THE MEDIATING EFFECT OF GOOD GOVERNANCE ON THE RELATIONSHIP BETWEEN E-GOVERNMENT AND PUBLIC TRUST IN LEBANON

By

HASSAN ALAARAJ

Thesis Submitted to
Othman Yeop Abdullah Graduate School of Business,
Universiti Utara Malaysia,
in Fulfilment of the Requirement for the Degree of Doctor of Philosophy

Permission to Use

In presenting this thesis in fulfillment of the requirements for a Post Graduate degree from the Universiti Utara Malaysia (UUM), I agree that the Library of this university may make it freely available for inspection. I further agree that permission for copying this thesis in any manner, in whole or in part, for scholarly purposes may be granted by my supervisor(s) or in their absence, by the Dean of Othman Yeop Abdullah Graduate School of Business where I did my thesis. It is understood that any copying or publication or use of this thesis or parts of it for financial gain shall not be allowed without my written permission. It is also understood that due recognition shall be given to me and to the UUM in any scholarly use which may be made of any material in my thesis.

Request for permission to copy or to make other use of materials in this thesis in whole or in part should be addressed to:

Dean of Othman Yeop Abdullah Graduate School of Business
Universiti Utara Malaysia
06010 UUM Sintok
Kedah Darul Aman

Abstract

The main objective of this research is to study the mediating effect of good governance on the relationship between e-government and public trust in Lebanon. As an effective tool for economic reform, there is a need to adopt e-government practices to enhance the public trust towards the government. Based on extensive literature review and conceptual background including the theories of institutional-based trust and the diffusion of innovation, the theoretical research framework was developed. Primary data was collected using survey involving 400 Lebanese employees in Beirut. The data have been analyzed using Structural Equation Modeling (SEM). The research findings revealed that eight hypotheses were accepted while five hypothesis were rejected indicating that e-government practices including e-services have a significant and positive effect on both good governance and public trust in Lebanon. However, e-administration has a positive effect on good governance but not on public trust. E-procurement has insignificant effect on both good governance and public trust. Good governance has a positive and significant effect on public trust, but it has no mediating effect on the relationship between e-government including e-administration and public trust. The findings also show that good governance mediates the effect of both e-service and e-procurement on public trust. This research contributes practically by offering practitioners and policy makers in governments the guidelines on how they can empower and build citizens' trust by providing efficient, transparent and accountable government services. Future studies are suggested to extend the research empirically in terms of respondents, geographical location and methodology of analysis.

Keywords: e-government, good governance, public trust, Lebanon

Abstrak

Objektif utama kajian ini adalah untuk meneliti kesan pengantara tadbir urus yang baik kepada hubungan antara e-kerajaan dan kepercayaan awam di Lebanon. Sebagai alat yang berkesan untuk reformasi ekonomi, terdapat keperluan untuk menerima pakai amalan e-kerajaan untuk meningkatkan kepercayaan awam terhadap kerajaan. Berdasarkan kajian literatur dan latar belakang konsep termasuk teori kepercayaan berasaskan institusi dan penyebaran inovasi telah membolehkan kerangka teori penyelidikan dibangunkan. Data primer telah dikutip menggunakan kaedah soal selidik yang melibatkan 400 pekerja Lubnan di Beirut. Data telah dianalisis dengan menggunakan Model Persamaan Struktur (SEM). Dapatan kajian menunjukkan bahawa sebanyak lapan hipotesis diterima manakala lima hipotesis ditolak yang menggambarkan praktis e-kerajaan termasuk e-perkhidmatan mempunyai kesan positif dan signifikan terhadap tadbir urus yang baik dan kepercayaan awam di Lebanon. Walau bagaimanapun, e-pengurusan mempunyai kesan positif dalam tadbir urus yang baik sebaliknya tidak terhadap kepercayaan awam. E-perolehan pula mempunyai kesan yang tidak ketara dalam tadbir urus yang baik dan kepercayaan awam. Selain itu, tadbir urus yang baik mempunyai kesan yang positif dan signifikan terhadap kepercayaan awam, tetapi tidak mempunyai kesan perantara terhadap hubungan e-kerajaan termasuk e-pentadbiran dan kepercayaan awam. Dapatan kajian juga menunjukkan bahawa tadbir urus yang baik menjadi kesan pengantara terhadap e-perkhidmatan dan e-perolehan dalam kepercayaan awam. Kajian ini menyumbang kepada pengamal dan penggubal dasar dalam kerajaan dengan menawarkan garis panduan bagaimana untuk memperkasakan dan membina kepercayaan rakyat melalui perkhidmatan yang cekap, telus dan bertanggungjawab. Kajian masa depan dicadangkan untuk melanjutkan penyelidikan secara empirik dari segi responden, lokasi geografi dan metodologi analisis.

Kata kunci: e-kerajaan, tadbir usur yang baik, kepercayaan awam, Lubnan.

Acknowledgement

My thankfulness goes also to my parents in Lebanon for their support and eternal prayers. Besides, I am entirely grateful and owing a favour to my beloved wife, Malak Aoun for her patience, sacrifice, spiritual support and everlasting encouragement.

Finally, I would like to dedicate this PhD thesis to my country Lebanon, to my second home country Malaysia, to my parents and to my wife.

Table of Contents

List of Tables

List of Figures

List of Abbreviations

ACC	Accountability
ANAO	Australian National Audit Office
AVE	Average Variance Extracted
CAS	Central Administration of Statistics
CDR	Council for Development and Reconstruction
CFA	Confirmatory Factor Analysis
CPI	Corruption Perception Index
CR	Composite Reliability
CVE	Cumulative variance explained
DOI	Diffusion of Innovation
EA	E-administration
EF	Efficiency
EFA	Exploratory Factor Analysis
EGUS	E-government User Satisfaction
EP	E- Procurement
ES	E-service
FDI	Foreign direct investment
GDP	Gross Domestic Production
ICT	Information and Communication Technology
KMO	Kaiser-Meyer-Olkin
MET	Ministry of Economy and Trade
MI	Modification Indices
MICTC	Ministerial ICT Committee
MINA	Middle East and North Africa
MSA	Measures of Sampling Adequacy
OECD	Organization for Economic Cooperation and Development
OMSAR	Office of the Minister of State for Administrative Reform
PCA	Professional Computer Association
PLS	Partial Least Squares

PT	Public trust
SEM	Structural Equation Modelling
SME	Small and Medium Sized Enterprises
TRA	Telecommunication Regulatory Authority
TRN	Transparency
UNDP	United Nations Development Programme
WHO	World Health Organization

INTRODUCTION

1.1   Introduction

Recently, economic reform has been the main concern of many contemporary politicians and economists all over the world. It is obvious that all countries, including the developed and the less developed as well, are seeking to achieve one major goal; which is improving and sustaining the economic growth. However, there is delay in development which is due to the weak financial planning, lack of good governance [1], shortage of technology, weakness in the investments, lack of trust [2] in government, and inappropriate achieving progress. Smith (2010) claimed that most recent survey studies have shown a worrying trend of declining trust in institutions of democratic governance, in which this form of trust as well as the good governance, play a key role regarding the social and economic progress (Ahrens, 2006; Hong & Yan, 1997). Hence, this research focuses on the use of information and communication technology (ICT) in government practices, mainly e-government [3] or electronic government which is considered recently as one of the most leading aspects of the economic reform. Sequentially, the transformation of typical economies into e-economy enhances the overall economic growth within the nation, making it the most common unit of governance in both, the developed and the developing world (El Gawady, 2005).

---

[1] Good governance is the transformative view of the governance that controls corruption and improves services delivery. This view is the processes by which organization are directed, controlled, and held to account, in order to match the needs of the community through the efficient use of the resources.

[2] Trust is defined as a leaning to believe positively by the other party's action with expectation in a responsible way. It facilitates cooperative performance and leads people to engage in the transactions of government.

[3] E-government is defined as a tool that combines the ICT to attain better government performance, in addition to the improvement of its quality of services regarding businesses and citizens. These services facilitate access to information and accountability that make the economy more efficient and transparent.

For more details, this chapter reviews the background of the study, including the theoretical side as well as the context of the country of study Lebanon. Then, it is pursued by the problem statement, research objectives, significance and a scope of the study, followed by an overview of the thesis organization.

1.2   Background of the Study

It has been obvious that the main concern of the economists in the last century is to attain high economic performance and ensure sustainable development for all countries. The early work of Ramsey (1928) and Keynes (1937) revealed the importance of determining the best beneficial factors to economic growth (Baquero, 2012). The countries can progress their economies through diverse economic aspects.

Traditionally, it has been recognized to the accumulation of both human and physical capital is getting more dependent on the technological innovation. In some nations, particularly those in East Asia, development objectives and quantifiable economic and social targets have been a central part of successful digital strategies (Loughnane et al., 2013).

Consequently, governments rely on technological approaches to achieve such openness, where technological growth is playing a core role in creating additional value to the good governance in the long-run trend, thus enhancing trust among the investors and the citizens as well.

Hence, one of the most effective trends that worldwide economies are struggling to adopt and fit with their national strategies and priorities is the electronic readiness or e-readiness

(Tung et al., 2003). E-readiness is the ability of each country to follow the value of producing chances under the help of internet (Choucri et al., 2003). Thus, it is considered as an essential improvement strategy for governments that seek for innovation and competitiveness, especially in enhancing the quality of services provided locally and across the national borders (Unger & Dougherty, 2013).

According to Alemayehu (2008), service quality in governments can be improved and more personalized through the use of ICT, for instance government emails and portals. Such facilities have the potential of shifting traditional governments into electronic governments or so called e-government. This innovation aims to make access to information and services easier and more intuitive, without any particular need for knowledge or expertise regarding the users. According to Berthon et al. (2008), the readiness of e-government is measured by its ability to have an effective e-business environment, thus providing services that are related to business sector and attractive to investment.

Lot of efforts are provided by multinational corporations to support the intellectual and financial capital for the host countries, through the transfer of technology, training, skill development and enhancing the level of readiness and openness in such countries (Stengos & Kottaridi, 2008).

However, such efforts struggle to succeed in achieving their goals due to several threats including the technological backwardness and corruption that undermine governance practices, and consequently retarding the economic growth (Pillay 2004). This does not affect the capacity for investment only, but it also results in a poor government

infrastructure that leads public to mistrust their governments and shift investments into more corrupted approaches. This in turn increases personal losses, and declines the work ethics and degradation of values and cost to the economy (Pathak & Prasad, 2005).

In addition, Estevez and Janowski (2012) claimed that the failure of development efforts, the inability of nations to sustain growth in most parts of the world and limited effects of economic progress highlight the importance of governance for development. Where governance represents the means through which government as an institution of the state acts to perform its functions.

In view of that, the growth of any economy depends on the level of government readiness, the degree of confidence and trust that the public have in their governments, since any transactions or business actions must be always built on trust and mediated by good governance practices (Cable, 2013).

The literature indicates that trust in government is influenced by numerous factors mainly efficiency and effectiveness; benevolence and responsibility; integrity and accountability, participation and transparency. These factors and others are considered as key objectives for creating trust in government through the adaptation of fair and open processes, which in turn results in efficient and effective outcomes (Kim & Kim, 2007).

Furthermore, e-government sectors hold the potential to improve service quality which is considered as one of the main determinants of user satisfaction. However, it is more difficult to be measured concerning accessibility, convenience, accuracy, speed and cost. Few countries have focused on the e-readiness features and encouraged other countries to

adopt it especially the Middle East region, where the last cannot stand on the marginal while the rest of the world is combining this new network global economy (Ifinedo, 2005).

Moreover, Manika and Roxburgh (2011) claim that e-government has a powerful influence to draw investment by providing valuable information such as foreign direct investment (FDI) and environmental policies. It can also decrease corruption by sustaining data on transactions, reducing individual discretion and providing means to control corruption, thus helping to reinforce a culture of accountability.

Measuring the efficient outcomes of e-government and evaluating the customer behaviour can be applied using service uptake as an alternative measure (Alemayehu, 2008). It is noticed that the utilization of e-government services is steadily growing worldwide and the growth determinants are encouraging especially that people consider internet as an increasingly acceptable means of interacting with both government and business sectors. Also, individuals who access the websites of government departments are considered not only as critical consumers, but also as demanding citizens who look for information and services.

Subsequently, it is evident that the role of the e-readiness in government is developed to act as a set of tools for creating a value of good and transparent governance, globalization of trade, accountability and good institutions in order to attain trust within the customers and investors.

Moreover, e-government can build up the human capital to foster both, the production and sustainability of customer's trust in the field of investments in order to make it worthwhile

(Alshawi et al., 2007). Furthermore, the implementation of e-government is supposed to reduce the cost of the delivery of goods and services in the governmental organizations and enhance the process of the efficiency of government procurement. Consequently, it will increase the percentage of investments and productivity in the economic growth (Alshawi et al., 2007; Nadu, 2004).

Saxena (2005) declares that implementation of e-governance is achieved through a reform practice and not only through the computerization of government transactions. Hence, such reform will contribute in the empowerment of citizens by providing an information society where all can access the information related to social, economic and political opportunities that the government offers.

Consequently, excellence in e-governance is increasingly becoming a key national priority for all rich and poor developed and developing countries. It is important to build the trust in government and advance the relationship involving the government and the citizens through the accountability, participation and interaction (Nadu, 2004). Yet, it is noted by Grimmelikhuijsen (2012) that trust in government has remarkably decelerated in the foremost developing countries. High levels of trust in government are considered essential for societies to prosper and for governments to function well.

Furthermore, trust in government is regarded as an essential element in developed and developing societies since it helps to make a country's economy run smoothly and maintaining its prosperity (World Bank, 2013a).

Developing countries have to practice a more dynamic function in the formulation of national strategies and policies through e-government to encourage the information economy, which in turn brings in lot of benefits in terms of economic and social growth. Developing countries need to put their own manners toward economic modernization and transformation that provide more efficient administration, promote transparency, enhance the business environment in general and then build the trust among the citizens (REO, 2012).

One of the primary factors contributing to a high level of e-government development is past and current investment in telecommunication, human capital and provision of online services. Although the income level of a country is considered as a general indicator of economic capacity and progress, which influences its e-government development. Yet, it is clear that national income does not, by itself, constitute or guarantee e-government development. There are many countries that have significantly advanced their e-government despite relatively low national income, just as there are many countries which are lagging behind despite their relatively high income and thereby have good opportunities for future improvement (UN, 2014).

Despite the serious economic, social and environmental challenges which many of developed and developing countries face, they each show outstanding examples which overcome their regional and income constraints to achieve significant e-government development. The most recent e-government survey conducted by the United Nations (UN, 2014) shows that the Republic of Korea has retained the top spot with its continued leadership and focus on e-government innovation, followed by Australia and then Singapore with very high E-Government Development Index EGDI (above 0.75). The

2014 Survey also shows that Europe continues to lead with the highest regional EGDI including France (4th), Netherlands (5th), United Kingdom (8th) and Finland (10th), followed by the Americas which are led by the United States of America (ranked 7th globally); Asia led by the Republic of Korea; Oceania led by Australia; and Africa led by Tunisia (ranked 75th globally).

As Lebanon is one of the developing countries in the Middle East region, it was ranked the 89th country with EGDI (0.49), thus it is above the world average (0.47) and it belongs to the countries which are grouped by Middle EGDI (between 0.25 and 0.50). Compared to other countries from the Middle East region, Lebanon is still lagging behind regarding its e-government development. For example, Bahrain was ranked the 18th country worldwide with a very high EGDI (0.80) and United Arab Emirates was ranked 32 with high EGDI (0.71). Still, Lebanon is in advance of other countries such as Yemen and Iraq which have Middle EGDI between 0.25 and 0.50.

However, Lebanon has witnessed lot of efforts in the recent years to develop and modernize the economy through different initiatives at the level of ICT and especially the e-government strategies (ESCWA, 2009).

1.2.1   Current Country Context

The Republic of Lebanon is a democratic, parliamentary country of 10.452 km^2 on the Mediterranean Sea. It is divided into six provinces or Mohafazat: The Capital Beirut, North, Mount Lebanon, Bekaa, South and Nabatieh (IGSPS, 2012) as shown in Figure 1.1.

Figure 1.1
Map of Lebanon
Source: CAS (2013)

Among the Western Asia Countries, Lebanon is ranked the eighth with the lowest
population around 4.822 million (Bank BEMO, 2013). It is a youth population where 67%
of people are between 15 and 59 years in age (UN, 2013). According to the Emergency
Health Contingency Plan of both Ministry of Public Health (MOPH) in Lebanon and
World Health Organization-WHO (2012), 85% of the population are currently residing in
the urban areas, mainly in Beirut and Mount Lebanon.

The economy of Lebanon was flourishing due to its strategic geographical position
between three continents; Europe, Asia and Africa (IGSPS, 2012). But, in the period from
1975 to 1991, it was damaged because of the Civil War. Overtime, Lebanon lost this
regional intermediate role because of the continuous "Israeli" aggressions since 1982,
which had damaged most of the public sector of Lebanon (WHO, 2012; Davis, 1985).

Mostly, the Lebanese economy is based on the service sector, which records more than 70% of the country's GDP (European Commission, 2013). Also, about 65% of the Lebanese workforce is in the hub of this sector (Gebara, 2008). Accordingly, the Ministry of Economy and Trade (MET, 2013) reported that the economic growth of Lebanon is witnessing a paradigm shift since 2004 as shown in Figure 1.2.
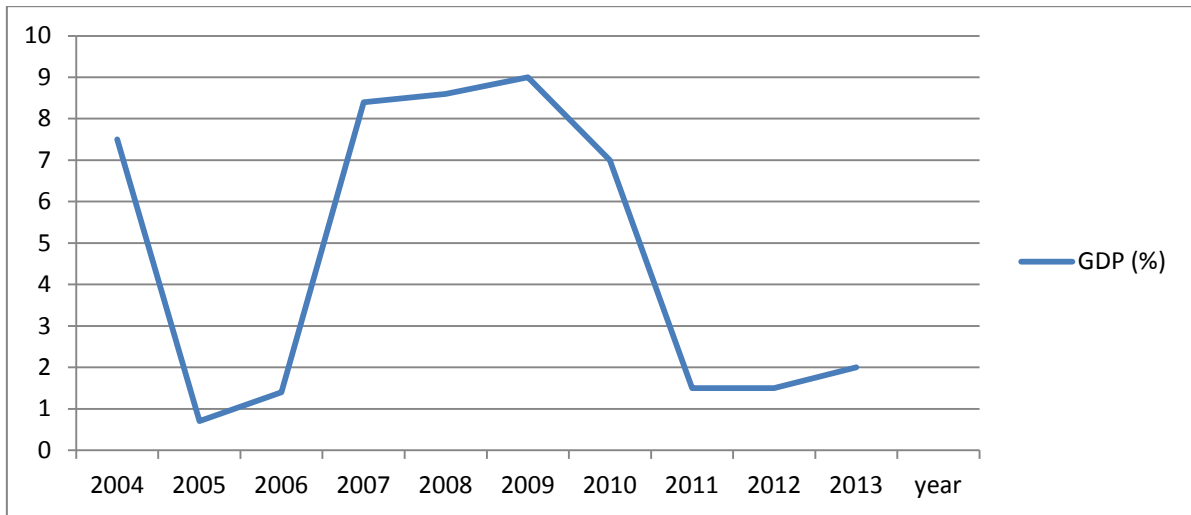
Figure 1.2
The *Lebanese Economic Growth Rate of 2009-2013*
Source: MET (2013)

The GDP has decreased sharply from 7.5% to 0.7% and 1.5% in 2005 and 2006 respectively due to the unstable situation and the severe "Israeli" attack on Lebanon in 2006. Then it started to increase progressively to reach 9% in 2009 accompanied by the rehabilitation efforts of the Lebanese government supported by external funding. However, it decreased again in last three years due to the corruption and the unstable political situation in the region till it reached 2% in 2013.

1.2.2 E-government in Lebanon

As discussed above, e-governance can be a lethal weapon to fight corruption in developing countries and can help achieve good and efficient governance that enhance the

10

environment of trust in the society (Pathak & Prasad, 2005). It is indicated by Al-azar, (2012) that e-government preparing the way for finding the better interactions between the Lebanese citizens and the state. He advocated to raise knowledge about the worth that e-government can add to the economic efficiency and productivity, hence providing a green and transparent environment to both; government and its public as well.

Accordingly and despite of the hard political condition that has plagued Lebanon for a number of years, Lebanon has enrolled a series of projects improvement on e-government and its matching laws over the past decade. It leans to develop a vision and strategy for utilize of ICT in order to follow reform and change in both government and national levels (Choueiri et al., 2013). In relation to that, OECD (2009) declared that the great interest in developing the Lebanese e-government sector has improved the public services in coordination with launching complementary administrative simplification activities.

According to the research conducted by the Weforum (2013), Lebanon is ranked the 84th out of 135 countries regarding the ICT infrastructure and it occupies the 93rd position among 144 countries on the topic of the modest technological readiness. As mentioned in the "Doing Business Report" by the World Bank (2013b), Lebanon comes in the 115th position among 185 economies on the ease of doing business. However, Lebanon is one of the first countries in the Middle East to begin developing its ICT sector in the late 1980's, and the ICT industry has grown steadily ever since (Fawaz, 2004).

In addition, the United Nations' Electronic Government Readiness Index has shown a significant progress for e-government in Lebanon from 2010 to 2012 (The Daily Star, 2012). In 2010, it was in the 93rd place among 183 countries globally and 11th amongst 19 countries in the Middle East and North Africa (MENA). While in 2012, Lebanon is ranked

the 87th out of 190 countries in the world and the seventh out of 17 nations in the MENA region. Table 1.1 illustrates how the Lebanese E-government Development Index has increased from 0.43 in 2010 to 0.51 in 2012. Although it is below the sub-regional average, it is still acceptable and slightly above the world average.

Table 1.1
United Nations' Electronic Government Readiness Index for E-government in Lebanon

Year	E-government development index	World e-government development ranking	Among MENA region	Sub regional average	World average
2010	0.43	93	19	0.47	0.44
2012	0.51	87	17	0.55	0.48

Source: The Daily Star, 2012

In 2002, the MET recognized the significance of e-commerce sector as an instrument to locate the Lebanese firms in an advanced position and take advantage of the global market supported by good government policy to enhance the e-commerce growth (MOET, 2013; Li & Xie, 2012).

A lot of comprehensive attempts were tried by the end of the Lebanese civil war in 1990. These efforts were to renew the economy and restore the public infrastructure, particularly in the ICT part. Over the past 20 years, Lebanon has undertaken a sequence of initiatives to expand vision and policy for ICT use to pursue the transformation at the government sectors and at the national level also. These programs were afforded by the Prime Minister who established the Ministerial ICT Committee (MICTC) in 1997 to manage and develop the implementation of the ICT program in Lebanon (ESCWA, 2009).

The Professional Computer Association (PCA) was established in 1996 in order to enhance the capabilities of Lebanon ICT's companies and to transform the Lebanese economy into a knowledge-enabled economy through education and training. In 1998, the first IT national policy and strategy was developed for the public and private projects and

afterward, the "National e-strategy" and an "E-government strategy" were invented in 2002 (Fawaz, 2004).

Later on October 2003, the Lebanese government through the OMSAR and United Nations Development Programme (UNDP) has launched the national e-strategy and e-readiness report. Then in May 2004, UN and ESCWA arranged a two days conference to analyze the regional e-strategies, and it was followed by a series of meetings in 2005 to launch it. The national e-strategy was updated in 2008 to meet the most up-to-date international trends and national challenges (ESCWA, 2009). Most recently, the Presidency of the Council Ministry (PCM) has set up an ICT unit in 2010 to manage the implementation of the national ICT strategy (ITU, 2012a).

Another initiative is the Telecommunication Regulatory Authority (TRA). It was established in 2002 by law 431/2002 as independent public institution in order to protect the customers' right through a regulatory environment that ensures market stability (TRA, 2010). Later on, many NGOs have become more concerned in ICT sector. These NGOs are (ESCAW, 2009):

- "Ijma3" to promote using ICT.

- "PCA" to enhance the capabilities of Lebanon's companies.

- "WIT" to spread the awareness among youth.

- "Saradar" to promote sustainable human development.

- "ITIA" to enhance local IT society.

To assess the e-government readiness of Lebanon, Najjar et al. (2003) suggested the following five categories as cited in Zaid et al. (2007):

- The infrastructure and access like infrastructure of the network and its accessibility and

   reliability.

- The team who leads the government in the vision of the national ICT strategy, policies

   and rules.

- Human capacity such as education and knowledge in ICT.

- The economic conditions and e-business.

- Social environment like the public culture and awareness of daily usage of ICT.

According to the e-government strategy, the Lebanese finance minister "Mohammad Safadi" claimed that the administrative reforms started with e-government because it is considered as a part of the national e-strategy (IFG.CC, 2013). This e-strategy of Lebanese e-government concentrates on building up ICT centres in the public institutes for training and promoting knowledge among the civil servants. In addition, it tends to develop a high quality of internet services and utilization by both customers and providers as well (Mansour, 2012). Furthermore, he categorised the e-strategy into four pillars as shown in Table 1.2.

Table 1.2
The Four Pillars of E-government Strategy

E-strategy Pillar	Description
E-reform	Re-engineering the government and improving the overall efficiency and effectiveness.
E-citizen	Providing the services to the citizens in a reliable easy and fast way.
E-business	Providing services that are related to business sector and investment
E-community	Emerging in the digital and knowledge economy to promote the regional development.

Source: Mansour (2012)

Practically, the ministry of finance applied the e-government strategy on February 2011 by the beginning of its e-services in taxes for public use. The minister of finance "Mohammad Safadi" said that Lebanese taxpayers will be able to file and pay their taxes online and through a credit card or bank transfers or Liban Post (IFG.CC, 2013). This would boost up the government revenues and cut time and expenditures incurred by citizens. Then, it will gradually turn Lebanon to the digital world.

For this purpose, an automated document tracking system for tax-payers' inquiries was implemented and 24/7 Liban Post call centers were launched. This enables tax-payers to handle the Built Property Tax transactions (US Commercial Services, 2012).

The Minister of Water and Energy declared the launching of water evaluation and planning (WEAP) program in April 2011, which is an electronic system that connect all ministry's information that are spread on various automated systems from several years ago. The system helps the ministry to offer the forecasting of the weather and the water, ensuring a better plan for water distribution and usage strategy (Choueiri et al., 2013).

Moreover and recently, the President of the Council of Ministers (PCM) created a committee that consisted of representatives from all Lebanese ministries to work concurrently on executing e-government starting by the new law of e-transactions (Al-azar, 2012). For more instance, services applied electronically are listed at the official website of the Lebanese e-government portal (Dawlati, 2013) as shown in Figure 1.3.

```
┌──────────────────────────────────────────────────┐
│  ┌────────────────────────────────────────────┐  │
│  │ Passport and visa renewal                  │  │
│  ├────────────────────────────────────────────┤  │
│  │ Tax declaration                            │  │
│  ├────────────────────────────────────────────┤  │
│  │ Replace passport number                    │  │
│  ├────────────────────────────────────────────┤  │
│  │ Certificate of departure                   │  │
│  ├────────────────────────────────────────────┤  │
│  │ Submit a complaint to the ministries,      │  │
│  ├────────────────────────────────────────────┤  │
│  │ Import permit for ornamental               │  │
│  ├────────────────────────────────────────────┤  │
│  │ Export control license for products of plant origin │  │
│  └────────────────────────────────────────────┘  │
└──────────────────────────────────────────────────┘
```
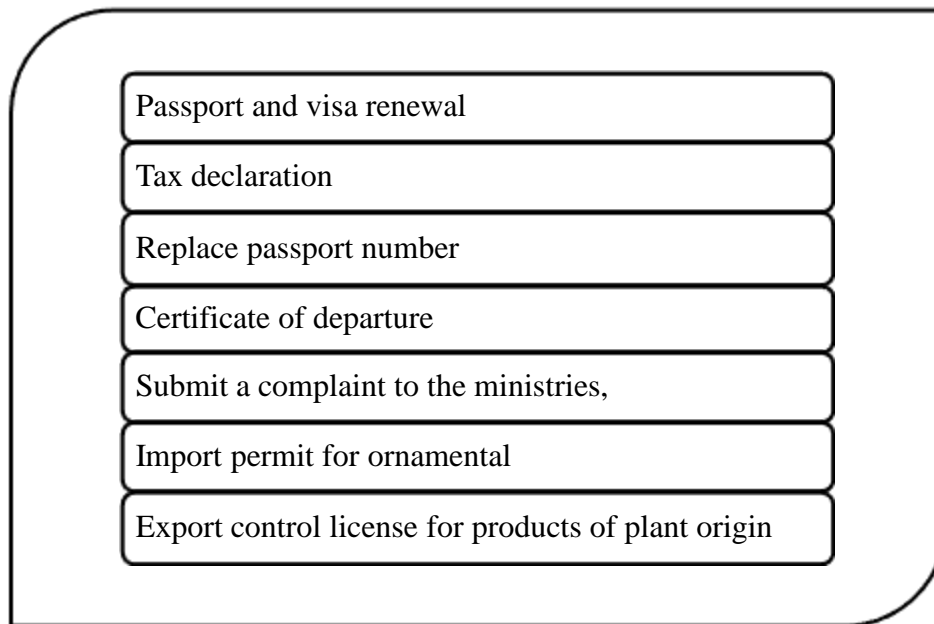
Figure 1.3
E- Services at E-governemnt Portal of Lebanon
Source: Dawlati (2013)

Nonetheless, Al-azar (2012) declared that the Lebanese government has to be more connected and innovative to efficiently control ICT. This is maintained by using digital technology, lowering costs and training people to deliver higher and more sustainable public values.

In addition, Saidi[4] (2004) emphasized on the importance of e-procurement at the public sector to supply governments by the necessary services and goods. He advocated the rapid and complete introduction of e-government in Lebanon as significant tool for administrative reform. This reform aims to decline the delivery cost of government services and eliminate the corruption that are common in the private and public sectors.

A similar conclusion also found in the research conducted by Choueiri et al. (2013). They asserted that economic performance, reformed organizations, efficient and effective

---

[4] The former Minister of Economy and Trade; the Minister of Industry; and the first Vice-Governor of the Central Bank of Lebanon.

16

policymaking are affected by the potential benefits from a successful performance of e-government programs in Lebanon. Yet, e-government is not an end in itself, but it is a realistic promise of adding valuable prospective to meet good governance, development and democracy goals. Consequently, promoting good governance among the public servants by adopting valued principles is considered an important section of the Lebanese government agenda facing the corruption of the public sector.

1.2.3 Good Governance in Lebanon

In the context of Lebanese organizations, good governance principles act as a strong foundation for the organizational reform especially through the cultural, intellectual, technological and experience exchange among the governmental employees. As noted before, the principles of good governance drive the employees to be more effective and efficient besides protecting them from corruption and any misconduct. Thus, it leads the public organization to deliver quality services to the public.

Good governance of Lebanese organization would significantly support and facilitate any economy activities in realizing the expansion of country's wealth. However, and at the end of seventy years of independence, Lebanon is still facing several challenges that prevent them from achieving the good governance and full economic potential as well. Among other initiatives, good governance is predictable to restructure the role of the government and public institutes. However, in order to organize internal resources, an efficient governance system is essential to be implemented. Until these principles are addressed and regarding the current state of Lebanese implementations, the Lebanese government should keep on to lack the good governance contribution which is required for macroeconomic effectiveness and transparency.

IIF (2005) declared that Lebanon's public and private sectors are overwhelmed with corruption that makes the general business environment not attractive to investors and foreign investors particularly. This is empirically evidenced from the mixed results in the World Bank's survey regarding the World Governance Indicators about Lebanon (US Commercial Services, 2012). Some marginal improvements are showed from the results year-on-year, but still reflect a weak stage of governance in Lebanon. Regarding individual indicators used in the survey, Lebanon improved in terms of voice and accountability (such as; measuring citizens ability to participate in government selection, freedom of expression, freedom of association and a free media), government effectiveness and regulatory quality (like; measuring market-friendly policies and laws) and finally rule of law and regressed in terms of political stability and control of corruption.

Moreover, corruption is more persistent in government contracts (primarily in procurement and public works), taxation and real estate registration than in private sector deals. It is broadly believed that investors normally behave in corrupt manner to win the government contracts, which usually granted to groups that are close to powerful politicians (US Commercial Services, 2012).

As shown in Table 1.3, Lebanon records for the last four years an index of two and half and three regarding the lack of the transparency and the high level of corruption respectively. This is considered very weak according to the assesses experts' perception of corruption in the country, where zero is most corrupt and 10 is least corrupt (TI, 2010). In respect to the rank of corruption, Lebanon is ranked in the 128th from 176 global ranking, which is more than the middle among the 176 countries under study (Bank Med, 2013; CPI, 2012; The Daily Star, 2011).

Table 1.3
The Lebanese Corruption Perception Index

Year	2009	2010	2011	2012
Corruption perception index (CPI)	2.5	2.5	2.5	3
Rank of corruption perception index	130	127	134	128

Source: The Daily Star (2012)

In the same context and according to the accountability, the unsteady relationship between Lebanese citizens and the state has a negative impact on public accountability due to the dominant role of communal groups, which is institutionalized in the country's governance system. This is indicated to the problems of extremely under-developed public accountability systems and uneven enforcement of existing anticorruption laws, anti-corruption concepts, such as integrity, transparency and accountability (TI, 2010). Such laws are poorly understood in Lebanon by public sector officials, private companies and the citizenry alike, posing a challenge to the fight against corruption where government officials often have difficulty in grasping these concepts and finding ways to make them part of their oversight practices.

In relation to that, Marcel (2013) considered that the critical weakness in the Lebanese governance system is rather in the risk of corruption. Where strengthening processes of accountability, improving the discovery of information and building capacity in auditing can improve this risk. Also, the civil society can play an important and positive role in improving accountability by pushing to public disclosure of financial and operational data and holding decision makers to account.

Despite of this weakness and lack in the good governance level in Lebanon, some indications for improvement can be noticed within a good governance environment.

Efforts have been made toward reform upon the growing awareness of the significance of corporate governance in public and private sectors (IIF, 2005). It is also claimed that the private sector has shown more commitment in improving corporate governance. The representatives from both the public and private sectors in Lebanon have worked together to prepare an action plan to improve corporate governance. The group has identified areas that need strengthening and has proposed a draft for the adoption of a Corporate Governance Code (IIF, 2005). Besides, the Ministry of Finance has implemented reforms since 2007 which aimed to enhance transparency and fighting corruption through calling taxpayers for paying through banks (US Commercial Services, 2012).

Based on the above, it is important for civil society and public authorities in Lebanon to continue their cooperation on specific reform activities. Meanwhile ensuring that civil society actors retain their independent role as a monitor of government officialdom. Saidi (2012) advocated applying good governance principles where it is essential to find an environment of efficiency and transparency as they are required by both government and business in Lebanon. In addition, Mansour (2012) argued that the Lebanese government should take innovative measures and undertake necessary actions to ensure collaboration between public and private sectors in which it is essential to have prospects of local and regional growth (AbuSamra et al., 2007).

Overall, few countries have come close to attain good governance as a whole (UNESCAP, 2012). In line with this, the significance efficiency and good governance would increase the competitiveness of Lebanon and making it more attractive to investors (Kefela, 2011). Therefore, Lebanese government must manage and govern efficiently. In addition, it must further reform civil services by introducing enforceable codes of behavior and greater

public transparency requirements as well as by expanding the opportunities for citizen involvement in monitoring public sector activities.

Such establishments tend to promote transparency, accountability and efficiency of procedures within the governmental organizations and systems. Therefore, the Lebanese govern organizations clearly aim to build more citizen trust in government service delivery through achieving a set of ultimate goals within the reform of government sectors as manifested in Figure 1.4.
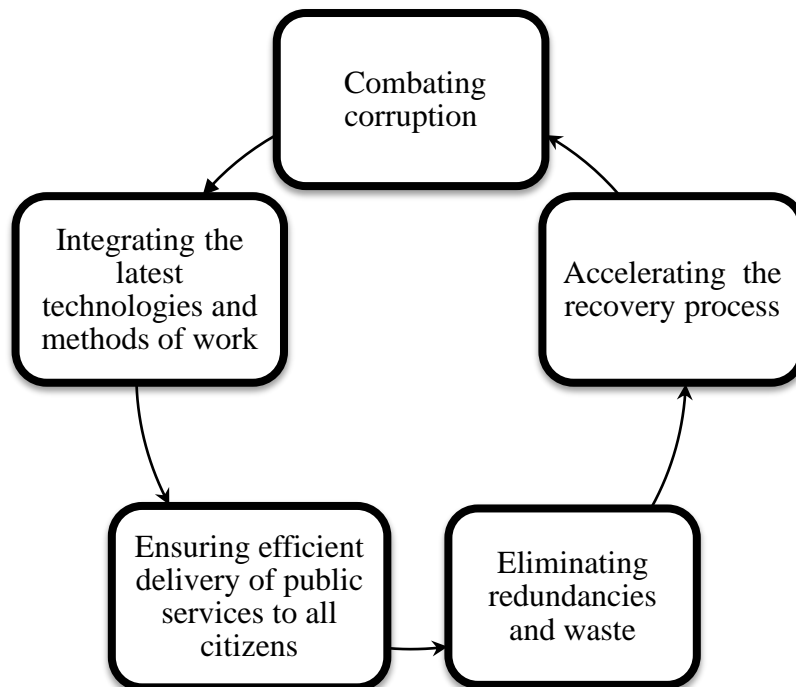
Figure 1.4
The Ultimate Goals of the Govern Reform in the Lebanese Government sectors
Source: Dawlati (2013)

Therefore, the necessity of the developing countries to ensure capital inflows from foreign and local customers and enhance its economic performance depends on the capability of the country to offer an open market economy. This performance will be through the readiness in e-government which makes the environment of the economy more acceptable for investors (Saibene & Sicouri, 2012). Subsequently, customers would feel more

confident and trustful while dealing with and investing in such economies (Allen & Coson, 2012). As suggested by Dinev et al. (2006), knowledge and awareness take place when individuals evaluate the degree of trustworthiness in the business environment. Therefore, trust has been found a core component in the decision to participate in the information systems environment (Gefen et al., 2003; McKnight et al., 2002).

The discussion above highlighted the convergence of concepts among different variables and showed the initiatives of all developing countries especially Lebanon to adopt e-government tool in order to develop its governance system that enhances the citizen's trust in government. As the role of transparency and trust needs to be taken into account as important factors in developing policy to reduce corruption and improve citizen satisfaction (Park & Blenkinsopp, 2011). Hence, this research examines the mediating effect of good governance on the implementation of e-government and what effects are associated within citizen trust in the Lebanese economy.

1.3   Problem Statement

The decline of public trust in government is one of current troubles faced by the modern governance and it has been the focus of many theories and research. This lack in trust is the result of poor governance and corruption. Without trust, citizens may withdraw voluntary compliance of governmental demands and regulations or even actively resist governmental policy. Therefore, it is important to study how radical information technologies such as e-government can make procedures well-organized and offer better quality of services through establishing a good governance system, which in turn strengthens the public trust towards the government (Manika & Roxburgh, 2011; Kefela, 2011).

E-government has been proposed as a solution to increase the interaction and trust between citizens and governments. The World Bank has started publishing reports since the early 1990s recommending the importance of information technology as a driver for economic growth and emphasizing the need of developing countries for adopting it (Luyt, 2006).

Lot of economic researchers have studied the relationship between technologies and its influence on good governance and trust (Lowcock, 2013; Baquero, 2012; Berthon et al., 2008; Tolbert & Mossberger, 2006; Lau, 2005; Saidi, 2003). For example, Saidi (2003) suggested e-government as a new system to support the Lebanese economy and it was considered as a significant tool for increasing the transparency and enhancing the citizen's trust through a continuous administrative improvement strategy.

Specifically, Lebanon is suffering from a severe deterioration in its economic growth and overall performance. It is noticed that rate of Gross Domestic Product (GDP) is slowing down from 8.7% in 2007 to 2% in 2012 and it is predicted to be worse (MET, 2013). Also, Lebanon is experiencing a serious corruption state where it is ranked 128 from 176 countries regarding corruption index and the 12 amongst 17 countries in the MENA region (Bank Med, 2013; CPI, 2012; The Daily Star, 2011). The inter-communal vulnerabilities and exposure to regional intervention leave Lebanon's state institutions dysfunctional and suffer from low public trust. In addition, Lebanon was ranked below the 10th percentile in 2009 according to the World Bank's Worldwide Governance Indicators, indicating the government's overall poor performance which in turn creates an environment where corruption is pervasive (Foreign & Commonwealth Office, 2013).

However, Lebanon recorded an economic freedom score of 59.5 and thus it is ranked as the 91st freest economies in the world. Although this score has declined by 0.6 point from 2012 because of the limited freedom regarding business, labor and property rights (The Heritage Foundation, 2013).

Also, as reported by the World Bank (2013b), Lebanon comes in the 115th amongst 185 economies on the ease of doing business. According to the report of Wefourm (2014), the score of Lebanese government services for improved business performance is 2.1 which is smaller than the best value of 7, thus ranking Lebanon137 among 144 surveyed countries. Yet the public administration and governance situation is suffering from various aspects which inhibit public administration and governance in achieving the e-readiness strategies appropriately. Figure 1.5 summarizes some of these inhibitors (Dawlati, 2013).
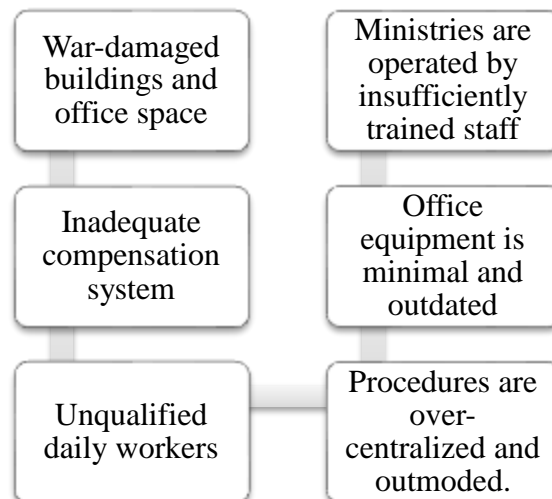
Figure 1.5
The Inhibitors of Public Administration and governance in Lebanon
Source: Dawlati (2013)

Such inhibitors lead to the widespread of corruption in the Lebanese system and respectively reduce the public trust in government. Regrettably and according to the effectiveness of the Lebanese government in managing risks, Lebanon is in the 12th

position of 13 Arab countries (Weforum, 2013). As a result, an administrative reform is suggested by the curators of e-government as an important element to enhance the Lebanese government through offering the best possible services to their citizens (Dawlati, 2013).

It is reported that the Lebanese government's transparency policymaking is listed in the 104th amongst 135 countries in the world (The Heritage Foundation, 2013). Overall, the score of Lebanon is just below the average of the world. Based on a recent report by Wefourm (2014), Lebanon was ranked 142 among 144 surveyed countries with a score of 1.5 in level of Public trust.

Where the government bureaucracy and the deficit in transparency lead to the lack of trust in public services and thus create a poor business climate which in turn prevents the attraction and sustainability of investments. Also, Lebanon suffers from a high corruption rate as shown earlier where corruption perception index was three in 2012 (CPI, 2012) which leads citizens to mistrust government and hesitate in dealing with governance procedures.

It is argued by several studies (Grimmelikhuijsen, 2012; Tolbert & Mossberger, 2006; Warkentin et al., 2002) that there is a shortage of empirical information about e-government and its influences on the attitudes and trust.

This lack of empirical data is partially because of the relatively contemporary nature of e-government implementations that has meant limited time and opportunities to study the wider social, economic, and political implications of e-government projects (Smith, 2011).

Moreover, Park and Blenkinsopp (2011) have suggested future studies related to public good governance agencies to improve the public trust by implementing e-government practices such as developing web sites, promoting the ICT-based public service delivery and making its process more transparent and accountable.

Based on the above highlighted issues, the main problem of this research can be stated that without an effective economic reform, corruption and mistrust will continue to escalate among developing countries such as Lebanon. Hence, the successful implementation of e-government system may help the Lebanese government to reduce corruption, improve governance and consequently, enhance the public trust towards it.

1.4   Research Questions

Generally, this research pays to ask: what is the mediating effect of good governance on the relationship between e-government and public trust in Lebanon?

Respectively, these research questions are formulated as follows:

   i.   What is the relationship between e-government practices and public trust?

  ii.   What is the relationship between e-government practices and good governance?

 iii.   What is the relationship between good governance and public trust?

1.5   Research Objectives

The general objective of this research is to study the mediating effect of good governance on the application of e-government and public trust. The specific objectives are:

   i.   to examine the effect of e-government on the public trust

  ii.   to investigate the effects of e-government on good governance.

iii.   to determine the influence of good governance on public trust.

1.6   Scope of Research

This study extends the applicability of Institutional-based Trust Theory (ITT) to e-government transactions (McKnight et al., 2002). According to Zucker (1986), ITT has been widely applied from sociology studies to customer behavior studies. It allows organizations to understand trust determinants in online transactions where political, legal and social norms and rules of institutions are the most critical determinants of trust in society.

In the same context, the Diffusion of Innovation (DoI) Theory is one of the most often used models in information systems research to explain user adoption of new technologies (Carter & Bélanger, 2005). Diffusion of an innovation is primarily based on the technology features and users' awareness of the system, where several previous studies have investigated e-government adoption through the employment of DOI theory (Sang et al., 2009; Lean et al., 2009; Rogers, 1995).

Subsequently, in order to study the user's perspectives regarding the access to e-government services and its consequences on good governance and trust, a deep literature review will interpret in details these E's skills and explain their benefits on trust and satisfaction through the mediation of good governance.

To measure the level of correlation among the research variables, a quantitative study is applied among the Lebanese citizens where a sample frame of small and medium sized enterprises (SME's) in Lebanon is chosen. SMEs are considered as an active environment

where its employees constitute a representative sample of educated citizens who deal with e-government services regularly. Thus, a survey is developed to collect the primary data from a sample size of 400 citizens. The data collected is analyzed and then discussion and some recommendations for future studies are displayed.

1.7   Organization of the Thesis

This thesis focuses on how e-government; as an economic reform tool can guide governments to enhance the good governance and strengthen the public trust towards it. It is presented in six chapters. The first chapter gives an overview of research background including conceptual and country status; also it highlights the problem statement through introducing the variables and rising the research questions and objectives. The second chapter is devoted to literature review of variables. Theories related to the topic of the thesis and proposed hypothesis are illustrated in Chapter Three, followed by the methodology of the research which is discussed in Chapter Four. Chapter Five summarizes the analysis of data and discussion of results obtained. Finally, conclusion and recommendations for future research are presented in Chapter Six.

CHAPTER TWO

LITERATURE REVIEW

2.1   Introduction

As technology progresses in a new economic structure, the governments are obliged to find innovative ways to alter and keep up-to-date with the rapid evolution in technology, skills and knowledge (Damaskopoulos & Evgeniou, 2003). Accordingly, e-readiness is becoming more accepted among the citizens and organizations as well, where it is essential for the promptness of any country that seeks for competition in the current global open market (Lou, 2010). Das et al. (2009) claimed that e-readiness has become an important policy tool for government in which it opens the way in front of the citizens to interact with the government in a way to enhance the trust that leads to advancement in the economic efficiency and business environment (Lou, 2010; Holden & Millett, 2005).

EIU (2006) stated that different corporate and international organizations developed a variety of e-readiness models and indices during the recent years especially for the networked world including "International Telecommunication Union Digital Access Index, World Economic Forum Networked Readiness Index, United Nations Conference on Trade and Development ICT Development Index, the Economist Intelligence Unit e-Readiness Index, Mosaic Group Index, Conference Board of Canada Connectedness Index, and ORBICOM Info State Index". Such models are interested in the development of readiness for e-government, other ICT diffusions in general including e-commerce and readiness for participation in the global digital economy.

These indices suppose diverse definitions for e-readiness and accordingly their element indicators as well. United Nations University defined e-readiness as "e-readiness measures how well a society is positioned to utilize the opportunities provided by information and communication technology-ICT" (Ojo et al., 2007) where ICT infrastructure, human capital, regulations, policies and internet penetration are all crucial components of e-readiness.

From this definition, many reasons stand behind adopting ICT and motivate the countries and governments as well to be engaged in the process of e-readiness and new economy reform respectively. These reasons are benefiting from the ICT to overcome the problems, keeping up with the global economy in a digital way and finally to prevent being in the lag within other nations and economies. In addition, Potnis and Pardo (2011) claim that the quality of life for the nations is tested through the process of e-readiness where recently, it is noted by EIU (2006) that the role of electronic networks has grown exponentially in developed and developing societies (Eweni, 2012).

Accordingly, the government should have to prepare innovative and practical e-government projects to make the country ready (Bhutan, 2003). Musa (2010) states that governments in the developed and developing countries have started to include ICT in their plans of national development and administrative reform because e-government is presented as a solution to lot of problems and it is considered as a good option for enhancing and promoting available systems.

This chapter presents a deep review of previous literature that has discussed the three variables of this study in different aspects; including e-government, good governance and

trust. First, it provides an overview of each of the three variables regarding definitions, principles, tools and mainly its practices in government sector. Then it tends to find the relationship among these variables in order to derive the research hypothesis and propose later on an appropriate theoretical framework for the study.

2.2   Concept of Trust

2.2.1   Definition of Trust

Concepts of trust appeared in literature upon the development of social interaction and humanity studies. It is a very significant concept that covers a wide range of relationships and conjoining a variety of objects. Every aspect of a person's life is based on a particular aspect of trust (Colesca, 2009). A lot of studies, such as Alsaghier et al. (2009), Srivastava and Teo (2005) and Warkentin et al. (2002) argued that trust is a crucial and required aspect of many social and economic interactions as well as an important element of a healthy economy and society. The perspectives of such arguments rely on the interacting partners, even individuals or groups. In the same meaning, trust fulfils different and significant communal purposes as it belongs to the human factors (Politis, 2003).

Moreover, trust has become a widely debated topic in the social sciences, with attention from many disciplines mainly economics, management science, sociology and social administration. The key characteristics of trust include benevolence, credibility, competency, concern, consistency, fairness, honesty, integrity, openness and reliability (Walker et al., 2008).

Trust has been conceptualized in various ways since it was perceived in various interpersonal and organizational constructs. For example, whether interpersonal or organizational based, fairness, confidence, risk taking and expectations are considered as

31

the main constructs of trust (Colesca, 2009; Erturk, 2008). Consistently, Rousseau et al. (1998) have also defined trust based on three main constructs namely (1) expectation or belief that relates to confidence, (2) willingness to be vulnerable that relates to risk taking and (3) dependency on another that relates to fairness, benevolence, ability and other organizational characteristics.

According to Warkentin et al. (2002), trust is "the belief that the other parties will behave as expected in a socially responsible manner, and in doing so, it will fulfill the trusting party's expectations". While Rousseau et al. (1998) defined trust as "a psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behaviour of another".

Referring to the economic exchange of services and goods, Orgeron (2011) defines trust as the set of beliefs that the parties engage in the transaction to fairly meet the expected and dependably commitments in a suitable social way (Navarrete, 2009). Overall, trust can be defined as the positive expectations and beliefs of one party towards the other party who is supposed to meet all commitments in a proper, social and responsible manner.

Theoretically, Volken (2002) discussed that trust is a complex construct which can be considered as a cultural resource with generalized functions. It makes transactions and economic exchange more productive and innovative by enhancing the flow of information and reducing the doubts of customers (Suh & Han, 2003).

Practically, the public trust in government is quite low and recent surveys illustrate that it is declining even lower over years (Dimock et al., 2013; Meijer et al., 2012; Welch & Hinnant, 2003). This decrease has become a challenge of high priority for public institutes

as trust being considered as a significant determinant of public cooperation. Some studies, such as Park and Blenkinsopp (2011) and Tolbert and Mossberger (2006) found a relationship between citizen's trusts and their confidence and satisfaction in government. Similarly, Meijer et al. (2012) stated that new interactions are expected to enhance citizens' trust in government as well as to enable them in contributing to public policies because trust can be never taken for granted, yet it has to be established.

Trust in public sector institutions and their actors are essential for the functioning of government especially that it has become increasingly associated with governance. Public administration has examined trust as a basic ingredient of social capital in that it helps create networks between people in a community and helps to make these networks function smoothly (Walker et al., 2008). In addition, Welch et al. (2005) argued that trust in government or public services are typically measured in terms of citizens' subjective judgments based on their experience. They also suggest that citizens' trust will arise when a government or its public service is viewed by citizens as competent, reliable and honest, while also meeting their needs.

However to build public trust, government must govern better, more transparently, responsibly, accountably and responsively with more active engagement with the public and in particular more rigorous respect for the law and the public interest (Diamond, 2007). No reform will build trust unless this logic of governance is changed. It will require in many countries transformation in the nature of governance. People do not trust government because government is too distant from the people and does not sufficiently solicit and engage their concerns. This is based on the idea that when citizens do not know what government is or does they will not come to trust it.

Therefore, several authors argue that one cause for a lack of trust in government is that citizens are not often enough provided with factual documentation about government processes and performance (Grimmelikhuijsen, 2012). While Welch et al. (2005) argues that trust in public institutions is enhanced through their administrative rules, standards, laws and regulations relating to provision of services and information.

Public agencies can improve such institutional trust by adopting new technologies such as government websites suggesting that ICT-based public service delivery can be one of the institutional enablers for enhancing trust in moral accountability. This will be more active through making its process more transparent and reducing public officials' discretionary power (Park & Blenkinsopp, 2011).

In the same context, to build public trust in government, organizations need to localize communications and be transparent to engage multiple stakeholders continuously as advocates across a broad array of communications channels (Ferguson & Popescu, 2006). According to Colesca (2009), two major factors that have an impact on building trust. The first category includes the preinteractional factors. This comprises individual behavioral attributes like culture, individual, demographics, honesty, propensity to trust, openness, benevolence, credibility, competency, integrity, past experiences, fairness and general intention to use e-services. Another one is institutional attributes such as innovativeness, organizational reputation, general perceived trustworthiness of the organization and accreditation. Also, it consists of technology attributes such as public key encryption, interface design and integrity. The second category includes the interactional factors. This embraces service attributes such as quality, usability, reliability and availability. In addition to transactional delivery attributes for instance, usability, security, accuracy,

quality, interactivity and privacy. The category also consists of information content attributes, including quality accuracy, currency and completeness.

2.2.2 Importance of Trust

As motioned above, trust is considered as one of the most significant aspects in the implementation of government strategies. In order for citizens to trust their government, the latter must achieve its ambitious targets to develop and provide the efficient quality of public services. In the absence of trust, citizens become cynical about their political system and disaffected with the existing order (Diamond, 2007). Bottazzi et al. (2011) claimed that trust affects the willingness to invest money and thus contribute to explaining limited participation in the stock market. For this reason, many governments have adopted strategies to restore and boost the trust in their organizations (Kampen et al., 2006).

Therefore, recent studies stated that without trust, citizens will not be able to participate and contribute in the government strategy (Park & Blenkinsopp, 2011; Colesca, 2009). Thus, gaining citizens' trust is similarly a high priority challenge for public organizations. This implies that citizen satisfaction will not be fully improved without their trust in the process of producing public services although citizens' high satisfaction may contribute to trust in governance (Park & Blenkinsopp, 2011).

The importance of trust is demonstrated in a large number of comparative studies in the field of economic sociology. Several studies generalized trust as a potent catalyst for economic growth, efficiency, development, innovation, success at the organization and country level and conventional growth factors (Das et al., 2009; Kim & Kim, 2007; Warkentin et al., 2002; Volken, 2002; Davis et al., 2000). Such studies claimed that trust

considerably reduces transaction and enforcement costs due to the cooperative networks and efficient flow of information which tend to control risk and uncertainty, monitor job satisfaction and enhance motivation. Therefore, it makes more resources available for the productive use. Walker et al. (2008) illustrates that high levels of social capital; measured by social trust appear to be related to economic performance, effective political institutions and low rates of crime and other social ills.

From the macro context of the political economy, optimal trust in government is contingent on political ideology, voter decisiveness, political institution, government performance and the strength of iron triangles (Choudhury, 2008). Choudhury (2008) also shows that both normative and strategic values give rise to positive expectation. For instance; in administration, public trust is based on the expectation that public administrators will exercise their discretion to either promote or protect the public interest. Positive expectation can also be based on the perception of an administrator's competence, benevolence, integrity or respect for citizens' rights.

In regard to trust and communication, Das et al. (2009) states that based on social network theory and institutional based theory, trust can be transferred through channels of communication including e-government. Trust can also play an important role in facilitating the development of e-government within a country. Kampen et al. (2006) declared that trust is considered as a main condition for supporting the governmental reforms. Therefore, it has been proven that trust in government and satisfaction with public service delivery is positively correlated (Kampen et al., 2006).

In another context, Moon (2003) asserted that the gap in public trust brings rough political challenges to each of politicians, citizens and public administrators. This is because it formulates serious questions of political processes and the legitimacy of representative government.

There are four important dimensions that might be associated with the level of public trust including the governmental performance dimension, socio-cultural dimension (i.e., decline in social capital, family crisis and strong sense of individual rights), political dimensions and economic dimension (slow down of economy). It is worth mentioning that the public has lost its confidence in government due to the poor political leadership (Moon, 2003).

It is suggested that governments need to build trust in users by addressing users' needs as well by establishing a sound legal environment or setting up institutional trusting services for establishing a "virtuous cycle" of good governance and legitimacy and thereby, building trust (Teo et al., 2009; Lau, 2005).

Accordingly, Tolbert and Mossberger (2006) considered e-government as a tool to improve citizens' attitudes toward government and to solve the problem leading the public trust and confidence in government to decline. They proposed e-government as a solution to create an open, efficient, accountable and transparent government to restore that lost trust.

Consequently, restoring, gaining and enhancing the public trust in government are becoming an important goal for central and local governments to implement their policy measures effectively and so to realize good governance. Furthermore, Kim and Kim

(2007) have proven that trust in government improves the level of public policy acceptance and reduces administrative costs while encouraging compliance with laws and regulations.

Hence, trust along with transparency, are important indicators of a satisfactory relationship between government and the public especially in reducing corruption which frustrates the public and then lead to reduce trust in governments (Park & Blenkinsopp, 2011).

2.3   Concept of Good Governance

The concept of governance is not a new one, but it is as old as human civilization (UNESCAP, 2012). However, the literature has been recently developing the terms of governance and good governance in research because poor governance practices are considered the main cause of undeveloped societies. Based on the variety of definitions of governance which are developed from different perceptions and views of studies, Ruhanen et al. (2010) reviewed 53 integrated articles published between 1990 and 2009. They set out two categories for good governance namely political science and corporate approaches.

Based on the political science approach, governance is related to the external environment, where the management is consciously structured in a way to enhance the authority of the public sector. While in corporate approach, governance engages in the internal environment of the organization, and it is mainly related to the private sector governance in which companies are systemically controlled and directed.

The Australian National Audit Office (ANAO, 2003) stated that the public sector governance is a use of corporate governance in the public sector, where Kluvers and Tippett (2010) claimed that corporate governance principles are adopted by the public sector organizations due to the lack of transparency and efficiency.

Accordingly, previous researches have defined and explained the term of governance in multiple definitions and contexts. World Bank (1989) reported that "governance is a means by which to control corruption and consequently is imperative for economic development and poverty reduction in these countries". From the perspective of decision making, UNESCAP (2012) defines governance as how to make the decision and by which decision the process is implemented. These processes generate results that match with the needs of the community through the efficient use of the resources.

Additional definition illustrated by Jusoh et al. (2009) based on the transformative view in which governance is "a process of breaking from the previous condition, where governments were centralized to promote a policy or project to one in which a network is constructed by various actors - such as the government, state, market and civil society". Khan (2013) related the term of good governance to the contribution of public administration and polices, and the development strategies on an efficient administration. Furthermore, governance can be approached in various contexts like corporate, local, national and international governance (UNESCAP, 2012).

In general, the definition of governance in the public sector is the procedure by which organizations are regulated, directed and held to account. Its main elements are accountability, leadership and openness. In addition, governance is about how the governments and all organizations interact with the citizens and who will be involved in the process. In this meaning, governance is an exercise of transformative, administrative, political, social and economical authority to hold and control the country.

ANAO (2003) asserted that good governance must focus on two major organizational requirements to be efficient and effective, namely performance and conformance. First, governments should use governance elements to contribute to its general performance. Also, it should focus on conformance which is the use of governance principles to meet the requirements of the law, openness regulations, transparency and accountability.

Moreover, Kalsi et al. (2009) concluded in their empirical study the factors that contribute to good governance basically good education, job oriented, developed infrastructure, property life law, job opportunities, good business environment and total freedom of speech. Additionally, good public sector governance requires these elements to deal in an effective manner based on clear responsibilities, clear understanding of the relationships among the stakeholders and the support from top management.

2.3.1   Good Governance in Corporate and Public Sector

Mainly, good governance is achieved through the proper implementation of governance practices. These practices are based on valued attributes initiated by both corporate and public sector organizations. Several researches, such as (UNESCAP, 2012; Shean, 2010; UNDP, 2008; Pillay, 2004) indicated that good governance covers some or all combinations of the following principles; legitimacy, transparency, efficiency, openness, accountability, fairness, commitment, security and rule of law and others.

As a result of applying good governance principles in a corporate environment, lot of advantages are noticed at the level of organizational performance, including accessibility of information, transparency in procedures, empowerment of shareholders and institutional investors, stock options for employees, enhancement of the organizational framework,

operating and financial review, time lines and strong relation between managerial rewards and performance (Rachagan, 2010).

Accordingly, each element carries a philosophy or an approach regarding the oriented business which the organization is concerned about like empowering the company and the efficiency of the operations. In addition, these principles are noticed to be centering more on internal environment practices rather than external ones without neglecting entirely the requirements of external environment.

In another context, good governance is also applicable in public sector services. Based on the above arguments, it is noted that the good governance of public sector is a combination of efficiency, openness, transparency, accountability, responsiveness and others. These elements engage in the external environment more than internal one and they are concerned on the public interest due to the nature of public sector task that is servicing the public services.

According to Pillay (2004), a part of accountability and transparency, high standard of professional ethics and openness have been identified as the principles of good public sector governance. UNESCAP (2012) added some elements such as responsiveness, inclusiveness, participation, consensus and orientation.

However, these principles and behavioral governance practices have potentials to fight corruption and enhance the trust among the public sector to deliver high quality services to the public as well.

2.3.2 Importance of Good Governance

Traditionally, the public sector has involved in the bureaucratic and centralized approach, which leads the government to be more responsible to create such proactive development (Ruhanen et al., 2010). Thus, governments are always in need to respond the calls and demands of the citizens to improve the efficiency and boosting the effectiveness of their public services (Siddiquee, 2008). Consequently, the concept of "good governance" is increasingly reforming the public services through the employment of political, administrative and economic authority (Saidi & Yared, 2002).

According to Estevez and Janowski (2012), the linkage between development and economic or political governance is established through good governance mainly public administration and civil service reform, decentralization and service delivery. This includes engaging citizens in the service delivery process, facilitating horizontal and vertical policy integration to ensure coherency in government decision-making processes.

Therefore, good governance is considered as a basic requirement for countries at all stages of overall development (Jusoh et al., 2009). This means that it is valid to all sections of the society such as government, the private sector, non-government organizations, the corporate sector, legislature, secular and religious communities (Kefela, 2011; Siddiqi et al., 2009).

Basically, good governance is the quality of services that add value to the outcomes at the micro and macro levels. At micro level, it mainly affects organizational top performance when the good governance characteristics significantly promote service quality and

42

obstruct any organization misbehaviors. It is indicated by Rachagan (2010) that corporate governance stresses on management, scrutinizing and accountability of companies.

Accordingly, excellent management can be established through the controlling mechanism of the relation among the corporation's management, its shareholders, its board and the other stakeholders. Consequently, accountable management is able to manage and control the companies' resources efficiently. This is important to make any organization trustworthy by its stakeholders that will be able to deliver its services effectively and ethically (ANAO, 2003).

Hence, good corporate governance contributes to the investor's support and confidence since the investors are able to know about the rules and therefore predict their costs and manage their risks (Kefela, 2011; Jusoh et al., 2009). The current presence of new investors determines the economy of the country and makes it more stable and developed. Thus, measuring some governance features such as structure, process, system and culture is essential to achieve its top operational performance. As a result, good corporate governance leads to the increase of organizational performance, adds value to the shareholders and it is considered crucial for the economic growth and stability in developing and developed countries as well (Rachagan, 2010; Ruhanen et al., 2010; Jusoh et al., 2009).

According for the good public sector governance, it is believed that it is driven by several practices and principles for sustainable development and economic growth (Kefela, 2011). Nonetheless, these principles show how the dynamic and proactive attitudes applied in the

public sector organization would enhance the effectiveness and efficiency of service delivery and bring benefits to public sector excessively.

Besides, these principles can act as obstacles to corruption. Kefela (2011) claimed that sustainable development is a result of good governance when the services are operated, governed and provided in an ethical, transparent, open, accountable, efficient and regulated manner. Hence, there will be no opportunities for corruption to grow (Siddiquee, 2008). In other words, lack of efficiency, lack of transparency and lack of all good governance principles contribute to corruption.

Moreover, Kefela (2011) described the governance performance as an instrument for socio-economic development. This is evidenced by some countries of well recognized economy such as Singapore which has a low corruption case with CPI equal to 9.2 compared to the other high corruption indexes (CPI, 2012). Basically, its performance is influenced by the efficient practices of good governance at the government and organization levels.

2.3.3   Dimensions of Good Governance

As discussed in the previous chapter, the main problem that contributes to corruption and poor service of public sector services in Lebanon is the poor governance especially at the level of transparency, accountability and efficiency. Lack of good governance implementation would affect corruption in Lebanese organizations as stated by Saidi (2003).

These characteristics are needed as defensive factors in fighting corruption. In addition, the characteristics of good governance related to transparency, efficiency, accountability and effectiveness are identified crucial to improve service delivery of public sector. It is proposed by several studies, such as Gianluca (2011), Park and Blenkinsopp (2011) and Ruhanen et al. (2010) that the dimensions of transparency, efficiency and accountability are important determinants to promote good quality of services. This is illustrated by Ruhanen et al. (2010) who synthesized 53 different articles related to good governance and found that these dimensions are the most frequently studied throughout the literature (Appendix 1). Since these dimensions are applicable in various perceptions of good governance, it is significant to study their implementation in the government sector as to achieve the proposed research objectives.

Despite the variety of good governance definitions, several studies were conducted to identify the dimensions of good governance. It was introduced as attributes, principles, indicators behavioral aspects, characteristics and core elements of good governance. However, almost all introduced the same dimensions. As shown in Appendix 2, ANOA (2003) determined the attributes of good governance involving transparency, accountability, commitment and rule of law. Additional principles of good governance are demonstrated by Shean (2010), UNDP (2008) and Saxena (2005), which cover legitimacy, direction, performance, accountability and fairness.

Kaufman et al. (2001) assembled six indicators of good governance in government based on "accountability, effectiveness, control of corruption, regulatory quality, rule of law and political stability". Meanwhile, Iwu-Egwuonwu (2011) focused more on the behavioral

aspects of governance which consists of accountability, justice, transparency, genuine disclosures, integrity and high performance.

Similarly, Jalaluddin and Azmizam (2009) and Kefela (2011) defined it as the characteristics of good governance including equity, efficiency, sustainability, transparency, accountability and security. Whereas, the Organization for Economic Cooperation and Development (OECD) cited by Khan (2013), has noted accountability, transparency, quality, legitimacy and effectiveness of policies as the core elements of good governance. In addition, more elements to be considered as good governance such as culture, consensus orientation, alignment, strategic vision, leadership, intelligence, systems, inclusiveness, sensitivity, structure, and strong public management (Ruhanen et al., 2010; Siddiqi et al., 2009; Drew et al., 2006).

Therefore, the significance of this study is to examine these dimensions of good governance from the perspective of public sector mediating the relationship between e-government practices and citizens' trust within the public services delivery. In accordance with this, the subsequent sections describe the dimensions that best fit the implementation of good governance in the public sector based on previous related literature (Salin & Abidin, 2011; Bertot et al., 2010; Pina et al., 2007; OECD, 2003; Mucavele, 2003; Wong & Welch, 2004).

2.3.3.1 Efficiency

Efficiency is the result of governance activities that meet the needs of society through the properly use of resources (Sentosa, 2009). In the meaning of good governance, it is saving and protecting the environment by manageable use of the natural resources (UNESCAP,

46

2012). Gianluca et al. (2011) also defined efficiency as the degree to which organizations are able to transform the optimal use of input to the acceptable level of output by avoiding waste and ensuring customer's satisfaction through service delivery.

2.3.3.2 Transparency

Transparency is the process of making decision, and it is properly implemented through the regulations and rules (UNESCAP, 2012). Salim and Abidin (2011) argued that the principle of transparency is noted as more significance and widespread in the public and private governance. Accordingly, transparency is defined as "the open flow of information" that is directly available, accessible free and understandable to those who will be in the charge of making decision and their enforcement (UNESCAP, 2012; Park & Blenkinsopp, 2011). In other words, it is the disclosure of any related information to the interested stakeholder on timely manner (Salin & Abidin, 2011).

Park and Blenkinsopp (2011) claimed that the demand for transparency is growing roughly due to several factors. First, transparency is one of the essential ethical claims in democratic societies because of the access to the government. Second, the positive linkage between transparency and trust values by the mean of building integrity. Third, transparency is a useful measure used to prevent corruption behavior in which corruption has its adverse effects on growth and investment.

Several studies, such as Ampratwum (2008), attest to the fact that corruption discourages investment and reduce participation of public. For example; payment of bribes to get an investment license clearly reduces the incentive to invest. And also foreign direct investment (FDI) is discouraged by high corruption levels.

2.3.3.3 Accountability

Accountability is considered as a key prerequisite of good governance for both public and private institutions (UNESCAP, 2012). Accountability is defined as consequence of transparency, in which it advances a better quality of good governance (Egwuonwu, 2011). It makes organizations and individuals answerable and responsible to the decision that has been taken and aware of the performance consequences (Sentosa, 2009; Wong & Welch, 2004). Accordingly, Khan (2013) described accountability as an open government that support good level of social and political objectives of authority, sharing, respecting the rights and empowering the equity. Thus, governments must find a balance between the requirements of accountability to the society and those of state governments (Kluvers, 2010).

2.4   Concept of E-government

Recently, several countries are trying to renew their public administration by making it more adopted based on the good governance standards. Thus, governments are focusing more on the diffusion of innovation at the level of their organizational structure and in the ways they involve and train the human capital for a high quality of service delivery to citizens, including information, technological and financial resources. This use of ICT will advance the transformation of traditional government into e-government that attains good governance and economic growth (DESA, 2008).

Since e-government is becoming a global phenomenon. Governments worldwide are progressively becoming more aware of the significant value of emerging e-government as an important policy tool and strategic option for government (Khan et al., 2010; Das et al., 2009; Azab et al., 2009; Chhabra & Jaiswal, 2008). Moreover, e-government systems have

been attracting growing research interest as well as the attention of the authorities and policy makers as well (Al-Mayahi & Mansoor, 2012; Rana et al., 2011; Alghamdi et al., 2011).

By definition, e-government is defined as "the employment of the internet and the world-wide-web for delivering government information and services to the citizens" (UN, 2012). It refers to "the utilization of Information Technology (IT), ICTs and other web-based telecommunication technologies to improve and/or enhance on the efficiency and effectiveness of service delivery in the public sector" (Jeong, 2007).

E-government has been widely defined in the literature from different perspectives and dimensions. Various definitions demonstrate e-government from a narrow perception through using the Internet and ICTs to improve the performance of the government systems. While others view it from a broader perception of reforming and transforming the system of the government process (Srivastava & Teo, 2005).

E-government has been used since the early 21st century as an extension of e-commerce in the public sector (Spremić et al., 2009; Ojo, 2005). It is noted that worldwide governments are increasingly realizing the significance of e-government as a tool for developing the public sector and facilitating the delivery of services to citizens and businesses (Ojo, 2005). While Tehrani (2007) relates implementing and providing e-government services to the citizens by the developed countries, while the developing ones are behind in this race.

Generally, e-government is the interaction between government and different parties such as citizens, businesses, employees and even other governments or agencies through the use

of digital services. Jeong (2007) categorized the e-government delivery models as shown in Figure.2.1.
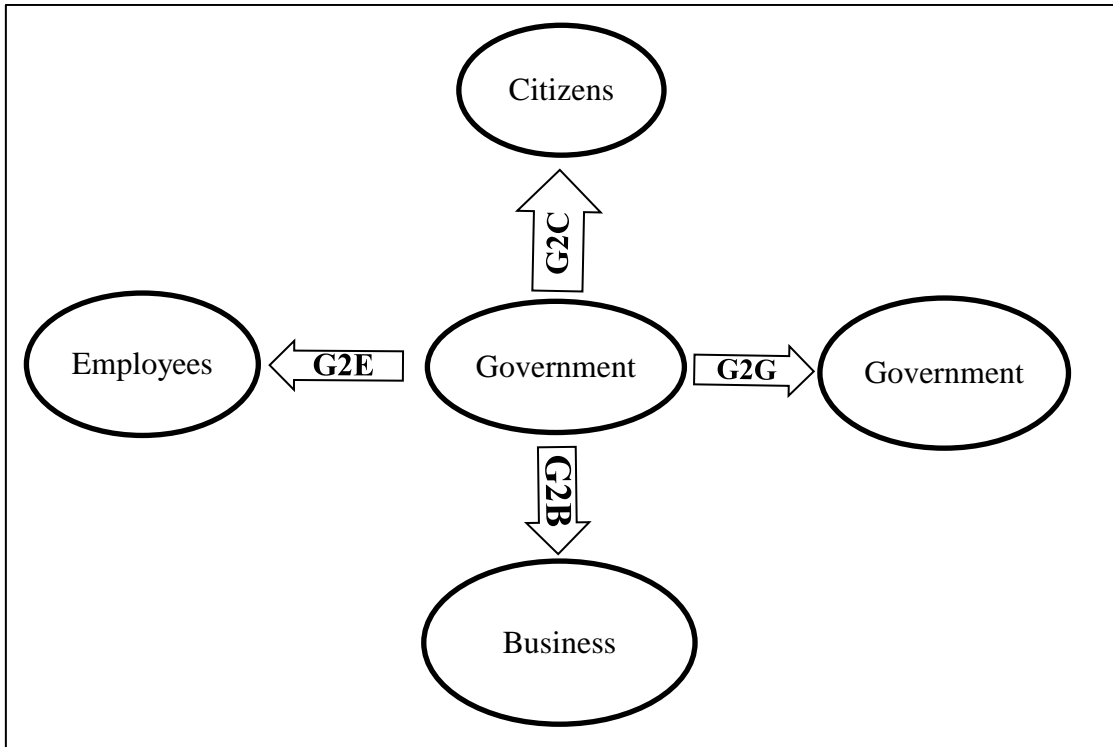
Figure 2.1
E-Government Delivery Models
Source: Jeong (2007)

The emerging e-government operations in the world started mostly in a small number of countries like: Singapore, United States of America (USA), Hong Kong and Canada followed by the Asian countries (Tehrani, 2007). In the early 1980, both USA and Singapore developed the necessary IT plan to improve the information resource management and efficiency in government (Ojo, 2005). Although e-government is still in an early stage, a large number of developed and developing countries worldwide were driven to implement it due to the benefits of adoption not only as a technological phenomenon, but also as a transformative development as well (Azab, 2009). According to Panzardi et al. (2002), the World Bank has defined e-government from the transformative

and reformative public sector perspective as "government-owned or operated systems of ICTs that transform relations with citizens, the private sector and/or other government agencies so as to promote citizen empowerment, improve service delivery, strengthen accountability, increase transparency, or improve government efficiency".

From the perception of changing the management, e-government is defined as the "use of ICT in public administrations combined with organizational change and new skills in order to improve public services, democratic processes and strengthen support to the public polices" (Berri, 2004). While from readiness view, e-government is broadly recognized as the strategies to transform government in which much attention is being paid recently to assess how ready each country is to gain the benefits of ICT implementations (Potnis & Pardo, 2011).

According to Al-Zoubi (2012), e-government services are gathered into the following services namely business, financial, justice, land resources, community, transportation and human services. While Rokhman (2010), categorized the services of e-government in three different categories: (1) transforming services, such as accessibility, responsiveness and effectiveness, (2) renewing local democracy like ability, accountability and openness and (3) and promoting local economy vitality such as training the employees to have skilled workforce.

In contrast to the traditional procedures, Lean et al. (2009) characterized e-government processes by "the broad use of communication technology, the impersonal nature of the online environment, the ease of collecting information (data-mining) and the ability to processed and use data multiple parties". Overall, e-government can be defined as a tool

that merges the ICT to offer better public services concerning business and citizens. These services make the access to information easier and would lead to more accountable, transparent, efficient and effective government.

2.4.1 Importance of E-government

E-government is seen as a lever to e-economy offering e-content and e-services for both private and public sectors, under which transformation of traditional government into e-government may contribute to cutting costs of administration and improving its efficiency (Cellary, 2008). Governments lean to engage with e-government implementation more and more in order to improve the public services towards good governance. This stems from the belief that e-government is a great potential to achieve a lot on the way to successful development (Musa, 2010). It is argued that implementing e-government can break down bureaucratic barriers which restrict corruption and improve the productivity in the nation (Bwalya, 2012; Tehrani, 2007). For instance, Manyika and Roxburgh (2011) found that using internet in government context had accounted for 21 % of the GDP growth in mature economies over the past five years.

It is claimed that increasing productivity and reducing costs, generate a better business environment by conducting the public services electronically (Khan et al., 2010; Zarimpas, 2009), as it tends to make it free of corruption as well (Chhabra & Jaiswal, 2008)**.** Zhai (2011) contended in his research that applying e-government services lead to the innovative environment mainly in developing countries through spreading the awareness on the importance of public affairs' transparency as basics to stimulate economic growth and create public confidence (Panzardi et al., 2002).

Furthermore, governments worldwide are identifying the significance of e-government and driving the progress of public service delivery in order to provide the efficient and effective governance to its citizens and businesses (Al-Mayahi & Mansoor, 2012; Srivastava & Teo, 2005). As e-government is described "as a major instrument for achieving good governance" (Saidi & Yared, 2002), several empirical and conceptual studies show the advantageous return of adopting e-government tool through practicing good governance features such as effectiveness, efficiency, transparency, accountability, openness, innovativeness and responsiveness (Nkwe, 2012; Al-Mayahi & Mansoor, 2012; Musa, 2010; Khan et al., 2010; Colesca, 2009; Zarimpas, 2009; Chhabra & Jaiswal, 2008; DESA, 2008; Das et al., 2009; Chevallerau, 2005; Asgarkhani, 2005; GMCT, 2003; and Panzardi et al., 2002).

According to Das et al. (2009), a nation that engages in e-government should be opened to the international community and efficient in its practices and policies in order to be transparent and generate trust to its citizens. Different studies such as Al-zoubi (2012) Zarimpas (2009), Tehrani (2007) and Panzardi et al. (2002) highlight the value generated from the e-government towards the trust and the safe environment that leads to an attractive atmosphere for domestic and foreign investment. In relation to that, Smith and Teicher (2004) claimed that e-government is not about technology, but it should be about people. Therefore, e-government is about transformation and interaction with citizens. In addition, implementing e-government allows citizens to become closer to their governments, act as interactive players in the government process and have a part in decision making (Mundy & Musa, 2010; Khan et al., 2010; Zarimpas, 2009; Das et al., 2009; Tehrani, 2007; Saidi &Yared, 2002; Panzardi et al., 2002).

Such advantages of e-government implementations can create values which be reflected on citizens, businesses and governments (Jaeger & Thompson, 2003). It is categorized as political, social and economic impacts on the community due to their nature and structure (Al-zoubi, 2012). Table 2.1 classifies the major benefits that contribute to the society through applying e-government.

Table 2.1
Benefits of Using E-government

Benefits	Economic, political and / or social	Authors & year
Network and community creation	Social and political	Nkwe ,2012
Improve the quality of decision making	Social and political	Nkwe, 2012
Promote and share use of ICT and information in other sectors of the society	Social	Nkwe, 2012; DESA, 2008
Cost reduction, saving resources and efficiency gains	Economic	Nkwe, 2012; DESA, 2008; Chevallerau, 2005; Asgarkhani, 2005; Ojo,2005; Smith &Teicher, 2004; Panzardi et al., 2002; Saidi & Yared, 2002
Quality, rapidity and flexibility of service delivery	Economic	Nkwe, 2012; Mundy & Musa, 2010; DESA,2008; Ojo,2005; Chevallerau, 2005
Increase the capacity of government	Economic	Nkwe, 2012
Revenue growth and productivity	Economic	Asgarkhani, 2005; Panzardi et al., 2002; Saidi & Yared, 2002
Greater convenience	Social	Panzardi et al., 2002
Avoidance of duplication	Economic	DESA, 2008
Simplifying bureaucratic procedures	Economic and Social	Bwalya, 2012; DESA, 2008
Security of information management	Social	DESA, 2008
Innovation in service delivery	Social and Economic	Colesca, 2009; DESA, 2008

Table 2.1 (Continued)

Benefits	Economic, political and/ or social	Authors & year
New business opportunities online	Economic	Al-Zoubi et al., 2011
wide variety of transactions	Economic and social	Das et al., 2009
Foster competitiveness	Economic	Das et al., 2009; Chevallerau, 2005
Attracting Foreign Direct Investment (FDI).	Economic	Al-zoubi, 2012

2.4.2 Factors and Challenges Related to E-government

The importance of adopting e-government was demonstrated based on the above discussion through generating the value of good governance, trust, citizenry participation and interaction. Thus, to find a successful and efficient e-government, it is necessary to enhance the factors that affect its performance and consequently to overcome the challenges could face its processes. Hence, it is significant to highlight the factors and challenges in the literature that affect the efficiency of the e-government.

2.4.2.1 Factors Affecting E-government

The empirical research by Azab et al. (2009), the studies conducted by the WASEDA University (2006) and New South Wales State Library (NSW, 2001), concluded that the organizational performance depends mainly on the following elements: Strategy, organizational process, technology, people and human capital and the profile of the country. Since government organizations aim to improve its overall performance through e-government projects, thus such factors are suggested to foster the effectiveness and efficiency of e-government. In order to deliver e-government services within a budget and

on time, such projects need a combination of good management, ICT infrastructure, and skilled people (Tehrani, 2007; Rao, 2003).

As has been discussed through the literature review, the major factors affecting e-government implementation include ICT infrastructure, human capital, strategic planning, trust, civil rights, political commitment, business environment, profile of country and organizational process. Particularly, Saidi and Yared (2002) related the potential of gains of e-government by a number of conditions such as leadership, connectivity, business environment and human capital. While Zarimpas (2009) claimed that the successful performance of any services should be influenced by five essential factors, which include (1) political commitment to the reform process, (2) underlying legal framework related to electronic administration (3) institutional capacity, (4) availability of ICT infrastructure and (5) e-government strategic planning.

Jaeger and Thompson (2003) also found that the hard technological infrastructure is necessary to obtain effective e-government within the country. However, Das et al. (2009), argued that little research has considered soft factors such as trust and culture may affect the implementation of the e-government. Srivastava and Teo (2005), Mercuri (2005), Tassabehji (2005), Lau (2005), Barnes and Vidgen (2003) and Saidi and Yared, (2002), have considered citizen trust as a key enabler for the successful adoption of e-government initiatives in the nation.

Furthermore, Volken (2002) states that the success of e-government engagement is dependent on the level of perceptions and trustworthiness among the citizens and parties.

The society must believe in the integrity of applications and controlling governmental entities.

2.4.3.2 Challenges Facing E-Government

Similarly, e-government implementation is affected by a lot of issues and challenges that need to be addressed. Such challenges can be divided into two series; namely individual and organizational challenges including ICT infrastructure, human capital development, leadership role, resistance management to change, shortage of financial resources, lack of institution framework, lack of staff's confidence, culture and attitude, limited education and computer illiteracy and lack of trust (Nkwe, 2012).

Most of the studies such as Nkwe (2012), Bwalya (2009), Monga (2008), Zaied et al. (2007) Tehrani (2007) Dada (2006) and Ndou (2004) consider ICT infrastructure and human capital development as main challenges for e-government. In addition, some researchers indicate that limited access to internet, policy issues, resistance management to change, strategy, leadership role, partnership and collaboration as effective challenges influencing the implementation of e-government. (Zaied et al., 2007; Tehrani, 2007; Ndou, 2004).

In addition, Nkwe (2012) summarized additional challenges including (1) lack of knowledge awareness and training courses about the e-government program, (2) culture differences and attitudes, (3) lack of regulation for e-usage, (4) shortage of financial resources and (5) lack of institutional framework.

Bwalya (2009) has also specified other three challenges in his empirical study which has been conducted in Zambia. These challenges are represented by education limitations, computer illiteracy, limitation in the confidence levels of the staff in the new system and the lack of trust in the new system by most people.

2.4.3 Dimensions of E-government

E-government covers many services of the public sector. The components of e-government are identified by UNDP (2008) as e-administration, e-service delivery, e-participation, access to ICT and connectivity, access to information, policy-enabling environment and regulation. Similar dimensions are also presented in a study conducted by Khan (2013) that incorporates e-democracy (democratic dimension), e-administration (administrative dimension) and e-services (service dimension). However, Ndou (2004) added a dimension of e-citizen to e-administration and e-services.

In addition to that, several studies presented e-procurement as a component of e-government (Rotchanakitumnuai, 2013; Hidayanto et al., 2012; Aman & Kasimin, 2011; Sddiquee, 2008). According to the findings of both UNDP (2008), and Aman and Kasimin (2011) which are based on a review of the current literature related to e-government, a more homogeneous figure of the e-government characteristics comes up by grouping the main components of e-government system.

Since governance services focus on improving quality and transparency, reducing cost and enhancing efficiency (Siddiquee, 2008), this study highlights some of these components as following:

2.4.3.1 E-administration

Generally, e-administration or electronic administration is the investment in ICT to advance accountability and transparency within public organizations and to shift from a traditional office or paper processes into electronic processes, which is correlated to the administrative and modernized public programs (UNDP, 2008). The implementation of any e-administration solution should be customer centric rather than organization centric. This is mainly based on various types of management work, internal routines, computerizing the administrative jobs and realizing of strategic connections among different departments and functions (Khan, 2013; Ndou, 2004).

2.4.3.2 E-services

E-Services are defined by Rowley (2006) as the "deeds, efforts or performances whose delivery is mediated by information technology". It is the investment in public ICT to further enhancement of transparency, anti-corruption and efficiency among the public associations through providing and accessing the services in all parts (UNDP, 2008). Khan (2013) claimed the role of technology in facilitating the delivery of services which make them more of electronic services. Similarly, Ndou (2004) defined it as connecting the relationship between citizens and government through automating the services.

According to Siddiquee (2008), e-services include several types of services for example; vehicle and driver registration, summons, licensing services, payment of electricity, telephone and internet bills. Perceptions of e-services are driven by a series of factors such as their availability, the satisfaction of users, the perceived importance of the service and the fairness of its provision and finally its cost (Baptista, 2005).

2.4.3.3 E-procurement

E-procurement is employing online information technology to purchase services and goods for public sectors from businesses (Rotchanakitumnuai, 2013). According to Hidayanto et al. (2012), e-procurement refers to the use of electronic methods in every stage of the purchasing process from identification of requirements through payment and potentially to contract management. There are six features of e-procurement mainly; (1) e-ordering or e-maintenance repair operate, (2) e-informing (3) e-reverse auctioning or e-auctioning (4) e-tendering, (5), e-sourcing, and (6) web-based enterprise resource planning (Hidayanto et al., 2012).

The importance and the functions of the e-procurement are evidenced through several studies such as Rotchanakitumnuai (2013), Hidayanto et al. (2012), Aman and Kasimin (2011) and Siddiquee (2008). These benefits can be included in saving time and cost, reducing corruption, improving the administration performance and increasing the efficiency of purchasing process. Moreover, e-procurement adds a value to the government services through encouraging the good governance, which consists of transparency, integrity, fairness and accountability.

2.5   Relationship among the Variables of the Study

Recently, many scholars have analyzed the relationship between IT and economic performance (Indjikian & Siegel, 2005; Smith & Teicher, 2004). They declared that such relationship is not only changing the way people communicate and share information, but it is also contributing significantly to the economic growth of public administrations in developed and developing countries as well (ITU, 2012b; Ho et al., 2012; Al-Ghamdi, 2011; Spremić et al., 2009). This is empirically evidenced by Tan and Eze (2008), who

examined the factors interrelated in the implementation of ICTs among SMEs in Malaysia. The findings indicate that adoption of ICT provides new business opportunities with more access to market information, however, high ICT cost and security still act as barriers to ICTs adoption.

In addition, Vu (2011) studied the positive effect of ICT penetration on economic growth theoretically and empirically. Theoretically, it was presented through fostering knowledge diffusion, enhancing the quality of decision making and reducing the costs. Empirically, the paper was discussed through output levels using panel data of 102 countries for the 10-year period (1996–2005). The findings strengthen the importance of ICT as an important source of growth in 1996–2005. In contrast, Vu (2011) indicates that there are studies conducted by Pohjola (2002) and Jacobsen (2003), who found no significant correlation between ICT investment and economic growth.

In relation to that, Raghupathi and Wu (2011) investigated the relationship between ICTs and governance at the country-level. Secondary data on ICTs and governance indicators was used from World Bank databases. The multivariate result indicates that ICTs have a positive relationship with governance indicators and therefore, have the potential to promote good governance.

Moreover, several empirical studies examined the same relationship (Salin & Abidin, 2011; Kalsi et al., 2009; Pina et al., 2007; Lau, 2005). The studies show how the ICTs can positively contribute to achieve good governance goals. Such contributions are summarized by the following dimensions (1) improving administration processes (2)

improving e-citizens and e-services transactions and (3) building e-society with external interactions.

With respect to e-government, it is claimed that every plan that applies ICT to bring efficiency into government is considered as a key supporting tool for e-government implementation (Porrua, 2013; Hunaiti et al., 2009; Moon, 2003). Such tools improve public trust by improving transparency, effectiveness, cost efficiency and policy participation. Ma (2005) claimed that e-government in China has improved the administrative efficiency and enhanced the governance services. Also, OECD stresses that the implementation of e-government provides lot of benefits mainly to reform trust between governments and citizens through engaging them in the policy process. In addition, it promotes an accountable government and makes corruption less, because building trust is fundamental to the success of good governance practices (Spremić et al., 2009).

2.5.1 Effect of E-government and Good Governance on Public Trust

As mentioned earlier, e-government practices and good governance principles have been proposed as significant approaches to boost the public trust in governments. Meanwhile, public trust is still a result of ethical governance since accountability, transparency; integrity and efficiency are considered as ethical mechanisms that can reduce corruption and accomplish citizens' expectations ; thus positively affecting the public trust (Osifo, 2012).

Trust in public administration is mainly tied to performance. Performance is the ability to do what the people expect and it guarantees trust at both, short and long run. Performance

is understanding responsibility in public administration in both, subjective and objective forms because of its accountable and obligatory dimensions. Moreover, participation and collaboration are means of achieving trust, because the ability to manage and utilize meaningfully the potentials of every member of a network in an ethical filled manner can positively affects public trust. This performance can be achieved through applying e-government tool as suggested by several researchers that citizen trust and satisfaction are influenced by e-government (Jalali & Khorasani, 2012; Tolbert & Mossberger, 2006; West, 2004).

E-government can improve communication between citizens and government and enables more direct participation in government decision-making (Zhai, 2011). Manyika and Roxburgh (2011) stated that Internet provides a flexible and convenient interface with government customers who can access government around the clock and experience ''one-stop shopping'' for information and services.

Cellary (2008) also declared that e-government has the potential to reduce the cost of service delivery, although the front-end costs of development may mean that cost savings are not immediately realized. This is consistent with the philosophy that government which works better and costs less will increase citizen confidence towards it. For instance, the United States' original federal government report on reinvention identified government waste and inefficiency as the main reasons underlying current lack of trust in government (Mossberger & Tolbert, 2005).

Furthermore, the information capacity available on Internet allows citizens to become more knowledgeable about government and political issues. Also, the interactivity of the

medium allows new forms of communication between elected officials and citizens –
through chat rooms, list serves, email, and bulletin board systems. The posting of contact
information, legislation, agendas and policies are all preliminary steps that make
government more transparent, enabling informed participation online and offline, while the
Internet offers direct channels of communication as well (Welch & Hinnant, 2003).

2.5.2   Relationship between E-Government and Good Governance

Recently, governments worldwide have worked to increase the level of openness and
transparency as principles of good governance in their performance, where ICTs are
considered as suitable means to support openness and transparency and to reduce
corruption. Thus, e-government translates the use of ICT in different nations to prepare a
good environment of governance (Bertot et al., 2010). Similarly, Pathak and Prasad (2005)
describe e-government as the application of ICTs to bring the SMART governance which
is based on "simple, moral, accountable, responsive and transparent governance". These
core principles of governance are also used to reduce and tackle the corruption effectively
(Chhabra & Jaiswal, 2008).

Accordingly, it is significant to separate between the concepts of governance and
government. Saxena (2005) clarified government by the organization itself, while
governance is a broader perception describing forms of governing. As for the private
sector, he refers corporate governance to how the private sector arranges its interior
procedures in a matter of accountability to its stakeholders; as government is involved
through regulation and organization's law. In another meaning, e-government is
instrumental and one of the fundamental actors in governance (UNESCAP, 2012).

Conceptually, several studies such as Haque and Pathrannarakul (2013), Rana et al. (2011), Kettani et al. (2008), Tolbert and Mossberger (2006), Mucavele (2003), IOS Press (2005) and ADB (2001) state that e-government is a tool developed by the governments to achieve the principles of good and transparent governance such as accountability, responsiveness, efficiency, effectiveness, openness, commitment and transparency. It offers prospective solutions across the whole sectors of government, where leaders are facing governance and administrative problems. E-government is a powerful mean which boosts transparency through provision of information to the public and access to digital material and institutions. Thereby it reduces the opportunities for corruption.

Moreover, there are several empirical studies that have been conducted to investigate the relationship between e-government and good governance. Navarro et al. (2012) argue that e-government has become one of the most important keywords for the public sector reform, where it guarantees transparency, accountability and better communication between local and national administrations and their public likewise. This is evidenced in their study which included 179 Spanish official town websites related to the municipalities. The findings provide numerous opportunities for their civic engagement. The main conclusion of this study shows a positive relation between e-government and civic engagement even though ICT can influence the adoption of e-government.

As for Shim and Eom (2008), the impact of e-government on corruption was examined in relation to the bureaucratic professionalism, law enforcement and bureaucratic quality. The study used the national data and revealed that e-government can always reduce corruption. Thus it is an effective instrument to eliminate corruption by advancing good governance.

Furthermore, Gajendra et al. (2012) investigated several empirical studies related to e-government and public participation principles. They found a positive relationship between e-government and public participation while enhancing the quality services as well. Alternatively, Ochara (2010) explored through a qualitative analysis the relationship between e-government conceptualization and its impact of policy makers. The paper was underpinned by critical realist assumptions and found that the central government can extend its control over local authorities through e-government and reduce the bureaucratization through managerialization.

Moreover, Rotchanakitumnuai (2013) examined the effect of e-government procurement on the good governance through conducting a survey of 169 professionals in Thai government agencies. The researcher found that a transparent e-procurement process has a positive effect on good governance practice and decrease collusion among vendors. Al-Zoubi et al. (2011) also found a positive relationship between adoption of e-government and organization performance among 113 businesses companies in Jordan through a correlatinal study. The results obtained emphasize the significant relationship between time, cost and efficiency of the business e-government adoption. It is also found that improved technology infrastructure helps the transfer of knowledge within organizations and enhances the capabilities of governments in adopting more innovative technologies.

Different studies inspected the impact of e-government on accountability and empowering citizens. Wong and Welch (2004) studied empirically the effect of e-government on accountability in 14 countries. The study compared the openness of e-governments through the websites of these countries and tested the impact of organizational factors on

their openness. As a result, a positive relationship between e-government and enhancing the accountability and empowering citizens was approved.

Another cross-sectional study including 260 firms in Jordan was conducted by Alzubi (2012) and examined the determining factors that motivate e-government adoption and investigated its impacts on firms. The study found that the awareness and access to the updated information provided by the government would increase the organization's effectiveness throughout economic indicators and future government investment projects. Compared to basic-adopters, results show that advanced-adopters had gained more important benefits from adopting e-government tools where it has achieved time saving, with lower cost and better work. Similar findings are considered by Fountain (2001). He stated that business organizations can benefit from adopting e-government to enhance the effectiveness and efficiency of their work processes.

In a systematic review of the literature, Siddiquee (2008) analyzed secondary data from the public sector in Malaysia. He claimed a positive but limited relationship between e-government and service delivery innovations and reforms. He also argued that e-government can improve services by cutting bureaucratic web, increasing transparency and reducing corruption in the public sector.

In the same context, Smith and Teicher (2004) used examples from international e-government surveys and Australia's federal government to indicate that e-government has the potential to develop governance and quality of service delivery by reforming the objectives and tools of the government. The results revealed how e-initiatives play a serious role in connecting citizens with government, while offering them services and

increasing the ability to participate -and despite of some critical challenges facing them- in terms of management and the design of services delivered in government.

Similarly, Bhatnagar (2004) studied the relationship between e-government and transparency within 16 countries that are developing innovative e-governance applications. He examined 30 cases and the results show that e-government makes corruption less and enhances transparency in governmental operations through introducing data, rules and procedures. He also claimed that citizen's engagement is achieved through promoting an easy access to information and public services

Moreover, research by Pathak and Prasad (2006) also focused on the implementation of e-government programs at India's federal government and its relationship with the public. The results reveal how e-government programs brought governance closer to the public. Also, using the tool of e-government makes government accurately accountable to citizens who are able to track their applications and complaints and bring the delay to the notice of higher officials.

Despite such observations, other researchers have observed the limited effect of e-government on good governance application. Holliday and Yep (2005) analyzed China's progress towards e-government and its effects on governance and service delivery. They found that China's progress towards e-government has remained superficial despite of the contemporary changes occurring in the official positions towards reforms and the implementation of various e-initiatives since the early 1990s. The authors also argued that e-government in China is recently having a limited impact on governance due to several factors that hinder the effective development of e-government in the country.

In relation to this issue, West (2004) assessed the impact of e-government on each of service delivery, public attitude, trust, and democratic responsiveness. The research was based on both website content and public opinions. The findings show that e-government practices in the USA has deficient in its ability to renovate service delivery and enhance the public trust in government although of its potential to make actions different over the long term.

2.5.3   Relationship between E-Government and Trust

Recently, citizen's trust has become one of the main problems facing the governments as the crisis of public trust. Applying and utilization of e-government is believed to overcome this gap of public trust. Thus, developing a trust-based relationship with the public should be a strategic aim for governments as a mean of engaging all citizens in all processes since citizens are considered as customers and actors as well of such processes (Navarrete, 2009; Kampen et al., 2006; Tassabehji, 2005; Lau, 2005; Bouckaert & Walle, 2003).

Tolbert and Mossberger (2006) have studied the relationship between e-government and trust attitudes empirically through surveying 815 people who were reported as users of government Web sites. The findings show a significant relationship between trust and use of a local government Web sites. Hence, it is suggested that e-government can increase process-based trust by improving interactions with citizens and perceptions of responsiveness.

Similar results were obtained by Heeks (2006) using a qualitative approach. He explored the relationship among service delivery and trust in public organizations. Heeks found that

e-government has positive impacts on citizen's trust and confidence in government which in turn adds a public value to the country.

Using another approach, Welch and Hinnant (2003) surveyed a sample of 806 adults selected randomly from the Council on Excellence in US Government to examine the effect of e-democracy, transparency and interactivity on the citizen trust in government. They applied a two stage multiple equation model and found that internet use is positively associated with transparency satisfaction. However, internet use is negatively associated with interactivity satisfaction and that both interactivity and transparency are positively associated with citizen trust in government.

Likewise, Welch et al. (2005) examined the same relation but with mediating effect of e-government satisfaction and web site satisfaction. Using multiple-equation model that simultaneously predicts experience, satisfaction and trust. They found that usage of government web site is positively associated with both e-government and web site satisfaction, in addition to the positive relationship between e-government satisfaction and citizen's trust in government.

Moreover, Parent et al. (2005) found a significant and positive impact of using the internet on trust and external political efficacy upon surveying 182 Canadian voters and analyzing it using structural equation modeling. According to Jalali and Khorasani (2012), e-government indexes and public trust are significantly correlated based on surveying 276 citizens of five districts in Tehran using Kolmogorov-Smirnov test (KS-test) for determining the normality of indexes and testing the presence or absence of proposed correlation.

Furthermore, West (2004) used two samples to examine the relationship between e-government usage and four variables namely trust in government, government is effective in helping people, confidence in government and levels of political activity. The first stage of analysis was based on regression analysis of federal e-government usage, where results shown an insignificant relationship between visiting federal government web sites and views of trust, confidence or government effectiveness. Then the second stage conducted a cross-sectional examination to determine the effect of e-government on citizens' attitudes. Before-and-after questions were developed, he found that citizen's viewpoint can be changed through education and awareness regarding e-government effectiveness and they can trust government gradually. While citizens with partisan leanings, they seem to have strict beliefs that there is a result of bad experience or long-term feelings about government, thus making such attitudes difficult to change.

From other perspectives, Lean et al. (2009) studied the factors affecting the intention to use e-government service among 150 respondents from diversity Malaysian communities. The findings showed that trust, perceived usefulness, perceived relative advantage and perceived image respectively, have direct positive relationship towards intention to use e-government service. But perceived complexity has a significant negative relationship towards intention to use e-government service.

Similarly, Das et al. (2009) explored empirically the relationship between trust and e-government. The relationship is determined using cross-country data from 140 countries and examined by regression analysis. The major empirical finding shows that trust as measured by ethnic and religious diversity is an important factor that affects e-government

71

usage while controlling the level of economic development and other socio-economic factors.

In addition, Teo et al. (2009) distinguished between trust in government and trust in technology. It is evidenced that trust is positively related to e-government web sites and consequently to quality of information, system and services as well. While Park (2008) deduced in his study that there are four factors affecting the success of e-government, mainly public trust, information access, public accessibility and quality of services. Whereas, others such as Srivastava and Teo (2004) and Gilbert et al. (2004) claim that there is a significant relationship among financial security, information quality, trust, time and the intention to use e-government services.

2.5.4 Relationship between Good Governance and Trust

The extensive review of literature reveals that trust is significantly interrelated to governance. Bouckaert and Walle (2003), for instance, emphasized on the importance of increasing the quality of governance which leads to more satisfied and trusting citizens. They also claimed that trust is easy to be measured at government level, yet there is still an ambiguous linkage with good governance, where there is an argument about concerning trust as a satisfactory or necessarily indicator of good governance. The findings of this research show that participation, accountability and transparency build trust because it identifies the public interests and makes actions more predictable.

In the same context, it is declared that the lack of governance adoption is a contributing factor to the rise of corruption which has adversely affected the trust. Thus providing

environment free of corruption through applying the principles of good governance is necessary to bring the trust in government (Chhabra & Jaiswal, 2008; Pillay, 2004).

Osifo (2012) stated through a qualitative research, that ethical governance is important because it concerns the right thoughts (values) and elements (mechanisms) needed for a successful anticorruption crusade. Also, the study found a strong linkage between trust in public administration and ethical governance performance. It can help in actualizing anticorruption agencies' expected or desired performance.

In addition, the literature indicates numerous factors influencing the trust such as efficiency, effectiveness, accountability, integrity, responsibility, participation and transparency. Lee (2005) proved the positive relationship among participation, transparency and trust based on interviews with ICT specialists, policy-making community and public officials around eight post industrial countries. Similarly, Kim and Kim (2007) found a positive impact of both, participation and transparency on the level of trust in government in which all are coupled under reform measures.

However, Grimmelikhuijsen (2012) argued in his experimental study the role of transparency whether it builds trust or provides citizens with more information to blame and criticize government continuously. The results show that transparency does not necessarily leads to trust. Moreover, it can even lead to lower levels of trust if people are disappointed with the degree to which government is transparent. Such a conclusion raises new challenges to the current optimistic assumptions concerning the effect of transparency on trust.

2.5.5 Mediating Effect of Good Governance on the Relationship between E-Government and Public Trust

To empirically demonstrate the importance of these relationships, research on mediating effects helps assess whether the relationship between two variables is direct or whether it occurs indirectly through some third mediating variable (Shaver, 2005), especially upon the weak research background regarding such causal relationship revealed in the previous literature review. Some researchers examined the direct impact of e-government services delivery on the aspect of trust and confidence in government for example Tolbert and Mossberger (2006), Heeks (2006) and Welch and Hinnant (2003).

However, the role of good governance as a mediator between e-government and trust is limited, where few suggested indirect effects of internet use on trust in government through perceptions of transparency, interactivity, efficiency and accountability (Chhabra & Jaiswal, 2008; Welch & Hinnant, 2003).

Islam (2003) stated that better availability of economic data and the ability of people to demand and receive the information they need are highly correlated with governance. Thus, better information flows and better governance have been demonstrated to be correlated with how fast economies grow.

In addition, Park and Blenkinsopp (2011) suggested public good governance agencies to improve the public trust by implementing e-government practices such as web sites, promoting the ICT-based public service delivery and making its process more transparent to enhance accountability as well. Therefore, the present study investigates the research

model that includes good governance as the mediator of the relationship between e-government and public trust in Lebanon.

2.6   Gaps in Literature Review

Based on what have been discussed earlier in this chapter, some gaps are identified to be potentially examined throughout the research. It is noticed that most of the previous studies on governance and trust are found non-empirically conducted (Haque & Pathrannarakul, 2013; Rana et al., 2011; Navarrete, 2009; Kettani et al., 2008; Tolbert & Mossberger, 2006; Kampen et al., 2006; IOS Press, 2005; Lau, 2005; Tassabehji, 2005; Bouckaert & Walle, 2003; Mucavele, 2003; ADB, 2001). Although other studies have examined the relationship empirically most of them employed a single construct of good governance and limited dimensions (Grimmelikhuijsen, 2012).

Secondly, this study utilizes e-government as a determinant factor of citizen trust due to the limitation of studies found within this association. Also, it examines the influence of ICT on good governance and trust consistent with the previous researches which have addressed several factors mainly internet use, intension to use internet, internet utilization, and innovation in e-service. In addition, the mediating effect of good governance is not reported extensively.

Finally and concerning Lebanon, no empirical studies on good governance and trust have been conducted. Particularly, there is a gap in research focusing on good governance and e-government implementation among services and its effect on the citizens' trust in Lebanon. Hence, this study tends to empirically investigate the comprehensive impacts on

trust by incorporating factors of e-government as independent variable and good governance as mediator.

As argued in recent studies by Grimmelikhuijsen (2012) and Kettani et al. (2008), there is a lack of empirical analyses on good governance and trust. Thus, this study would fill this gap and aims to understand more and explain the determinant factors in the ongoing debate about the effect of e-government on Lebanese good governance and public trust.

2.7   Importance of the Study

Regarding e-government implementation, a lot of research frameworks were developed to study the relationship between different concepts including good governance and trust. To make this research valuable, it should fill in gaps that the earlier studies could not cover. Table 2.2 summarizes some of the previous researches and methodologies of recent conducted studies related to e-government, good governance and trust.

Table 2.2
Summary of Recent Researches Discussing the Variables of the Study

Author	Year	Methodology	IV	Mediator	DV
Haque & Pathrannarakul	2013	Conceptual	E-government		Good governance
Rotchanakitumnuai	2013	Quantitative	E-government procurement		Good governance
Navarro et al.	2012	Quantitative	ICT use	E-government	Civic engagement
Alzubi, et al.	2012	Quantitative	Technological, organizational, and external factors		E-government adoption
Jalali & Khorasani	2012	Quantitative	E- government		Public trust
Osifo	2012	Qualitative	Ethical governance		Corruption

Table 2.2 (Continued)

Author	Year	Methodology	IV	Mediator	DV
Raghupathi and Wu	2011	Qualitative	ICT		Governance
Salin & Abidin	2011	Quantitative	ICT		transparency and openness (Good Governance)
Al-Ghamdi et al.	2011	Conceptual	ICT		Economic growth
Vu	2011	Quantitative	E- government		Economic growth
Al-Zoubi et al.	2011	Quantitative	Adoption of e-government		Organizational Performance
Bertot et al.	2010	Qualitative	ICT implementation		cultural attitudes about transparency
Ortiz et Al.	2009	Quantitative	TQM	Business Innovation Capability	Technological Innovation
Lean et al.	2009	Quantitative	trust, perceived usefulness, perceived relative advantage and perceived image,		Intention to use E- government services
Erturk	2008	Quantitative	managerial communication, and employee participation	Trust	openness to organizational change
Tan & Eze	2008	Quantitative	Relative Advantage, Compatibility, Complexity, Observability and Security		Adoption of ICT
Das et al.	2009	Quantitative	Trust		E- government
Shim & Eom	2008	Quantitative	E- government		Corruption
Pina et al.	2007	Quantitative	ICT		Accountability

Table 2.2 (Continued)

Author	Year	Methodology	IV	Mediator	DV
Parent et al.	2005	Quantitative	ICT		Trust
Tolbert & mossberger	2006	Quantitative	E- government		Trust
Pathak and Prasad	2006	Quantitative	E- government		Governance
Smith &Teicher	2005	Quantitative	E- government		Service delivery
Holliday & Yep	2005	Quantitative	E-government		Governance and Service delivery
Welch, et al	2005	Quantitative	E- government	E-government satisfaction	Trust
Wong & Welch	2004	Quantitative	E- government		Accountability
West	2004	Quantitative	E- government		Citizens' attitudes and behavior.
OECD	2003	Conceptual	E- government		Efficiency and trust
Mucavele	2003	Conceptual	E- government		Transparency

As presented in Table 2.2, the research varies between conceptual and empirical studies, yet there is lack in the research that is conducted in Lebanon. Lebanon started to implement e-government services since 2000, however it is still in the preliminary stage and no empirical or even conceptual studies are conducted in a research methodological manner. Majority of studies are conducted in the developed countries and it focus on the proposed different variables but separately. Also, it is noticed that most of frameworks are

set up with a simple linear models i.e. one independent variable and one dependant variable.

Therefore, the contribution of this study is to extend the previous research related to e-government in relationship with good governance (Haque & Pathrannarakul, 2013; Rotchanakitumnuai, 2013; Shim & Eom, 2008; Pathak & Prasad, 2006; Holliday & Yep, 2005; OECD, 2003; Mucavele, 2003, Wong & Welch, 2004) as well as with public trust (Jalali & Khorasani, 2012; Lean et al., 2009; Das et al., 2009; Tolbert & Mossberger, 2006; Welch, et al., 2005). In addition, studying the meditating effect of good governance on these relationships would enrich the literature as was suggested by Park and Blenkinsopp (2011) especially through conducting an empirical study for the advantage of the public sector in Lebanon and analyzing it using SEM as the study that was conducted by Parent et al., (2005).

2.8   Conclusion

This chapter discussed the previous studies and concepts related to all variables proposed in the research framework. Each of e-government practices, good governance and public trust was defined and explained extensively. In addition, the relationships among the variables were discussed. Finally, the gaps in literature were highlighted at the conceptual, empirical and local level and then the importance of the study was demonstrated.

CHAPTER THREE

RESEARCH FRAME WORK

3.1   Introduction

The research problem has been discussed comprehensively in the Chapter One of this study. The literature related to the concerned variables was reviewed extensively in Chapter Two. As mentioned earlier, the objective of this study is to determine the relationships between e-government, good governance and trust in the public sector in Lebanon. Therefore, a theoretical research framework is proposed to understand and fulfill the objectives of this study. Generally, theoretical framework is "a collection of interrelated concepts which guide the research, determining what things will be measured, and what statistical relationships will be looked for" (Borgatti, 1999). According to Sekaran (2003), theoretical framework act as the base upon which the proposed research hypothesis are developed. Therefore, this chapter illustrates some of the recent studies in the area of e-government and demonstrates the different frameworks and methodologies that were conducted in the previous literature to develop the hypotheses of this research.

3.2   Conceptual Framework and Developed Hypothesis of the Study

The importance of the research framework is to provide guidelines for conducting the study and measuring the relationship among the different presented variables. Mainly in this research, there are three major variables: the independent variable which is e-government, the dependent variable which is trust and the mediator which is good governance. Conceptually, the methodology of mediation tends to ''identify the intermediary process that leads from the independent variable to the dependent variable''

(Wu & Zumbo, 2007). Hence, good governance is proposed to mediate the implementation of e-government and enhance its effect on public trust in Lebanon.

Consequently, this study supports the research background in Lebanon through the introduction of new ICT practices and presenting its relationship with good governance and trust in the public sector in Lebanon. Figure 3.1 presents the theoretical framework of this study.
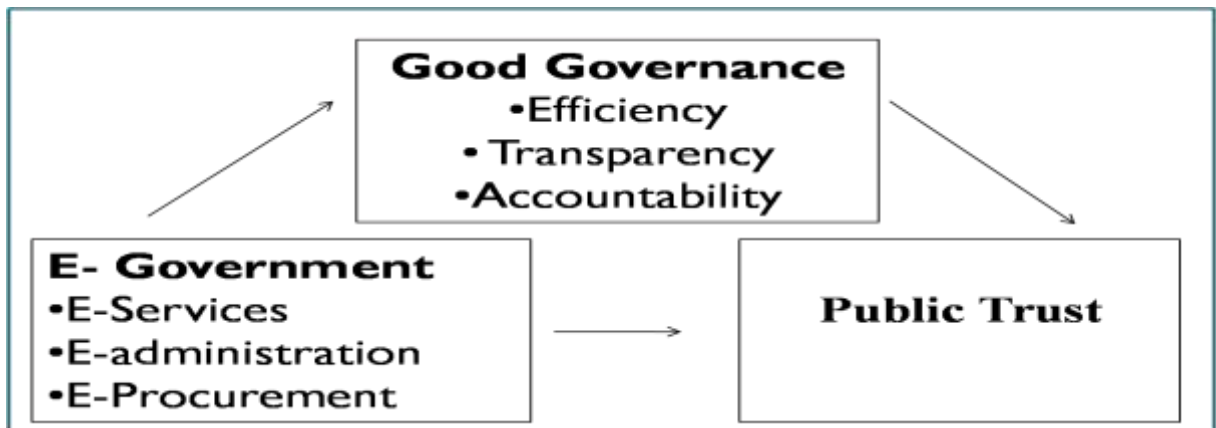
Figure 3.1
Research Theoretical Framework

The proposed framework explains the ability of public sector to deliver sustainable and competitive governmental services when ICT is implemented properly and mediated by a good governance performance, which in turn boosts the public trust and encourage the use of e-government services.

3.2.1   E-government and Trust

From the previous literature, a strong correlation is observed between trust, information quality and willingness to use the government online service (Navarrete, 2009; Gilbert, et al., 2004). According to Jalali and Khorasani (2012), one of the major problems that

governments face is the reduced level of trust of people in governments which is referred to as the crisis of public trust. Hence, it is significant to study the effect of e-government on the development of open source software in the public domain. However, there is a need to for society to adopt e-government in order to obtain a higher level of trust (Das et al., 2009). Several studies such as Bertot et al. (2010) and Shim and Eom (2008) reveal that e-government has a consistently positive impact on reducing corruption, which in turn enhances the transparency and trust. Therefore, this study suggests that e-government has a positive effect on trust.

Hypothesis 1: E-government has a significant and positive influence on the public trust

➢ H2: E-Service has a significant and positive influence on the public trust

➢ H3: E-Administration has a significant and positive influence on the public trust

➢ H4: E- Procurement has a significant and positive influence on the public trust

3.2.2 Good Governance and Trust

As discussed earlier, the lack of adopting the principles of good governance is a contributing factor to the rise of corruption which has adversely affected the trust (Pillay, 2004). By observing good governance as a process of decision-making, accompanied with a strong involvement of civil society and based on networks, good governance has to lead to trust where participation identifies and harmonizes interests and makes actions more predictable.

According to Osifo (2012), trust in public administration is strongly linked to performance, where ethical governance can help in actualizing the expected performance of the anticorruption agencies. Moreover, Bouckaert and Walle (2003) assume that more trust

and more satisfaction equal to better governance in which increasing the quality of governance and will also lead to citizens who are more satisfied and more trustful. This study draws attention to the good governance and proposes that promoting good governance improves trust.

Hypothesis 5: Good governance has a significant and positive influence on the public trust.

3.2.3   E-government, Good Governance, and Trust

The literature review that has been discussed earlier, emphasizes the concept that e-government is a tool to achieve good and transparent governance while offering potential solutions to leaders across the whole sectors of government (Haque & Pathrannarakul, 2013; Rotchanakitumnuai, 2013; Mucavele, 2003). Also, it is argued that ICT can offer potentially useful tools to governments and help them to restore public trust by enhancing transparency, cost efficiency, effectiveness and policy participation (Moon, 2003).

Moreover, it is suggested that ICT-based public service delivery can be one of the institutional enablers for enhancing trust in moral accountability through making its process more transparent and enhance openness of the local authority (Park & Blenkinsopp, 2011; Salin & Abidin, 2011; Pina et al., 2007). More specifically, e-government provides transparency through provision of information to the public, access to digital material, access to institutions and it allows the establishment of participatory governance especially at the local level (Mucavele, 2003). Consequently, transparency and accountability are considered as good governance aspects. Therefore, good governance is proposed as the mediator of this research frame work.

H6: E-government has a significant and positive influence on good governance.

H7: E- service has a significant and positive influence on good governance.

H8: E- procurement has a significant and positive influence on good governance.

H9: E-administration has a significant and positive influence on good governance.

H10: Good governance has a significant and positive mediating influence between e-government and public trust.

H11: Good governance has a significant and positive mediating influence between e-service and public trust.

H12: Good governance has a significant and positive mediating influence between e-administration and public trust.

H13: Good governance has a significant and positive mediating influence between e-procurement and public trust.

3.3   The Underpinning Theory of the Research

The literature is based on a fact that the use of government web sites may lead to positive attitudes toward e-government which in turn encourages citizens to trust and have confidence in government generally. As previous researchers found that many models play a role in user acceptance of ICT and affect the citizen adoption of e-government (Carter & Bélanger, 2003; Warkentin et al., 2002), this study has been mainly conducted based on two models or theories namely the Institutional-based Trust (ITT) and the diffusion of innovation theory (DoI).

The theory of Institutional-based Trust is derived from sociology. It is widely applied to understand the value of trust in the online transactions where legal, political and social rules of organizations are the most significant determinants of trust in any society (Zucker 1986). Trust is provided through formal mechanisms that do not rest on personal

characteristics or on past history of exchange. Yet it helps to reduce both system-dependent and transaction specific uncertainty (Sojan & Ewald, 2003).

There are two dimensions of ITT namely structural assurance and situational normality. Structural assurance when one believes that structures such as guarantees, regulations, promises, legal resource and other procedures of e-government are in place to promote success. However, situational normality means that one believes that the environment is in proper order and success because the situation is normal or favorable (Sojan & Ewald, 2003; Zucker 1986).

In addition, ITT is a judgment of institutions rather interactions, and conveys expectations that institutions will "do what is right" (Mossberger & Tolbert, 2005). They argued that it illustrates how citizens may perceive e-government as:

- Transparent through posting of information such as data, policies, laws, meeting schedules and contact information.

- Efficient and effective through the use of the latest technology to automate processes, improve service delivery, produce budget savings, and save time. However, individuals may believe that e-government is effective because of their experience in finding the information they want, increasing process-based trust; or they may have a more favorable impression of government in general because of its use of information technology and thus increasing institutional-based trust.

- Responsible as demonstrated by privacy and security statements and policies for handling personal information submitted online and government data that is posted online. Such responsibility might encourage citizens to see government as fair and ethical, affecting institutional-based trust.

According to Tolbert and Mossberger (2006), transparency and effectiveness may be associated with institutional-based trust in particular because it enhances the image of government. Thus, it changes the citizen attitudes and makes government more accessible.

Moreover, several studies examined the level of organization adoption of ICT using DOI theory, in which diffusion of innovation is primarily based on the technology features and users' awareness of the system (Rogers, 1995). DOI is a popular model used in information systems research to explain user adoption of new technologies (Carter & Bélanger, 2005).

Basically, these two theories are consistent with the concept of this research, where the applicability of institutional-based trust theory is extended to the e-government transactions (McKnight et al., 2002). Furthermore, previous studies that investigated e-government adoption employed the DOI theory (Sang et al., 2009; Lean et al., 2009).

DoI theory describes the process by which an innovation is communicated through certain channels over time among the members of a social society. Mainly, innovation is broadly defined as an object or idea perceived to be new (Rogers, 2003). Thus the concept e-initiatives in general and e-government in particular with its novelty can be conceptualized as innovations.

As the innovation diffusion theory suggests, diffusion occurs as individuals, groups, organizations, or subsystems accept and use new ideas such as technologies (Lippert & Forman, 2005). DoI theory suggests that innovation diffusion is basically based on two factors, the perception of the characteristics of the technology and the user's perception of

the system. However, the rate of diffusion is affected by an innovation's relative advantage, complexity, compatibility and trial ability. In addition to the image, visibility, results from demonstrability and voluntariness of use of the innovation (Al-zuabi, 2012; Carter & Bélanger, 2005).

Integrating these two models would explain the attitudes of citizens towards technology. In fact, posting data and policies online, clarifying laws, schedules and security statements would enhance the transparency and responsibility of e-government services (Tolbert & Mossberger, 2006). Also, the use of the latest technology to automate processes improves service delivery and encourages citizens to participate and trust the government respectively.

3.4   Conclusion

Based on the above discussion, this research tends to determine the relationships between e-government, good governance and public trust in Lebanon. This chapter proposed the theories of DOI and institutional-based trust in addition to the research hypotheses which are developed in a consistent way with the research questions and objectives and it will be measured and analyzed according to different statistical methods that will be discussed in the following chapters.

CHAPTER FOUR

RESEARCH METHODOLOGY

4.1 Introduction

The aim of this research is to study the mediating effect of good governance on the relationship between e-government and public trust in Lebanon. For this purpose, this chapter spells out the methodology used to analyze the impact of e-government mediated by good governance on trust. In addition, the measurement of variables, instruments used for the survey and data collection procedure including the population and sampling methods related to the public sector in Lebanon are highlighted.

4.2 Research Design

This study is classified as a correlational research since it studies the correlation among different variables (Leary, 2004), mainly e-government practices, good governance and public trust. The methodology of research was selected to be quantitative in order to reach larger sample of respondents (Sekaran & Bougie, 2011; Chen & Hirschheim, 2004). It also ensures more objective and accurate information for the generlizability of findings (Polit & Beck, 2013; Dawson, 2007; Frechtling, 2002). Figure 4.1 illustrates the research flow that compromises the sampling design, data collection and statistical tools employed for data analysis. Finally, the results obtained from data analysis are interpreted and conclusions are drawn as it will be discussed later on in Chapters Five and Six.
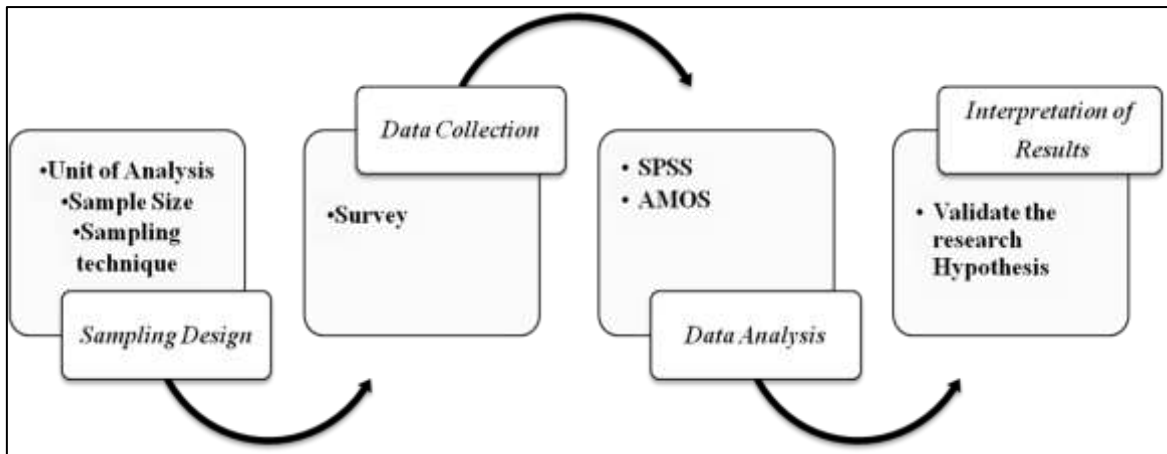
Figure 4.1
The Empirical Stage of Research

4.3   Sampling Design

In order to select the appropriate population and sample of this research, several studies were reviewed. The samples are identified according to sample frame, validity, reliability and measurements. For instance, Abdelghaffar (2012) used small and medium sized enterprises (SME's) as the sample frame of his research to study the adoption of e-government services in Egypt. SME's were selected because it is considered a core part of economies in developing countries and play a central role in enhancing the economic dynamism.

Different research was conducted by Rotchanakitumnuai (2013), where he surveyed 169 Thai public managers representing 67 government agencies. These managers were involved in e-government procurement. Selecting managers for a sample frame is consistent with the statement of West (2004), who claimed that people with higher education and income are expected to participate more in the surveys because they have greater access to information and have expose to media outlets more than others. Therefore, the selected target population of this research is the SME's in Lebanon since they represent an active environment where educated citizens such as employees and

managers are found to be familiar and highly interactive with e-government services more than any other typical citizen.

In Lebanon, it is difficult to specify the exact number of SMEs since there is a severe shortage of information and reports concerning this subject (Canaan, 2011). The last official survey conducted by the Central Administration of Statistics (CAS) in 1996 revealed that there was 199,450 enterprises in Lebanon with the vast majority were classified as SMEs. However, several studies have mentioned that the number of enterprises has decreased in 2004 but there is no specific number can be relied upon. For instance, the Census of Buildings Dwellings and Establishments illustrated that total number of enterprises in Lebanon was 153,231 in 2004 (CDR, 2007), while it was reported by CAS (2004) that the number of enterprises was 176,279 in 2004 with around 14% of these enterprises located in Beirut.

To the present time, there are no recent reports about the SME's number in Lebanon. Yet, El Khoury[5] (2013) estimated that the current number of SMEs in Lebanon is 170,000 with 90.7% of all enterprises have between one and four employees. According to Canaan (2011), the main enterprises tend to be located in more developed areas such as; the Capital Beirut while micro enterprises dominate poorer regions with more restricted access to finance, markets, services and infrastructure.

Therefore, the population of the study is confined to the Capital Beirut which is the most civilized and developed province in Lebanon. Since there is no vast difference between

---

[5] Zeina El-Khoury: Head of Enterprise Team at the Ministry of Economy and Trade in Lebanon (2013).

statistics of 2013 and 2004, the number of SMEs in Beirut is estimated to present the same 14% of total SMEs number in Lebanon. Thus, $170,000 \times 14\% = 23,800$ SMEs in Beirut.

As for selecting the sample frame of this study, it is essential to have educated respondents who work in an active environment such as SME's. Managers and Employees interact frequently with e-government services by virtue of their working conditions at SMEs. Thus, they would constitute a representative and an interesting sample frame for this research.

4.3.1 Unit of Analysis

According to Sekaran (2003), the unit of analysis can be individual, groups, or organization. Therefore, the unit of analysis used in this study is the individual since the aim of this study is to measure the public trust, represented by the SME's managers and employees who are highly educated and in direct contact with e-government services.

4.3.2 Sample Size

It is important to select an appropriate sample size to establish a reliable research for generalizability (Fox et al., 2009; Sekaran, 2003). Various elements are taken into concern when choosing the research sample size. Roscoe (1975) proposed the rule of thumb which states that "a sample size larger than 30 and less than 500 is appropriate for most researches".

Moreover, a minimum sample size of 200 is necessary to be used if the research analysis is being conducted through SEM in order to generate valid fit measures (Kenny, 2012; Lei

&Wu, 2007). According to the formula provided by Dillman (2000) and cited by Vaske and Needham (2008), the sample size is calculated as following:

$$n = \frac{N(\mathrm{p})(1-\mathrm{p})}{(N-1)\left(\frac{\beta}{C}\right)^2 + (\mathrm{p})(1-\mathrm{p})}$$

Where,

n = calculated sample size

p = the proportion of the population expected to chosen

N = size of population

β = the acceptable amount of precision or sampling error

C = the K value associated with the confidence level

For a homogenous sample, it is better to use a level of proportion p = 0.5, since the respondent's proportion is not known before data collection (Weaver, 2006; Dillman, 2000).

$$n = \frac{23{,}800(0.5)(1-0.5)}{(23{,}800-1)\left(\frac{0.05}{1.96}\right)^2 + (0.5)(1-0.5)}$$

$$n = 378$$

Therefore, a redundant sample of 400 respondents would be sufficient and representative taking in consideration the expected response rate and statistical tools used.

4.3.3 Sampling Technique

This research applies the probability sampling; mainly the simple random sampling where selections are made purely by chance to cover all the managers and employees in the SME's without any limitations (Dawson, 2007). Mainly the focus is on the province of the

capital (Beirut), because all the main offices of SME's are located in the capital. As illustrated earlier, from the total 170,000 SMEs in Lebanon, 23,800 SMEs were found to be located in the capital Beirut. To collect the data, 400 questionnaires were distributed randomly among different SMEs from this sample frame. Figure 4.2 illustrates the sampling technique of the research.
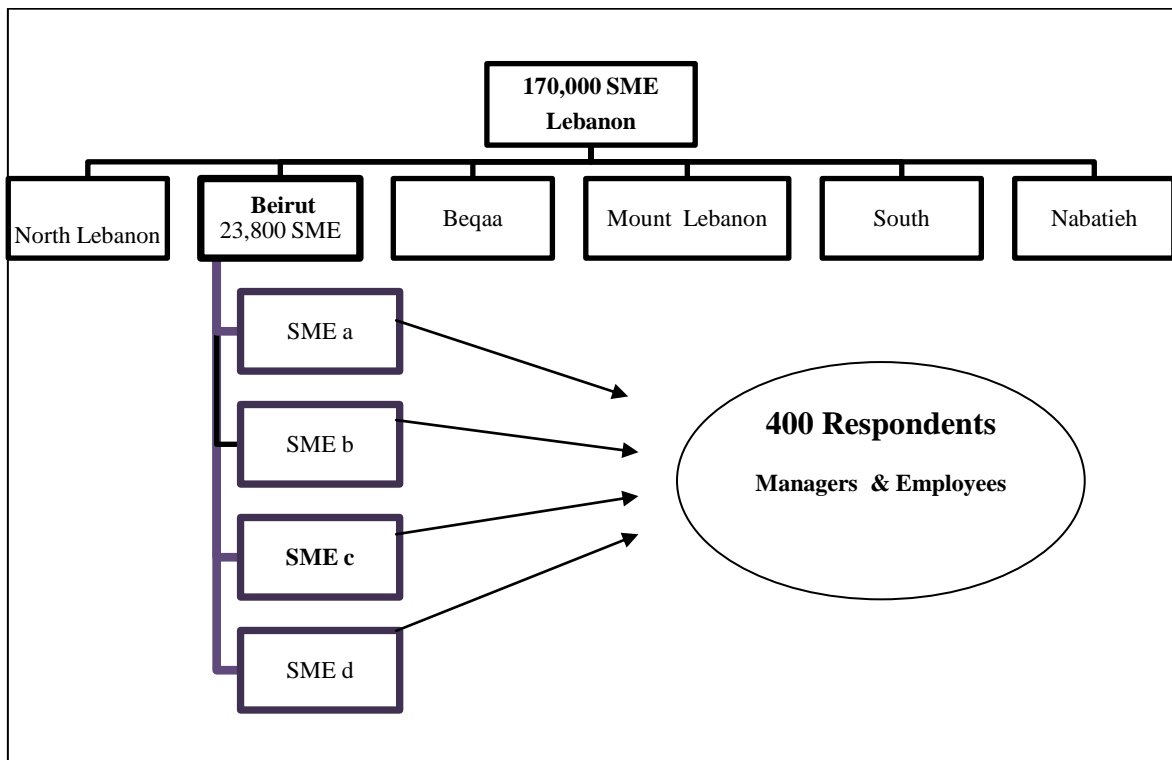
Figure 4.2
Sampling Technique of the Study

4.4 Data Collection

The required primary data are collected through a survey where personal administrated questionnaires are distributed among the target sample of the study. The design of the survey questionnaire is divided into four main sections. Sections A, B, and C measure the public trust (DV), the e-government (IV), and the good governance (mediator) respectively. Section D corresponds to the demographical information of the respondents. For instance, the primary data of this study includes the measured level of public trust

towards the Lebanese government while using e-government practices. Conducting such a survey ensures high respondent rate and provides a direct contact with the respondents, particularly in case of large samples (Frechtling, 2002; Frazer & Lawley, 2000).

4.5   Operational Definitions of Variables and Items

4.5.1   Measurement of Variables

E-government practices, good governance and public trust are measured through 65 items which are extracted from previous literature review. According to the rating scale, Gwinner (2011) states that recent researchers disagree with giving the respondent a neutral or undecided answer choice. Therefore, it is suggested that more reliable information are contained in the full 6-point ratings, because it reduces the risks which might be happened from the deviation of personal decision making. (Krosnick & Presser, 2010; Chomeya, 2010).

Since levels of measurement of the quantitative variables affect the type of data analysis, these variables are classified according to whether it is nominal, ordinal, interval or ratio. Based on the definition (Chelimsky, 1992), the demographical items includes nominal and interval variables, while the three main variables of this research are ordinal where the attributes are ordered and numbers are assigned to the attributes for the data analysis.

Hence, this research adopts the six-point Likert scale rating to measure the three main variables; e-government practices, good governance and public trust deriving from Gwinner (2011). These scale ratings are (1) strongly disagree (2) disagree (3) fairly disagree (4) fairly agree (5) agree (6) strongly agree.

4.5.2 Dimensions of Variables

As discussed earlier, trust in government and among the people in society are considered essential for societies to prosper and for government to function well and effective. Since this research is more concerned with the public trust in government, the measurement is limited to 10 items related to benevolence, integrity and competence. However, the previous literature review focuses on the important of e-government tool in delivering the services in efficient and prompt manner.

Thus, to measure e-government as the independent variable, items are selected based on three main components which have been discussed earlier including eight items to measure e-services, nine items to measure e-administration and seven items to measure e-procurement. As for measuring the mediating variable-good governance, items are adopted from the literature review including seven items to measure efficiency, nine items for transparency and 10 items for accountability.

4.5.3 Items Selection

Several studies measured the impact of e-government and good governance on public trust providing a solid background for developing the questionnaire of this research. Thus, the following items are adopted from such previous related studies and manipulated to fit the objectives of this research as shown in Appendix 3. Table 4.1 illustrates the operational definitions and corresponding items of the research variables.

Table 4.1

Operational Definitions and Items for Measuring Public Trust, E-government and Good Governance

Variable	Operational Definition	Number of Items	Source
Public Trust	Trust is defined as a leaning to believe positively by the other party's action with expectation in a responsible way facilitating people engagement in government transactions.	PT (10)	Heintzman & Marson, 2005; Samson, 2009; Rawlins, 2008; Teo, et al., 2009; Alsaghier, et al., 2009; Navarrete, 2009; Colesca, 2009; Rokhman, 2010; Welch & Hinnant, 2003; Jalali & Khorasani, 2012; Grimmelikhuijsen, 2012; Park & Blenkinsopp, 2011.
E- Government	E-government is defined as a tool that combines the Information and Communication Technology (ICT) to attain better government performance, in addition to the improvement of its quality of services regarding businesses and citizens. These services facilitate access to information that leads to the accountable and transparent government that makes also the economy more efficient.		
E-Services	E- Services are defined as the deeds, efforts or performances whose delivery is mediated by information technology.	ES(8)	Dawlati, 2013; ECIS, 2009; Bankole, 2011; Maktom, 2013; Swaid &Wigand, 2009; Alanezi et al., 2010; Al-Zoubi et al., 2011; Welch & Hinnant, 2003.
E-administration	E-administration is to shift from a traditional office or paper processes into electronic processes, which is correlated to the administrative and modernized public programmes	EA (9)	Swaid &Wigand, 2009; Zhuang & Lederer, 2003; ECIS. 2009; OBI, 2009; West, 2004; Al-Zoubi et al., 2011; Jalali & Khorasani, 2012.
E-procurement	E-procurement is employing online information technology to purchase services and goods for public sectors from businesses	EP (7)	ECIS, 2009; OBI, 2009; Panzardi et al 2002; Kiong, 2004; Zhuang & Lederer, 2003; Eakin, 2003; Rotchanakitumnuai, 2013.
Good Governance	Good governance is the transformative view of the governance that controls corruption and improves services delivery. It is the processes by which organization are directed, controlled, and held to account, in order to match the needs of the community through the efficient use of the resources. .		
Efficiency	Efficiency is the degree to which organizations are able to transform the optimal use of input to the acceptable level of output, by avoiding waste and ensuring customer's satisfaction through service delivery.	EF (7)	Heeks, 2006; Agrawal et al., 2007; OBI, 2009; Chevallerau, 2005; Al-Zoubi M. et al., 2011.

Table 4.1 (Continued)

Variable	Operational Definition	Number of Items	Source
Transparency	transparency is defined as the open flow of information that is directly available, accessible free, and understandable to those who will be in the charge of making decision and their enforcement	TRN (9)	Kefela, 2011; Lathrop &Ruma 2010; Park & Blenkinsopp, 2011; Wong & welch, 2004; Grimmelikhuijsen, 2012.
Accountability	Accountability is defined as a consequence of transparency, in which it advances a better quality of good governance by making organizations and individuals answerable and responsible to the decision that has been taken, and aware of the performance consequences.	ACC 10)	Chevallerau, 2005; Grimmelikhuijsen, 2012; Kluvers, 2010; Rawlins, 2008; Esri, 2012; Agrawal et al., 2007.

Al-Zoubi et al. (2011) investigated e-government adoption among 113 firms in Jordan. All the items of this study are deemed to have adequate reliability since the lowest score of Cronbch alpha (α) is 0.871. Thus, it provides high reliability and confidence in the items adopted especially in terms of efficiency, e-services and e-administration dimensions.

Also, items related to transparency and e-government accountability are derived from the study of Wong and Welch (2004). They used Ordinary Least Squares (OLS) regression analysis to determine the reliability of the measurement with α should be exceeding 0.7.

In addition, Welch and Hinnant (2003) provided valid and reliable items related to e-services and trust in government. The survey randomly sampled 806 adults including an over sample of 155 Internet users in United States, where the constructs related to trust in government have $\alpha > 0.75$ and those related to perception of e-government have $\alpha = 0.80$.

As for e-procurement, items were derived from a survey conducted by Rotchanakitumnuai (2013) with a sample of 169 Thai professionals representing 67 government agencies. An exploratory factor analysis was conducted to examine the dimensionality of e-government procurement governance. The convergent and discriminant validity of the constructs was confirmed, where all five factors had an Eigen value above one with negligible cross loadings. Also, all constructs of e-government procurement governance factors have the high levels of reliability with ranging from $0.640 < \alpha < 0.938$. Similarly, reliability of items related to trust and e-administration was provided by using α test in a study conducted by Jalali and Khorasani (2012), where $\alpha > 0.7$. More items related to trust, transparency and accountability are adopted from valid and reliable constructs with $\alpha > 0.8$ (Grimmelikhuijsen, 2012). Also, 27 items related to e-procurement provide a reliable reference with $\alpha = 0.8$ (Zhuang & Lederer, 2003).

Regarding efficiency, e-administration and e-procurement, Obi (2009) collected data from 225 e-government users via web-based survey to assess their experience with online engagement. The items were further subjected to iterative test of dimensionality, construct validity and internal consistency reliability. The results of the study indicated that all nine dimensions of e-government user satisfaction (EGUS) including information content, ease of use, accessibility, timeliness, efficiency, security, privacy, interactivity and format. The results were significant in influencing EGUS with the reliability of the scale 0.97 along with the other items.

Swaid and Wigand (2009) constructed a valid and reliable scale for measuring e-service and e-administration by conducting exploratory factor analysis and structural equation modeling. With a sample of 557 respondents, reliability of the developed measures is

assessed using α and the composite reliability index, where it ranged between 0.828 < α < 0.889. While validity is evaluated based on conducting Structural Equation Modeling.

Park and Blenkinsopp (2011) reported the roles played by transparency and trust in the relationship between governmental corruption and citizen satisfaction with public services. With a sample of 348 citizens, and after performing a confirmatory factor analysis on all items, transparency items were reliable with α = 0.917 and trust, with α = 0.896

Moreover and using regression analysis, Agrawal et al. (2007) proposed measurement instruments to measure e-governance online-service quality including efficiency and accountability, through a sample size (n=65) where the reliability analysis and the factor analysis results suggest possibly good factor structure of the instrument with α = 0.8. Similar study by Alanezi et al. (2010) proposed an instrument dimensions for measuring e-government service quality based on valid and reliable scales derived from Obi (2009) and Kim and Kim (2005), where constructs have α = 0.9 and 0.7 respectively. The proposed seven dimensions for measuring e-government service quality are website design, reliability, responsiveness, security/privacy, personalization, information and ease of use.

On other hand, pool of items was generated based on literature review, where Q-Methodology has been utilised to validate the generated measurement of items that can be used to investigate citizens' trust in e-government. Such items were purified through two Q sorting rounds to validate the instrument (Alsaghier et al., 2009).

Bankole (2011) conducted a cross-sectional survey through a judgmental sampling procedure by surveying 231 respondents from mobile banking customers that consisted of

students and workers from diverse fields of employment in Nigeria. The reliability and construct validity were analyzed to determine the consistency and regularity of the survey questions with α > 0.7 indicating good reliability. Also, the factor analysis was used to determine the validity where most of the variables showed a clean loading.

ECIS (2009) developed a scale to evaluate e-service quality from the perspectives of both online companies and customers in China, which provides fresh insight into the dimensions of e-service quality. Based on a sample of 453 respondents, the data analysis was performed using Partial Least Squares (PLS), where most of the factor loading are satisfactory with the cut off value above 0.7. The values of composite reliability (CR) and average extracted variance (AVE) satisfy the threshold value of 0.7 and 0.5 respectively which demonstrates good internal consistency and suggests good convergent validity and reliability of the measures in this study.

4.6   Method of Analysis

The data analysis of this research involves two stages; preliminary analysis and advanced analysis.

4.6.1   Preliminary Analysis

Preliminary analysis is essential to be conducted at early stage to measure the response rate of the conducted survey. It is calculated based on the number of distributed and returned questionnaires. However, by excluding the incomplete returned questionnaires, the usable response rate can be calculated as following:

$$\text{Response rate} = \frac{\text{returned questionnaires}}{\text{distributed questionnaires}}$$

$$\text{Usable response rate} = \frac{\text{returned and usable questionnaires}}{\text{distributed questionnaires}}$$

Basically, the questionnaire of the study consisted of 65 questions (using 6-points Likert scale) written by English language. There was no problem regarding the language, since the targeted respondents of this study were educated Lebanese citizens, where most of them are bilingual and can understand Arabic and English as well. In addition, it was necessary not to lose the meaning of some main phrases during translation, especially those related to technology and e-services.

But to avoid any misunderstanding, a questionnaire with both languages was developed. This method enabled the respondents to clarify their doubts and enabled the data collector to refer back to the respondents to rectify all the missing data. Then, the t-test is employed to assess the non-response bias by comparing the average mean values for both early and late respondents.

The next step is the diagnostic checking of data. It includes checking for missing data and outliers. Statistical evidence has established outliers as any observations which are numerically distant if compared to the rest of the dataset (Bryne, 2010). Outliers are also defined to be the observations that have unique characteristics and differ distinctly from others (Hair et al., 2010). In line with this, several existing literatures have been conducted on the different methods of detecting outliers within a given research, among which includes classifying data points based on an observed (Mahalanobis) distance from the research expected values (Hair et al., 2010; Hau & Marsh, 2004).

For this research, the table of chi-square statistics has been used as the threshold value to determine the empirical optimal values for the research. Hair et al. (2010) recommended that the Mahalanobis can simply be achieved by running a simple linear regression through the selection of the newly created response number as the dependent variable and selecting all measurement items apart from the demographic variables as independent variables.

In addition, normality and linearity tests are conducted to know whether the data set of this research is well-modeled by a normal distribution or not (Sekaran & Bougie, 2011; Hair et al, 2010).

The preliminary stage also includes the descriptive analysis which is conducted for the determination of the demographical features of the sample, in addition to the descriptive statistics of all variables in the study.

Moreover, testing the goodness of the measure in this study is important for determining the validity and reliability of the measures. Hair et al. (2010) differentiates between both tools, where the reliability is "the extent to which a variable or a set of variables is consistent in what it is intended to measure. It is more concerned how the measurement occurs". The Cronbach's alpha coefficients (α) indicate the internal consistency reliability of the measured factors of this research, which are supposed to be above the suggested value of 0.70.

On other hand, the validity is measured through explanatory factor analysis (EFA) and it is defined as "the extent to which a measure or set of measures correctly represents the concept of the study, thus it is concerned by how well the concept is defined by the

measure" (Hair et al., 2010). As defined by Nunnally and Bernstein (1994), validity refers to the extent to which the measurement measures what it is intended to measure. EFA has been performed through SPSS with using the Principle Component Method and Varimax rotation. By using EFA, distinct and non-overlapping variables underlying the items of each construct can be identified.

The first step was to check the applicability and appropriateness of factorability of factor analysis through checking the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and the Bartlett's test of sphericity. Both tests measure the existence of correlation among items and test that the correlation matrix among items is significantly different from the identity matrix. KMO should be more than 0.5 (Hair et al., 2010) and the Bartlett's test of sphericity should be significant at $p < 0.05$ (Bartlett et al., 2001).

4.6.2 Advanced Analysis: Structural Equation Modeling

The second stage of analysis is essential test the proposed hypotheses of the research through advanced analysis of SEM using AMOS software (Schneider, 2009). An array of methods for evaluating e-government readiness general have been developed and used SEM as a statistical tool for data analysis (Grigorovici et al., 2009). SEM combines elements of multivariate models such as regression analysis, factor analysis and simultaneous equation modeling (Wothke et al., 2010). The two main variables studied are the latent (or unmeasured) variables which are measured indirectly through the observed (or measured) variables (Hox & Bechger 2007; Norman, & Streiner, 2003).

In addition, SEM is essentially used as an analytic tool when variables in a mediation or moderation model are represented by a latent variable, as the case of this research model

where good governance is the mediator variable (Anglim, 2007; Wu & Zumbo, 2007). Hair et al. (2010) confirm that in SEM, internal consistency reliability is assessed by computing α where the lowest limit should be 0.70. In addition, SEM provides more accurate results with minimum measurements errors, which are mainly due to data entry errors and respondent errors. It also provides goodness-of-fit indices to evaluate the validity of the hypothesized model by indicating the extent to which the model fits the data (Wu & Zumbo, 2007).

Therefore, this research is based on three main latent variables, e-government, good governance and trust where each one is composed of different constructs. Three constructs (e-services, e-administration and e-procurement) constitute the e-government latent variable and other three constructs (efficiency, transparency and accountability) constitute the good governance latent variable. The third latent variable, trust is measured through the different items in the questionnaire. Hence, these latent variables or so-called constructs (Reinard, 2006) are measured by the observed variables where the latter are measured directly in the surveyed questionnaire.

When relationships among these variables are drawn, a measurement model is obtained. In order to assess this measuremnt model, several methods were used to check the convergent validity among items of a construct such as testing factor loading of items on the respective construct by Confirmatory Factor Analysis (CFA), examining the Composite Reliability (CR) and the Average Variance Extracted (AVE) (Hair et al., 2010).

First, CFA was employed to validate the measure through examining the association between items and their respective underlying constructs. The goodness of fit of each

construct was assessed through the process of CFA by using the model fit indices. As illustrated in Table 4.2, Hair et al. (2006) have recommended the following fit indices that were widely known and commonly used to assess the model fit.

Table 4.2
Recommendation Values of Goodness-of-Fit Indicators

Measures	Threshold Values
RMSEA	< 0.08
GFI	≥ 0.90
AGFI	≥ 0.90
CFI	≥ 0.90
TLI	≥ 0.90
NFI	≥ 0.90

Source: Hair et al. (2006)

To improve model fit indices, items that have low standardized factor loadings below 0.5 and items with high error using modification indices (MI) are deleted as suggested by Kline (2011). The MI indicates a high degree of covariance between the items, thus deleting them improves the fitness of the model (Hair et al., 2006).

Moreover, SEM is significant for testing the mediation effect among variables. Mediation implies a causal hypothesis where a mediating variable is responsible for the relationship between the predictor and the outcome variables, thus the effect of e-government practices on public trust through good governance is referred to as the mediated effect or the indirect effect. Current mediation literature recommend that SEM provides unbiased estimates of mediation effects and that the bias-corrected (BC) bootstrap method produces the most accurate confidence intervals and perform best in testing for mediation effects (Cribbie, 2012; Hu & Wang, 2010; Cheung & Lau, 2008; MacKinnon et al., 2004).

Bootstrapping involves ''resampling'' the data many times with replacement to generate an empirical estimation of the entire sampling distribution of a statistic, with an ideal number of bootstrap samples (usually 500 or 1,000) and 95% confidence intervals are used (Cheung & Lau, 2008).

4.7   Conclusion

This chapter discussed the methodology of this research. It elaborates the population and sampling procedure, where individuals are selected as units of analysis and particularly, employees and managers of SMEs in Lebanon are chosen as respondents. For the sampling procedure, simple random method is used and the data analysis is conducted based on SEM.

CHAPTER FIVE

RESEARCH FINDINGS AND DISCUSSION

5.1   Introduction

This chapter reports and discusses the findings of the study after data analysis. Based on SPSS results, this chapter presents the response rate, response bias, descriptive statistics and the profile of the respondents. Then, it explains the diagnostic checking, which consists of detecting missing data, outliers, normality, and linearity. Also, it discusses the reliability and factor analysis measures that were conducted to confirm the validity of the data used in this research.

Afterward, this chapter reports the results of AMOS including confirmatory factor analysis for the exogenous and endogenous variables, and how the goodness of fit indices for both, measurement and structural model were approved. Moreover, the results of hypotheses testing are summarized based on the direct and indirect effects among the research constructs. Finally, the research findings are discussed.

5.2   Analysis of Survey Response

As indicated earlier, the population of the study is the SME's in Lebanon, where clusters of SME's were supposed to be developed across the six provinces of Lebanon. Since there was no cooperation provided from the SME's branches outside the capital and to ensure a high response rate, the focus became more on the main head offices of the SME's located in the capital Beirut. Therefore, 400 self-administered questionnaires were distributed randomly over different SME's in Beirut to collect the data of the survey.

5.2.1 Response Rate

From 400 distributed questionnaires, 390 questionnaires were returned. Thus, the response rate of this study is 98%. Out of these returned questionnaires, only 375 questionnaires were usable and applicable for analysis. So, the usable response rate is 94%.

5.2.2 Non-Response Bias Test

In fact, the data of this study collected during the period from March 10, 2014 to April 25, 2014. Over this period, the questionnaires were administered in different SME's, yet there were many respondents responded only after many reminders and repeated visits. This led to divide respondents into early and late respondents. This study carried out t-test to assess the non-response bias, where the mean values were compared between the first 225 early and the late 150 questionnaires. The test took into account all the continuous variables included in the study. Table 5.1 shows that there were no significant differences between late and early respondents across all the variables. In addition, the results from Levene's test equality of variance indicated that there is no significance difference, for example EP_{early} (t = - 4.24, p = .000) and EP_{late} (t = - 4.45, p = .000). The results of the independent samples test are shown in Appendix 4.

Table 5.1
T- Test Results for Non-Response Bias Group Statistics

Variable	respondent	N	Mean (t)	Std. Deviation	Std. Error Mean
AVPT	early	225	4.12	1.30	0.08
	late	150	4.82	0.94	0.07
AVES	early	225	4.27	1.23	0.08
	late	150	4.84	0.88	0.07
AVEA	early	225	4.64	1.04	0.06
	late	150	4.83	0.82	0.06

Table 5.1 (Continued)

Variable	respondent	N	Mean (t)	Std. Deviation	Std. Error Mean
AVEP	early	225	4.73	1.08	0.07
	late	150	5.17	0.84	0.06
AVEF	early	225	4.10	1.17	0.07
	late	150	4.37	1.08	0.08
AVTRN	early	225	3.66	1.35	0.09
	late	150	4.26	1.11	0.09
AVACC	early	225	4.24	1.29	0.08
	late	150	4.89	0.91	0.07

5.3   Diagnostic Checking

5.3.1   Missing Data

Prior to conducting the descriptive analysis of data, it is essential to detect for missing data. If there is any missing data, AMOS cannot run the analysis effectively, thus it is treated it by replacement. However, the Case Processing Summary in Table 5.2 shows that all data of the study are complete and no missing data detected.

Table 5.2
Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
AVPT	375	100.0%	0	.0%	375	100.0%
AVES	375	100.0%	0	.0%	375	100.0%
AVEA	375	100.0%	0	.0%	375	100.0%
AVEP	375	100.0%	0	.0%	375	100.0%
AVEF	375	100.0%	0	.0%	375	100.0%
AVTRN	375	100.0%	0	.0%	375	100.0%
AVACC	375	100.0%	0	.0%	375	100.0%

5.3.2 Checking for Outliers

As recommended by Hair et al. (2010), the Mahalanobis values can simply be achieved by running a simple linear regression where a new output column called Mah2 was added and the results showed that Mah2 distance ranged between 5.990 and 128.53. Then, a comparison was made between the chi-square χ^2 as stipulated in the table and the newly Mahalanobis output. Referring to the χ^2 distribution table, at p = 0.001 level of significance and degrees of freedom equal number of independent measurement items (50), $\chi^2 = 86.66$.

However, these results indicated the existence of 25 outlier observations, with Mah2 value greater than (χ^2) as reported in Table 5.3. Therefore, 25 respondents were deleted to refine the data and the remaining 350 respondents were used for the final regressions and hypothesis tests.

Table 5.3
The Outliers of the Study Based on Mahalanobis Distance Value

No.	Outliers having Mah2 > 86.66 (χ^2)	No.	Outliers having Mah2 > 86.66 (χ^2)
1	128.53	14	98.67
2	124.27	15	98.59
3	124.22	16	97.77
4	118.95	17	96.15
5	117.69	18	95.79
6	116.84	19	95.74
7	111.93	20	95.71
8	108.88	21	95.28
9	104.53	22	93.97
10	104.07	23	93.48
11	103.87	24	92.68
12	102.43	25	92.43
13	101.82		

5.3.3 Normality Test Results

It is assumed that for any research, the variables should be normally distributed; this is because a non-normally distributed variable will be highly skewed and could potentially

distort the relationships between the variables of interest and the significance of the tests results (Hulland, 1999). To prevent the occurrence of this abnormality in this current study, data were transformed through determining the z-score of each item and transforming them through "cdfnorm" in SPSS 19. At early stage, the descriptive analysis of all items revealed that only 11 items are normal including (PT9, EF1, EF4, EF5, TRN1, TRN 4, TRN 5, TRN 6, TRN 7, TRN 8, and TRN 9). While all the remaining items had z-score greater than $\pm$ 2 as shown in Appendix 5. Thus, the non-normal items were transformed by computing variables and new transformed items were obtained. The second descriptive analysis showed that all transformed items became normal except for TACC2 which required additional transformation to become normal. Hence the new items that were used in the later steps of analysis are shown in Table 5.4.

Table 5.4
The Normal Measurement Items of the Study after Transformation

Variable	Dimension	Normal Items
Public trust	Public trust (PT)	TPT1, TPT2, TPT3, TPT4, TPT5, TPT6, TPT7, TPT8, PT9, TPT10
E-government	E-service (ES)	TES1, TES2, TES3, TES4, TES5, TES6, TES7, TES8
	E-administration (EA)	TEA1, TEA2, TEA3, TEA4, TEA5, TEA6, TEA7, TEA8, TEA9
	E-procurement (EP)	TEP1, TEP2, TEP3, TEP4, TEP5, TEP6, TEP7
	Efficiency (EF)	EF1, TEF2, TEF3, EF4, EF5, TEF6, TEF7
Good governance	Transparency (TRN)	TRN1, TTRN2, TTRN3, TRN 4, TRN 5, TRN 6, TRN 7, TRN 8, and TRN 9
	Accountability (ACC)	TACC1, TTACC2, TACC3, TACC4, TACC5, TACC6, TACC7, TACC8, TACC9, TACC10

5.3.4   Linearity Test

Following the suggestion of Hair et al. (2010), the Normal P-P plots indicate a straight-line associated with predicted dependent variable scores. Also, the visual inspection of scatter plot residuals showed a homogenous distribution of data, thus supporting the linearity as shown in Figure 5.1.

FOR EP & PT
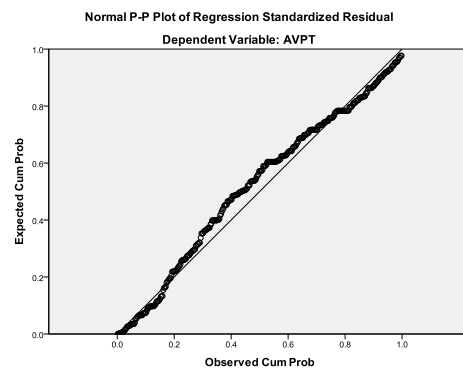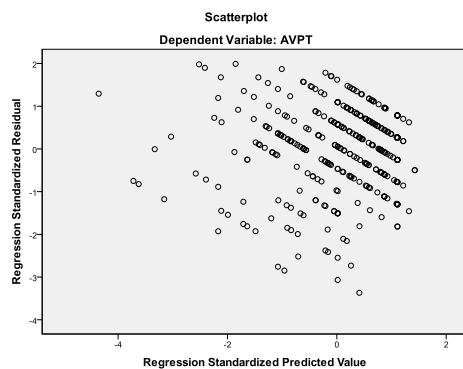
FOR EA & PT
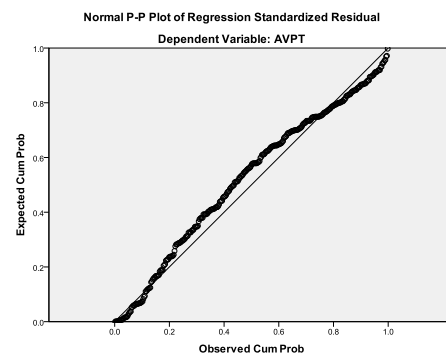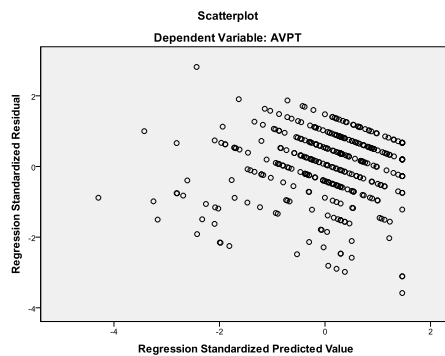
FOR ES & PT
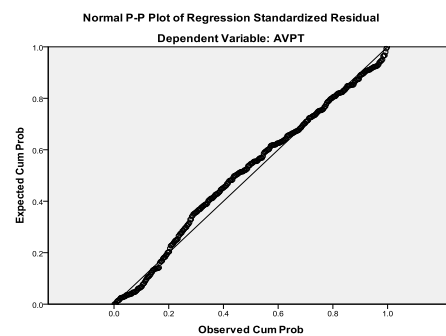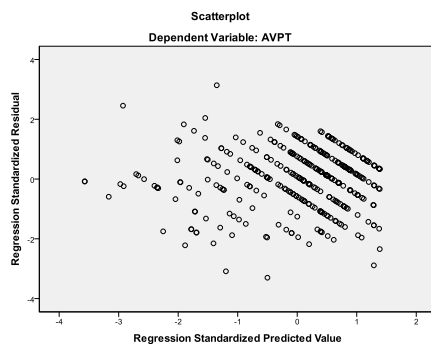
Figure 5.1
Scatter Plots and Normal P-P Plots of the Independent Variable Set and the Dependent Variable

5.4   Correlation among Variables

The correlation among variables has been identified using Pearson correlation (r) .The results of Pearson correlation are shown in Table 5.5. It is noticed that the correlation coefficient for the dependent (endogenous) variable PT and the exogenous variables (ES, EA, EP, EF, TRN, ACC) were below the expected value of 0.80 and the correlation was significant at the 0.01 level indicating a good level of correlation (Cooper et al., 2014; Sekaran, 2003). For instance, ES is highly correlated with PT with r = 0.704, while TRN has the lowest correlation with EA with r = 0.341.

Table 5.5
Pearson Correlation Matrix between the Variables of the Study

Variable		AVPT	AVES	AVEA	AVEP	AVEF	AVTRN	AVACC
AVPT	r	1						
	Sig. (2-tailed)							
AVES	r	.704**	1					
	Sig. (2-tailed)	.000						
AVEA	r	.457**	.524**	1				
	Sig. (2-tailed)	.000	.000					
AVEP	r	.568**	.484**	.513**	1			
	Sig. (2-tailed)	.000	.000	.000				
AVEF	r	.492**	.513**	.418**	.547**	1		
	Sig. (2-tailed)	.000	.000	.000	.000			
AVTRN	r	.519**	.518**	.341**	.450**	.612**	1	
	Sig. (2-tailed)	.000	.000	.000	.000	.000		
AVACC	r	.581**	.593**	.477**	.531**	.493**	.576**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	

** Correlation is significant at the 0.01 level (2-tailed).

5.5 Descriptive Analysis

5.5.1 Demographic Distributions of the Respondents

As stated earlier, the data were collected from managers and employees of SME's in Lebanon. The purpose of choosing such sample is to ensure educated respondents who are familiar with ICT and interacts with government electronically by virtue of their working conditions. As summarized in Table 5.6, the demographical data of the respondents are based on gender, age, education, ICT skills and rate of using ICT.

Table 5.6
Distribution of the Respondents by Demographic Variables (N=375)

Variable	Demographic Features	Frequency	Percent %
Gender	Male	225	60.0
	Female	150	40.0
Age	20-30	65	17.3
	31-40	76	20.3
	41-50	185	49.3
	51-60	47	12.5
	>50	2	0.5
Education	High School	1	0.3
	Bachelors	178	47.5
	Masters	186	49.6
	PhD	9	2.4
	Others	1	0.3
ICT Skills	Beginner	1	0.3
	Moderate	39	10.4
	Good	142	37.9
	Very Good	169	45.1
	Expert	24	6.4
Rate of Using ICT	Very Rarely	14	3.7
	Seldom	12	3.2
	Occasionally	72	19.2
	Very Frequently	164	43.7
	Always	113	30.1

As shown in Table 5.6, the majority of respondents were males (60%) while female has less percentage 40%. This is rational in Lebanon because the questionnaires were distributed to specific high administrative positions such as managers, financial controllers and head of departments. These positions are usually dominated by males more than females.

The results also show that most of the respondents were between 41 and 50 years old, which reflect the suitable age to be at high administrative positions after years of experience and promotions. Moreover, 49.6 % of the respondents have a master degree that is consistent with such positions.

Regarding ICT skills, 45.1% of respondents declared that they have very good ICT skills and 43.7% of respondents use ICT very frequently. Therefore, the sample of this research is considered representative, where it provided educated and qualified respondents who were able to use ICT and familiar with the concepts of this study.

5.5.2 Descriptive Statistics of All Variables

Table 5.7 shows that transparency dimension (TRN) has the lowest mean value of 3.92, while the e-procurement (EP) has the highest mean value 4.95. Thus majority of respondents gave similar data which are close to the mean of 4 (fairly agree). Moreover, the standard deviation for all variables seems to fall between the ranges of 0.94 to 1.28, which reflects the existence of considerable acceptable variability among respondents within the data set.

Table 5.7
Descriptive Statistics of all Variables

Variable	AVPT	AVES	AVEA	AVEP	AVEF	AVTRN	AVACC
N	350	350	350	350	350	350	350
Number of items	10	8	9	7	7	9	10
Mean	4.44	4.54	4.74	4.95	4.23	3.92	4.54
Std. Deviation	1.19	1.11	0.94	0.97	1.14	1.28	1.19
Range	5	5	5	5	5	5	5
Minimum	1	1	1	1	1	1	1
Maximum	6	6	6	6	6	6	6

5.6   Testing the Goodness of the Measure

Two tests are employed to test the goodness of measure. First, reliability test and the second is factor analysis for testing the validity of data.

5.6.1   Reliability Test

In order to indicate that the scales selected for the measurement in this study are relatively reliable, calculating α is essential to obtain the individual internal consistency. The reliability of the instrument implies that the measure will produce the same results if used repetitively. As suggested by Hair et al. (2010) and Shook et al. (2004) the acceptable threshold for reliability is 0.70.

Table 5.8 illustrates detailed results for reliability test, where all values range from 0.77 to 0.93 which are more than the required 0.7 value. Therefore, there is no need to delete any item to improve the internal consistency of the constructs. More specifically, all the items that were included in the study showed a good level of internal consistency when measuring their respective intended measures. Detailed information is shown in Appendix 6.

Table 5.8
Reliability Test

Variable	Number of items			α	
Public trust (DV)	10			0.93	
E-government (IV)	24	8	ES	0.88	0.93
		9	EA	0.83	
		7	EP	0.90	
		7	EF	0.86	
Good governance	26	9	TRN	0.93	0.91
		10	ACC	0.77	

5.6.2 Factor Analysis

As presented in Table 5.9, the KMO measures of all variables, including their dimensions ranged between 0.782 and 0.947. Also, the Bartlett's test of sphericity is significant with $p < 0.05$. Therefore, the appropriateness of factor analysis is approved. More details about factor analysis results are shown in Appendix 7.

Table 5.9
Factor Analysis Results

variables	No of Items	KMO	Bartlett's Test of Sphericity		
			χ^2	df	Sig.
Public trust	10	0.94	2552.04	45	0.00
E-government	24	0.92	4312.44	210	0.00
Good governance	26	0.88	4062.09	136	0.00

5.6.2.1 Factor Analysis of E- Government Construct

The factor loadings of the 24 items; initially meant to measure the three dimensions of e-government construct were examined and compared to the minimum benchmark of 0.50 described by Hair et al. (2010) for practically significant item loading.

Primarily, the 24 items were loading on four components. By referring to the Anti-image Matrices, KMO values were compared to the Measures of Sampling Adequacy (MSA), and thus some items were deleted (EA7, EA8, EA9). Hence, the remaining 21 items were loading on three components with Eigen values greater than one as shown in the Rotated Component Matrix in Table 5.10.

Also, the cumulative variance explained (CVE) means that these three factors explained 59.74 % of the overall variance in the e-government construct as it is also illustrated in the screen plot in Figure 5.2. More details are presented in Appendix 7-A.

Table 5.10
EFA for E-government Construct

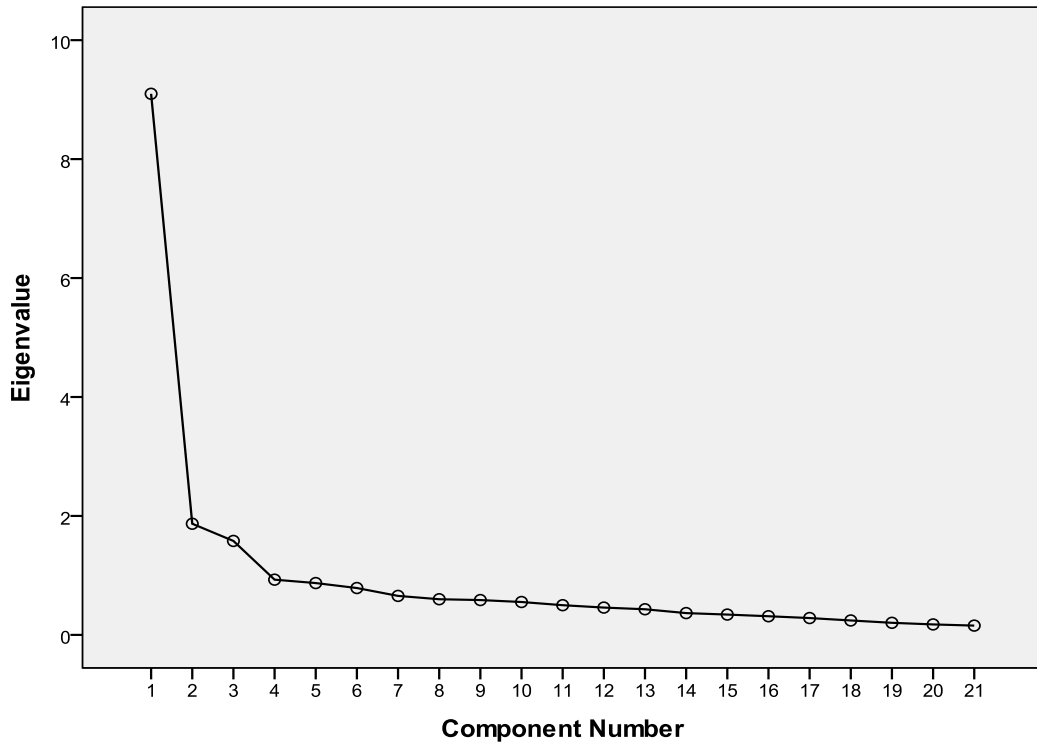| Item	Component		
	1	**2**	**3**
EP5	.77		
EP4	.75		
EP3	.75		
EP2	.73		
EP6	.73		
EP1	.72		
EP7	.67		
ES5		.75	
ES1		.74	
ES2		.73	
ES3		.72	
ES4		.69	
ES8		.62	
ES6		.61	
ES7		.61	
EA3			.72
EA4			.69
EA2			.67
EA1			.63
EA5			.607
EA6			.58
Eigen value	9.09	1.86	1.58
VE %	43.32	8.89	7.52
KMO		.92	
CVE%		59.74	
χ^2		4312.44	
Significance		0.00	

Figure 5.2
Screen Plot of E-government

5.6.2.2 Factor Analysis of Good Governance Construct

Similarly, EFA was undertaken to identify the dimensions underlying the good governance construct. The initial results revealed that the 26 items had factor loadings on five extracted factors. After deleting nine items (EF6, EF7, TRN1, TRN3, ACC1, ACC4, ACC8, ACC9, ACC10), the remaining 17 items loaded on three components with all Eigen values greater than one as presented in Table 5.11.

These three factors explained 68.07% of the overall variance in the good governance construct as also illustrated in the screen plot in Figure 5.3. More details are presented in Appendix 7-B.

120

Table 5.11
Factor Analysis of Good Governance

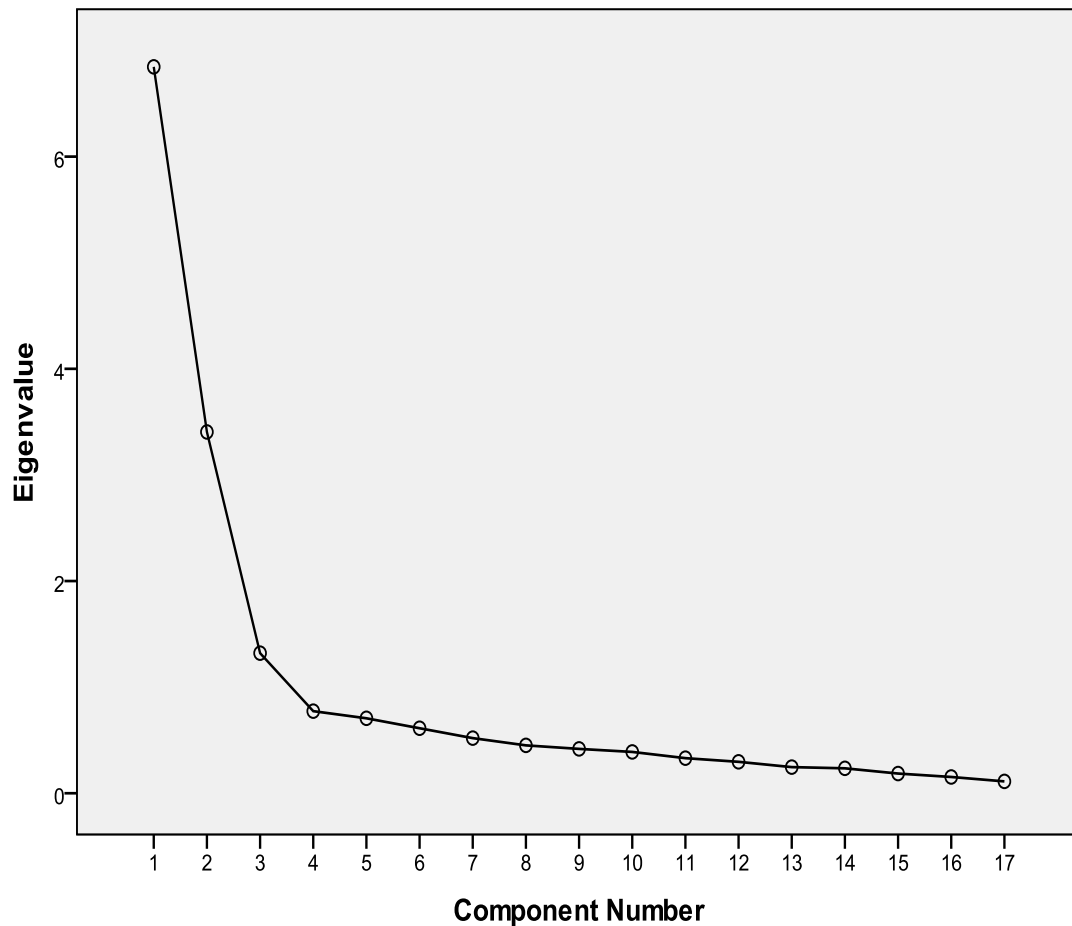| Items	Component		
	1	2	3
TRN6	.84		
TRN8	.82		
TRN9	.79		
TRN5	.75		
TRN4	.74		
TRN2	.73		
TRN7	.72		
EF2		.79	
EF1		.78	
EF4		.74	
EF3		.74	
EF5		.66	
ACC3			.90
ACC5			.88
ACC6			.84
ACC2			.79
ACC7			.57
Eigen value	6.84	3.40	1.32
VE %	40.27	20.03	7.76
KMO		.88	
CVE%		68.07	
χ^2		4062.09	
Significance		.00	

Figure 5.3
Screen Plot of Good Governance

5.6.2.3 Factor Analysis of Public Trust Construct

The 10 items representing public trust construct were sent to the factor analysis to identify

the underlying factors. Figure 5.4 shows that as expected, all the items loaded only on one

factor with very high KMO 0.94 and significant Bartlett's tests. Also, the Eigen values

exceeded one by 6.458 and the cumulative variance explained (CVE) explained 64.57% of

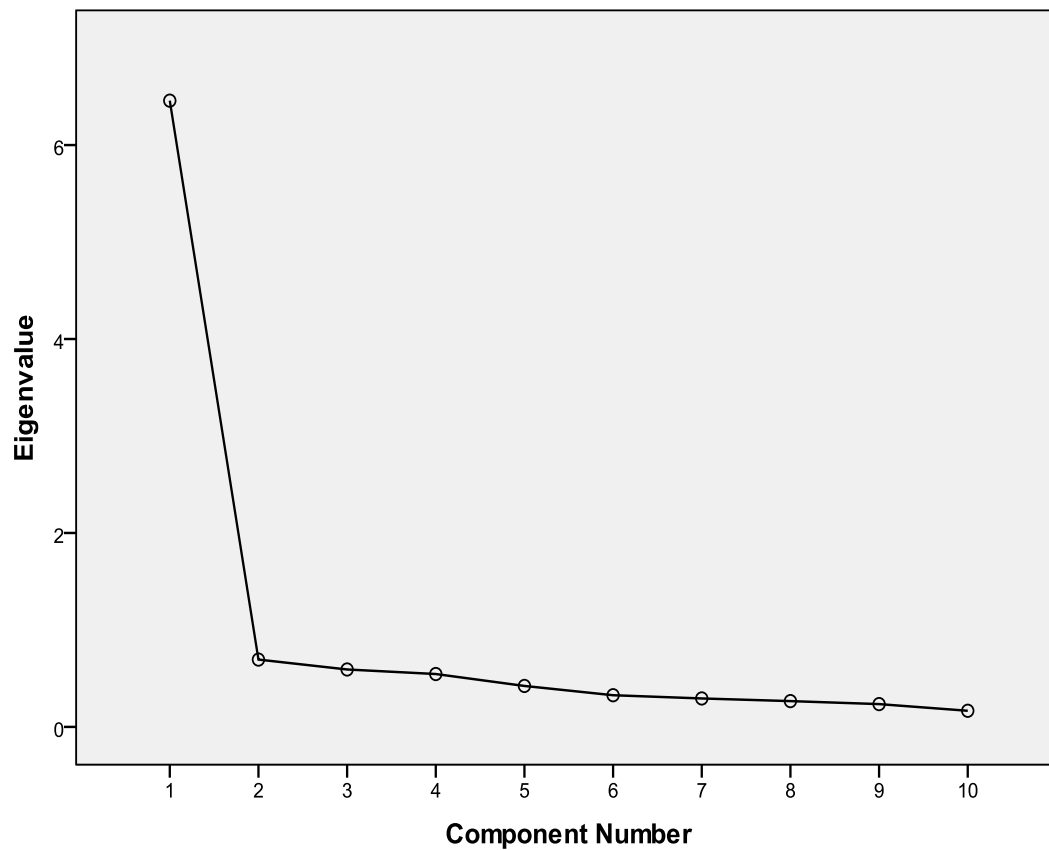the variance in the construct as refereed in Appendix 7-C.

Figure 5.4
The Screen Plot for Public Trust

After employing the EFA to identify the factor underlying each construct, the next step is to test the overall measurement model by using AMOS to validate and also test the reliability of the measure before testing the hypotheses of the study.

5.7   Testing the Developed Measurement Model

In order to assess the measuremnt model, several methods were used to check the convergent validity by examining the Confirmatory Factor Analysis (CFA), Composite Reliability (CR) and the Average Variance Extracted (AVE) (Hair et al., 2010).

5.7.1 Confirmatory Factor Analysis

Since the measurement model aims to improve the model before the estimation of the hypothesized model, the standardized regression weights for the research indicators were first examined by conducting the CFA for each variable as shown in Figure 5.5, Figure 5.6, and Figure 5.7 respectively. Using factor loading and Modification Indices (MI) suggestions, a total of 29 items were deleted. Table 5.12 illustrates how all the constructs achieved a good fit as the recommended values of Hair et al. (2006).

Also, Table 5.13 shows how all remaining items have loaded more than 0.50 on their underlying construct which is acceptable according to many references (Byrne, 2010; Hair et al., 2006; John, Reve, 1982). Therefore, all indicators in the present study are related to their particular constructs and there is satisfactory proof of the convergent validity of the model.

Table 5.12
CFA of Exogenous and Endogenous Variables of the Study

Variable		χ^2	CFI ≥ 0.90	GFI ≥ 0.90	AGFI ≥ 0.90	TLI ≥ 0.90	RMSEA < 0.08
Public trust		6.07	.99	.99	.97	.99	.02
E-government		123.98	.97	.94	.92	.97	.05
ES, EA, EP		166.43	.96	.93	.90	.95	.06
Good governance	EF						
	ACC	94.47	.98	.95	.93	.97	.04
	TRN						

Table 5.13

Factor Loading for the Remaining Items from CFA for All Constructs-AMOS-Standardized Regression Weights: (Group number 1 – Default model)

Construct		Initial Number of Items	Number of items deleted	Number of Remaining Items	Remaining Items	Factor Loading/ Estimate
Public trust		10	TPT2, TPT5, TPT8, PT9, TPT10 (5)	5	TPT1	.703
					TPT3	.589
					TPT4	.801
					TPT6	.821
					TPT7	.864
E-government	ES	8	TES4, TES7, TES8 (3)	5	TES1	.806
					TES2	.871
					TES3	.739
					TES5	.659
					TES6	.549
	EA	9	TEA4, TEA5, TEA7, TEA8 TEA9 (5)	4	TEA1	.516
					TEA2	.826
					TEA3	.810
					TEA6	.507
	EP	7	TEP4 TEP6 (2)	5	TEP1	.869
					TEP2	.910
					TEP3	.871
					TEP5	.633
					TEP7	.637
		24	10	14		
Good governance	EF	7	EF5, TEF6 TEF7 (3)	4	EF1	.804
					TEF2	.887
					TEF3	.756
					EF4	.710
	ACC	10	TACC1, TACC2 TACC3, TACC4, TACC5, TACC6, TACC7, TACC10 (8)	2	TACC8	.658
					TACC9	1
	TRN	9	TRN1, TTRN3, TRN4, (3)	6	TTRN2	.752
					TRN5	.801
					TRN6	.868
					TRN7	.735
					TRN8	.801
					TRN9	.808
		26	14	12		
Total		60	29	31		

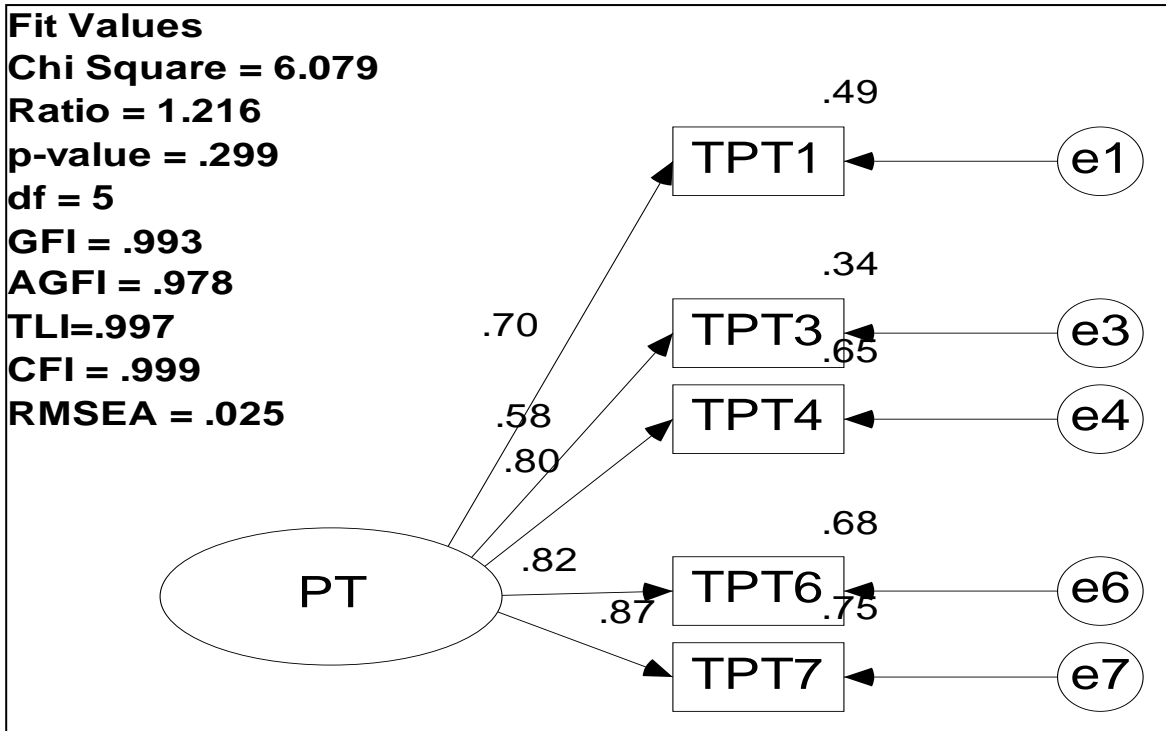*More details for CFA results are presented in Appendix 8.*

Figure 5.5
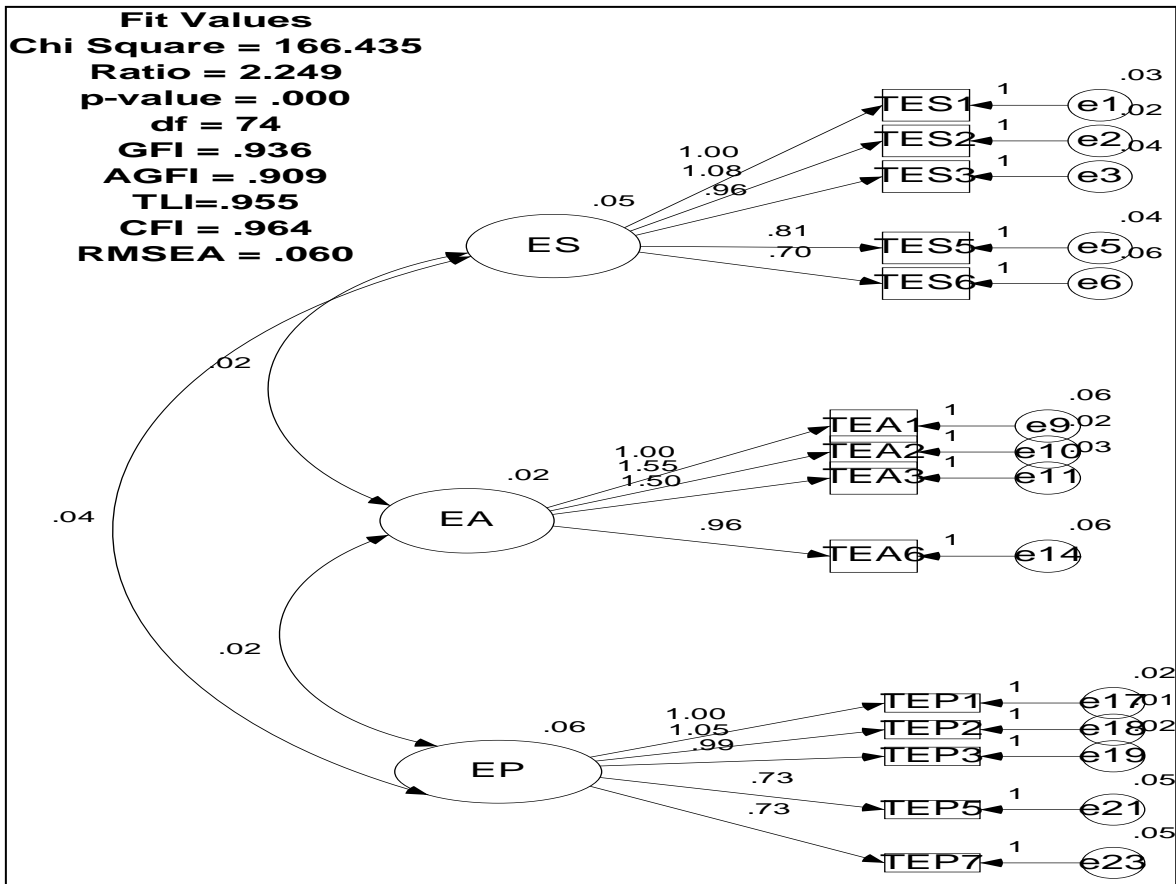*CFA for Public Trust*

Figure 5.6
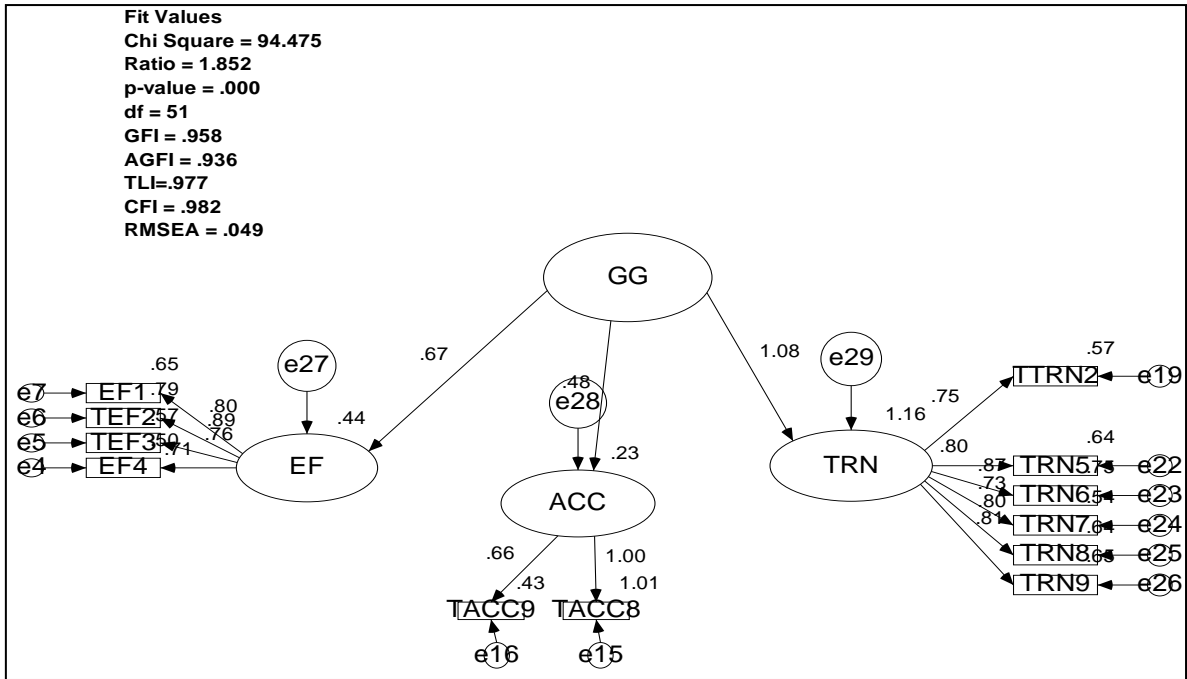*CFA for Exogenous Constructs*
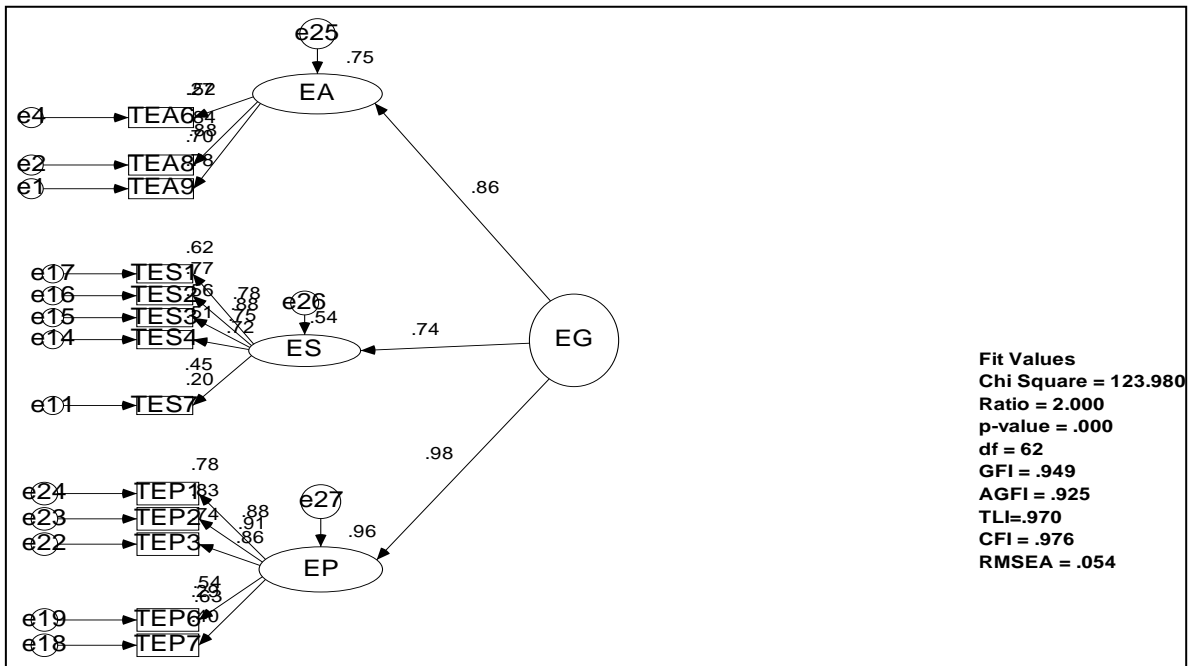
Figure 5.7
CFA for Good Governance Construct

Figure 5.8
CFA for Second Order Model of E-government Construct

In order to measure the direct and indirect effect of the overall model, a second order

factor structure was created for e-government construct as shown in Figure 5.8, and it had

127

achieved the goodness of fit indices as shown before in Table 5.12. However, these effects were discussed extensively in the following subsections.

5.7.2 Modification of the Measurement model

Based on the CFA results of both endogenous and exogenous constructs, the proposed measurement model was created as shown in Figure 5.9. Then, the same technique was used to improve the measurable model fit by deleting the items that have low standardized factor loadings below 0.5 and with high error using modification indices (MI) as suggested before.

The first measurement model did not fit because GFI and AGFI < 0.9. After the deletion of 14 items (TPT1, TEP7, TEA6, TEP2, TRN5, TRN7, TES6, TPT3, TEA3, TEP1, TTRN2, TES3, TRN6, and TES5) all the fit indices achieved to the threshold values including RMSEA (0.39 < 0.08), GFI (.929 > 0.90) and AGFI (0.906 > 0.90) as illustrated in Table 5.14.

Table 5.14
The Goodness of Fit Results of Measurement Model

Measurement model	Chi-square χ^2	CFI >0.90	GFI >0.90	AGFI >0.90	TLI >0.90	RMSEA <0.08
Before fit	*1101.434*	*.902*	*.828*	*.798*	*.892*	*.068*
After fit	*188.741*	*.973*	*.939*	*.912*	*.965*	*.047*

In summary, out of the initial 60 observed variables of the model, 43 variables were eliminated during the model assessment and modification processes. However, the final measurement model with the remaining 17 observed variable was illustrated in Figure 5.8.
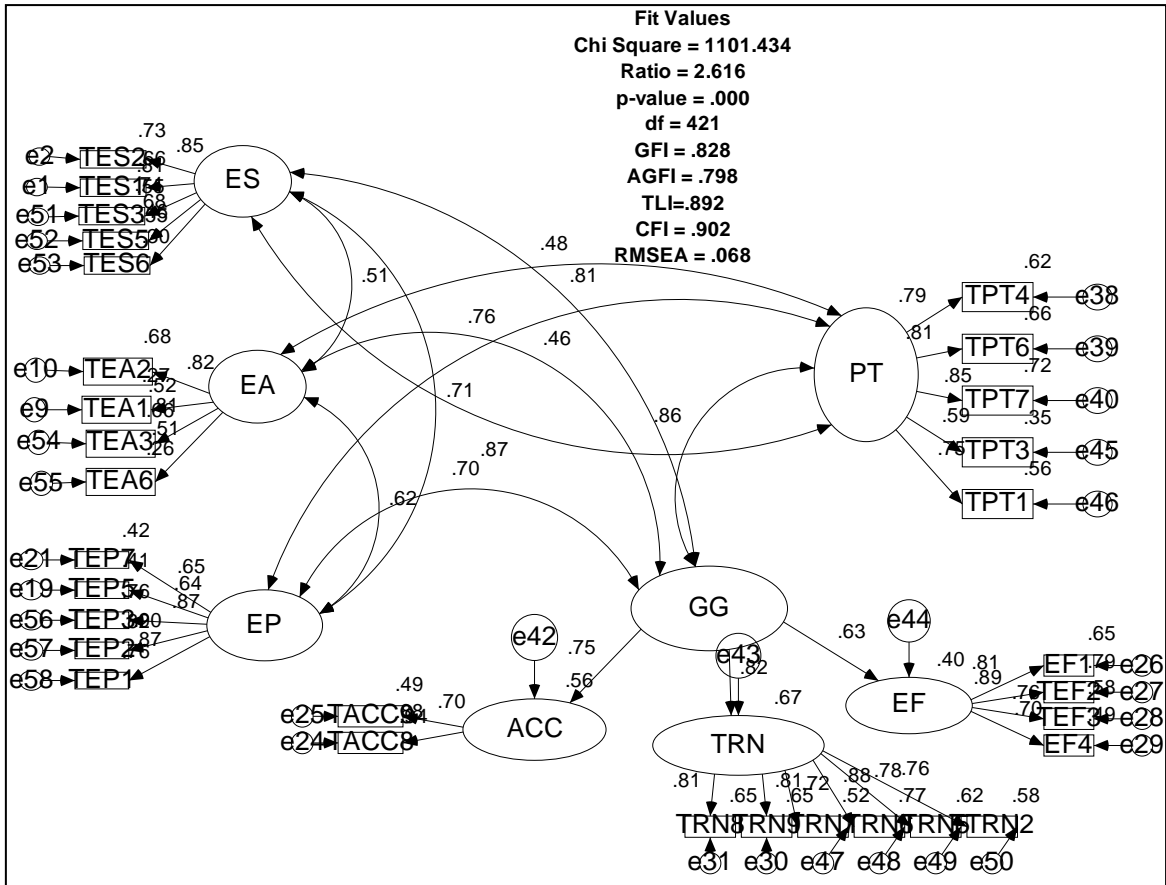
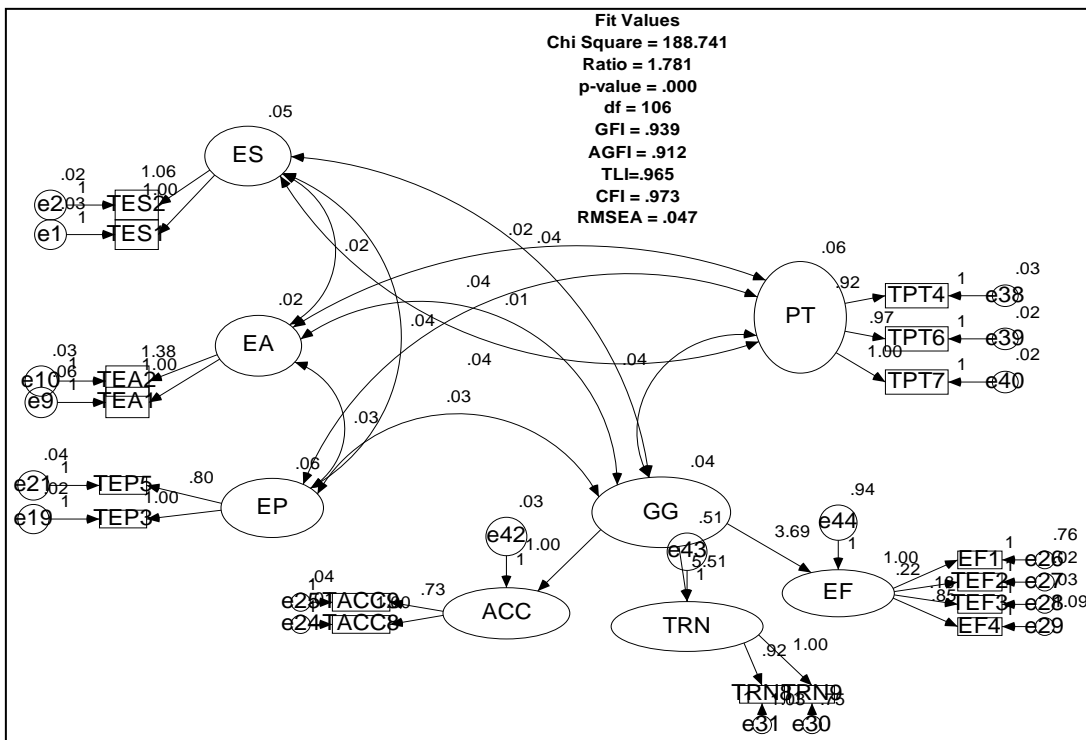Figure 5.9
The Measurement Model before Fit

Figure 5.10
The Measurement Model after Fit

129

5.7.3 Discriminant Validity

Discriminant validity is the other main type of construct validity. It is the extent to which a construct is truly distinct from other constructs (Hair et al., 2010). To satisfy the basic requirement that is guiding discriminant validity, the average variance extracted AVE of any two constructs that is measured must be greater than the square of correlations that exist between these constructs (Formell & Larcker, 1981).

AVE relates to the quantity of variance confined by the construct versus the amount due to the error of measurement (Hair et al., 2006). The AVE ranges between zero and one, but according to Malhotra and Stanton (2004), AVE should be greater than 0.50 to validate employing a construct. Mathematically, it is computed using the following formula.

$$AVE = \frac{\sum_{i=1}^{n}(L_i^2)}{\sum_{i=1}^{n}(L_i^2) + \sum_{i=1}^{n} e_i}$$

Where, L_i = standardized factor loading for construct number i, n = number of construct, e_i = error variance for construct number i

Table 5.15
Average Variance Extracted and Composite Reliability of Variables

Variables	Item	L	L²	VE	α	CR	AVE
Public trust	TPT1	0.749	0.561	0.438	0.867	0.873	0.582
	TPT3	0.594	0.352	0.647			
	TPT4	0.787	0.619	0.380			
	TPT6	0.81	0.6561	0.343			
	TPT7	0.849	0.720	0.279			
E-service	TES1	0.813	0.660	0.339	0.847	0.852	0.540
	TES2	0.852	0.725	0.274			
	TES3	0.739	0.546	0.453			
	TES5	0.681	0.463	0.536			
	TES6	0.552	0.304	0.695			
E-administration	TEA1	0.516	0.266	0.733	0.749	0.768	0.50
	TEA2	0.825	0.680	0.319			
	TEA3	0.811	0.657	0.342			
	TEA6	0.507	0.257	0.742			
E-procurement	TEP1	0.871	0.758	0.241	0.889	0.894	0.632
	TEP2	0.905	0.819	0.180			
	TEP3	0.87	0.756	0.243			
	TEP5	0.637	0.405	0.594			
	TEP7	0.649	0.421	0.578			
Good governance	EF1	0.809	0.654	0.345	0.899	0.956	0.647
	TEF2	0.886	0.784	0.215			
	TEF3	0.759	0.576	0.423			
	EF4	0.7	0.49	0.51			
	TACC8	0.94	0.883	0.116			
	TACC9	0.703	0.494	0.505			
	TTRN2	0.764	0.583	0.416			
	TRN5	0.785	0.616	0.383			
	TRN6	0.877	0.769	0.230			

Table 5.15 (Continued)

Variables	Item	L	L^2	VE	α	CR	AVE
	TRN7	0.785	0.616	0.385			
	TRN8	0.806	0.649	0.350			
	TRN9	0.806	0.649	0.350			

L: loading; L^2: loading square; VE: error variance; α: Cronbach's Alpha; CR: composite reliability

As shown in Table 5.15 and refereed in Appendix 9, the variance value extracted for all the constructs ($0.50 < VE < 0.64$) met the recommendation of Bagozzi (1991) and Holmes-Smith (2001) where it should be at least 0.50 for each construct. Thus, discriminant validity was supported and therefore all constructs used for this study were different from each other.

5.7.4 Composite reliability

CR refers to the extent to which the items consistently represent the same latent construct (Hair et al., 2010). As suggested by many researchers (Hair et al., 2010; Shook et al., 2004), the acceptable threshold for composite reliability is 0.70. It can be calculated using the following formula, according to Hair et al., (2010):

$$CR = \frac{(\sum_{i=1}^{n} standardized\ loading)^2}{(\sum_{i=1}^{n} standardized\ loading)^2 + (\sum_{i=1}^{n} \varepsilon_i)}$$

Where CR = composite reliability and ε is the variance error of each construct.

As indicated previously in Table 5.15, all the constructs generally exhibited an acceptable level of composite reliability with values that are higher than 0.7. These results further confirm the fitness of the data for the measurements in this study. More specifically, the

132

composite reliability of all the constructs ranged between 0.76 and 0.95 indicating a high

level of consistency among the items of each latent construct.

5.8   The Hypothesized Structural Model

Since all the previous model fit indices showed a better fit to the data and the reliability

tests supported the convergent and discriminant validities assumption. Therefore, the

structural model was generated by drawing the direct paths among the variables of the

study as shown in Figure 5.11. Moreover, the structural model was considered adequate

for testing the path coefficient which estimates the hypothesized relationships of the model

studied since the fit indices were acceptable and no need for any modifications as shown in

Table 5.16.

Table 5.16
The Goodness of Fit Indices of the Structural Model

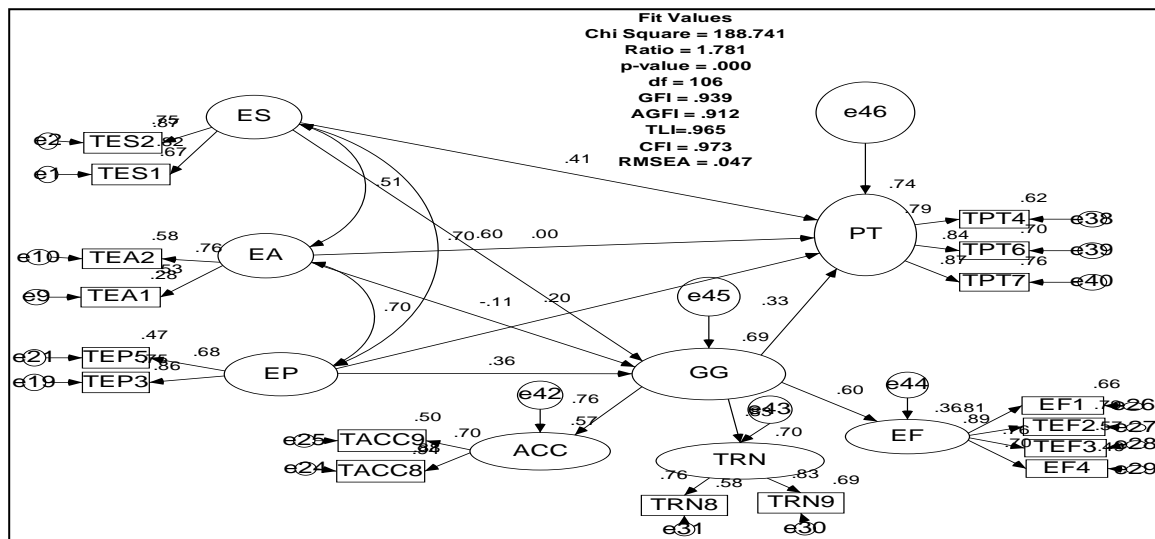|	χ^2	Ratio	CFI >0.90	GFI >0.90	AGFI >0.90	TLI >0.90	RMSEA <0.08
Goodness of fit indices	188.741	1.781	.973	.939	.912	.965	.047

Figure 5.11
The Structural Model

133

5.8.1 Direct Hypothesis Results/ Structural Model

Based on the previous literature and the developed framework of this study, nine direct hypotheses were developed as shown in Table 5.17. Out of these nine direct hypotheses between the latent variables of this study, six hypotheses were supported and three hypotheses were unsupported based on the results of Regression Weights in Table 5.18.

Table 5.17
The Research Direct Hypotheses

No.	Research Direct Hypotheses
H1	E-government has a significant and positive influence on the public trust
H2	E-service has a significant and positive influence on the public trust
H3	E-administration has a significant and positive influence on the public trust
H4	E- procurement has a significant and positive influence on the public trust
H5	E-government has a significant and positive influence on good governance
H6	E- service has a significant and positive influence on good governance
H7	E-procurement has a significant and positive influence on good governance
H8	E-administration has a significant and positive influence on good governance
H9	Good governance has a significant and positive influence on the public trust

Table 5.18
Direct Hypotheses Testing Results of Structural Model- Regression Weights: (Group Number 1 - Default Model)

				Estimate	C.R.	ρ
H2	E-service	→	Public trust	.425	4.111	***
H3	E-administration	→	Public trust	.005	.041	.967
H4	E-procurement	→	Public trust	.196	1.839	.066
H6	E-service	→	Good governance	.514	6.308	***

Table 5.18 (Continued)

			Estimate	C.R.	ρ
H7	E-procurement →	Good governance	.297	2.807	.005
H8	E-administration →	Good governance	-.147	-1.080	.280
H9	Good governance →	Public trust	.396	2.911	.004

***Significant at level of 0.001; P-value at level of 0.05

According to Table 5.18, the results show that e-service has a significant and positive influence on the public trust at 0.001 level, with standard estimate (β) = 0.425 which means that when ES goes up by 1, PT goes up with 0.425. The critical ratio of regression weight C.R. = 4.11, thus β is 4.11 and standard errors above zero. Therefore, H2 is supported.

However, e-administration has insignificant influence on the public trust with (β = 0.005, C.R = 0.041, ρ = 0.967). Hence H3 is not supported. Also, e-procurement has insignificant influence on the public trust with (β = 0.196, C.R = 1.839, ρ = 0.066), thus H4 is not supported.

On other hand, e-service has a significant and positive influence on good governance at 0.001 level, with β = 0.514, C.R = 6.308, ρ < 0.001***).Therefore, H6 is supported. It is same for e- procurement. It has a significant and positive influence on good governance with (β = 0.297, C.R = 2.807, ρ = 0.005). Hence, H7 is supported. But e-administration showed an insignificant influence on good governance with (β = - 0.147, C.R = - 1.080, ρ = 0.280), thus H8 is not supported. However, good governance has a significant and positive influence on the public trust with (β = 0.396, C.R = 2.911, ρ = 0.004). Thus, H9 is supported.

Furthermore, and in order to measure the direct effect of e-government on the other variables, second order measurement and structural models were generated according to the goodness of fit indices as shown in Figure 5.12.

The results of Regression Weights in Table 5.19 illustrated that e-government has a positive and significant influence on public trust at 0.001 level with (β = 0.714; C.R = 3.418), hence H1 is supported. Moreover, the results also illustrated that e-government has a positive and significant influence on good governance at 0.001 level with (β = 2.836, C.R= 6.930). Hence, H5 is also supported.
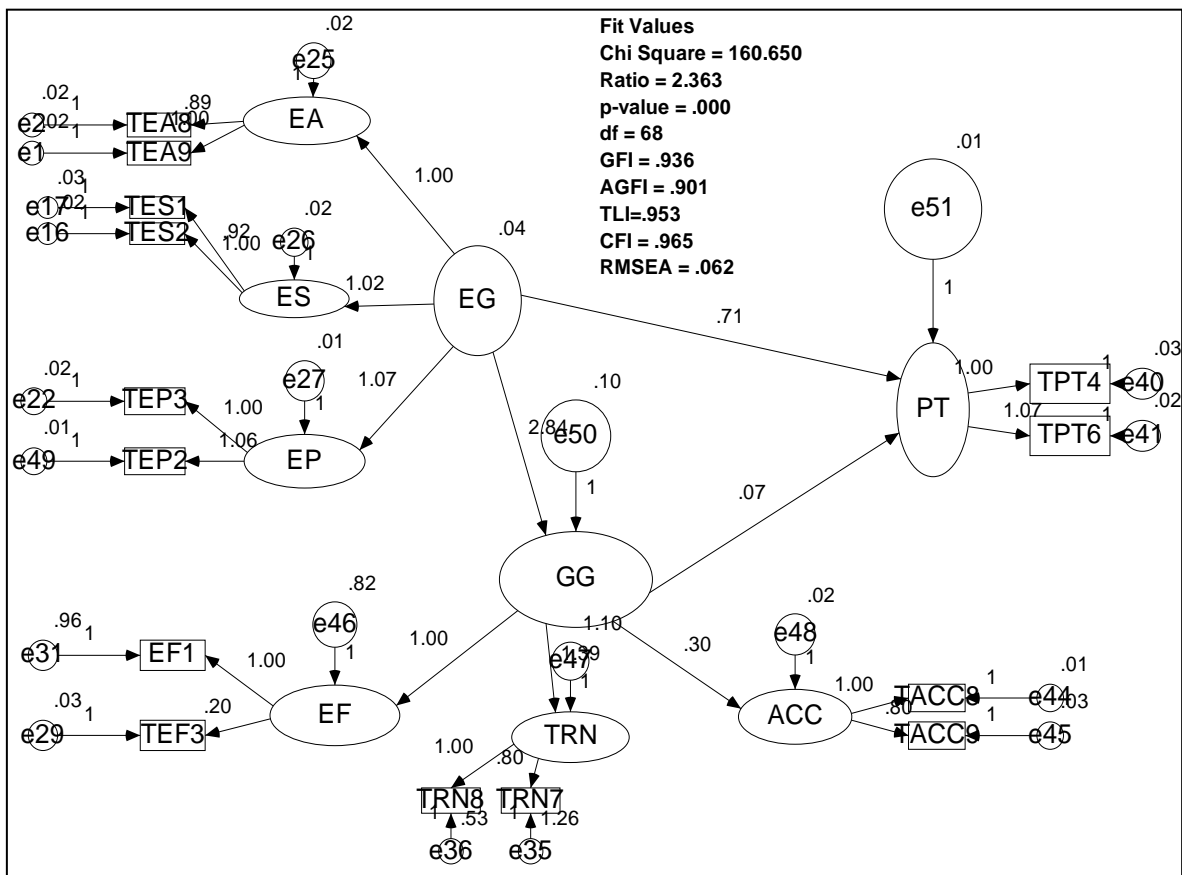

Figure 5.12
T*he Second Order Structural Model*

Table 5.19
Direct Hypotheses Testing Results of second order Structural Mode Regression Weights:
(Group Number 1 - Default Model)

				Estimate	**C.R.**	**ρ**
H1	E-government	→	Public trust	0.714	3.418	***
H5	E-government	→	Good governance	2.836	6.930	***

***Significant at level of 0.001; P-value at level of 0.05

5.8.2 Mediating Effect/Indirect Effect of Variables in the Structural Model

The final structural model was generated according to goodness of fit indices as shown in Figure 5.11 before. Also, the indirect estimates were calculated based on the bias-corrected (BC) bootstrap method in order to indicate whether the mediating effect of good governance is supported or not.

As mentioned earlier in Chapter Three, four mediating hypotheses were developed in this study, demonstrating that good governance mediates the relationship between e-government practices (ES, EA, and EP) and public trust as shown in Table 5.20.

Table 5.20
The Research Mediating Hypotheses

No.	Research Mediating Hypotheses
H10	Good governance has a significant and positive mediating influence between e-government and public trust (EG…$_>$ …GG….$_>$ PT)
H11	Good governance has a significant and positive mediating influence between e-service and public trust (ES…$_>$ …GG….$_>$ PT)
H12	Good governance has a significant and positive mediating influence between e-administration and public trust (EA…$_>$ …GG….$_>$ PT)
H13	Good governance has a significant and positive mediating influence between e-Procurement and public trust (EP…$_>$ …GG….$_>$ PT)

The estimate outputs using bias-corrected (BC) bootstrap method are illustrated in Table
5.21, Table 5.22, and Table 5.23.

Table 5.21
The Standardized Indirect Effects - Two Tailed Significance (BC) (Group Number 1 -
Default Model) of Structural Model by AMOS

Variable	EP	EA	ES
Public Trust	.014	.212	.018

Table 5.22
The Standardized Direct Effects - Two Tailed Significance (BC) (Group Number 1 -
Default Model)

Variable	EP	EA	ES	GG
Good governance	.004	.309	.002	...
Public Trust	.136	.993	.002	.025

Table 5.23
The Standardized Total Effects - Two Tailed Significance (BC) (Group Number 1 -Default
Model)

Variable	EP	EA	ES	GG
Good governance	.004	.309	.002	...
Public trust	.012	.699	.002	.025

In addition, the indirect effect was measured for the second order structural model as
illustrated before in Figure 5.10, and the results are shown in table 5.24 and Table 5.25.

Table 5.24
Second Order Model- The Standardized Indirect Effects - Two Tailed Significance (BC)
(Group number 1 - Default Model)

Variable	EG
Public trust	0.414

Table 5.25
Second Order Model -Standardized Direct Effects - Two Tailed Significance (BC) (Group number 1 - Default Model)

Variable	EG	GG
Good governance	.003	...
Public trust	.035	.426

As a summary for the above tables, the indirect effect of variables interaction is illustrated in Table 5.26 to compare the direct and indirect effects of the proposed relationships.

Table 5.26
The Indirect Effect of Variables Interaction

Hyp	Exogenous		Mediated By		Endogenous	Indirect Effects Estimate	Direct Effects Estimate	Total Effects	Mediating Hypothesis
H10	EG	→	GG	→	PT	.414	.035	.003	No mediation
H11	ES	→	GG	→	PT	.018	.002	.002	Partial Mediation
H12	EA	→	GG	→	PT	.212	.993	.699	No Mediation
H13	EP	→	GG	→	PT	.014	.136	.012	full Mediation

Based on these results, the standardized indirect/mediated effect of e-government on public trust is not significant at the level of 0.05 ($\rho = 0.414$) while it has significant direct effect on public trust with $\rho = 0.035$. Therefore, good governance is not mediating the relationship between e-government and public trust.

Regarding e-service, it has a significant standardized indirect / mediated effect on public trust at 0.05 level $\rho = 0.018$) and a significant direct effect on public trust as well with $\rho = 0.002$. However, the total effect of e-service on public trust remains significant with same

p-value (ρ = 0.002). Hence, good governance is a partial mediator for e-service and public trust. On the other hand, e-administration has no significant direct and indirect effects on public trust with p-values greater than 0.05 level (0.212, 0.993, and 0.699). Therefore, good governance is not mediating the relationship between e-administration and public trust.Furthermore, e-procurement has insignificant direct effect on public trust with ρ = 0.136, while it become significant upon the indirect effect mediated by good governance with ρ = 0.014. Hence, the total effect of e-procurement is significant with ρ = 0.012. So, good governance has a full mediating effect between e-procurement and public trust.

Therefore, out of the total thirteen hypotheses that were developed in this research, eight hypotheses were accepted and five hypotheses were rejected. Table 5.27 summarizes all the hypothesis testing results of this research.

Table 5.27
All Hypothesis Testing Results

	Research Hypotheses	**Accepted/ Rejected**	**P-Value**
H1	E-government has a significant and positive influence on the public trust	Accepted	***
H2	E-service has a significant and positive influence on the public trust	Accepted	***
H3	E-administration has a significant and positive influence on the public trust	Rejected	.967
H4	E-procurement has a significant and positive influence on the public trust	Rejected	.066
H5	E-government has a significant and positive influence on good governance	Accepted	***
H6	E-service has a significant and positive influence on good governance	Accepted	***
H7	E-procurement has a significant and positive influence on good governance	Rejected	.280
H8	E-administration has a significant and positive influence on good governance	Accepted	.005
H9	Good governance has a significant and positive influence on the public trust	Accepted	.004
H10	Good governance has a significant and positive mediating influence between e-government and public trust (EG…> …GG….> PT)	Rejected	.414

Table 5.27 (Continued)

	Research Hypotheses	Accepted/ Rejected	P- Value
H11	Good governance has a significant and positive mediating influence between e-service and public trust (ES…> …GG….> PT)	Accepted	.018
H12	Good governance has a significant and positive mediating influence between e-administration and public trust (EA…> …GG….> PT)	Rejected	.212
H13	Good governance has a significant and positive mediating influence between e-procurement and public trust (EP…> …GG….> PT)	Accepted	.014

***Significant at level of 0.001; significant P-value at level of 0.05

5.9   Discussion

5.9.1   The Relationship between E-government and Public Trust in Lebanon

The descriptive results of Table 5.7 reveal that among e-government practices, e-procurement has the highest mean value 4.95, followed by e-administration with mean 4.74 and e-service with mean 4.54. Thus, e-procurement is practiced by the SME's managers and employees relatively higher than the other e-government practices. However, the results of Pearson correlation in Table 5.5 indicate that all e-government practices had significant correlations with the public trust at the 0.01 level of significance.

Moreover, the mean value of e-government as a composite score was 4.74. Therefore, most of the SME's managers and employees fairly agree that e-government practices are adopted and practiced in Lebanon. Yet, the high standard deviation 1.012 indicates that such practices could be further improved in order to ensure a consensus of opinion among all the respondents. However, public trust had a mean value of 4.44 with high standard deviation 1.199. This indicates that responses were very polarized due to their different beliefs and trust towards the Lebanese government.

In addition, the results in Table 5.19 pertaining to the influence of e-government practices on public trust revealed a positive and significant direct relationship supporting the first research hypothesis. This finding is in line with previous studies (Jalali & Khorasani, 2012; Tolbert & Mossberger, 2006; Heeks, 2006; Welch et al., 2005; Parent et al., 2005; Welch & Hinnant, 2003). This relationship was expected because the public of Lebanon trust the government and have the intention to use online transactions more frequently because they are in touch with the development and productivity of government services through their online practices. Also, the positive relation between e-government and trust indicates that e-government is becoming increasingly embedded into citizen conceptions of government more broadly, at least for government web site users.

Therefore, this result indicates that the Lebanese people have encouraging intentions toward the use of e-government practices in Lebanon. This is because they feel that making transactions online has lot of advantages for both government and public. It saves time and cost, as well as reduces the dependency on location and makes responses to complaints faster (Nkwe, 2012; Ochara, 2010; Saidi, 2004).

In order to examine this relationship in details, the next sub-sections explain the influence of e-government practices individually on public trust based on the results obtained from testing the research hypotheses.

5.9.1.1 The Influence of E-service on Public Trust in Lebanon

The second proposed hypothesis in this study stated that e-service has a positive and significant influence on public trust. As illustrated in Table 5.18, the direct relationship between e-service and public trust is positively significant. This finding is similar to

previous research findings by Smith (2010), Bavec (2008), Furlong (2005) and Alanezi et al. (2001). For example, direct user outcomes tend to be powerful trustworthiness when citizens interact with e-services. This is highly influential in shaping the citizens' interpretations of the public sector behavior.

This result confirms that the Lebanese public trust is enhanced when the users can identify the required documents for their online transactions and can have a previous idea about the procedure that will take place. Tracking their transaction online also makes them more confident that the procedure is on the right direction, where this has to significantly decrease the rate of complaint.

In addition, the public trust is promoted and users are encouraged to complete their online transactions through an authoritative and reliable system when the government websites are updated regularly and the accessibility to information is available at any time.

5.9.1.2 The Influence of E-administration on Public Trust in Lebanon

The third hypothesis in this research proposed that e-administration has a significant and positive influence on the public trust, yet this hypothesis was rejected based on the results of Table 5.18. Although most of the respondents fairly agreed about the importance of e-administration procedures in Lebanon, however this result indicates that such services are still not applied properly in a way to gain the public trust.

Most of e-administration procedures are still conducted manually instead of being automated and paperless. Also, the complicated procedures among different administrative departments increase the occurrence of errors in information as well as non-desirable

corruption and favoritism actions. Therefore, the government in Lebanon must apply changes at its administrative level, although it may take time to notice tangible efforts while interacting with the citizens.

5.9.1.3 The Influence of E-procurement on Public Trust in Lebanon

Based on the research results in Table 5.18, the fourth hypothesis was rejected, thus e-procurement has an insignificant direct influence on the public trust in Lebanon. Although some studies such as Smith (2010) has claimed that the increased access to relevant procurement information increase business opportunities and those who perceive a reduction of transaction costs will tend to increase trust. Thus, the high level of usefulness and ease of the use will tend to build trust among users.

Nevertheless, it seems that the public in Lebanon is still not aware enough to purchase and settle their online decisions easily. Maybe there is still no accessibility to all markets and there are no clear policies for shipment and prices. This is common among all users who tend to make procurement transactions online, where the level of trust is very limited because of the fear of exposure to any type of fraud online. However, this relationship needs reinforcement by other factors to make it more significant such as good governance practices.

5.9.2   The Relationship between E-government and Good Governance in Lebanon

The results presented in Table 5.19 showed a positive and significant direct influence of e-government on good governance, supporting the fifth research hypothesis. This finding is consistent with the finding of the previous studies by Rotchanakitumnuai (2013), Haque and Pathrannarakul (2013) Navarro et al. (2012), Raghupathi and Wu (2011), Salin and

Abidin (2011), Rana et al. (2011), Kalsi et al. (2009), Spremić et al. (2009), Kettani et al. (2008), Pina et al. (2007), Tolbert and Mossberger (2006), Lau (2005), Ma (2005), IOS Press (2005), Bhatnagar (2004), Wong and Welch (2004), Mucavele (2003) and ADB, 2001).

Majority of these studies stated that e-government is a tool developed by the governments to achieve the principles of good and transparent governance such as accountability, responsiveness, efficiency, effectiveness, openness, commitment and transparency. In addition, Siddiquee (2008) argued that e-government can improve transparency and reduce corruption in the public sector.

However, this general direct relationship does not reflect whether all e-government practices influence good governance significantly. Thus, it was essential to examine individually the direct influence of e-service, e-administration and e-procurement on good governance.

5.9.2.1 The Influence of E-service on Good Governance in Lebanon

The sixth proposed research hypothesis was supported by indicating that e-service had positive and significant influence on good governance as illustrated in Table 5.22. This finding is in line with the previous literature such as Salam and Islam (2013), Wang and Hou (2010), Kettani et al. (2008), Pathak and Prasad (2005) and Wong and Welch (2004). For instance, Salam and Islam (2013) found that e-services are positively related with effective governance and good governance has the potential to improve service delivery and customer satisfaction. Thus, it minimizes corruption, provides efficient service, ensures accountability and intensifies the transparency through the accessibility and greater convenience of interaction.

Pathak and Prasad (2005) also claimed that the availability of quality information of services online enhances transparency, where most studies showed that transparency have increased by making the information about the functioning of government and its officials available to the citizens permanently or on demand.

5.9.2.2 The Influence of E-procurement on Good Governance in Lebanon

As indicated in Table 5.22, e-procurement had a positive and significant direct influence on good governance supporting the seventh hypothesis of this study. The previous literature has indicated similar results such as Rotchanakitumnuai (2013), Haque and Pathrannarakul (2013), Shim and Eom (2008) and Siddiquee (2008) who found that a transparent e-procurement has a positive effect on cost effectiveness and accountability, as it decrease the collusion among vendors as well.

5.9.2.3 The Influence of E-administration on Good Governance in Lebanon

In contrast to other e-government practices, e-administration showed an insignificant influence on public trust as indicated in Table 5.22 rejecting the eighth research hypothesis. This result is consistent with other studies such as Welch (2012) who stated that transparency does not lead to participation in government practices in USA. Morgeson et al. (2010) also found insignificant relationship between e-government practices and trust in the federal government of Washington at the administration level. Kettani et al. (2008) also stated that most e-government systems that are currently deployed in developing countries fail to enhance good governance for a number of reasons such as socio-political and economical factors besides the low levels of acceptability, usability, accessibility and appropriateness of e-government systems deployed for citizens.

In addition, Wong and Welch (2004) stated that it is simply a myth that e-government will automatically and dramatically changes the accountability nature of public organizations. They suggested that the introduction of e-government without the corresponding institutional reform of the civil service system and organizational reform of the agencies may only lead to limited success in enhancing accountability. Therefore, the effect of technology on organizational change should never be overstated.

5.9.3 The Relationship between Good Governance and Public Trust in Lebanon

The relationship between good governance and public trust has a significant and positive direct effect supporting the ninth hypothesis as illustrated in Table 5.18. The SME's managers and employees have agreed fairly on the application of good governance in Lebanon. Accountability showed the highest mean value with 4.54, followed by efficiency 4.23 and the lowest mean value for transparency 3.92. In addition, the high standard deviation 1.142, 1.289 and 1.191 respectively indicate that the responses were polarized.

The results of this study are supported by previous studies (Kim & Kim, 2007; Lee, 2005; Welch & Hinnant, 2003; Bouckaert & Walle, 2003) who asserted the significant effect of good governance on public trust. For example, some researchers found several important interdependencies between trust and accountability (Ammeter et al., 2004; Thoms & Scott, 2002).

In addition, Bouckaert and Walle (2003) found that participation, accountability and transparency build trust because it identifies the public interests and makes actions more predictable. Welch and Hinnant (2003) also suggested that people using internet more

frequently, are more satisfied with transparent government web sites which contributes to higher levels of trust in government.

5.9.4   The Mediating Effect of Good Governance on E-government Practices and Public Trust in Lebanon

Theoretically, the implementation of e-government applications brings the potential for many positive changes including efficiency, effectiveness and transparency. It also increases connection between the public and government, thus providing a multitude of pathways to build citizens' trust in democratic institutions of government (West, 2005; Bellamy & Taylor, 1998). However, this research found that good governance has an insignificant mediating influence between e-government practices and public trust in general. Therefore, the tenth research hypothesis was rejected as indicated in Table 5.24 and Table 5.26 respectively.

Some researchers as Park and Blenkinsopp (2011) have suggested that public good governance improves the public trust while implementing e-government practices. However, the role of good governance as a mediator between e-government and trust is limited. Few studies suggested indirect effects of internet use in different government services on trust in government through perceptions of transparency, interactivity, efficiency and accountability (Chhabra & Jaiswal, 2008; Welch & Hinnant, 2003).

Such results are due to the diversity in the application of e-government practices and currently, the impact of e-government applications on building citizens' trust in government is empirically and theoretically unclear (Smith, 2010; Avgerou et al., 2006; West, 2005; Kearns, 2004). Therefore, the mediating effect of good governance was

examined separately among the three e-government practices to determine its mediating effect on public trust in Lebanon.

5.9.4.1 The Mediating Effect of Good Governance between E-service and Public Trust in Lebanon

Based on the results listed in Table 5.26, good governance has a significant and positive partial mediating influence between e-service and public trust, supporting the 11th hypothesis of this study. This result is consistent with Hamliduzzaman (2012) who found that the use of ICT can be an effective tool to improve service delivery and bring it closer to citizens. Thus, the application of good governance can reduce corruption and lead to accountability and transparency as well.

In other words, e-service enhances the access to and delivery of services to benefit the citizen. It also strengthens the government's capacity to make informed decision and coordinate service delivery in a transparent and efficient way. Moreover, good governance can offer critical improvements to the efficiency and effectiveness of government services by providing the new information flows from government to citizens on which accountability depends (Wang & Hou, 2010).

5.9.4.2 The Mediating Effect of Good Governance between E-administration and Public Trust in Lebanon

In contrast, the results did not support the 12th research hypothesis. Hence, good governance has an insignificant mediating influence between e-administration and public trust. These findings were reported by many researches such as Welch (2012) who claimed that transparency does not necessarily lead to participation in government in USA.

Furthermore, Lane (2006) found that accountability restricts the amount of trust in some places which gives autonomy to those who are responsible for the implementation of policies.

5.9.4.3 The Mediating Effect of Good Governance between E-procurement and

  Public Trust in Lebanon

The last hypothesis in this research was supported as shown in Table 5.26, where good governance has a significant and positive mediating influence between e-procurement and public trust. This result is in line with previous findings such as Tong (2013) who revealed that service charge transparency plays a mediating role in the respective relationships between exogenous variables and consumer behavior. It was clear that e-procurement does not act as a direct predictor for public trust; however, when mediated by good governance it showed significant and positive results. Thus, good governance has a total mediation effect on this relationship, and it enhances the application of e-procurement and in turns, promotes the Lebanese public trust.

These findings are similar to that of Welch and Hinnant (2003), where an indirect effect of internet use in e-government practices through perceptions of transparency and interactivity has positively influenced trust in government. Several studies found efficiency to fully mediate relationship between exogenous variables and customer behavior (Morrow & McElroy, 2007; Mahsud, 2011). Also, good governance was found as a mediator between exogenous variables and personal behavior in government sector (HajiAli & Sentosa, 2008). Moreover, it was believed that the effectiveness and utilization of some administrative practices were driven by the effectiveness of governance activities (Earnest & Sofian, 2013).

In view of all, e-government practices including e-service and e-procurement enhance the public trust in Lebanon in a more significant pattern if the following actions are carried out properly. When the employees of the government sector are trained to have high ICT skills and perform in line with the government goals. This in turn increases the efficiency of service provided to the public and provides timely and reliable information with reduced rate of errors.

In addition, when the government is transparent enough with public by making all government's meetings, budgets, laws and procedures open and accessible to public, this ensures that no authorities can use the services for their own interests.

Moreover, the public in Lebanon trust the government more when they feel that they are empowered and aware by how decisions are taken and where the taxes they pay are spent. In addition, this increases their ability to identify, measure and criticize any action performed by the government.

Hence, trust along with good governance is important indicators of a satisfactory relationship between the government and the public, especially in reducing corruption which frustrates the public. Saidi and Yared (2002) claimed that e-government acts as a major instrument for achieving good governance. Therefore, government must govern more transparently, responsibly, accountably and responsively to build public trust. It must provide an active engagement with the public, particularly in showing more rigorous respect for the law and the public interest.

Consequently, the public will be more empowered and encouraged to interact with the government online when the government in Lebanon provides efficiency, transparency and accountability through the application of e-government practices. Accordingly, the public trust will be advanced to a level in which the fear of corruption will be eliminated to its least stages.

5.10   Conclusion

This chapter focused on analyzing the data collected from the survey which was conducted among the SME's in Lebanon. The empirical analysis was performed through two phases. The initial phase was prepared using SPSS, where diagnostic checking was done and then tested for outliers and missing values before conducting the SEM analysis. Furthermore, it was very important to assess each scale for inter-consistent reliability, by using Cronbach`s alpha and measuring the Exploratory Factor Analysis (EFA) for construct validity. Also, the demographic profile of the respondents and descriptive summary of the data were presented.

As for the second phase which is more related to hypotheses testing, SEM was used through AMOS. The validity of each construct was measured through CFA and then measurement and structural models were developed based on goodness of fit indices. The analysis using SEM technique established significant outcomes. The causal relationships showed that e-government practices including e-service, and e-procurement has significant and positive influences on the public trust in Lebanon mediated by good governance. Finally, the research findings were discussed and interpreted.

CHAPTER SIX

CONCLUSION

6.1   Introduction

Chapter Six reviews and links the whole research based on what have been discussed in the previous chapters. First, an overview of the research is presented and the findings of data analysis are summarized. In addition, the significance of the study is illustrated in terms of academic and empirical approaches. Then, suggestions for policy makers and practitioners are presented through policy implication. The limitations of this research are also highlighted and recommendations for future studies are demonstrated. Finally, the whole study is concluded.

6.2   Research Overview

The main objective of this study was to examine the mediating effect of good governance on the relationship between e-government practices and public trust in Lebanon. Essentially, this study was conducted based on the concept which states that developing countries need to put their own manners toward economic modernization and transformation that provide more efficient administration, promote transparency, enhance the business environment in general and then build the trust among the citizens (REO, 2012). Therefore, the aim of this study was centered on establishing an effective system of government in Lebanon that could resolve the problems and enhance good governance system that strengthens the public trust as well.

At the beginning, and in order to draw the guidelines of this research, the previous literature was reviewed extensively to come out with the academic and practical gaps as illustrated in chapter one and two. Different studies highlighted the value generated from the e-government towards the trust and the safe environment that leads to an attractive atmosphere for domestic and foreign investment (Al-zoubi, 2012; Zarimpas, 2009; Tehrani, 2007; and Panzardi et al., 2002).

In addition, several authors argued that one cause for a lack of trust in government is that citizens are not often enough provided with factual documentation about government processes and performance (Grimmelikhuijsen, 2012). Therefore, e-government should be mediated by openness to the international community and efficiency in its practices and policies in order to be transparent and generate trust to citizens (Das et al., 2009).

The findings that have been reviewed from the literature motivated the researcher to study the mediating effect of good governance between e-government practices and public trust especially that the former Minister of Economy and Trade in Lebanon Nasser Saidi (2003) suggested e-government as a new system to support the Lebanese economy. The introduction of e-government systems in Lebanon is considered as a significant tool for the administrative improvement. Thus there is a need to adopt the e-government systems, as a significant tool for administrative transformation and transparency in order to enhance public trust in the country.

The overall review of literature showed that several empirical and conceptual studies demonstrated the advantageous return of adopting e-government tool through practicing good governance features such as effectiveness, efficiency, transparency, accountability,

openness, innovativeness and responsiveness (Nkwe, 2012; Al-Mayahi & Mansoor, 2012; Musa, 2010; Khan et al., 2010; Colesca, 2009; Zarimpas, 2009; Chhabra & Jaiswal, 2008; DESA, 2008; Das et al., 2009; Chevallerau, 2005; Asgarkhani, 2005; GMCT, 2003; and Panzardi et al., 2002;). Also, the public trust increased as a result of user satisfaction, good governance, anticorruption system and reinforcing the culture of accountability (Lowcock, 2013; Berthon et al., 2008; Tolbert & Mossberger, 2006; Lau, 2005).

However, the relationship between e-government practices and public trust seemed to be inconclusive, where the findings of West (2004) showed that e-government practices has deficient in its ability to renovate service delivery and enhance the public trust in government, although of its potential to make actions different over the long term. In his national survey, which was conducted in USA, the federal e-government usage did not have any visible impact on public trust in government, where in some respects; the e-government revolution has fallen short of its potential to transform service delivery and public trust in government. Therefore, such findings indicate that there is no significant relationship between visiting federal government web sites and views of trust, confidence or government effectiveness.

Holliday and Yep (2005) also considered the effect of e-government on good governance application in China is particularly still limited despite of the contemporary changes occurring in the official positions towards reforms and the implementation of various e-initiatives since the early 1990s.

Moreover, Grimmelikhuijsen (2012) claimed that transparency does not necessarily leads to trust, yet it can even lead to lower levels of trust if people are disappointed with the

155

degree to which government is transparent. Such a conclusion raises new challenges to the current optimistic assumptions concerning the effect of transparency, and good governance generally on trust.

It was also argued by several studies (Grimmelikhuijsen, 2012; Tolbert & Mossberger, 2006; Warkentin et al., 2002) that there is a shortage of empirical information about e-government and its influences on the attitudes and trust. Moreover, it was noticed that most of the previous studies on governance and trust were found non-empirically conducted (Haque &Pathrannarakul, 2013; Rana et al., 2011; Navarrete, 2009; Kettani et al., 2008; Tolbert & Mossberger, 2006; Kampen et al., 2006; IOS Press, 2005; Lau, 2005; Tassabehji, 2005; Bouckaert & Walle, 2003; Mucavele, 2003; ADB, 2001). Although other studies have examined the relationship empirically, however most of them employed a single construct of good governance and limited dimension were utilized (Grimmelikhuijsen, 2012).

Consequently, these issues constituted the motivation to conduct this empirical research, which is imperative to fill in the gap and understand the role of e-government practices, good governance and trust in enabling this technological transformation in Lebanon. Thus, the research framework was developed in Chapter Three and a quantitative research methodology was applied as introduced and justified in Chapter Five.

6.3   Summary of Findings

The 13 proposed hypotheses of this research were tested using AMOS software, where direct and indirect effects of e-government practices and good governance towards public trust were studied. Results of eight hypotheses were accepted while five hypotheses were

rejected. In general, e-government including e-services, has a significant positive effect on both good governance and public trust in Lebanon. However, e-administration has a positive effect on good governance but not on public trust and e-procurement has insignificant effect on both good governance and public trust. As for good governance, it has a positive significant effect on public trust but it has no mediating effect on the relationship between e-government including e-administration and public trust. Yet, good governance mediates the effect of both e-service and e-procurement on public trust.

6.4   Significant of the Study

By integrating the effect of e-government practices, good governance and public trust, this study had many contributions to the academic and the practical field as well. Throughout this study, many insights regarding the issues related to the e-government practices in Lebanon have been arisen. The following sub-sections elaborate these contributions in details.

Generally, there are multiple of studies and articles regarding the practice of e-government and its implementation at the organizational and national level. But only few of them studied the effect of trust (Navarrete, 2009; Kampen et al., 2006; Tolbert & Mossberger, 2006; Heeks, 2006; Tassabehji, 2005; Welch & Hinnant, 2003). Currently, there are limited or even nonexistent empirical studies in Lebanon about e-government and its contribution to sustainable development and economic performance. The literature is narrowed to the concepts of challenges and opportunities (Choueiri et al., 2013; Al-azar, 2012; Fawaz, 2004). For this reason, it is important to determine the factors that affect the good governance and trust respectively in Lebanese government.

This research has significant value for public organizations. First, this study focuses on ICT features that organizations must practice to properly implement and maintain e-services progression. Second, it presents new concepts regarding e-government services and tends to encourage organizations to adopt ICT tools in their strategies in order to eliminate corruption, foster the trust and subsequently empower the performance of the economy.

The empirical analysis of this research contributed academically to the literature through different perceptions. While most of previous studies were limited to the effects of ICTs at the organizational level of analysis, this study extended the findings of the impact of ICT from micro level to macro level. This also includes the shift from analyzing the corporate governance at individual organizations to country-level governance.

From the theoretical perspective, this study demonstrated the importance of e-government practices individually at a macro level. Moreover, it contributed to the e-government literature by highlighting and discussing the gaps concerning the relationship between e-government and public trust. In addition, this research demonstrated the effect of e-government and governance indicators such as efficiency, transparency and accountability on public trust which has the potential to act as a standard for future macro-level studies.

Contrary to the previous studies that concentrated on e-government and the tangible outcomes it brings at the level of organizations, this research extended the existing literature to study the public trust which has a significant role in every economy development plan in any country.

As stated earlier, the relationships between e-government practices and public trust that were examined in the previous literature revealed inconclusive results. Thus, the findings of this study clarified the positive and negative impacts of e-government practices on the public trust.

In addition, this study extended what previous studies have suggested. The role of good governance as a mediator between e-government and trust was considered to be limited. Therefore, the results of this study supported the implications of previous studies (Park & Blenkinsopp, 2011; Chhabra & Jaiswal, 2008; Welch & Hinnant, 2003) who suggested testing the indirect effects of internet use on trust in government through perceptions of transparency, interactivity, efficiency and accountability. Hence, the findings of this study illustrate how good governance can be used as an essential intermediary to be adopted for the application of other future theoretical models.

Furthermore, this research contributed by a complex framework which is different from previous researches that have utilized simpler frame works in SEM technique. The application of SEM can be considered as a methodological contribution, because it promoted a better quality of research, especially in testing the mediating effect of good governance on the relationship between e-government practices and public trust. Also, the research instrument was measured by Cronbach's alpha coefficient, exploratory factor analysis and confirmatory factor analysis to establish the construct validity and reliability, which in turn provides strong results for conclusions and generalizability.

Theoretically, this study provided empirical evidence to support the benefit of joining the diffusion of innovation theory and institutional-based trust theory as well. These theories

were important to explain how organization can adopt ICT and particularly allow governments to understand trust determinants in e-government and enhance the user's awareness of its services.

Most empirical studies in the field of e-government were conducted in Western countries and few Arab countries. Therefore, this research contributes significantly especially in the context of Lebanon, where there is a lack of both empirical and conceptual studies in this area.

6.5   Policy Implication

This research also offers several implications for practitioners, policy makers and public administrators in Lebanon. It provides advantageous insights on how e-government practices and good governance applications can enhance the public trust in Lebanon. Firstly, the findings of this study can raise the awareness among government policy-makers on the importance of developing the ICT sector in their departments. Thereby it enables the public to make wise investment decisions.

Policy makers in the Lebanese government have to make priorities in their development strategies, especially that citizens want ease of service and information, security and safe financial transactions, data transfer and privacy policy which can increase their trust in government.

Moreover, policy makers have to believe that corruption flourishes where there is no transparency in government functioning. Thus, publishing all the relevant information on the websites and giving the citizens the legal right to request and receive information on all

functions and decisions of government will reinforce the relationship with government and reduce the opportunities of corruption. Moreover, better availability of economic data and the ability of people to demand and receive the information they need are highly correlated with governance (Islam, 2009). Furthermore, the presence of related laws is essential to define a framework for the sharing of information, which in turn saves the rights of both citizens and government as well.

In Lebanon, the importance of e-government practices has been widely acknowledged despite the short history of these strategies in the Lebanese business environment. Apparently, the results showed that the e-administration is not supportive for the successful implementation of e-government in Lebanon as well as not being able to attract the public and gain their trust. This implies that there should be a reliable system regarding the administrative transactions, where government should align all the efforts towards these departments through improving their services, monitoring the performance and measuring the citizen's satisfaction regularly because it's the first step of gaining their trust.

Hence, the economic reform is a multistep procedure that needs lot of combined efforts, starting from developing an effective ICT infrastructure and providing trained and skilled employees to manipulate with. This has to be covered by reliable laws that serve as a norm of conduct for citizens. This system of rules and guidelines that is enforced to govern the behavior, wherever possible, has to shape politics, economics and society in numerous ways and serve as a social mediator of relations between the public and governments as well. But the main concern is at the level of the public themselves.

The research findings show that e-service and e-procurement are significantly mediated by good governance to enhance the public trust. This indicates that the Lebanese government has to believe in e-government as one of the main characteristics of any country to become well developed and must adopt a well integrated strategy to develop these e-government practices to maximize the trust of Lebanese public in the government.

However, the e-administration showed insignificant relationship with public trust which indicates that the Lebanese government has deficit in this sector and needs restructuring. The contribution here is to highlight these problems and enable future studies to explore more and find solutions for such gaps in government performance.

6.6 Limitations of the Study

As with all studies of this kind, this research has limitations at the methodological and geographical level. First, the results presented in this study were based on one sample of citizens. It included managers and employees from the SME's in Lebanon who interacted with the government online services at a certain point in time. Also, the focus of this study was limited geographically to the SME's at Beirut.

Also in the methodological part, this study was limited to a quantitative approach where data was collected through a survey. Additional limitation is the lack of prior empirical studies especially in Lebanon. This means that efforts should be taken to support this research in order to use it as grounded database for future studies in the field of e-government, good governance and public trust.

Although this study contributes to the emerging literature by studying the relationship of general e-government practices with country-level governance indicators, it was limited to one form of e-government which is government to citizen (G2C).

6.7   Future Research

It is suggested that more studies should be conducted on e-government adoption among other citizen groups or other respondents which may give rise to other significant findings. Also, future research may use more diversified random sampling to verify the constructs developed in this study.

Future studies may have better opportunities to extend their geographical sampling dimensions and come out with more precise results. Efforts could be extended to reach other countries than Lebanon, maybe nearby Arabic region or even less developed countries, in which this diversity allows comparison of results and approaching the e-government status in the area.

Future research can analyze other aspects of the macro-level impacts of e-government in Lebanon, such as e-health and e-commerce. Moreover, there might be other possible factors, which can be included in the framework but may have been overlooked and have not been taken into account. Therefore, it is recommended for future research works to examine new relevant factors that are applicable in the Lebanese context which may affect the e-government adoption in Lebanon.

The future developed framework can be utilized to carry out a comparative study among various forms of e-government such as government to government (G2G), government to

employees (G2E) or government to business (G2B) context, which will provide knowledge on the topic of e-government adoption.

Regarding the methods which were used by the researcher to determine the effect of e-government on public trust, it is suggested that future studies use both quantitative and qualitative methods to enhance the results of the field especially that trust is a concept that bears discussion and interpretation more deeply.

As discussed earlier that the Lebanese public sector suffers from many problems that have accumulated over several years. These problems are mainly financial, administrative and human resource deficits, as well as reflecting low rates of technological advancement and innovation (Saidi & Yard, 2002). This encourages conducting of empirical research to determine the factors influencing such situation.

6.8   Conclusion

In conclusion, this study has empirically achieved the suggested objectives and illustrated the mediating effect of good governance on e-government practices and public trust in Lebanon. The data collected from different Lebanese SME's, using self administrative questionnaires were valid and reliable in which analyzing such data through SEM ensured the generalizability of results. The findings from the hypotheses testing have theoretically and practically contributed to the previous literature. Some have complemented the opinions in literature that adopting e-government is significantly influencing the good governance and public trust. Similarly good governance is positively and significantly related to public trust. However, other results opposed previous studies in the positive relationship between e-administration and e-procurement with public trust. Overall, the

positive and significant mediating impact of good governance on the relationship between e-service and e-procurement with public trust has a strong potential of improving the application of e-government, especially that the latter has been the concern of all decision-makers in all the developing countries including Lebanon. The practices of e-government and its effect on public trust will remain one of the major issues related to the overall economic reform. It has been widely recognized that e-government practices and good governance achievement have been growing in popularity to be among the most effective strategies that can help governments to fulfill their responsibility to their citizens. For instance, being accountable and transparent brings more efficient and effective benefits. Thus, it can build trust among the public towards it.

Whatever efforts are made by the governments, if the citizens are not convinced by the concept of utilizing the government services online and they are not developing their own skills to be in line with the technological development, the success of any reform strategy will not be achieved. Therefore, joining the efforts of all parts including government, regulators and public, will enhance the implementation and success of all economic reforms including e-government practices.

REFERENCES

Abdelghaffar, H., & Elmessiry, I. (2012). SME's e-readiness for e-government services in Egypt. *Journal of E-Governance*, *35*, 143–151.

Abdul Salam, M., & Islam, M. (2013). E-government service delivery: An assessment of district e-service centres in Bangladesh. *JU Journal of Information Technology*, *2,* 33-40.

Abu Samra, N., et al. (2007). The first Lebanese code of corporate governance addresses good governance and challenges to investment. *The Certified Accountant, 1(29),* 52-53.

ADB. (2001). *Toward e-development in Asia and the pacific*: *A strategic approach for information and communication technology.* Asian Development Bank: Strategy and Policy Department. Retrieved September 20, 2013 from http://www.adb.org/sectors/ict/policies-and-strategies

Agrawal, A., et al. (2007). EGOSQ-users' assessment of e-governance online-services: quality measurement instrumentation. *Computer society in India*, 231-244. Retrieved December 7, 2013 from http://www.iceg.net/2007/books/1/24_361.pdf

Ahrens, J. (2006). *Governance in the process of economic transformation*. Published Dissertation, Germany: Private University of Applied Sciences. Retrieved from www.oecd.org/dac/governance-development/37791185.pdf

Aikens, C. (2011). *Quality inspired management: The key to sustainability*. New Jersey: Pearson Education, Inc.

Alanezi, M., et al. (2010). A proposed instrument dimensions for measuring e-government service quality. *International Journal of u- and e- Service, Science and Technology*, 3(4), 1-18.

Alanezi, M., et al, (2011). Conceptual model for measuring e-government service quality. *Proceeding of IEEE conference on open systems, September 25-28, Langkawi, Malaysia.* Retrieved from http://www.academia.edu/2154544/Conceptual_model_for_measuring_e-government_service_quality

AL-azar (2012). *AUB-led workshop: E-government paves the way for better relations between citizens and the state.* American University of Beirut: E-government stakeholders' engagement workshop. Retrieved from http://www.aub.edu.lb/communications/media/Documents/april-2012/e-government-EN.pdf

Alghamdi, A., et al. (2011). E-government readiness assessment for government organizations in developing countries. *Computer and Information Science*, 4(3)

Al-Ghamdi, R., et al. (2011). Factors influencing Saudi customers' decisions to purchase from online retailers in Saudi Arabia: a quantitative analysis. *IADIS International Conference e-Commerce 2011*, ISBN: 978-972-8939-51-9.

Allen, M., & Coson,V. (2012). *The interaction of political capacity and economic growth to attract foreign direct investments at the provincial levels of developing countries.* Published thesis, Claremont: Faculty of the Claremont Graduate University. Retrieved from

http://scholarship.claremont.edu/cgi/viewcontent.cgi?article=1023&context=cgu_etd

Al-Mayahi, I., & Mansoor, S. (2012). UAE e- government: SWOT analysis and TOWS Matrix. *Proceeding of 2012 Tenth International conference on ICT and Knowledge Engineering,* ISBN: 978-1-4673-2317-8/12, ISSN: 2157-0981, 201-204, IEEE.

Retrieved August 24, 2013 from http://ieeexplore.ieee.org/xpls/abs_all.jsp?arnumber=6408556&tag=1

Alsaghier, H., et al. (2009). Conceptualizing citizen's trust in e-government: application of Q methodology. *Electronic Journal of e-Government,* 7(4), 295-310.

Alshawi, S., & Alahmary, A. (2007). E-government evaluation factors: citizen's perspective. *Proceedings of European and Mediterranean Conference on Information Systems (EMCIS) at Polytechnic University of Valencia: Spain.*

Al-Zoubi, M., et al. (2011). Analysis of e-government adoption and organization performance in the Jordan businesses sector. *Academic Research International,* 1(3)

Alzubi, M. (2012). *Electronic government adoption model among business organizations in Jordan.* Published thesis, University Utara Malaysia.

Aman, A., & Kasimin, H. (2011). E-procurement implementation: a case of Malaysia government. *Transforming Government: People, Process and Policy,* 5(4), 330-344.

Ammeter, A., et al. (2004). A social relationship conceptualization of trust and accountability in organizations. *Human Resource Management Review, 14*, 47–65.

Ampratwum, E. (2008). The fight against corruption and its implications for development in developing and transition economies. *Journal of Money Laundering Control,* 11(1), 76-87.

ANAO. (2003). *Better practice public sector governance*. National institute for governance, Australian National Audit Office. Retrieved from http://anao.gov.au/~/media/Uploads/Documents/better_practice_public_sector_governance1.pdf

Anglim, J. (2007). *Seminar on structural equation modelling*. Retrieved from http://web.psych.unimelb.edu.au/jkanglim/introductiontosem.pdf

Appian. (2013). *Customer trust and loyalty in an age of change.* A business process management white paper for asset management. Retrieved July 18, 2013 from http://www.appian.com/bpm-resources/papers_reports/paper_assetmgmt.pdf

Asgarkhani, M. (2005). Digital government and its effectiveness in public management reform; a local government perspective. *Public Management Review,* 7(3), 465 – 487.

Atrissi, N. (2004). *Investment challenges in Lebanon.* Working paper In mobilizing investment for development in the MENA region. Istanbul: OECD. Retrieved from http://www.oecd.org/daf/internationalinvestment/investmentfordevelopment/2849856 3.pdf.

Avgerou, C. (1998). How can IT enable economic growth in developing countries? *Information technology for development,* 8(1), 15-28.

Avgerou, C., et al. (2006). E-government and trust in the state: lessons from electronic tax systems in Chile and Brazil. *LSE Department of Information Systems Working Paper Series* No. 146, retrieved from http://is2.lse.ac.uk/wp/pdf/WP146.PDF

Azab, N. (2009). *Assessing electronic government readiness of public organizations: effect of internal factors, case of Egypt.* Published thesis, Middlesex University, Cairo, Egypt.   Retrieved   from   https://eprints.mdx.ac.uk/6510/1/Azib-Assessing_Electronic_Government_Readiness_of_Public_Organisations.phd.pdf

Azab, N., et al. (2009). A suggested framework for assessing electronic government readiness in Egypt. *Electronic Journal of e-Government,* 7(1), 11–28.

Babcock, L. (2005*). Establishing a baseline for development: an exploratory analysis comparing indicators, of e-readiness and policy performance.* Published thesis, Minneapolis: Capella   University.   Retrieved   from http://en.zl50.com/20111214259669640.html

Bagozzi, R. P., Yi, Y., & Philipps, L. W. (1991). Assessing Construct Validity in Organizational Research. *Administrative Science Quarterly, 36*(3), 421–458

Bank Audi. (2013). *Lebanon economic report.* Retrieved July 18, 2013 from http://research.banqueaudi.com/documents/EconomicReports/lebanon_economic_report.pdf

Bank Med. (2013*). Lebanon economic outlook: market & economic research.* Retrieved July 18, 2013 from:

http://www.bankmed.com.lb/SiteCollectionDocuments/aLebanon%20Economic%20Outlook-%20January%202013.pdf

Bankole, F., et al. (2011). Mobile banking adoption in Nigeria. *The Electronic Journal on Information Systems in Developing Countries,* 47(2), 1-23.

Baptista, M. (2005). E-government and state reform: policy dilemmas for Europe. *The Electronic Journal of e- government,* 3(4), 167-174.

Baquero, F. (2012*). Generality in nanotechnologies and its relationship to economic performance.* Published thesis at State University of New York, Pro Quest Dissertations, UMI: 3516219

Barnes, S., & Vidgen, R. (2003). Interactive e-government: evaluating the web site of the UK Inland revenue. *Journal of Electronic Commerce in Organizations*, 2(1), 42-63.

Barreiro, P., & Albandoz, J. (2001). *Population and sample. Sampling techniques*. Published thesis, Spain: University of Seville. Reterived from http://www.mathematik.unikl.de/˜ mamaeusch.

Bartlett, E. J., Kotrlik, W. J., Higins, C. C. (2001). Organizational Research; Determining Appropriate Sample Size in Survey Research. *Information   Technology, Learning, and Performance Journal, (19)1*.

Bavec, C. (2008). On stimulus for citizen's use of e-government services. *Proceedings of the international multi conference on computer science and information technology*, 391- 395. ISBN 978-83-60810-14-9

Bellamy, C., & Taylor, J.A. (1998). *Governing in the Information Age*. Open University Press: Buckingham.

Berthon, P., et al. (2008). E-readiness and trust: macro and micro dualities for e-commerce in a global environment. *International Marketing Review,* 25(6), 700-714.

Bertot, C., et al. (2010). Using ICTs to create a culture of transparency: E-government and social media as openness and anti-corruption tools for societies. *Government Information Quarterly,* 27, 264–271.

Bhatnagar, S. (2004). E-*government: from vision to implementation-a practical guide with case studies*. Newdelhy: SAGE, ISBN 0761932593, 9780761932598.

Bottazzi, L., et al. (2011). *The importance of trust for investment: evidence from venture capital*. Working paper No.16923, National Bureau of Economic Research: Marco Da Rin. Retrieved from http://www.nber.org/papers/w16923

Bouckaert, G., & Walle, S. (2003). Comparing measures of citizen trust and user satisfaction as indicators of good governance: difficulties in linking trust and satisfaction indicators. *International Review of Administrative Sciences, 69*(3), 329–343.

Bouri, A., et al. (2011), Report on support to SMEs in developing countries through financial intermediaries. Retrieved May 25, 2014 from eudevdays.eu/sites/default/files/dalberg_sme-briefing-paper.pdf

Bwalya, K. (2009). Factors affecting adoption of e-government in Zambia. *Electronic Journal of Information Systems in Developing Countries*, 38(4), 1-13.

Bwalya, K., et al. (2012). E-government and technological utopianism: exploring Zambia's challenges and opportunities. *Electronic Journal of e-Government, 10(1),* 16-30.

Byrne, B. M. (2010). *Structural equation modeling with AMOS: Basic concepts, applications, and programming.* New Jersey: Lawrence Erlbaum Associated.

Cable, V. (2013). *Transparency & trust: enhancing the transparency of UK company ownership and increasing trust in UK business*. IDBR, Retrieved November 10, 2013 from

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/212079/bis-13-959-transparency-and-trust-enhancing-the-transparency-of-uk-company-ownership-and-increaing-trust-in-uk-business.pdf

Carter, L., & Belanger, F. (2005). The utilization of e-government services: Citizen trust, innovation and acceptance factors. *Information Systems Journal*, 15(1), 5–25.

Canaan, S. (2011). *The determinants of expansion of SMEs under a partial credit guarantee scheme: the case of Lebanon*. ERF 17th Annual Conference of Politics and Economic Development: Turkey. Available at: http://www.erf.org.eg/CMS/uploads/pdf/1300117500_Serena_Patricia_Canaan.pdf

CAS. (2004). *Census of Buildings Dwellings and Establishments 2004*. Beirut: Central Administration of Statistics. Available at: http://www.cas.gov.lb/images/Excel/CBDE-2004.xls

CAS. (1996). *Census of Buildings and Establishments 1996*. Beirut: Central Administration of Statistics.

CDR. (2007). *Situation analysis and intervention strategy*. Beirut: Council for Development and Reconstruction. Available at: http://www.therefordesign.net/EFL/pdf/3.pdf

Cellary, W. (2008). *Strategic impact of e-government on economy and society.* Tutorial and Workshop ICEGOV, December 1-4, Cairo, Egypt. Retrieved from dl.acm.org/citation.cfm?id=1509126

Chelimsky, E. (1992). *Quantitative data analysis: An introduction.* Report to Program Evaluation and Methodology Division at United States General Accounting Office (GAO). Retrieved from http://www.gao.gov/special.pubs/pe10111.pdf

Chen, W., & Hirschheim, R. (2004). A paradigmatic and methodological examination of information systems research from 1991 to 2001. *Information Systems Journal*, 14(3), 197-235.

Cheung, G. W., & Lau, R. S. (2008). Testing mediation and suppression effects of latent variables: Bootstrapping with structural equation models. *Organizational Research Methods*, *11(2),* 296-325

Chevallerau, F. (2005). *The impact of e-government on competitiveness, growth and jobs*. IDABC e-government observatory. Retrieved August 29, 2013 from http://europa.eu.int/idabc/egovo

Chhabra S., & Jaiswal, M. (2008). E-government organizational performance framework: case study of Haryana state in India. *IGI Global, International Journal of Electronic Government Research,* 4(3), 57-80.

Chomeya, R. (2010). Quality of Psychology Test between Likert Scale 5 and 6 Points*, Journal of Social Sciences,* 6 (3), 399-403.

Choudhury, E. (2008). Trust in administration: an integrative approach to optimal trust. *Administration & Society,* 40(6), 586-620.

Choueiri, E., et al. (2013). An overview of e- government strategy in Lebanon. *International Arab Journal of E-Technology,* 3(1).

Chua, J. (2012). *The e-transformation journey of Singapore.* Ch (2). N.K. Hanna and P.T. Knight (eds.), National Strategies to Harness Information Technology, Innovation, Technology, and Knowledge Management. Springer Science Business Media, LLC. DOI 10.1007/978-1-4614-2086-6_2.

Coakes, S., & Ong, C. (2011). *SPSS Version 18.0 for Windows.* Australia: John & Wiley.

Colesca, S. (2009). Understanding trust in e-government. *Inzinerine Ekonomika-Engineering Economics*, (3), *ISSN 1392 – 2785.*

Coopers, D., & Schindler, P. (2008). Business Research Methods: USA: McGraw-Hill/Irwin

Cooper, D. R., et al. (2014). *Business Research Methods* (12th Ed.). New York, NY.: McGraw-Hill.

CPI. (2012). *Transparency International Corruption Perceptions Index 2012*. Transparency International: the global coalition against corruption. Ernst & Young. Available   at: http://www.ey.com/Publication/vwLUAssets/2012_TI_CPI/$FILE/2012%20TI%20CPI.pdf

Creswell, J. (2003). *Research design-qualitative, quantitative, and mixed methods approaches*. London: Sage Publications.

Creswell, J. (2009). *Research design* (3rd Ed.). Thousand Oaks, CA: SAGE.

Cribbie, R. (2012). *Introduction to structural equation modeling (SEM). Online Course Materials: Quantitative Methods Program* at York University: Toronto. Available at: http://www.psych.yorku.ca/cribbie/SEM%20Course%202012/Intro%20to%20SEM_day%203_nov2012.pdf

Cumberbatch, T. (2004). *Research methods: Data analysis*. Retrieved from http://www.smartpsych.co.uk/w-content/uploads/2012/02/psych_methods1.pdf

Dada, D. (2006). E-readiness for developing countries: moving the focus from the environment to the users. *The Electronic Journal on Information Systems in developing countries*, 27(6), 1-14.

Damaskopoulos, P., & Evgeniou, T. (2003). Adoption of new economy practices by SMEs in Eastern Europe. *European Management Journal,* 21(2), 133–145.

Das, J., et al. (2009). Global e-government and the role of trust: A cross country analysis. *International Journal of Electronic Government Research*, 5(1), 1-18.

Dawlati. (2013). *E- services*. The official website of Lebanese e-government portal, Lebanese republic. Retrieved November 22, 2013 from http://www.dawlati.gov.lb/en/eservices

Dawson, C. (2007). *A practical guide to research methods: a user friendly manual for mastering research techniques and projects,* (3rd Ed.).UK: How to Content; Spring Hill House. Retrieved from http://medcontent.metapress.com/index/A65RM03P4874243N.pdf

DESA. (2008). United *Nations e-government survey 2008: from e-government to connected governance*, New York. Retrieved August 17, 2013 from http://unpan1.un.org/intradoc/groups/public/documents/un/unpan028607.pdf

Diamond, L. (2007). Building trust in government by improving governance. *The 7th global forum on reinventing government: building trust in government.* The United Nations, Session V: Elections, Parliament, and Citizen Trust Vienna, June 27. Available at http://www.stanford.edu/~ldiamond/paperssd/BuildingTrustinGovernmentUNGLobalForum.pdf

Dillman, D. A. (2000*). Mail and internet surveys: the tailored design* (2nd Ed.) New York: John Wiley and Sons.

Dimock, et al., (2013). *Trust in government nears record low; but most federal agencies are viewed favorably*. The People & the Press, Washington: The Pew Research Centre. Available at http://www.people-press.org/files/legacy-pdf/10-18-13%20Trust%20in%20Govt%20Update.pdf

Dinev, T., et al. (2006). Privacy calculus model in e-commerce - a study of Italy and the United States. *European Journal of Information Systems,* 15(4), 389-402.

Eakin, D. (2003). Measuring e- procurement benefits. *Government procurement*, 6(1), 16-18.

Earnest, D., & Sofian, S. (2013). The mediating role of corporate governance on intellectual capital and corporate performance. *Journal of Economics, Business and Management,* 1(4), 339-342.

ECIS. (2009). Measurement of e-service quality: an empirical study on online travel service. *17th European Conference on Information Systems, Verona*. Retrieved Decemebr 7, 2013 from http://www.ecis2009.it/papers/ecis2009-0449.pdf

Egwuonwu, R. (2011). Behavioral governance, accounting and corporate governance quality. *Journal of Economics and International Finance*. 3(1), 1-12.

EIU. (2006). *The 2006 e-readiness rankings*. London: The Economist Intelligence Unit & the IBM Institute for Business Value. Retrieved July 21, 2013 from http://graphics.eiu.com/files/ad_pdfs/2006Ereadiness_Ranking_WP.pdf

El Gawady, Z. M. (2005). The impact of e-commerce on developed and developing countries case study: Egypt and United States. *In Ahmed, A. (Eds.), Bridging the Divide: The Role of Technology and Trade*, 1, 193-202. Proceeding of the World Association for Sustainable Development (WASD), Globalisation, Technology and

Sustainable Development Series. Available at http://www.worldsustainable.org/proceedings/proceedings_2005.pdf

El Khoury, Z. (2013a). *Overview of the SME sector in Lebanon and the Role of the Enterprise*. Beirut. PowerPoint Presentation. Beirut: Ministry of Economy and Trade. Retrieved from www.economy.gov.lb/public/uploads/files/3342_7478_2485.pdf

El-Khoury, Z. (2013b). *An Overview of the State of Competitiveness of SMEs in Lebanon and their Interface with the Intellectual Property System.* PowerPoint Presentation. Beirut: Ministry of Economy and Trade. Retrieved July 30, 2014 from http://www.economy.gov.lb/public/uploads/files/9524_6086_6462.pdf

Erturk, A. (2008). A trust-based approach to promote employees' openness to organizational change in Turkey. *International Journal of Manpower,* 29(5), 462-483.

ESCWA. (2009). *National profile of the information society in Lebanon*. United Nation. Retrieved October 20, 2013 from http://www.escwa.un.org/wsis/reports/docs/Lebanon-09-E.pdf

Esri. (2012). *Transparency and accountability for state and local governments.* New York: Esri. Retrived December 27, 2014 from http://www.esri.com/library/brochures/pdfs/transparency-and-accountability

Estevez, E., & Janowski, T. (2013). Electronic governance for sustainable development - conceptual framework and state of research. *Government Information Quarterly*, 30, S94–S109. http://dx.doi.org/10.1016/j.giq.2012.11.001

Eweni, S. (2012). *A study of e-readiness assessment: the case of three universities in Nigeria.* Published thesis at Southern University, Nigeria. Retrieved July 29, 2013 from http://search.proquest.com.eserv.uum.edu.my/docview/1038942169/13F8F26401F3D DBE1B2/1?accountid=42599

Fawaz, J. (2004). *The Lebanese IT sector and professional computer association.* WITSA General Assembly meeting in Athens. Retrieved October 17, 2013 from http://www.witsa.org/v2/resources/presentations/Archive/TheLebaneseITSector_andProfessionalComputerAssociation.pdf

Ferguson, M., & Popesc, C. (2006). S*ocial responsibility in 100 global corporations: public relations and regional influence.* Proceeding of the 10th international public relations research conference, Roles and scopes of public relations*:* Marcia Watson Distaso. Retrieved September 8, 2013 from http://www.instituteforpr.org/iprwp/wp-ontent/uploads/IPRRC10_Proceedings.pdf

Fornell, C. & Larcker, D. G. (1981). Evaluating structural equation models with unobservable variables*. Journal of Marketing Research*, 18, 39-50.

Fox, N., et al. (2009). *Sampling and sample size calculation.* National Institute for Health Research, UK: the NIHR RDS for the East Midlands, Yorkshire & the Humber.

Frazer, L. & Lawley, M. (2000). *Questionnaire design & administration*. Australia: John Wiley & Sons.

Frechtling, J. (2002). An overview of quantitative and qualitative data collection methods. Ch.3. *The 2002 User Friendly Handbook for Project Evaluation*. The National Science Foundation.

Furlong, S. (2005). *E-government in Canada: Building public trust through citizen-centric governance.* In The knowledge economy in development: Perspectives for effective partnerships, ed. Robert Vitro. Washington, DC: Inter-American Development Bank.

Gajendra, S., et al. (2012). E-government: public participation and ethical issues. *Journal of E-Governance,* 35(4), 195–204.

Gianluca, M., et al. (2011). A multi-level framework for ICT-enabled governance: assessing the non-technical dimensions of 'government openness, *Electronic Journal of e- Government,* 9(2), 152 – 165.

Gilbert, D., et al. (2004). Barriers and benefits in the adoption of e-government. *The International Journal of Public Sector Management*, 17(4), 286-301.

Gillespie, N., & Mann, L. (2004). Transformational leadership and shared values: the building blocks of trust. *Journal of Managerial Psychology*, 19(6), 588-607.

GMCT. (2003). *E-readiness assessment final report*. Bhutan: the division of information technology, Ministry of Communication GMCT Information and Communication Technologies. Available at http://www.unapcict.org/ecohub/resources/bhutan-e-readiness-assessment-final-report

Grigorovici, M. (2004). Info Metrics: a structural equation modelling approach to information indicators and e-readiness measurement. *Proceeding of 15th Biennial Conference of the International Telecommunication Society, September 5-7, 2004* Berlin, Germany. Retrieved July 31, 2013 from citeseerx.ist.psu.edu/viewdoc/download?

Grimmelikhuijsen, S. (2012). Transparency and trust: An experimental study of online disclosure and trust in government. Published thesis at Utrecht University: Mascot. Retrieved November 29, 2013 from http://dspace.library.uu.nl/handle/1874/218113

Gwinner, C. (2011). 5- Points vs. 6-point Likert Scales. *Infosurv.* Available at http://www.infosurv.com/wp-content/uploads/2011/01/Likert_Scale_Debate.pdf

Hair, J., et al. (2010). *Multivariate data analysis: a global analysis*. New Jersey: Pearson

Hair, J. F., et al. (2006). *Multivariate Data Analysis:* New Jersey: Prentice-Hall, Upper Saddle River.

Hamliduzzaman, M. (2012). Does e-governance bring accountability in rural local administration in Bangladesh? *Journal of E-Governance*, 35, 133–142.

Hanushek, E. (2013). Economic growth in developing countries: the role of human capital. Published thesis at Stanford University: California. Available at http://hanushek.stanford.edu/sites/default/files/publications/Education%20and%20 Economic%20Growth.pdf

Haque, P., & Pathrannarakul, P. (2013). E-government towards good governance: A global appraisal. *Journal of E-Governance,* 36(1), 25–34.

Harfouche, A. (2010). *Big brother is watching you: inhibitors and enablers of public e-services in Lebanon*. T Gov Workshop ˝10 (tGOV10), March 18 – 19. West London: Brunel University, UB8 3PH.

Harrison, R. (2013). Using mixed methods designs in the journal of business research, 1990–2010. *Journal of Business Research*, 66(11), 2153–2162.

Hau, K.T., & Marsh H.W. (2004). The use of item parcels in structural equation modeling: Non-normal data and small sample sizes. *British Journal of Mathematical Statistical Psychology. 57*(2), 327–351.

Heeks, R. (2006). Understanding and measuring e-government. *International Benchmarking Studies, UNDESA workshop, E-Participation and E-Government: Understanding the Present and Creating the Future*, Budapest, Hungary, 27-28 July 2006. Retrieved AUGUST 24, 2013 from http://unpan1.un.org/intradoc/groups/public/documents/UN/UNPAN023686.pdf

Heintzman, R., & Marson, B. (2005). People, service and trust: is there a public sector service value chain? *International Review of Administrative Sciences,* 71(4), 549–575.

Hidayanto, A., et al. (2012). *Study of e-procurement implementation impacts: a case study in PT. PLN*. Proceeding of Management of Innovation and Technology (ICMIT), 152

– 157, IEEE International Conference: Sanur Bali. Doi: 10.1109/ICMIT.2012.6225796.

Ho, L., et al. (2012). How social identification and trust influence organizational online knowledge sharing. *Internet Research,* 22(1), 4-28.

Holden, S. H., & Millett, L. I. (2005). Authentication, privacy and the federal government. *Information Society,* 21(5), 367-377.

Holliday, I., & Yep, R. (2005). E-government in China. *Public Administration and Development,* 25(3), 239-249.

Holmes-Smith, P. (2001). *Introduction to structural equation modeling using LISREAL.* Perth: ACSPRI-Winter Training Program.

Hong, Z., & Yan, Y. (1997). *Trust and investment corporations in China.* Working paper, 9706. Federal Reserve Bank of Cleveland. Retrieved from https://www.clevelandfed.org/research/workpaper/1997/wp9706.pdf

Hox, J., & Bechger, T. (2007). An introduction to structural equation modeling. *Family Science Review,* 11, 354-373.

Hu, C. & Wang, Y. (2010). *Bootstrapping in Amos. PPT presentation*. Retrieved June 13, 2014 from http://www3.nccu.edu.tw/~changya/SEMworkshop/Amos_bootstrapping_20100630.pdf

Hulland, J. (1999). Use of partial least squares (PLS) in strategic management research: A review of four recent studies. *Strategic Management Journal, 20*(2), 195-204.

Hunaiti, Z., et al. (2009). Electronic commerce adoption barriers in small and medium-sized enterprises in developing countries: the case of Libya. *IBIMA Business Review*, 2, 37-45. Retrieved November 9, 2013 from http://www.ibimapublishing.com/journals/IBIMABR/volume2/v2n5.pdf

IFGCC. (2013). *Lebanon tax payments get digital lift as ministry rolls out online service.* The Potsdam E-government Competence Centre. Retrieved November 20, 2013 from http://www.ifg.cc/index.php?option=com_content&task=view&id=44594&Itemid=93

Ifinedo, P. (2005). Measuring Africa's e-readiness in the global networked economy: A nine-country data analysis. *International Journal of Education and Development using Information and Communication Technology*, 1(1), 53-71.

IIF. (2005). *Corporate governance in Lebanon: an investor perspective.* IIF Equity Advisory Group, the Institute of International Finance, Inc. Available at http://www.iif.com/download.php?id=2H3vbkSCDvU=

Indjikian, R., & Siegel, E. (2005). The impact of investment in IT on economic performance: implications for developing countries. *World Development*, 33(5), 681–700.

IOS Press. (2005). The role of e-government in Europe's future. *The Journal of E-Government Policy and Regulation,* 28(1), 59-68.

Islam, R. (2003). *Do more transparent governments govern better?* World Bank Policy Research Working Paper 3077. Available at elibrary.worldbank.org/doi/pdf/10.1596/1813-9450-3077

ITU. (2012a). *Briefing about Lebanon's ICT indicators*. The 10th World Telecommunication/ICT Indicators Meeting (WTIM-12), Bangkok, Thailand, 25-27 September, Retrieved from http://www.itu.int/en/ITU-D/Statistics/Documents/events/wtim2012/004_E_doc.pdf

ITU. (2012b). *Measuring the information society*. International Telecommunication Union. Retrieved October 17, 2013 from http://www.itu.int/en/ITU-D/Statistics/Documents/publications/mis2012/MIS2012_without_Annex_4.pdf

Jaeger, P., & Thompson, K. (2003). E-government around the world: Lessons, challenges, and future directions. *Government Information Quarterly,* 20, 389-394.

Jalali, F., & Khorasani, F. (2012). The relationship between e-government and the public trust among the citizens in district 5, Tehran. *Research Journal of Applied Sciences, Engineering and Technology,* 4(23), 5261-5267.

Jeong, C. (2007). *Fundamental of Development Administration*. Selangor: Scholar Press. ISBN 978-967-5-04508-0

John, G., & Reve, T. (1982). The reliability and validity of key informant data from dyadic relationships in marketing channels. *Journal of Marketing Research, 19*(4), 517-524.

Jusoh, H., et al. (2009). The role of efficient urban governance in managing Kuala Lumpur city-region development. *Asian Social Science, 5(8),* 1-19.

Kalsi, N., et al. (2009). Effective e-governance for good governance in India. *International Review of Business Research Papers*, 5(1), 212-229.

Kampen, J., et al. (2006). Assessing the relation between satisfaction with public service delivery and trust in government: the impact of the predisposition of citizens toward government on evaluations of its performance. *Public Performance & Management Review,* 29(4), 387–404.

Kaufmann, D., & Kraay, A. (2003). *Governance and growth: Causality which way? Evidence for the World, in brief.* World Bank Policy Research Working Paper, Washington, D.C

Kaufmann, D., et al. (2008). *Governance matters VII: Aggregate and individual governance indicators, 1996-2007.* World Bank Policy Research, Working Paper No. 4654. Available at SSRN: http://ssrn.com/abstract=1148386 or http://dx.doi.org/10.2139/ssrn.1148386

Kearns, I. (2004), *Public value and e-government*. Institute for Public Policy Research: London.

Kefela, G. (2011). Good governance enhance the efficiency and effectiveness public spending-Sub Saharan countries. *African Journal of Business Management,* 5(11), 3995-3999.

Kenny, D. (2012). *Measuring model fit.* Retrieved October 20, 2013 from http://davidakenny.net/cm/fit.htm

Kettani, D., et al. (2008). Proposition of a method for the development and deployment of e-government systems that emphasize good governance. *Proceeding of International MCETECH Conference on e-Technologies,* IEEE. DOI 10.1109.

Keynes, J. M. (1937). The general theory of employment. *The Quarterly Journal of Economics,* 51(2), 209.

Khan, F., et al. (2010). E-government challenges in developing countries: a case study of Pakistan. *International Conference on Management of e-Commerce and e-Government*, IEEE, DOI 10.1109/ICMeCG.2010.49.39

Khan, M. (2013). E-government, GIS and good governance. *Public management*, 95(1), 18-23.

Khan, M., et al. (2010). Opportunities and challenges for e-commerce in Malaysia: a theoretical approach. *Proceeding of 2nd International Conference on Electronic Computer Technology (ICECT 2010),* Doi: 978-1-4244-7406-6/10/ IEEE.

Kim, B., & Kim, J. (2007). Increasing trust in government through more participatory and transparent government. *Proceeding of Capacity-development Workshop on Restoring Trust in Government through Public Sector Innovations*. Vienna: UNDESA/DPADM, available   at:

http://www.unpan.org/innovmed/documents/Vienna07/28June07/BSKIM.pdf

Kiong, L. (2004). *Analysis of the state of e-commerce adoption by the SMEs in northern Malaysia and factors that might hinder its adoption: an empirical study*. Published thesis at University of Malaya. Retrieved from http://www.vbtutor.net/research/dissertation.pdf

Kluvers, R. (2010). Mechanisms of accountability in local government: an exploratory study. *International Journal of Business and Management*, 5(7), 1-8.

Kline, R. B. (2011). *Principles and practices of structural equation modelling.* (3rd ed). The Guilford Press: USA. Retrieved from http://www.psych.umass.edu/uploads/people/79/Principles_and_Practice_of_Structural_Equation_Modeling_3e.pdf

Krosnick, J., & Presser, S. (2010). Ch.9: Question and questionnaire design. Handbook of Survey Research (2nd Ed.). Emerald Group Publishing Limited.

Lane, J. (1987). Implementation, accountability and trust. *European Journal of Political Research,* 15(5), 527-546. Article first published online on May 29 2006. DOI: 10.1111/j.1475-6765.1987.tb00891.x

Lathrop, D., & Ruma, L. (2010). *Open Government*. (1st Ed), Sebastopol: O'Reilly Media, Inc. ISBN: 978-0-596-80435-0

Lau, E. (2005). E-government and the drive for growth and equity. *Proceedings Conference From E-Gov to I-Gov, organization for economic cooperation and development e-government project.* Retrieved August 26, 2013 from belfercenter.ksg.harvard.edu/files/lau-wp.pdf

Lean, O., et al. (2009). Factors influencing intention to use e-government services among citizens in Malaysia. *International Journal of Information Management. 29(6),* 458-475.

Leary, M. R. (2004). *Introduction to behavioral research methods*. 4th ed. Pearson Education: USA.

Lei, P., & Wu, Q. (2007). Introduction to structural equation modelling: Issues and practical considerations. *Educational Measurement: Issues and Practice*. Published at the Pennsylvania State University. Retrieved from http://ncme.org/linkservid/47EFEB5A-1320-5CAE-6EC90BFDF09AA39E/showMeta/0/

Lou, E. (2010). E-readiness: how ready are UK construction organizations to adopt IT? Egbu, C. (Ed*) Proceeding of 26th Annual ARCOM Conference, 6-8 September,* 947-956. UK: Association of Researchers in Construction Management.

Loughnane, B., et al. (2013). *The coalition's policy for e-government and the digital economy.* Retrieved from http://www.malcolmturnbull.com.au/assets/Coalitions_Policy_for_E-Government_and_the_Digital_Economy_(2).pdf.

Lowcock, M. (2013). *Economic growth: How to get some in a changing world. Department for International Development*. Retrieved July 12, 2013 from https://www.gov.uk/government/

Luyt, B. (2006). Defining the digital divide: the role of e-readiness indicators. *Aslib Proceedings, 58(4),* 276–291.

Ma, L., et al. (2005). E-government in China: Bringing economic development through administrative reform. *Government Information Quarterly*, 22, 20-37.

Mahsud, R., et al. (2011). Human capital, efficiency, and innovative adaptation as strategic determinants of firm performance. *Journal of Leadership & Organizational Studies*, XX(X) 1–18.

Malhotra, N. K., & Stanton, S. C. (2004). Validating inter-object interaction in object-oriented designs. *In proceedings of the 4ᵗʰ IASTED International Conference on Modeling, Simulation and Optimization*, Kauai, Hawaii: USA.

Manika, J., & Roxburgh, C. (2011). *The great transformer: the impact of the internet on economic growth and prosperity.* McKinsey Global Institute. Retrieved from http://www.mckinsey.com/insights/high_tech_telecoms_internet/the_great_transformer

Mansour, I. (2012). Administrative simplification in Lebanon, Office of the Ministry of State for Administrative Reform (OMSAR). Available at: http://www.oecd.org/mena/governance/50298535.pdf

Manyika, J., & Roxburgh, C (2011). *The great transformer: the impact of the internet on economic growth and prosperity.* Mckinsey Global Institute. Available at: http://www.mckinsey.com/insights/high_tech_telecoms_internet/the_great_transformer

Marcel, V. (2013). *Lebanon: What are the governance prospects for the petroleum sector?* Middle East Strategic Perspectives, a Strategic Outlook on Middle Eastern Affairs. Retrieved November 20, 2013 from http://www.mestrategicperspectives.com/2013/05/03/what-are-the-governance-prospects-for-lebanons-petroleum-sector/

McKnight, D., et al. (2002). Developing and validating trust measures for e-commerce: an integrative typology. *Information Systems Research*, 13(3), 334–359.

Meijer, A., et al. (2012). Government 2.0: Key Challenges to Its Realization. *Electronic Journal of e-Government, 10(1),* 59 – 69.

Merchant, S. (2007). Exploring the influence of cultural values on the acceptance of information technology: An application of the technology acceptance model. *Issues in informing science and information technology,* 4(1), 431-443.

Mercuri, R. (2005). Trusting in transparency. *Communications of the ACM,* 48(5), 15-19.

MET. (2013). *Lebanese Economic Highlights*. Economic Research Unit at the Ministry of Economy and Trade: Lebanon. Retrieved from http://www.economy.gov.lb/public/uploads/files/9937_9155_5907.pdf

Meyers, L., et al. (2006). *Applied multivariate research: design and interpretation.* London: Sage Publication.

Moon, M. (2003). Can it help government to restore public trust? Declining public trust and potential prospects of it in the public sector. *In Proceedings of the 36th Hawaii International Conference on System Sciences (HICSS'03),* IEEE. Retrieved from http://ieeexplore.ieee.org/xpls/abs_all.jsp?arnumber=1174303&tag=1

Morgeson, F., et al. (2010). Misplaced Trust? Exploring the structure of the e-government-citizen trust relationship. *The Journal of Public Administration Research*. 21, 257–283.

Morrow, P., & McElroy, J. (2007). Efficiency as a mediator in turnover organizational performance relations. *Human Relations*, 60(6), 827–849.

Mucavele, F. (2003). Improving the investment climate through e-government and e-land registry in Mozambique. *In Proceeding of global forum on international investment; OECD:* Johannesburg. Available at: http://www.oecd.org/daf/inv/investmentstatisticsandanalysis/21002025.pdf

Mundy, D., & Musa, B. (2010). Towards a framework for e-government development in Nigeria. *Electronic Journal of e-Government,* 8(2), 148-161.

Musa, M. (2010). *An e-readiness assessment tool for local authorities: a pilot application to Iraq.* Published thesis at the American University in Cairo. Retrieved from http://dar.aucegypt.edu/bitstream/handle/10526/713/2010ppadmohammedmusa.pdf?sequence=1

Myers, M., & Avison, D. (2002). *Qualitative research in information systems: A reader.* London: Sage Publication. ISBN: 9780761966326.

Narcisse, L. (2010). *The causes of corruption: explaining the high levels of corruption in developing countries.* Published PhD thesis at the University of Texas. ProQuest, UMI: 3414939.

Navarrete, C. (2009). *Understanding trust and its consequences for e-government transactional services: a cross-cultural perspective*. California: Faculty of Claremont Graduate University, Claremont. ProQuest, dissertation & theses, UMI:3351396

Navarro, J., et al. (2012). E-government and citizen's engagement with local affairs through e-websites: The case of Spanish municipalities. *International Journal of Information Management,* 32, 469– 478.

Ndou, V. (2004). E-government for developing countries: opportunities and challenges. *The Electronic Journal on Information Systems in Developing Countries*, 18(1), 1-24.

Newbold, P., et al. (2012). *Chapter: 14.2: analysis of categorical data*. Statistics for Business and Economics (8th Ed.) PH Professional Business. ISBN-13: 978-0-13-274565-9

Nkwe, N. (2012). E-government: Challenges and opportunities in Botswana, *International Journal of Humanities and Social Science,* 2(17).

Norman, G., & Streiner, D. (2003). *PDQ Statistics* (3rd Ed.). London: BC Decker Inc. Available at: http://fhs.mcmaster.ca/surgery/documents/pdq_stats.pdf

NSW. (2001). *E-government readiness assessment guide for government agencies: Guide to better practice in e-ready, e-steady, e-government*. New South Wales: State Library of New South Wales Cataloguing-in Publication Data. Retrieved from http://www.audit.nsw.gov.au/ArticleDocuments/133/88_E_Government.pdf.aspx?Embed=Y

Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory.* (3rd Ed.). NewYork: McGraw-Hill.

Obi, M. (2009). *Development and validation of a scale for measuring e-government user satisfaction.* Nova South Eastern University. Retrieved December 7, 2013 from http://dl.acm.org/citation.cfm?id=1834722

Ochara, N. (2010). Assessing irreversibility of an e-government project in Kenya: Implication for governance. *Government Information Quarterly,* 27, 89–97.

OECD. (2003). *The e-government imperative*. OECD e-government studies. Retrieved October 11, 2013 from http://www.oecd-ilibrary.org/governance/the-e-government-imperative_9789264101197-en

OECD. (2009). *Overcoming barriers to administrative simplification strategies guidance for policy makers.* Regulatory Policy Division: Directorate for Public Governance and Territorial Development. Retrieved November 16, 2013 from http://www.oecd.org/regreform/42112628.pdf

Ojo, A., et al. (2005). *Global survey of electronic government*. E-Macao-Survey Project at United Nations University. Retrieved August 18, 2013 from http://egov.iist.unu.edu/cegov/projects/e-Macao-Survey

Ojo, A., et al. (2007). *Determining progress towards e-government-what are the core indicators?* International Institute of Software Technology, Government of Macau, &

United Nations University. Retrieved from http://www.iist.unu.edu/newrh/III/1/docs/techreports/report360.pdf

Ooi, K., et al. (2012). Does TQM support innovation performance in Malaysia's manufacturing industry? J*ournal of Business Economics and Management*, 13(2), 366–393.

Orgeron, C. (2011). Evaluating citizen adoption and satisfaction of e-government in Mississippi. *International Journal of Electronic Government Research*, 7(3), 57-78.

Osifo, O. (2012). *The effects of ethical governance on public trust: a comparative analysis of anti-corruption policies and procedures in Nigeria, Ghana, and Cameroon.* Finland: University of Vaasa. ISSN 0355–2667, 1799–0173.

Ostlund, U., et al. (2011). Combining qualitative and quantitative research within mixed method research designs: A methodological review. *International Journal of Nursing Studies*. 48, 369–383.

Panzardi, R., et al. (2002). *New-economy sector study electronic government and governance: lessons for Argentina*. The World Bank. Retrieved August 14, 2013 from www-wds.worldbank.org

Parent, M., et al. (2005). Building citizen trust through e-government. *Government Information Quarterly, 22*, 720-736.

Park, H., & Blenkinsopp, J. (2011). The roles of transparency and trust in the relationship between corruption and citizen satisfaction. *International Review of Administrative Sciences*, 77(2), 254-274.

Park, R. (2008). Measuring factors that influence the success of e-government initiatives, *Proceedings of the 41st Hawaii International Conference on System Sciences*, 1530-1605/08, IEEE.

Parker, W., et al. (2012). Development of a community e-portal constellation: Queensland Smart Region Initiative. *Electronic Journal of e-Government,* 10(1), 1-15.

Pathak, R., & Prasad, R. (2005). Role of e-governance in tackling corruption and achieving societal harmony: Indian experience. *Proceeding of the annual conference 200; Network of Asia-pacific schools and institutes of public administration and governance (NAPSIPAG), Beijing,* PRC, 5-7 December. Retrieved from http://www.napsipag.org/pdf/tackling_corruption.pdf

Pillay, S. (2004). Corruption: the challenge to good governance; a South African perspective. *The International Journal of Public Sector Management*, 17(7), 586-605.

Pina, V., et al. (2007). Are ICTs promoting government accountability? A comparative analysis of e-governance developments in 19 OECD countries. *Critical Perspectives on Accounting,* 18, 583–602.

Polit, D., & Beck, C. (2013). *Essentials of nursing research: Appraising evidence for nursing practice.* (8th Ed.). Wolters Kluwer Health: Lippincott.

Politis, J. (2003). The connection between trust and knowledge management what are its implications for team performance. *Journal of Knowledge Management,* 7(5), 55-66.

Porrúa, M. (2013). *E-government in Latin America: a review of the success in Colombia, Uruguay, and panama.* The Global Information Technology Report: World Economic Forum. Retrieved from http://www3.weforum.org/docs/GITR/2013/GITR_Chapter2.3_2013.pdf

Potnis, D., & Pardo, T. (2011). Mapping the evolution of e-Readiness assessments. *Transforming Government: People, Process and Policy*, 5(4), 345– 363.

Rachagan, S. (2010). Enhancing corporate governance in listed companies with concentrated shareholdings, a Malaysian perspective. *Journal of Financial Crime*, 17(4), 430-440.

Raghupathi, W., & Wu, S. (2011). The relationship between information and communication technologies and country governance: an exploratory study. *Communication of the association for information systems,* 28(12), 181-198.

Ramsey, F. (1928). A mathematical theory of saving. *The Economic Journal*, 38(152), 543-559.

Rana, N., et al. (2011). Reflecting on e-government research: Toward taxonomy of theories and theoretical constructs. *International Journal of Electronic Government Research, 7(4),* 64-88.

Rao, M. (2003). Checklist for national e-readiness. *International Trade Forum Magazine*. Retrieved July 26, 2013 from http://www.tradeforum.org/Checklist-for-National-E-readiness/

Rawlins, B. (2008). Measuring the relationship between organizational transparency and trust. *In Proceeding of the 10th international public relations research conference, Roles and scopes of public relations: Marcia Watson Distaso.* Retrieved from September 9, 2013 from http://www.instituteforpr.org/iprwp/wp-content/uploads/IPRRC10_Proceedings.pdf

Reinard, J. (2006). Chapter 17: Modeling Communication Behavior. *In Communication Research Statistics, 451-487.* California State University: USA. Retrieved October 20, 2013 from http://www.sagepub.com/upm-data/10928_Chapter17.pdf

REO. (2012). *Regional economic outlook Update: Middle East and North Africa*. Washington: Middle East and central Asia department. Retrieved July 18, 2013 from www.imf.org/external/pubs/ft/reo/2012/mcd/eng/pdf/mreo1112.pdf

Reyes, L., et al. (2011). Citizen-centric approaches to e-government and the back-office transformation. *In Proceedings of the 12th Annual International Conference on Digital Government Research.* ISBN: 978-1-4503-0762-8

Rokhman, A. (2010). E-government adoption in developing countries: the case of Indonesia. *Journal of Emerging Trends in Computing and Information Sciences*, 2(5), 228-236.

Roscoe, J. T. (1975). *Fundamental research statistics for the behavioural science*. US: Holt, Rinehart & Winston, Inc.

Rotchanakitumnuai, S. (2013). The governance evidence of e-government procurement. *Transforming Government: People, Process and Policy*, 7(3), 309-321.

Rowley, J. (2006). An analysis of the e-service literature: towards a research agenda. *Internet Research*, 16 (3), 339-359.

Ruhanen, et al. (2010). Governance: a review and synthesis of the literature. *Tourism review,* 65(4), 4-16.

Saibene, G., & Sicouri, S. (2012). Effects of currency devaluations on the economic growth in developing countries: the role of foreign currency-denominated debt. *Atlantic Economic Journal*, 40(2), 191-209.

Saidi, N. (2003). *Mobilizing the Arab private sector for corporate governance.* Centre for International Private Enterprise. Retrieved July 11, 2013 from http://www.cipe.org/publications/detail/mobilizing-arab-private-sector-corporate-governance

Saidi, N. (2004). *Corporate governance and business ethics in Lebanon.* Launch of RDCL, code of business ethics: Beirut. Available at: http://216.55.97.163/wp-content/themes/bcb/bdf/articles/ETHICS.pdf

Saidi, N. (2012). *Good governance: Core principles for family businesses in Lebanon & MENA.* Retrieved November 16, 2013 from http://nassersaidi.com/wp-content/uploads/2012/07/Good-Governance-Core-Principles-for-Family-Businesses-in-LEBANON-MENA-JULY-20121.pdf

Saidi, N., & Yared, H. (2002). *E-government: technology for good governance, development and democracy in the MENA countries.* Amman: Mediterranean Development Forum IV. Available at www.passia.org/goodgov/resources/eGovernment.pdf

Salam, M., & Islam M. (2013). E-government service delivery: an assessment of district e-service centres in bangladesh. *JU Journal of Information* Technology (JIT), 2.

Salin, A., & Abidin, Z. (2011). Being transparent: an evidence of a local authority in Malaysia. *In Proceeding of International Conference on Sociality and Economics Development, 10, Singapore: Press.* Retrieved from http://www.ipedr.com/vol10/68-S10002.pdf

Samson, C. (2009). LABEH Leading the fight against corruption. Retrieved December 27, 2013 from http://www.labeh.org/departamentu/transparensia-akuntabilidade-no-kombate-korupsaun/88-questionnaire-on-perception-of-corruption-in-timor-leste.html

Saxena, K. (2005). Towards excellence in e-governance. *International Journal of Public Sector Management,* 18(6), 498-513.

Schneider, D. (2005). *Quantitative data analysis: analysis-quant*. Research Design for Educational Technologists at University of Geneva. Available at http://tecfa.unige.ch/guides/methodo/edu-tech/slides/analysis-quant.pdf

Schneider, G. (2009). *E-business*. (8th Ed.) China: Course Technology, Cengage Learning. ISBN: 978032478807

Sekaran, U., & Bougie, R. (2011). Research *Methods for business: A skill building approach.* (5th Ed.). London: Wiley.

Sekaran, U. (2003). *Research methods for business: A skill building approach*. (4thEd.). New York: John Wiley and Sons

Sentosa, I. (2009). *The Mediating effect of good governance on the relationship between managerial roles and personal development in West Sumatera Provincial government-Indonesia.* Published PhD thesis at Universiti Utara Malaysia.

Shaver, M. (2005).Testing for mediating variables in management research: concerns, implications, and alternative strategies. *Journal of management,* 31(3), 330-353.

Shean, R. (2010). Company secretary: good governance, a tool for better management and outcomes. *Keeping Good Companies*, 62(4), 196-204.

Shook, C. L., et al. (2004). An assessment of the use of structural equation modeling in strategic management research. *Strategic Management Journal*, *25* (4), 397-404.

Siddiqi, S., et al. (2009). Framework for assessing governance of the health system in developing countries: Gateway to good governance. *Health Policy*, 90(1),13-25.

Siddiquee, N. (2008). Service delivery innovations and governance: the Malaysian experience. *Transforming Government People, Process and Policy,* 2(3), 194-213.

Simon, G. (2003). *Multiple regression basics*. New York University. Retrieved from http://people.stern.nyu.edu/wgreene/Statistics/MultipleRegressionBasicsCollection.pdf

Smith, M. (2010). Building institutional trust through e-government trustworthiness cues. *Information Technology & People*. 23(3), 222-246.

Smith, R., & Teicher, J. (2004). Improving governance and services: can e-government help? *In Proceeding of the Network of Asia-Pacific Schools and Institutes of Public Administration conference, Department of management working paper series, Kuala Lumpur 6-8 December.* ISSN 1327-5216.

Spremić, M., et al. (2009). *E-government in transition economies*. World Academy of Science, Engineering and Technology. Retrieved September 3, 2013 from http://waset.org/publications/7690/e-government-in-transition-economies

Srivastava, S. C., & Teo, T. S. H. (2004). A Framework for electronic government: evolution, enablers and resource drainers. *In Proceedings of the Eighth Pacific Asia conference on Information Systems.* Retrieved August 22, 2013 from http://www.pacis-net.org/file/2004/P04-003.pdf

Srivastava, S. C. & Teo, T. S. H. (2005). Citizen trust development for e-government adoption: case of Singapore. *In Proceedings of Pacific Asia conference on Information Systems, Paper 59.* Retrieved August 22, 2013 from http://aisel.aisnet.org/pacis2005/59/

Suh, B., & Han, I. (2003). The impact of customer trust and perception of security control on the acceptance of electronic commerce. *International Journal of Electronic Commerce,* 7(3), 135–161.

Swaid, S., & Wigand, R. (2009). Measuring the quality of e-service: scale development and initial validation, *Journal of Electronic Commerce Research*, 10(1), 13-28.

Tan, K., & Eze, U. (2008). An empirical study of internet-based ICT adoption among Malaysian SMEs. *IBIMA Publishing,* 1(1), 1-12.

Tassabehji, R. (2005). Inclusion in e-government: A security perspective. *In Proceeding of e-government Workshop, September 13, UB8 3PH.* UK: Brunel University.

Tehrani, M. (2007). Some Steps towards implementing e-government. *SIGCAS Computers and Society,* 37(1).

Tembe, P., & Kangning. (2012). Attracting foreign direct investment in developing countries: determinants and policies-a comparative study between Mozambique and China. *International Journal of Financial Research, 3(4). ISSN: 1923-4023.*

Teo, T., et al. (2009). Trust and electronic government success: an empirical study. *Journal of Management Information Systems,* 25(3), 99–131.

The Daily Star. (2010). *Lebanon ranks 93rd place in e-government readiness.* Retrieved November 20, 2013 from http://www.dailystar.com.lb/Business/Lebanon/2010/Jan-20/56021-lebanon-ranks-93rd-place-in-e-government-readiness.ashx#ixzz2kosnNUwP

The Daily Star. (2011). *Lebanon ranks 13th in MENA on Corruption Perception Index.* Retrieved November 20, 2013 from http://www.dailystar.com.lb/Business/Lebanon/2011/Dec-02/155793-lebanon-ranks-13th-in-mena-on-corruption-perception-index.ashx#axzz2lC7MW8Cy

The Daily Star. (2012). *Lebanon improves in e-government index.* Retrieved November 20, 2013 from http://www.dailystar.com.lb/Business/Lebanon/2012/Mar-10/166157-lebanon-improves-in-e-government-index.ashx#axzz2korCTuNA

The Heritage Foundation. (2013). *The 2013 Index of Economic Freedom of Lebanon*, 285-286. Retrieved October 7, 2013 from http://www.heritage.org/index/country/lebanon

Thoms, P., & Scott, K. S. (2002). Relationships between accountability, job satisfaction, and trust. *Human Resource Development Quarterly, 13*(3), 307–323.

TI. (2010). *The good governance challenge: Egypt, Lebanon, Morocco and Palestine.* Transparency International: USAID. ISBN: 978-3-935711-50-0

Tolbert, C., & Mossberg, K. (2006). The effects of e-government on trust and confidence in government. *Public Administration Review*, 66(3), 302–478.

Tong, C. (2013). The mediating effects of service charge transparency on the relationship between corporate social responsibility and customer behavior in Hong Kong's Retail banking sector. *Business and Economic Research*, 3 (1). ISSN 2162-4860.

TRA (2010). Republic of Lebanon, Annual Report 2010. Lebanon: The Telecommunications Regulatory Authority Retrieved from: https://www.google.com.my/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0 CCoQFjAA&url=http%3A%2F%2Fwww.tra.gov.lb%2FLibrary%2FFiles%2FUpload ed%2520files%2FTRA_Annual_Report_2010_EN.pdf&ei=SyBiUu_- LI3_rAf7noBA&usg=AFQjCNE5j3OQvljQ6xWYS4BedbLqT91x-w.Accessed on: 19-10-2013.

Tuli, F. (2010). The basis of distinction between qualitative and quantitative research in social science: reflection on ontological, epistemological and methodological perspectives. *Ethiop. J. Educ. & sc.,* 6(1), 97-108.

UN. (2003). *World Public Sector Report: E-government at the crossroads.* United Nations. Retrieved November 5, 2013 from *http://www*.unpan1.un.org/intradoc/groups/public/documents/un/unpan012733.pdf

UN. (2012). United Nations e-government survey 2012: e-government for the people. New York: United Nations. ISBN: 978-92-1-123190-8

UNDP. (2008). *A guide to UNDP democratic governance practice*. United Nations Development Program. Retrieved October 3, 2013 from http://www.undp.org/content/dam/aplaws/publication/en/publications/democratic-governance/dg-publications-for-website/a-guide-to-undp-democratic-governance-practice-/DG_FinalMaster2-small.pdf

UNESCAP. (2012). *What is good governance?* United Nations Economic and Social

Commission for Asia and the Pacific. Retrieved October 3, 2013 from

www.uniscap.org/huest/gg/governance.htm

UNESCO. (2011). *Global open access portal.* Retrieved July 16, from

http://www.unesco.org/new/en/communication-and-information/portals-and-

platforms/goap/access-by-region/arab-states/lebanon/

Unger, P., & Dougherty, R. (2013). *Accreditation: Facilitating world trade*. International

Accreditation Forum. Retrieved July 18, 2013 from

http://www.iaf.nu/articles/World_Accreditation_Day_2013/272

US Commercial Services. (2012). *Doing business in Lebanon* i*n 2012*. Country

commercial guide for U.S companies. Retrieved October 20, 2013 from

http://photos.state.gov/libraries/lebanaon/231771/PDFs/Country%20Commercial%20

Guide%20Lebanon%202012.pdf

Volken, T. (2002). Elements of trust: the cultural dimension of internet diffusion revisited.

Electronic Journal of Sociology. ISSN: 1198 3655. Retrieved from

http://sociology.org/content/vol006.004/volken.html.

Vu, K. (2011). ICT as a source of economic growth in the information age: empirical

evidence from the 1996–2005 periods. *Telecommunications Policy,* 35, 357–372.

Walker M., et al. (2008). *Trust in government and its changing dimensions: an exploration

of environmental policy in Hong Kong.* Asian Forum on Public Management, National

Chi-Nan University: Taiwan. Retrieved December 8, 2013 from

http://hub.hku.hk/handle/10722/63655

Wang, H., & Hou, J. (2010). Main contributions of e-governance. *In Proceedings of the

International Conference on Computer Design and Applications*: Qinhuangdao, (1),

173-176. DOI: 10.1109/ICCDA.2010.5541196

Warkentin, M., et al. (2002). Encouraging citizen adoption of e-government by building trust, *Electronic Markets*, 12(3), 157–162.

WASEDA. (2006). *The 2006 e-government ranking*. *WASEDA* University: Tokyo. Retrieved July 23, 2013 from http://zunia.org/post/ranking-2006-world-e-government-ranking-by-waseda-university-japan

Weaver, M. (2006). *Formula for calculating sample size*. A statistic consulting at research support centre, School of Nursing, University of North Carolina: Chapel Hill.

Weforum. (2013). *Global risks. (8th Ed.).* Switzerland: World Economic Forum. Retrieved from www3.weforum.org/docs/WEF_GlobalRisks_Report_2013.pdf

Welch, E. (2012). The relationship between transparent and participative government: A study of local governments in the United States. *International Review of Administrative Sciences,* 78 (93).

Welch, E., & Hinnant, C. (2003). Internet use, transparency, and interactivity effects on trust in government. *In Proceedings of the 36th Hawaii International Conference on System Sciences,* IEEE. Retrieved from www.hicss.hawaii.edu/HICSS36/HICSSpapers/ETEDE05.pdf

Welch, E., et al. (2005). Linking citizen satisfaction with e-government and trust in government. *Journal of Public Administration Research and Theory*, 15(3), 371-391.

West, D. (2004). E-government and the transformation of service delivery and citizen attitudes. *Public administration review*, 64(1), 15-27.

West, D.M. (2005), *Digital government: Technology and public sector performance*, Princeton University Press, Princeton, NJ.

WITSA. (2000). *International survey on e-commerce*. The World Information Technology and Services Alliance. Retrieved from www.witsa.org/papers/EComSurv.pdf

Wong, W., & Welch, E. (2004). Does e-government promote accountability? A comparative analysis of website openness, government accountability, and Governance. *International Journal of Policy, Administration, and Institutions,* 17(2), 275–297.

World Bank. (2013a). *Middle East and North Africa annex.* Global economic prospects. Retrieved from http://go.worldbank.org/G1G7RXHJC0

World Bank. (2013b). *Global outlook: World economic situation and prospects 2013*, New York: United Nations. Retrieved July 18, 2013 from http://www.un.org/ru/publications/pdfs/2013%20world%20economic%20situation%20and%20prospects.pdf

World Bank (1989), Sub-Saharan Africa: From Crisis to Sustainable Growth, World Bank, Washington

Wothke, W. (2010). *Introduction to structural equation modeling course notes*. The American Institute of Research: US. Retrieved from http://www.smallwaters.com/Courses%20and%20Presentations/Structural%20Equation%20Modeling/Introduction%20to%20SEM%20with%20Proc%20Calis/Introduction%20to%20SEM%20(Webinar%20Slides).pdf

Wu, A. D., & Zumbo, B. D. (2007). Understanding and using mediators and moderators. *Social Indicators Research*, *87*(3), 367–392.

Zaied, A., et al. (2007). Assessing e-readiness in the Arab Countries: Perceptions towards ICT environment in public organizations in the State of Kuwait. *The Electronic Journal of e-Government, 5(1),* 77 – 86.

Zarimpas, V., et al. (2009). Assessing e-readiness in SEE countries: Perceptions towards e-Government public services. *In Proceeding of Fourth Balkan Conference in Informatics, Thessaloniki*: Greece. 141-147. ISBN: 978-0-7695-3783-2

Zhai, C. (2011). Study on environment factors affecting B2B e-marketplace adoption in China: from e-readiness perspective. *In Proceeding of Computer Science and Service System International Conference.* IEEE. ISBN: 978-1-4244-9763-8/11/.

Zhuang, Y., & Lederer, A. (2003). An instrument for measuring the business benefits of e-commerce retailing. *International Journal of Electronic Commerce,* 7(3), 65-99.

Zikmund, W. (2003). *Essential of marketing research* (2nd Ed.) Sydney: Thomson learning.

Zucker, L.G. (1986). Production of trust: institutional sources of economic structure, 1820-1920. In B.M. Staw and L.L. Cummings (Eds.), *Research in Organizational Behavior*, 8, 53-111, Greenwich, CT: JAI Press.