

# The Influence of E-government Practices on the Public Trust in Lebanon

Hassan Alaaraj<sup>1</sup>, Fatimah Wati Ibrahim<sup>2</sup>

---

**Abstract:**

*The purpose of this paper is to examine empirically the influence of e-government practices on the public trust in Lebanon. It presents a theoretical research framework to understand these relationships supported by literature review from recent studies. A quantitative methodology was applied and a survey was conducted on 600 SMEs in the Capital Beirut, where self-administered questionnaires were distributed among managers and employees resulting 94 percent usable response rate. Based on the diffusion of innovation theory (DOI) and institutional trust and trustworthiness theory, the theoretical research framework was developed and four hypotheses were proposed in which two were accepted and two were rejected through analyzing the data by SPSS and SEM using AMOS. The main findings indicate that e-government practices have a positive and significant influence on public trust in general but in particular, public trust is positively and significantly influenced by e-service but not by e-administration and e-procurement. Implications and limitations of the study are also discussed where future studies are recommended to extend the empirical research geographically and highlight more on the relationship between government and public attributes in developing countries. Moreover, different methodologies can be applied to obtain variety of responses which in turn in rich the literature.*

*Keywords: E-government, E-service, Public trust, Lebanon.*

---

---

<sup>1</sup> School of Economics, Finance and Banking, College of Business, University Utara Malaysia, Kedah Darul Aman, Malaysia. [araj.hassan@hotmail.com](mailto:araj.hassan@hotmail.com)

<sup>2</sup> Professor at School of Economics, Finance and Banking, College of Business, University Utara Malaysia, Kedah Darul Aman, Malaysia. [fatimah@uum.edu.my](mailto:fatimah@uum.edu.my)

## 1. Introduction

The growth of any economy depends on the level of government readiness to adopt and implement new technologies and innovative development strategies. Loughnane et al. (2013) state that most of the expected economic outcomes are affected by innovative digital strategies such as e-government. E-government is considered as an essential improvement strategy for governments as one of the most leading aspects of the economic reform (Unger & Dougherty, 2013). However, there is delay in the rate of improvements especially in developing countries such as Lebanon which is due to the weak financial planning, lack of good governance, corruption, shortage of technology, weakness in the investments and mainly lack of trust in government (Cable, 2013).

According to the World Bank report (2013), high levels of trust in government are considered essential for societies to prosper and for governments to function well. Yet, it is recently noticed that the level of trust in government has remarkably deteriorated in most of the developing countries. Most of survey studies have shown a worrying trend of declining trust in democratic governance institutions (Grimmelikhuijsen, 2012; Smith, 2010; Ahrens, 2006; Hong & Yan, 1997). Hence, this study aims to highlight the current status of e-government in Lebanon and determine empirically its influence on the public trust through conducting a survey among small and medium enterprises (SMEs) in the capital Beirut.

## 2. State of E-government and Public Trust in Lebanon

Despite of the tough political, security and economic situations that have weighed down Lebanon for a number of years ago, the Lebanese government has enrolled a series of improvement strategies for the utilization of ICT as an increasingly acceptable means of interaction among government, business sector and the Public as well (Choueiri et al., 2013). 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). According to the Weforum (2013), Lebanon was ranked the 84<sup>th</sup> out of 135 countries regarding its ICT infrastructure and some efforts were developed to improve an appropriate environment for citizens and foreigners to do investment in the country. Such efforts include the establishment of involved organizations and committees such as the Ministerial ICT Committee (MICTC), the Professional Computer Association (PCA), the National e-strategy, Telecommunication

Regulatory Authority (TRA), Ijma3, WIT, Saradar and ITIA (ITU, 2012a; TRA, 2010; ESCWA, 2009; Fawaz, 2004).

The Lebanese government has started the economic reform by implementing the e-government strategy since it is considered as a part of the national e-strategy (IFGCC, 2013). It involves building up ICT centers in the public institutes for training and promoting knowledge among the civil servants. In addition, it tends to develop a high quality of government services online for both customers and providers as well (Mansour, 2012). Practically, the Lebanese Ministry of Finance has launched one of its e-services in 2011 for paying taxes online where it was expected to increase the government profits, reduce time and cut expenditures incurred by citizens (IFGCC, 2013). Similarly, The Ministry of Water and Energy has launched the water evaluation and planning (WEAP) program in 2011 to connect all ministries' information together through an automated electronic system (Choueiri et al., 2013). Moreover, Saidi (2004) emphasized on the importance of e-procurement at the public sector to supply governments by the necessary services and goods.

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 93<sup>rd</sup> position among 183 countries globally and 11<sup>th</sup> amongst 19 countries in the Middle East and North Africa (MENA). While in 2012, Lebanon was ranked the 87<sup>th</sup> out of 190 countries in the world and the seventh out of 17 nations in the MENA region. The aim of e-government is to decline the delivery cost of government services and eliminate the corruption that has spread widely in both private and public sector in Lebanon (Saidi, 2004).

Hence, e-government is being implemented to achieve efficient governance that would enhance the public trustworthiness and fight corruption in developing countries (Pathak & Prasad, 2005). Lebanon is experiencing a serious corruption state where it is ranked 128 among 176 countries regarding corruption index and the 12 amongst 17 countries in the MENA region (Bank Med, 2013; CPI, 2012; The Daily Star, 2011). As indicated by previous studies that corruption leads citizens to mistrust the government and may withdraw voluntary compliance of governmental demands and regulations or even actively resist governmental policy. This makes the government incapable of performing the tasks required of it (Smith, 2010). Thus, establishing an effective system of e-government could resolve the problems and enhance the public trust (Kefela, 2011).

At the present time, there are limited empirical studies in Lebanon about e-government implementation and the literature is narrowed to the concepts of challenges and opportunities (Choueiri et al., 2013; Al-azar, 2012; Fawaz, 2004). Therefore, this paper contributes empirically in determining the influence of e-government practices on the public trust towards the government in Lebanon.

### 3. Literature Review

The decline of public trust in government has been a motivation for conducting many studies (Alsaghier et al., 2009; Srivastava & Teo, 2005; Warkentin et al., 2002) since trust is a crucial and required aspect for most of social and economic interactions as well as an important element of a healthy economy and society. According to Walker et al. (2008), the main features of trust involve benevolence, credibility, competency, concern, consistency, fairness, honesty, integrity, openness and reliability. Therefore, it is defined 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 (Orgeron, 2011; Navarrete, 2009). Others define trust as “the belief that the other party will behave as expected in a socially responsible manner, and in doing so, it will fulfill the trusting party’s expectations” (Warkentin et al., 2002).

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. It is also 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). Hence, trust in public institutions can be enhanced through improvement of administrative rules, standards, laws and regulations relating to provision of services and information (Welch et al., 2005).

E-government has been proposed by many studies as a solution for increasing citizen communication and trust with government (Lowcock, 2013; Manika & Roxburgh, 2011; Berthon et al., 2008; Tolbert and Mossberger, 2006; Lau, 2005). By definition, e-government is “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 the efficiency and effectiveness of service delivery in the public sector” (Jeong, 2007).

E-government through its different dimensions namely e-service, e-administration and e-procurement can help governments to make the procedures well-organized and offer better quality of services in order to provide more trust among the community. E-service is referred to connecting the relationship between citizens and government through automating the services (Ndou, 2004). It includes several types of services such as vehicle and driver registration, summons, licensing services, payment of electricity, telephone and internet bills (Siddiquee, 2008). 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).

On other hand, e-administration is the investment in ICT to advance accountability and transparency within public organizations to shift from a traditional office into paperless or automated administrative and modernized public programs (UNDP, 2008). As for e-procurement, it employs online information technology to purchase services and goods for public sectors from businesses (Rotchanakitumnuai, 2013). The importance of e-procurement is evidenced through several studies (Rotchanakitumnuai, 2013; Hidayanto et al., 2012; Aman & Kasimin, 2011; Siddiquee, 2008) including saving time and cost, reducing corruption, improving the administration performance and increasing the efficiency of purchasing process.

Different studies (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. 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 and Walle, 2003). The relationship between e-government and public trust was examined empirically by several studies (Jalali & Khorasani, 2012; Tolbert & Mossberger, 2006; Parent et al., 2005; Welch & Hinnant, 2003). Most of the research findings indicate a positive and significant relationship between these constructs. However, there is a lack of empirical studies conducted in Lebanon.

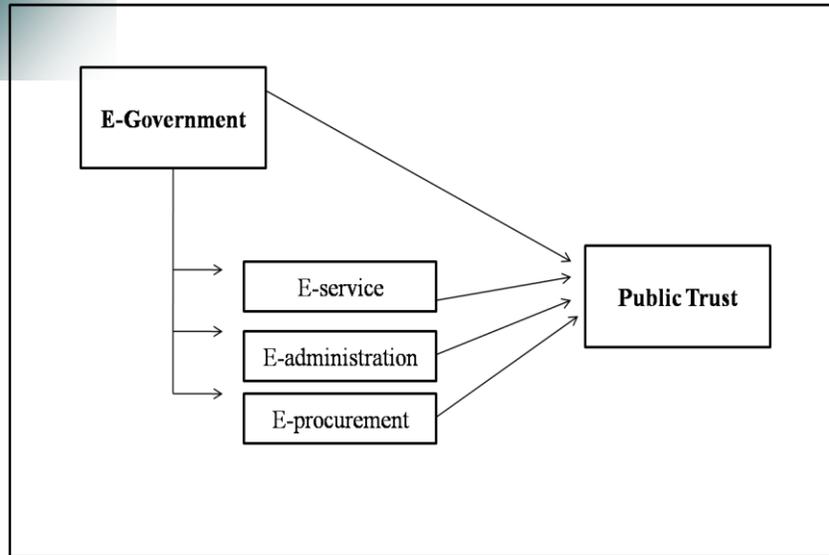
Therefore, the aim of this paper is to fill the gaps in literature, especially by highlighting the status of e-government and its influence on the public trust in a country that is facing a deteriorated situation of corruption and trustworthiness as Lebanon.

#### **4. Research Framework**

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. Thus, developing the theoretical research framework is derived from two theories namely the diffusion of innovation theory (DOI) and institutional trust and trustworthiness theory.

DOI is a popular theory that was used in most of ICT researches to explain user's adoption of new innovations and technologies (Sang et al., 2009; Lean et al., 2009; Carter & Bélanger, 2005; Rogers, 1995). Moreover, the theory of building institutional trust and trustworthiness through e-government implementation was adopted by several studies (Smith, 2011; Das et al., 2008; McKnight et al., 2002) where trust can be transferred through channels of communication including e-government practices.

Therefore, this paper measures the level of public trust towards the government in Lebanon through utilization of e-government practices. Based on the theoretical and conceptual literature review, four hypotheses were developed to test the effect of e-government practices on public trust as illustrated in Figure 1. H 1: e-government has a positive and significant influence on public trust. H 2: e-service has a positive and significant influence on public trust. H3: e-administration has a positive and significant influence on public trust. H 4: e-procurement has a positive and significant influence on public trust.



**Figure 1:** *Theoretical Research Framework*

## 5. Methodology and Data Collection

In this research, a quantitative methodology was applied and a survey was conducted on 600 SMEs in Beirut, Lebanon. SMEs were chosen as the sample of the study since managers and employees are considered as educated respondents who are familiar with ICT and interact with the government electronically more frequently than other citizens by virtue of their working conditions.

Thus, a total of 400 self-administered questionnaires were distributed among employees and managers. The questionnaire was composed of 34 items derived from valid and reliable previous studies (Rotchanakitumnuai, 2013; Dawlati, 2013; Jalali & Khorasani, 2012; Grimmelikhuijsen, 2012; Park & Blenkinsopp, 2011; Bankole, 2011; Al-Zoubi et al., 2011; Alanezi et al., 2010; Rokhman, 2010; Alsaghier, et al., 2009; Navarrete, 2009; Colesca, 2009; Swaid & Wigand, 2009; Samson, 2009; Teo, et al., 2009; OBI, 2009; ECIS. 2009; Rawlins, 2008; Heintzman & Marson, 2005; Kiong, 2004; West, 2004; Zhuang & Lederer, 2003; Eakin, 2003; Welch & Hinnant, 2003; Panzardi et al, 2002). Respondents were asked to rate their level

of agreement on six point Likert scales (1) strongly disagree (2) disagree (3) fairly disagree (4) fairly agree (5) agree (6) strongly agree.

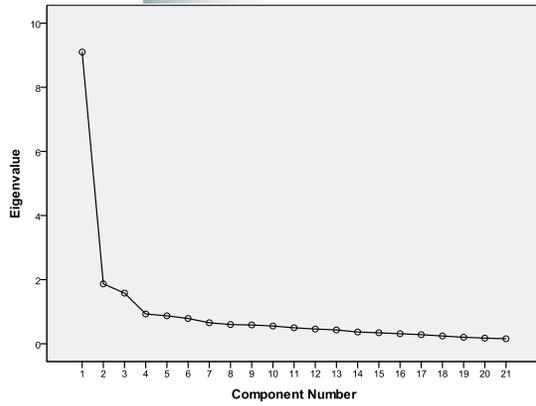
The response rate was 98% with 390 returned questionnaires. However, only 375 questionnaires were usable and applicable for analysis representing 94% usable response rate. Statistical Package for Social Science (SPSS 19) was used to identify the demographic characteristics and to measure the validity and reliability of data collected. Then, the causal relationship among the variables of the proposed theoretical framework was measured by using structural equation modeling (SEM) through AMOS 16 software.

Males represented the majority of respondents with 60% while 40% were females. The demographic results also showed that most of the respondents (49.3%) were between 41 and 50 years old. Also 49.6 % of the respondents have a high level of education with a master degree. Moreover, 45.1% of respondents had very good ICT skills and 43.7% of respondents use ICT very frequently. The variables of the study were measured through 34 items which showed a good level of internal consistency as illustrated in Table 1. The values of Cronbach's Alpha coefficient ( $\alpha$ ) ranged between 0.83 and 0.93 which are considered acceptable compared to the threshold  $\alpha = 0.70$  as suggested by Hair et al. (2010) and Shook et al. (2004).

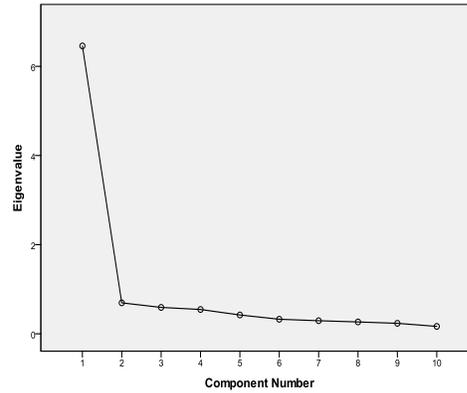
**Table 1: Reliability Test Results**

Variable	Number of items			$\alpha$	
Public trust	10			0.93	
E-government	24	ES	8	0.88	0.93
		EA	9	0.83	
		EP	7	0.90	

The measured variables showed also an acceptable validity when tested through Explanatory Factor Analysis (EFA). Figure 2 and Figure 3 illustrates how the items of e-government loaded on three components ES, EA and EP with accepted Kaiser-Meyer-Olkin value (KMO = 0.92), in which the threshold is 0.5 as suggested by Hair et al. (2010). Items of public trust loaded only on one component as it is the dependent variable with KMO = 0.94.



**Figure 2:** Screen Plot of E-government



**Figure 3:** Screen Plot of Public Trust

## 6. The Causal Relationship between E-government Practices and Public Trust

The variables of the proposed framework were measured for validity and goodness of fit using Confirmatory Factor Analysis (CFA) through using AMOS/SEM as an initial step to assess the final structural model. As shown in Figure 4 and Figure 5 respectively. The first order and second order structural models have achieved the recommended goodness of fit indices as suggested by Hair et al. (2006). These indices are represented in Table 2.

**Table 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

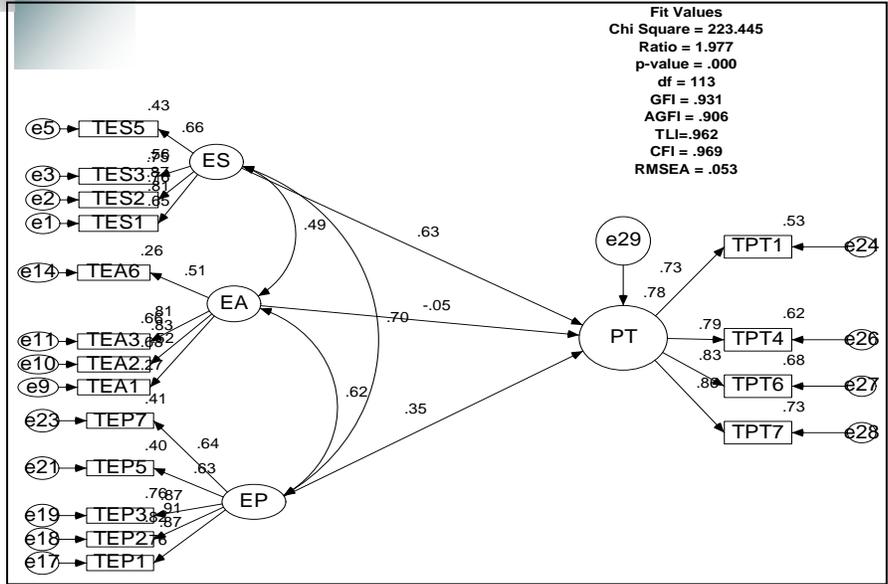


Figure 4: First Order structural Model for ES, EA and EP with PT

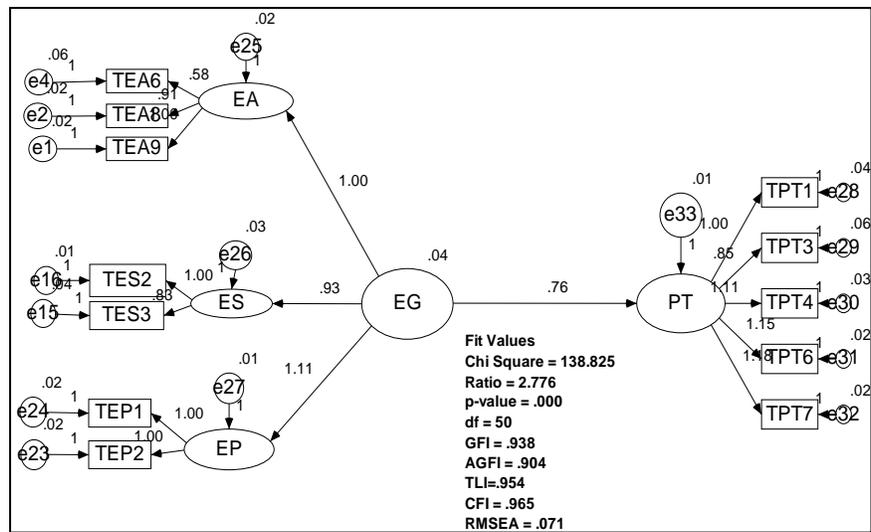


Figure 5: Second Order Structural Model for E-government and Public Trust

The direct relationship between e-government practices and public trust are illustrated in Table 3. The results support the first hypothesis, where e-government - as a second order structural model - has a positive and significant influence on public trust at 0.001 level ( $\beta = 0.763$ ). But in particular, the outcomes obtained from the first order structural model showed variety of results. E-service has a positive and significant influence on public trust at 0.001 level ( $\beta = 0.565$ ) supporting the second hypothesis. However, e-administration has an insignificant influence on public trust ( $\beta = -0.070$ , P-value = 0.336) rejecting the third hypothesis. Although e-procurement showed a significant relationship with trust at 0.001 level, but it performed a weak influence with  $\beta = 0.286 < 0.5$  as suggested by Hair et al. (2006). Therefore, the fourth hypothesis is not well supported.

**Table 3: Regression Weights: (Group number 1 - Default model)**

IV		DV	Estimate ( $\beta$ )	S.E.	C.R.	P
EG	->	PT	.763	.071	10.680	***
ES	->	PT	.565	.062	9.108	***
EA	->	PT	-.070	.072	-.963	.336
EP	->	PT	.286	.055	5.218	***

\*\*\* Significant at P-value = 0.001

## 7. Discussion

The research findings related to the positive and significant influence of e-government practices on public trust are 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 means that the Lebanese public have encouraging intentions toward the use of e-government practices in Lebanon because they feel that making transactions online has lot of advantages for both government and public.

Also the findings indicate that e-service has a positive and significant influence on public trust which is similar to previous research findings by Smith (2010), Bavec (2008), Furlong (2005) and Alanezi et al. (2001). 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.

However, the results indicate that e-administration and e-procurement are not positively influencing public trust. Maybe such practices 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. In addition, 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.

## **8. Conclusion**

In conclusion, this study has empirically achieved the suggested objectives and illustrated the influence of e-government on public trust in Lebanon. It has contributed theoretically to the literature by providing more detailed relationships regarding e-government practices. It has also contributed empirically by highlighting the case study of Lebanon as one of the developing countries that are struggling to implement e-government strategies for their economic reform. The limitation of this study is related to the sample which is restricted to managers and employees of SMEs in Beirut. Thus, future studies can expend the survey geographically and try to have variety of respondents to obtain more generalizable research outcomes. In addition, different methodologies can be applied from qualitative approach to explain the relationship more in details.

## References

- 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](http://www.oecd.org/dac/governance-development/37791185.pdf)
- 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.
- 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>
- 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.
- 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.
- 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.
- 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
- 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.

- 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.
- 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-increasing-trust-in-uk-business.pdf](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-increasing-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.
- Choueiri, E., et al. (2013). An overview of e- government strategy in Lebanon. *International Arab Journal of E-Technology*, 3(1).
- Colesca, S. (2009). Understanding trust in e-government. *Inzinerine Ekonomika-Engineering Economics*, (3), ISSN 1392 – 2785.
- 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](http://www.ey.com/Publication/vwLUAssets/2012_TI_CPI/$FILE/2012%20TI%20CPI.pdf)
- 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>
- 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>
- 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>
- 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>
- 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](http://www.witsa.org/v2/resources/presentations/Archive/TheLebaneseITSector_andProfessionalComputerAssociation.pdf)

- 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>.
- 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.
- 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.
- 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>
- 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.
- 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>
- 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](http://www.ifg.cc/index.php?option=com_content&task=view&id=44594&Itemid=93)
- ITU. (2012a). *Briefing about Lebanon's ICT indicators*. The 10<sup>th</sup> 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](http://www.itu.int/en/ITU-D/Statistics/Documents/events/wtim2012/004_E_doc.pdf)
- 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
- 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.
- Kefela, G. (2011). Good governance enhance the efficiency and effectiveness public spending-Sub Saharan countries. *African Journal of Business Management*, 5(11), 3995-3999.
- 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](http://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.
- 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](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](http://www.gov.uk/government/international-development). Retrieved July 12, 2013 from <https://www.gov.uk/government/international-development>
- 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](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>
- Meijer, A., et al. (2012). Government 2.0: Key Challenges to Its Realization. *Electronic Journal of e-Government*, 10(1), 59 – 69.
- 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
- Ndou, V. (2004). E-government for developing countries: opportunities and challenges. *The Electronic Journal on Information Systems in Developing Countries*, 18(1), 1-24.
- McKnight, D., et al. (2002). Developing and validating trust measures for e-commerce: an integrative typology. *Information Systems Research*, 13(3), 334–359.
- 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>

- Orgeron, C. (2011). Evaluating citizen adoption and satisfaction of e-government in Mississippi. *International Journal of Electronic Government Research*, 7(3), 57-78.
- 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](http://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.
- 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](http://www.napsipag.org/pdf/tackling_corruption.pdf)
- Rawlins, B. (2008). Measuring the relationship between organizational transparency and trust. *In Proceeding of the 10<sup>th</sup> 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](http://www.instituteforpr.org/iprwp/wp-content/uploads/IPRRC10_Proceedings.pdf).
- Rogers, E. M. (1995). *Diffusion of Innovation*. New York: Free Press.
- 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.
- Rotchanakitumnuai, S. (2013). The governance evidence of e-government procurement. *Transforming Government: People, Process and Policy*, 7(3), 309-321.
- 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>
- 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>.
- Sang, S., et al. (2009). E-Government Adoption in ASEAN: the Case of Cambodia. *Internet Research*, 19(5), 517-534.
- 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.

Siddiquee, N. (2008). Service delivery innovations and governance: the Malaysian experience. *Transforming Government People, Process and Policy*, 2(3), 194-213.

Smith, M. (2011). Limitations to building institutional trustworthiness through e-government: a comparative study of two e-services in Chile. *Journal of Information Technology*, 26, 78–93.

Smith, M. (2010). Building institutional trust through e-government trustworthiness cues. *Information Technology & People*. 23(3), 222-246.

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/>

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.

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).

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. (2011). *Lebanon ranks 13<sup>th</sup> 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#axzz2IC7MW8Cy>

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>

Tolbert, C., & Mossberg, K. (2006). The effects of e-government on trust and confidence in government. *Public Administration Review*, 66(3), 302–478.

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=0CCoQFjAA&url=http%3A%2F%2Fwww.tra.gov.lb%2FLibrary%2FFiles%2FUploaded%2520files%2FTRA\\_Annual\\_Report\\_2010\\_EN.pdf&ei=SyBiUu\\_-LI3\\_rAf7noBA&usg=AFQjCNE5j3OQvIjQ6xWYS4BedbLqT91x-w](https://www.google.com.my/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CCoQFjAA&url=http%3A%2F%2Fwww.tra.gov.lb%2FLibrary%2FFiles%2FUploaded%2520files%2FTRA_Annual_Report_2010_EN.pdf&ei=SyBiUu_-LI3_rAf7noBA&usg=AFQjCNE5j3OQvIjQ6xWYS4BedbLqT91x-w). Accessed on: 19-10-2013.

- 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](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)
- 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>
- 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>
- Warkentin, M., et al. (2002). Encouraging citizen adoption of e-government by building trust, *Electronic Markets*, 12(3), 157–162.
- Weforum. (2013). *Global risks. (8<sup>th</sup> Ed.)*. Switzerland: World Economic Forum. Retrieved from [www3.weforum.org/docs/WEF\\_GlobalRisks\\_Report\\_2013.pdf](http://www3.weforum.org/docs/WEF_GlobalRisks_Report_2013.pdf)
- Welch, E., & Hinnant, C. (2003). Internet use, transparency, and interactivity effects on trust in government. In *Proceedings of the 36<sup>th</sup> Hawaii International Conference on System Sciences*, IEEE. Retrieved from [www.hicss.hawaii.edu/HICSS36/HICSSpapers/ETEDE05.pdf](http://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.
- World Bank. (2013). *Middle East and North Africa annex*. Global economic prospects. Retrieved from <http://go.worldbank.org/G1G7RXHJC0>
- 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
- 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.