction.

As illustrated by previous investigation, task interdependence (Lee et al., 2015), system monitoring (Rai & Hornyak, 2013), and user resistance (Mahmud et al., 2017) are overlooked in literature related to technology usage. Nevertheless, they are also empirically limited in the case of G2G e-government. By introducing these variables, this study intends to fill this knowledge gap in the literature. Thus, if the moderating effects are proven to exist empirically, the results can have major theoretical contributions to G2G e-government. Moreover, the approval of the added variables (i.e., task interdependence, system monitoring, and user resistance) can assist the Kuwaiti government with enhancing the performance of G2G users in Kuwaiti ministries. Therefore, the researcher considers testing the moderating effect of the suggested variables to explore their validity in the proposed empirical model. Also, user training is found to be an important variable which can be added to this study. In particular, user post-training serves as a vital variable in the postadoption of technology, where the corresponding technology is mandatory (Umble, Haft & Umble, 2003). User training is discussed intensively in literature related to technology adoption. However, user post-training studies are limited, especially in the context of G2G e-government in developing countries.

Furthermore, this study is one of the novel works of research in the context of Kuwait. Previously, studies on e-government were mostly on G2C (Government to Citizen) systems (Pandey & Gupta, 2017). This study extends the scope of e-government by focusing on the G2G system in Kuwait. Also, the information system success model (D&M) has not been used before on e-government in Kuwait. Thus, this study will bring the D&M model in the context of Kuwait.

1.7.2 Practical Contribution

The Kuwaiti government attempts to improve efficiency in completing the government transactions through the recent introduction of the G2G e-government system in Kuwaiti ministries. However, this introduction fails to show improvement in the performance of the government (i.e., employee performance). Also, policy makers and professionals working in the field of e-government in Kuwait are interested to understand why the current usage of G2G e-government systems cannot improve employee performance in Kuwaiti ministries (Magrabi & Mahmood, 2018). Therefore, it is important to understand the current usage of G2G e-government systems and its influence on employee performance. Most of the previous studies about G2G e-government systems have been conducted in developed countries in the west, whereas prior G2G studies regarding developing countries are limited. Furthermore, the majority of studies about the e-government in Gulf Cooperation Council (GCC) countries focus mainly on G2C e-government. Hence, greater understanding of the current research problem can be achieved by narrowing the context of this study specifically within G2G e-government system usage and its influence on employee performance. Moreover, this study should benefit Kuwaiti policy makers and e-government professionals in improving the performance of Kuwaiti employees using the G2G e-government system in Kuwaiti ministries.

In addition, this research is expected to influence the Kuwaiti government to consider providing hardiness training programs to enhance employee performance when using the G2G e-government system in Kuwaiti ministries. Also, this study gives insight into practitioners regarding the impact of task interdependence, system monitoring, and user resistance on employee performance.

Aside from that, the background of this study provides the clear indication of 2035 visionary plan to turn Kuwait into a financial center. The successful implementation of G2G e-government systems plays a key role in reaching this goal. As such, this study provides clear insights into the government to improve employee performance when using the G2G system.

Lastly, the results of this research can help e-government decision makers in Kuwait to improve employee performance using G2G e-government systems in this country. In addition, the findings can assist them in formulating strategies based on the research variables to advance the G2G system in Kuwaiti ministries.

1.8 Definitions of Key Terms

The following terms are used in this research, listed as follows:

1.8.1 Information Quality

This term refers to the characteristics of the system output, such as the accuracy and timeliness of the information system (Ramírez-Correa, Rondan-Cataluña, Arenas-Gaitán & Alfaro-Perez, 2017).

1.8.2 System Quality

System quality is defined as the degree to which system users are convinced of the system's ease of use, flexibility, security, and speed (Isaac, Abdullah, Ramayah & Mutahar, 2018).

1.8.3 Service Quality

Service quality indicates the quality of technical support staff's services in terms of the speed, availability, and interest in providing the technical support (Roky & Al Meriouh, 2015).

1.8.4 User Training

User training refers to learning programs provided by organizations to enable their users to utilize the new system more effectively (Amoako-gyampah & Salam, 2004).

1.8.5 System Use/Usage

System use/usage is described as the usage frequency and time of the system by its users (Isaac, Abdullah, Ramayah & Mutahar Ahmed, 2017b).

1.8.6 User Satisfaction

User satisfaction is defined as the extent to which system users are satisfied with their decision to use the system and how well it meets their expectations (Isaac et al., 2017b).

1.8.7 Employee Performance

Employee performance signifies the impact of system usage on users in terms of improving productivity, decision making, and saving time in performing work-related tasks (Ifinedo, 2007).

1.8.8 User Monitoring

User monitoring is an electronic system used to track employee online activities to evaluate his/her work performance (D'Arcy et al., 2009).

1.8.9 User Resistance to Change

Resistance to change is defined as users opposition toward the implementation of the new technology (Bhattacherjee & Hikmet, 2007).

1.8.10 Task Interdependence

Task interdependence refers to the degree to which employees rely on each other to perform their work tasks (Pearce & Gregersen, 1991).

1.9 The Organizations of the Research

Chapter one addresses the introduction and background of this study. As such, it begins with the background of e-government in general as well as specifically in Kuwait. In the next section, this chapter explains the problem statement in relation to G2G systems in Kuwaiti ministries. After that, the research objectives and questions are presented clearly. Next, the research scope is defined according to the context. Following that, the significance of this study is highlighted. Finally, the definitions of the key terms are elaborated.

In addition, literature review is presented and discussed in chapter two. In this regard, prior studied are explicated to understand G2G system usage and its effects on employees in general as well as in Kuwait in particular. After that, theories and models are discussed to identify factors that affect employee performance when using G2G systems in Kuwaiti ministries. In the next step, the corresponding constructs are

planned to be examined thoroughly in terms of information quality, system quality, service quality, training, user satisfaction, general usage, task interdependence, system monitoring, and user resistance. Additionally, this section sheds more light on the rationale behind the selected theory being utilized as well as why it is suitable to be applied in the context of the current study.

The third chapter presents a detailed description of the research methodology which is to be applied and also the research approach, sampling, and data collection techniques (i.e., questionnaires) to validate the proposed theory. In this chapter, the population and sampling unit are defined. Moreover, the SmartPLS 3.2.1 analytical software package is suggested to be used to deal with complicated analytical relationships. Also, its simplicity is described which helps achieve the correct statistical analysis with the most recent approach in empirical studies.

Furthermore, the analysis and interpretation of the obtained data is presented in the fourth chapter.

As such, the questionnaire results and statistical findings are discussed and graphically represented, followed by an explanation for each attribute.

Lastly, the fifth chapter includes the study's major results, implications, limitations, conclusion, and recommendations for further research.