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Developing SWOT/ TOWS Strategic Matrix for E-government in Lebanon

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Abstract

E-government represents an important reform tool mainly with the escalation of ICT in the globe. It improves the public sector through transforming services, promoting economic vitality and enhancing governance. Hence, this paper aims to reveal the opportunities and challenges of e-government in Lebanon through SWOT analysis and TOWS matrix. The paper adopts a combination of analytical and descriptive methods based on analyzing secondary data derived from different statistical reports. The findings show the opportunities that can advance the e-government mainly the efforts and the organizations' readiness which have been prepared to support the ICT infrastructure in Lebanon. Moreover, the analysis illustrates the challenges facing the sector especially the lack in leadership, trust, awareness, unsecure corruption gaps and political instability in the country. Finally, this study suggests strategies for the successful implementation of e-government in Lebanon through various combinations of the external and internal factors.

Keywords: ICT, E-government, SWOT analysis, TOWS matrix, Lebanon.

1. Introduction

In the last two decades, governments have been focusing on the importance of implementing e-government as an effective means for serving both public and governors as well. It uses the information and communication technology (ICT) to transform the traditional public sector and achieve good governance by making it more efficient, accountable, effective and transparent. This in turn boosts the trust among the public and build a strong relationship with the governments and whole society as well (Al Athmay, 2013; Azab et al., 2009). E-government has been widely defined in the literature according to many approaches. For instance, United Nations (UN) defined it as "the employment of the internet and the world-wide-web for delivering government information and services to the citizens" (UN, 2012). Transforming the traditional government into e-government is essential for both public and private sectors since it strengthens the e-economy through providing e-services that contribute to cutting the administrative costs and improving its efficiency away from bureaucratic barriers (Bwalya et al., 2012; Cellary, 2008). Rokhman (2011) categorized three various advantages of using e-government; transforming services to make it more accessible to the public, renewing local democracy to make it more accountable and promoting local economic vitality through finding the environment of e-business. Since implementing e-government in majority of developing countries including Lebanon is considered a challenge, it is important to do the SWOT analysis for the status of e-government in Lebanon to find out the challenges and benefit from the available opportunities that would enhance the efficiency of e-government implementation.

2. Status of Lebanese E-Government

Accordingly and despite of the hard political conditions that have plagued Lebanon for many years, the Lebanese government has enrolled a series of projects to improve e-government and match the laws over the past decade (Choueiri et al., 2013). In the last five years, the ICT sector in Lebanon has witnessed a critical turnover in terms of improvement and growth. This expansion was screened through the high tech community that placed Lebanon among the developing ICT markets in the region (Bank Med, 2014). Thus, it leans to develop a vision and strategy for the utilization of ICT in order to follow reform and change in both government and national levels.

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 research conducted by Weforum (2013), Lebanon was ranked the 84th out

of 135 countries regarding the ICT infrastructure and it occupied the 93rd position among 144 countries on the topic of the modest technological readiness. In addition, the United Nations' Electronic Government Readiness Index has shown a significant progress for e-government in Lebanon from 2010 to 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 was ranked the 87th out of 190 countries in the world and the seventh out of 17 nations in the MENA region (The Daily Star, 2012). The initiatives of developing e-government system were noticed since 1996 where the Professional Computer Association (PCA) was established in order to enhance the services efficiency and reinforce the relation between the administration and citizens. Thus, to create an e-government portal which aims to modernize the public administration and change it from traditional bureaucratic procedures to modern techniques (Omsar, 2013). In 1997, the Ministerial ICT Committee (MICTC) was established to manage and develop the implementation of the ICT agenda in Lebanon (ESCWA, 2011) then in 1998, the first IT national policy and strategy was developed for both private and public schemes.

Afterwards, the national e-government strategy was set up in 2002 to move the economy and society of Lebanon towards a knowledge based economy. These strategies were updated later on in 2008 to meet the most up-to-date international trends and national challenges (ESCWA, 2011). Recently, the Office of the Minister of State for Administrative Reform (OMSAR) has prepared a five years action plan; from 2011 till 2015 to implement the e-government strategy of 2008. Since its establishment in 1994, the core mission of this office is to help fighting the challenging aspects of government costs, coordination and legislation. In addition, it is recently running the One-Stop-Shops (OSS) project among four different ministries including the Ministry of Education and Higher Education, Ministry of Agriculture, Ministry of Tourism and Ministry of Public Health (ESCWA, 2011).

3. Literature Review

Many studies have been conducted to analyze the status of e-government and highlight the barriers and the opportunities in this context. Al-Athmay (2013) reviewed the status of e-government among different Arab countries to highlight the factors influencing its implementation. The results showed that in most Arab countries, e-government practices were limited to few online interactions and the level of trust between citizens and businesses towards online services was not satisfactory. In relation to that, Al-Khoury (2013) presented a conceptual six-staged roadmap of the current e-government field with a focus on Arab countries. He argued that some Arab countries are now embarking on a new phase in the development of e-government. He also declared that these governments need to update their existing knowledge base about e-government and create the intent to accept change and make sure that citizens must be in the heart of any development plan.

Empirically, Alaaraj and Ibrahim (2014_a) conducted a quantitative research about the effect of e-government practices on good governance from the perspectives of public in Lebanon. After surveying 600 managers and employees of SMEs in Beirut, the main research outcomes indicated that in general, e-government practices have a positive and significant influence on good governance. Particularly, good

governance is positively and significantly influenced by e-service but not by e-administration and e-procurement. Another research was also examined by Alaaraj and Ibrahim (2014_b). The research examined the influence of e-government practices on the public trust in Lebanon. 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.

While Harfouche and Robbin (2013_a) examined the user's intentions to accept or reject the public e-services in Lebanon through conducting quantitative and qualitative researches where data was collected through interviews and survey questionnaires. The results showed that the major drivers of e-services acceptance intention are the perceived usefulness, computer self efficacy, perceived government support and perceived government influences. The authors also stated that the fear of government control is the most determinant barrier for using the e-services in government, in addition to the lack of knowledge, lack of trust in security and privacy of personal information and lack of support.

They also argued that the will of using public e-services in Lebanon would be encouraged when the Lebanese government develops trustworthy relationships with citizens and makes them feel safe through providing assurances that all personal and financial details are secure. Moreover, governments would provide guarantees to protect the citizen's privacy and try to avoid the employment of e-services as a means to increase its political control over the citizens. Moreover, Harfouche and Robbin (2012_b) studied the ongoing study of e-government implementation in Lebanon based on the triangulation of evidence from semi-structured interviews with senior officials in government agencies, official government documents and newspaper reports on the progress of this project. The authors found that the response of Lebanese public officials can be explained by the three isomorphic processes of coercion, mimesis, and transmission of norms. They suggested that implementing e-administration by developing countries is not necessarily motivated by a search for efficiency, yet under certain conditions; the adoption may results from external institutional pressures.

Another empirical quantitative study has been conducted by Charbaji and Mikdashi (2003) through surveying 220 employed MBA graduate students from different universities in Lebanon. They found that the student's feelings and behavioural intention to use the e-government services are directly and positively influenced by the awareness and slightly less by the knowledge. Furthermore, Kayrouz and Atala (2014) argued in their qualitative research upon collecting data from Lebanon that governments of developing countries have slowly begun to incorporate ICT in their planning for administrative efficiency and reforms. They criticized that digital economy and administration require major change in management behaviour to avoid resistance, abuse, and failure. In addition, it requires e-readiness to be strictly and meticulously evaluated, and continually reviewed to sustain profitability and success.

4. Methodology

This paper attempts to understand the current trends and business practices concerning e-government in Lebanon. There are two motivations underlying this study. First, there

is shortage in the research reports and case studies on e-government in Lebanon. Second, the study aims to report and contribute to the e-government practices in Lebanon through a SWOT analysis that can provide a critical sketch for the current status of e-government in Lebanon. This paper has approved a combination of analytical and descriptive methods based on analysis of secondary data and information derived from previous statistical reports conducted by local and international research organizations. The data provides a systematic review of general literature on e-government as well as the ICT sector in Lebanon. In addition, SWOT analysis is applied to define the strength, weakness, threats and opportunities for e-government in Lebanon, hence providing a background for a further TOWS analysis. Finally, conclusion is drawn on the basis of challenges and opportunities which are derived from these two analytical approaches.

5. Swot Analysis

SWOT analysis is an important analytical technique for understanding the performance and prospects of any issue under study through identifying the external and internal factors influencing it. The internal factors include the strengths and weaknesses points that the organization or the system is characterized with. While the opportunities and threats from the surrounding environment consists the external factors that influence the performance of this system in a variety of ways. When these factors are identified and analyzed, improvement strategies are developed in which the strengths are enforced, the weaknesses points are eliminated, the opportunities are exploited and the threats are countered.

5.1 Strength

The position of ICT sector in the Lebanese economy is developing rapidly by 7.7% over the period 2008-2013 with a very talented human capital base. In December 2010, OMSAR launched the fifth government wide ICT training project for e-learning and training the government employees. It was aimed for developing the e-literacy skills for all employees in order to build confidence and enable a regulatory and security environment for the implementation of e-government (ESCWA, 2011)

Regarding the ICT development index (IDI), Lebanon witnessed the highest boost in IDI value of 0.75 points in the period between 2010 and 2012 where the rank of Lebanon progressed from the 93rd position in 2010 to 87th position in 2012 (Bank Med, 2014). In addition, more than 20% of the operating firms in Lebanon are involved in the information technology, thus the ICT sector is recently witnessing a shift from software and design development to manufacturing of ICT apparatus and development of data centres, in which the Lebanese ICT market has presented 30% growth at the retail level over the past two years (New European Economy, 2013; ESCWA, 2011).

At the legal level, OMSAR (2013) stated that Lebanon has achieved an important legal framework through launching a series of laws such as unique ID number law, standardization of government forms, council of ministers – decisions, websites standards for Lebanese administration, public participation of legal texts and the draft laws of active participation in the committee for the electronic transactions law, strategic planning and salary scale of ICT employees in the public sector (UNDP, 2013). In addition, OMSAR has been promoting the use of ICT through setting the guidelines

of ICT standards and spreading the awareness campaigns in order to overcome the basic challenges while implementing e-government in Lebanon (ESCWA, 2011).

According to the e-forms, there are more than 200 standardized e-forms to be downloaded, filled and printed out from the government websites (Ataya, 2013). Moreover, OMSAR has launched in June 2010 the government transaction forms standardization project in order to simplify and unify 100 transaction forms that are distributed among 14 different Lebanese ministries (ESCWA, 2011). In addition, Choueiri et al. (2013) illustrated in his research how the Lebanese government is currently employing an e-procurement pilot project among six ministries as a tool to connect these ministries together with the tender board in order to strengthen the e-government practices among these ministries.

5.2 Weakness

In general, the Lebanese public is not totally aware of the internet use and information technologies integrated in businesses. The slow internet connections or broadband ranks Lebanon near the bottom of the world in terms of internet download speed. Meanwhile, the high cost of internet and the telecommunications infrastructure limits the spread of ICT in the country (MOET, 2013; Rahal, 2013). According to Bank Med (2014), Lebanon is ranked in 157th position among 178 countries worldwide based on the Household Download Index (HDI) while it occupies the 172nd position regarding the Household Upload Index (HUI). In addition to such indices, ESCWA (2011) argued through a technical study that was conducted in 2010 among 185 countries and stated that Lebanon had the worst internet bandwidth. Furthermore, the slow internet is considered as a barrier to investment and growth especially it was reported by the World Bank Assessment in 2009 that if the speed of internet was increased by 10%, this could lead to a 1.38% increase in the total GDP growth (Bank Med, 2014). Besides, Lebanon suffers from a problem in providing electricity for institutes and organizations permanently, where 52.33% of the total power is provided by the means of private generators which is higher than the regional average (22.79%) and the international average which is 20.76 %. Moreover, it would delay 117.58 days to obtain an electrical connection, which is higher than the regional average (60.91 days) and the international average which is 36.8 days (World Bank, 2009).

5.3 Opportunity

Traditionally, the Lebanese republic has advanced the education structure through implementing ICT in all schools since 1991 as stated by the law to follow the new curriculum of Information Technology (ESCWA, 2011). In addition, there are well-trained specialist, well qualified multilingual academic staff, technicians and ICT engineers. Moreover, 52.36% of Lebanese firms offer formal ICT training programs to their employees which is higher than the regional average (26.51%) and (34.92%) for the international average (MOF, 2012; UNESCO, 2008).

The Lebanese ICT sector is considered to be attractive for local and regional venture capital funds since it can benefit from investments in the growing infrastructure and networks. In addition, the Lebanese entrepreneurs are known to be innovative, well-connected and have a good sense of business which acts as an essential motivator for start-up

firms (Bank Med, 2014). Currently in Lebanon, there are 559 companies that are performing different ICT activities and competing to get outsourcing contracts from international. On the other hand, lot of Lebanese ICT companies are basically dependent on the gulf market and they are recently targeting towards the underdeveloped countries such as Africa region because of the growing service sector. This is a unique mix that gives the country a competitive advantage in the ICT sector; especially that the Lebanese economy is based on the service sector, which accounts for more than 70% of the country's GDP (European Commission, 2013; ESCWA, 2011).

Also, Lebanon has access to several international markets due to a widely spread Diaspora. This means that Lebanese citizens are widely dispersed around the globe, freely exchanging ideas, information and currencies in which Lebanon ranks 8th worldwide in receiving remittances (USD 8.4 bil in 2010) allowing the potential establishment of a vibrant entrepreneurial ecosystem (MOT & TRA, 2013).

5.4 Threats

One of the threats that faces e-government system in Lebanon is the wide spread corruption in the country since Lebanon is ranked 134 among 183 countries worldwide and it occupies the 14th position out of 20 MENA countries according to the transparency international's corruption perception index (MOET, 2013; US commercial services, 2012). Another main threat is that Lebanon is also exposed to substantial uncertainty which is affected by domestic political instability and regional turmoil since 2011 (Bank Med, 2014; MOF, 2012; US Commercial Services, 2012).

The lack of leadership in the country is from the basic threats that challenge the e-government system. Although the Lebanese economy has witnessed advanced growth at the level of the technological improvements, yet it is still limited

software development companies. Thus, Lebanon is supposed to become one of the major attracting destinations for the software development industry.

due to several inefficiencies including resistance to change, political motivation and delayed privatization. In addition, the complicated bureaucratic measures as well as the traditional and extremely centralized working methods have made inadequate competition due to piracy and therefore threatening the effective implementation of e-government in Lebanon (Bank Med, 2014; OMSAR, 2013).

6. Tows Matrix

TOWS matrix is developed by Wehrich (1982) as one step further than the SWOT analysis that makes it more applicable and grounded in reality. TOWS matrix is used to analyze the external environment (threats and opportunities), and the internal environment (weaknesses and strengths) in order to draw the strategies and visions to the decision makers in the enterprise or at the country level. Each combination of the external and internal factors result a new strategy as shown in Table 1, where mainly four different combinations are developed (Ravanava & Charantimath, 2012; Wehrich, 1982):

SO-strategies: when governments utilize and reinforce its internal strengths in order to exploit the available opportunities in the external environment.

WO-strategies: when governments reduce the internal weaknesses that may act as a barrier for the implementation or diffusion of the external opportunities.

ST-strategies: when governments use the internal strengths as a tool to minimize the external factors that are threatening its performance or competitiveness.

WT-strategies: when governments eliminate the internal weaknesses to avoid any breakthrough or prevalence of the external threats.

Table 1: TOWS Matrix for E-government in Lebanon

SO	WO
<p>Human capital strategy: The government must focus on the empowerment of skilled human capital, since the country has advanced education system and the staffs are well qualified.</p> <p>Network strategy: Expanding broadband capacity through the investments in infrastructure and networks.</p>	<p>Broad band speed strategy: This is achievable with funding the investment on proper infrastructure.</p>
ST	WT
<p>Leadership strategy: Implementing initiative steps of awareness campaigns from NGO's in the country in order to boost the culture of acceptance to change. In addition to fighting the corruption and bureaucratic procedure through the assistance of well qualified multilingual academic people.</p>	<p>Funding strategy: Since there is lack of resources, the government must approach different kinds of funds like financial aids or easy loans in order to minimize the weakness due to weak electric infrastructure and slow network.</p>

7. Conclusions

The administrative reform will be more effective and efficient if the e-government system is implemented in the proper manner. E-government system plays an essential role in the transforming process to modernize work instruments and thus enhancing good governance and boosting the public trust of the citizen. Based on the above discussion, the well educational system, the talented human capital and attempts which have been done in the ICT sector in Lebanon whether in training and infrastructure, or the availability of regulations are considered the strength points. However, the

sector still facing some challenges such as lack of efficient leadership, corruption index, bureaucratization, lack of resources and slow speed of the internet connection. Thus, successful implementation of e-government in Lebanon is highly dependent on the level of commitment of the political authority, the readiness of the infrastructure and how much the government as well as the public are aware regarding the culture of resistance and change. An effective e-government system is attached with a permanent assessment in the due to the changes at both external and internal environments. Therefore, the SWOT analysis and TOWS matrix must be

studied regularly in the future to keep up-to-date with the emerging innovations in this area.

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