

Influence of Quality Management on Successful e-Government

Othman Ali Abokhdeer *, Ali Abdalla Erkhais **

* PhD. Candidate

DOI: 10.29322/IJSRP.9.04.2019.p8886
<http://dx.doi.org/10.29322/IJSRP.9.04.2019.p8886>

Abstract- The total quality management is the part of the business in modern age. Everyone use it and in e-services, it has more importance because most of the services are virtual i.e. performed using the tools of information technology. When want to talk about quality, one must provide that the product of service, which we are making or offering to the consumer or users, should be fit for the purpose, free from errors and mistakes, fit for the use and meets the need of the customer. In addition to the above, the quality in e-business is crucial as it involves the three important dimensions: quality management, quality control and quality assurance. The implementation of Total Quality Management (TQM) in e-services environment includes the empowerment of team, systematic problem solving, data deriviers' decision, statistical process and selection and use of appropriate problem solving tools and techniques.

I. INTRODUCTION

The organizations with such abilities in e-services are doing things better because they are fast in communication, implementation and decision-making and they are achieveing greater simplicity and flexibility in their processes. In this way, they can get the faster response from their customers and can provide better customer satisfaction, In that way, improvement, growth and development of organisation and their financial and non-financial objectives are acieved effectively and efficiently.

It is expected that better implementation of total quality management will make change at the market and organizations in future. There is a hope that it will help in achieving organizational goals and to help the customers to achieve customer satisfaction and understanding. I will help with management commitment of all employees within organization. Making all involved in organization system work in a quality management and in a systematic way will ultimately result in better customer and supplier relationship.

II. WHAT IS E-GOVERNMENT IN TODAY`S LIFE

The application of information and communication technology in an e-government environment is a complex, multidimensional issue involving people, technology and processes. As we all know that the core task of government is governance and the job of regulating society and it lacks sufficient technicians to develop and maintain an e-government service system efficiently. In order to facilitate the growth of information technology andomunication usage, most government institutions outsourced their network services and rely on service providers to operate and maintain e-government services system.¹

In the past through time, before any establishment of e-government system, government services mainly depended on traditional offline service where government staffs and citizens communicate in person. E-government is fully online service, with no need for meeting government staff persons with citizens, with use of Internet technology.This ultimatly has result in reducing management costs, improvement in management efficiency, and also doing a promotion of synergy between different departments, and improvement in services efficiency.²

Also, there is an imbalance between the distribution of IT resources and citizens' ability in usage of those. There are often cases of online and offline services coexisting in series in the process of e-government in action. In coexistence case, many businesses can be selected via online and offline in one of two ways, such as citizens to apply for exit permits. Some parts of the business must be finished through online submission, while other parts need to be submeted in person, offline, eg. papers of personal income tax. As a result, those two processes of public business create an experience of citizens' perception of services quality.³

There are two types of e-Government users, and they can be: citizens and enterprises. Government services have life cycle theory,⁴ and, for citizens, e-Government services can be birth declaration, education registration, social insurance, tax returns and other business; for enterprises, e-Government services mainly

¹ N.H.Arshad, Y.M.Lin, A.Mohamed, S.Affandi, "Inherent Risks in ICT Outsourcing Project," In: A. Aggarwal, R. Yager and I. W. Sandberg (Eds.), Studies in Simulation and Modelling. Canada: WSEAS Press, 2006

² Pieteron, W., & Ebbers, W. (2008). The use of service channels by citizens in the Netherlands:Implications for multi-channel management. International Review of Administrative Sciences,74(1)

³ Lee, J., Kim, H.J., & Ahn, M.J. (2011).The willingness of e-Government service adoption by business users: The role of offline service quality and trust in technology. Government Information Quarterly

⁴ Tang, X.P., Wu, Q.L., & Zhang, P.Z. (2007). Study on the needs of e-Government for the public in China. E-Government, 4(9)

include enterprise registration, tax declaration, customs, intrastate declaration and other businesses. Larsen and Rainie⁵ highlighted that e-Government services must have access to government information, government forms and services, release of policy information, employment and business opportunities and election information, archival files of tax, registration, signing a contract, paying a fine, and submissions for all kinds of advice to the government. The improvement of e-Government services make all those process become faster, more convenient and more efficient, also increase government transparency and accountability.

III. A GENERAL VIEW TO E-GOVERNMENT

E-government tends to be the use of information and communication technology in order to improve accessibility and delivery of government services.⁶ E-government promises to transform the efficiency, effectiveness, transparency and accountability of informational and transactional exchanges between the government and its citizens. E-government is not merely the computerization of a government system, but a belief in the ability of technology to achieve high levels of improvement in various areas of government.⁷ Therefore, e-government is a comprehensive issue involving people, technology, process and system. When an e-government is implemented by outside service providers, all the factors mentioned above should be considered by outsourcing managers.

E-government outsourcing provides many advantages for the states and citizens. The claimed benefit includes reduced cost, efficiency in application maintenance and support, improved application timeliness, and access to extensive online help and qualified support.⁸ However, it also provides many challenges. One of the biggest challenges is keeping control over the outsourcing activities and maintaining the performance of public service delivery. Some outsourcers were lack of experience in outsourcing management so that they totally depend on their outsourcing vendors to operate and maintain their e-government system. If the service provider does not follow the contract, the citizen would not receive some information correctly and timely. What is worse, the reputation of government would be ruined.

E-government system is supported by information and communication technology. The primary aim of e-government initiatives is to enable constituents to have full access to governmental activities via electronic means.⁹ These accesses come from the application of technology of servers and workstations, peripherals, networking and communication infrastructure, general computer operation and communications

software, information sharing, data management, and so on. E-government outsourcing tends to be technology-centric, with additional services such as consultancy, training, systems integration. After all, outsourcing vendors always focus on technology so that they are often aware of innovations that can give government a competitive advantage.

Information culture can be expressed through the use of electronic document management system and electronic signature, the involvement of government employees in the process of defining requirements for information systems and the testing process. A manifestation of this culture is the shared responsibility for the implementation of information systems, the integration of government stakeholders, building trust in e-government services, encouraging (by government employees) citizens and businesses to electronic forms of contact with the government units, cooperation between government units. New social and cultural competences of government employees are very important to create such an information culture. The smallest impact on the development of e-Government bears social exclusion.

Though many e-government outsourcing resulted from in-house staff lacking enough technical expertise, it ought not to hand the action over to an outsourcing service vendor. In-house staff should know some new development of technology and assess emerging technologies so that government institutions could determine which technology can best be applied to the e-government systems. On the other hand, one of the main objectives of e-government outsourcing is to control cost of operating and maintaining e-government system. This cost includes maintenance cost and support cost, cost of modernizing and upgrades. Without necessary technical knowledge, government institutions would fall into the black hole of hidden cost.

IV. QUALITY MANAGEMENT

Total Quality Management (TQM) is a managerial approach in which the entire organization is managed so that it excels in all quality dimensions that are important to customers. TQM provides a generic concept for continuous improvement in quality and other performance such as profit and market share. It is a philosophy that stresses a systematic, integrated, and consistent perspective involving everyone and everything. TQM can be considered as a business philosophy centered around seven principles: customer focus, leadership involvement, quality assurance, continuous improvement, employee empowerment, supplier partnerships, and

⁵ Larsen, E., & Rainie, L. (2002). The rise of the e-citizen: How people use government agencies' web sites. Washington, DC: Pew internet & American life project.

⁶ S.N.Salleh, "The multimedia super corridor and e-government initiatives in Malaysia," Third ITU Waseda University Workshop for Regulators and Policy Makers held in conjunction with the World Summit on E-Government organized by GITI, Waseda University in Tokyo, 2003

⁷ D.Dada, "The failure of e-government in developing countries: a literature review," The Electronic Journal on Information Systems in Developing Countries, 2006, Vol.26, No.1, pp.1-10

⁸ D.E. S.Tebboune. "Application service provision: origins and development," Business Process Management. 2003, Vol.9, No.6, pp.722-734

⁹ W.A.Conklin, "Barriers to adoption of e-government," the 40th Hawaii International Conference on System Sciences, 2007

strategic quality plan.¹⁰ TQM starts with customer's expectation and every person in the organization would place himself in the customer's shoes. Even if an employee might not have direct contact with an external customer, he must also understand how customers really feel about a product or service.

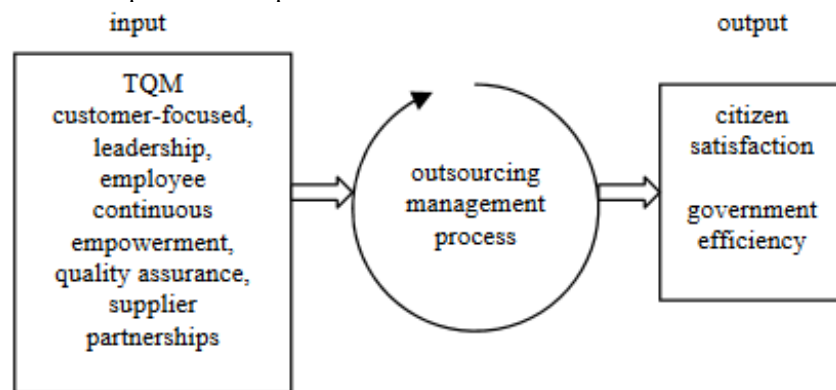
Continuous improvement is one of principles of TQM and it assumes that there will always be room for improvement, no matter how well an organization is doing. The distribution of customer survey responses will always be reset at a new level once you reach a certain point. Organization ought to determine customer's future expectation when they are already satisfied. TQM considers quality as everyone's responsibility from the Board of Direction to the entry-level employees. It proposes employment empowerment which means giving employees the responsibility, authority, training, and tools necessary to manage quality.

In today's highly competitive society, the demand for quality is one of the most critical factors for government institutions to survive in the global context. As a useful method to improve quality performance in private sector, government institutions introduced TQM and has explored and implemented it

with reasonable success. When e-government management team resorts to TQM in order to improve performance of outsourcing, the process of TQM in e-government outsourcing could be illustrated as an input and output process.

A well-developed strategic quality plan should drive the quality effort forward the organization's course by providing the vision and guidance. Quality improvement could not be achieved without significant and sustained efforts over time. One of the characteristics of strategic quality plan is that should be simple so that an organization can focus on only a limited number of quality objectives at once.

In terms of the input and output process, TQM is a process of transformation of a set of inputs including materials, procedures and methods, information and knowledge, people and their skills.¹¹ The outputs include products and services with higher quality. In general, through the process of TQM, the whole performance of the organization is improved. The essence of it is do everything right first time, and to satisfy customer requirements every time, by involving everyone in the organization.



Picture 1: TQM process in e-government outsourcing¹²

V. ORGANIZATIONAL FACTORS RELATED TO E-GOVERNMENT ADOPTION

The most important factors for e-government adoption are related to organizational factors. Great expectations exist from e-government leaderships, that they are to be visionaries, to drive e-government through initiatives, and with little or no problems proceed in adopting e-government. Coordination of public ICT investments and top management support are key factors. In many opinions, electronic communication between government units (G2G model)¹³ and adaptation of new management models in government units promote the adoption of e-government. These models are: government processes management, knowledge management, electronic document

management, workflow management. The rule of law is determinant in E-government adoption. Intellectual property, digital signatures, data protection, public procurement, interoperability, electoral law, all of these must be matter of legal regulations.

Adoption of e-government requires:

1. technical and economic accessibilities of ICTs – ICTs access (supply),
2. competences and awareness related to the use of ICTs – ICTs competences, and
3. usage of ICTs by government units, citizens and businesses – ICTs usage (demand).

It is viewed through several studies that there is a gap between supply of ICTs in government units and actual usage of

¹⁰ C.C.Bozarth, R.B.Handfield, "Introduction to operations and supply chain management," Pearson Education Asia Ltd. 2008

¹¹ M.Colurcio, "TQM: a knowledge enabler," The TQM Journal, 2009, Vol.21, No.3, pp.236-248

¹² Jinmei Huai, Apply TQM to E-Government Outsourcing Management, 2012 International Conference on Applied Physics

and Industrial Engineering, Procedia 24 (2011), <https://core.ac.uk/download/pdf/82156632.pdf>

¹³ Beynon-Davies P. (2007). Models for e-government. Transforming Government: People, Process and Policy, 1(1), 7-28.

ICTs. ICTs access means that there is a constant need of investments in ICT infrastructure in government units. In particular purchase of hardware, infrastructure networks construction. Also there must be implemented either standard or created new dedicated back-office and front-office information systems. ICTs investments in themselves do not mean success in adopting e-government. Improvement of efficiency must involve a variety of organizational, social and cultural changes that will lead to, transparency, and accountability in government units by reducing transaction times and removing redundant layers of bureaucracy. Lack of relevant changes, such as re-engineering of government processes and documents workflows or adaptation of the law, usually means that the implementation of ICTs does not bring the expected benefits. Low quality and lack of integration of information systems and their lack of adaptation to the needs of users can be even a cause of failure to use ICTs. In particular, this relates to the e-government services for citizens and businesses. Thus, in addition to ICTs supply, the adopting e-government is also determined by ICTs demand. Competences of government managers and employees are very important for these two stages. Their knowledge and skills are needed to take appropriate investment decisions, implement ICTs and successfully use ICTs.

TQM process in e-government outsourcing requires people and technology as basic inputs, so that applied information and communication technology can guarantee public service delivered correctly and timely. TQM process consists of cycles. Managers are to view performance of e-government outsourcing system in dynamic way. Reactions from the citizen are triggers for the managers to inspect activity of outsourcing vendor and modify, if it is necessary, delivery procedure for public services. The public service delivery is obligation for each participant and every bit of technology, involved in processes related to TQM.

E-government outsourcing comprises heterogeneous elements and multiple stages. Decision-making, business transactions and communication can take place through outsourcing process. Bring electronic production network and electronic public service into effect is a project need more resources. Teamwork and communication play an important role in outsourcing management. Since e-government outsourcing is cooperation between government institution and outsourcing vendor, getting communications right is important to outsourcing action process.

Through TQM, all levels of people are encouraged to become more closely related and to participate in outsourcing's objectives. Responsibility is on everyone, to deliver quality services in order or task to meet the citizen's requirements. Everyone should understand responsibility of serving their own customers, who are expecting to receive product of their, quality work. but Different tasks for individual participants, government officials, and outsourcing vendors, but at the end they have common objectives. Thus, their own work, well provided and with clear knowledge of their requirements, can only help to satisfy the citizen.

VI. CONCLUSION

Good communication avoids misunderstandings and reduces the costs of quality by avoiding mistakes. One of TQM successful factors is creating and maintaining smooth channels of

communication. Under the circumstance of TQM, effective communication of two-way process could be established and managers could select the appropriate methods for various situations. Both employees from government and outsourcing vendor should learn to express their idea correctly and must be sensitive to other's suggestions.

Recognition of success factors in good practice for e-government, carry significance for reliable and effective e-government adoption. Overcoming challenges is the most important. Therefore it is important to realize that there is no just one, single and simple, solution to fit every situation. In Europe countries, with different political, economic, social and governance contexts, is required to have different approaches. Proposed model must be easy to adjust quickly to new conditions. If e-government implementation is to be successful one, recommendation for government agencies is that they need to encourage people to engage in government online services by increasing accountability of the services, strengthening the system trust, and advertising services, because that can increase people's participation in e-government.

REFERENCES

- [1] Beynon-Davies P. (2007). Models for e-government. *Transforming Government: People, Process and Policy*, 1(1), 7-28.
- [2] C.C.Bozarth, R.B.Handfield, "Introduction to operations and supply chain management," Pearson Education Asia Ltd. 2008
- [3] D.Dada, "The failure of e-government in developing countries: a literature review," *The Electronic Journal on Information Systems in Developing Countries*, 2006, Vol.26, No.1, pp.1-10
- [4] D.E. S.Tebboune. "Application service provision: origins and development," *Business Process Management*. 2003, Vol.9, No.6, pp.722-734
- [5] Jinmei Huai, *Apply TQM to E-Government Outsourcing Management*, 2012 International Conference on Applied Physics and Industrial Engineering, *Procedia* 24 (2011), <https://core.ac.uk/download/pdf/82156632.pdf>
- [6] Larsen, E., & Rainie, L. (2002). *The rise of the e-citizen: How people use government agencies' web sites*. Washington, DC: Pew internet & American life project.
- [7] Lee, J., Kim, H.J., & Ahn, M.J. (2011). *The willingness of e-Government service adoption by business users: The role of offline service quality and trust in technology*. *Government Information Quarterly*
- [8] M.Colurcio, "TQM: a knowledge enabler," *The TQM Journal*, 2009, Vol.21, No.3, pp.236-248
- [9] N.H.Arshad, Y.M.Lin, A.Mohamed, S.Affandi, "Inherent Risks in ICT Outsourcing Project," In: A. Aggarwal, R. Yager and I. W. Sandberg (Eds.), *Studies in Simulation and Modelling*. Canada: WSEAS Press, 2006
- [10] Pieterse, W., & Ebbens, W. (2008). *The use of service channels by citizens in the Netherlands: Implications for multi-channel management*. *International Review of Administrative Sciences*, 74(1)
- [11] S.N.Salleh, "The multimedia super corridor and e-government initiatives in Malaysia," *Third ITU Waseda University Workshop for Regulators and Policy Makers held in conjunction with the World Summit on E-Government* organized by GITI, Waseda University in Tokyo, 2003
- [12] Tang, X.P., Wu, Q.L., & Zhang, P.Z. (2007). *Study on the needs of e-Government for the public in China*. *E-Government*, 4(9)
- [13] W.A.Conklin, "Barriers to adoption of e-government," *the 40th Hawaii International Conference on System Sciences*, 2007

AUTHORS

First Author – Othman Ali Abokhdeer PhD. Candidate

Second Author – Ali Abdalla Erkhais PhD. Candidate

