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Abstract

The evaluation framework for e-Government services proposed in this paper is designed to be a comprehensive guidance. The framework, which is intentionally used to ensure that government services meet the settled objective and citizens' needs, comprises of leading principles as stated in the Control Objectives for Information and related Technology (COBIT), and the ISO 9000 quality standard, which are then merged into the Technology Acceptance Model (TAM). The resulting framework is aimed at providing management with a direction to better achieve the quality goals of e-Government services and assure citizens about the quality of services provided by government organizations.

Keywords

e-Government, e-Government service evaluation, Evaluation framework, Government services, Service component.

INTRODUCTION

Government organizations use Information and Communication Technology (ICT) in e-Government services mainly to provide services to citizens in an effective and efficient way. The delivery of services over the Internet (Klaus Lenk et al. 2002) has attracted most of the attention paid to e-Government. The concept of "One-stop Government" or "Single Window Service" is oriented at making public administration more transparent. Moreover, the provision of high quality e-Services is a key theme in e-Government (Roland Traunmüller et al. 2004) in supporting the development of a competitive knowledge-based economy. Therefore, e-Government services must have a high level of productivity and effectiveness, which should be managed without limitation of time and distance. Best practice projects such as the e@SY Connects Digital Interactive Television Service in the UK (South Yorkshire 2006) and EU Customs system in Poland (Republic of Poland 2003) aim to provide citizens with information in a convenient way and to ensure that government information and services meet the core requirements of the largest possible number of citizens.

The meaning of e-Government services is the use of ICT to increase the quantity, quality and satisfaction in providing e-Government services between government sector and related stakeholders such as citizens, non-government organizations (NGOs), private sector, and other government agencies. Therefore, the best practice that government sector should offer to the related stakeholders in providing e-Government service is consideration of service providing. The quality of e-Government service providing is the most significant factor to be realized by government organizations in order to gain efficiency, worthiness, transparency and trust. Conceptually, the management of e-Government service providing of high quality needs to be based on the

principles of service that emphasizes on related stakeholders. This will leads to the e-Government service providing that meets the needs and satisfaction of related stakeholders.

The problems of e-Government services through the Internet are faced in the administrations both among government organizations and between government and citizens. The problem among government organizations (Ralf Klischewski 2005) is cross-organizational information management, which is the enhancing of computer support and automation in process collaboration and the provision of integrated services. The problems of acquiring e-Government services by citizens are not only the low ICT connectivity and the differences in access to ICT, but also the insufficient government services and irrelevant services provided by government organizations. Consequently, the need to assess the value of e-Government is highly significant; as for example the consequences of the high interest of the Prime Minister of New Zealand in her e-Government initiative have demonstrated (SSC 2006), the uptake and effectiveness of e-Government can be measured by creating an evaluation framework to assess the value of e-Government for people and businesses.

Recently, e-Government service development can be seen in most countries around the world. As the success of e-Government service development can lead to significant political achievements, it is of major interest for administrations and politicians. Consequently, the question regarding efficient services of *"How does the government organization determine if the services meet the citizens' needs and how does it ensure quality and satisfaction?"* should be has by government organizations. An evaluation framework for e-Government services consequently needs to be proposed to help government organizations answer this question by acting as a comprehensive guidance to develop high quality and efficient services.

EXISTING RESEARCH ON E-GOVERNMENT EVALUATION THAT OUR APPROACH IS BUILDIN ON

At present, there are many e-Government projects which are made possible with ICT. Marcin Sakowicz1 (2006) has mentioned the necessity of a holistic approach when evaluating e-Government in terms of what citizens and businesses want and how government and private sectors measure the returns on government's Internet investment. To flourish, e-Government implementations not only need evaluation tools, but also the support from senior executive government officers. As indicated in the report findings in Stephan Jones et al. (2006), e-Government evaluation, in both under-developed and under-managed areas, calls for senior executives to actively participate in the e-Government agenda and for organizations to review e-Government evaluation to improve the evaluation practice. The purposes of e-Government service evaluation are to: (1) Assess that e-Government services meet the settled objectives and strategies; (2) Determine citizens' need and satisfaction in government services; (3) Determine that the provided service applications use the suitable, appropriate, and sustainable approach; (4) Identify the quality of e-Government services; (5) Assess the usefulness of the e-Government services; and (6) Assess the cost saving in providing the services through ICT. Therefore, an evaluation framework for e-Government services is a concern of government organizations and all related stakeholders. The grounds for research have been laid in many contributions, such as:

- The report of Evaluation Framework for Government On-line (GOL) Initiative by the Audit and Ethics Branch (AEB) with the assistance of Consulting and Audit Canada (CAC) (PWGSC 2005). This framework is intended to be used as a tool for GOL managers in departments and agencies to help in measuring and reporting on results achieved by the GOL initiative. Moreover, it is intended to serve as a comprehensive and reliable instrument for the evaluation of and reporting on the performance of major technical, culture changes and learning initiatives of the Government of Canada. The GOL evaluation framework is comprised of Evaluation Issues, Selected Performance Indicators, Existing Data Sources, and Methodologies for Additional Data Collection. The expected result of this evaluation framework is designed to satisfy requirements for the evaluation of GOL relevance, success/failure, and cost-effectiveness/value.
- Research on evaluation and benchmarking of e-Government at regional level by STAR (2006). This research is based on concerns in implementing e-Government projects that seem to result in a lack of adequate evaluation tools. The report on evaluation frameworks in this study is presented in the form of an intersection between focus and locus. The focus aspect is related to institutional, collective, and operational choice. The locus is composed of three levels; internal to public administration, from public administration to citizens and business, and external to public administration.
- Lili Wang et al. (2005) present an evaluation theory on e-Government services that are available via a website. They identify a new evaluation model that evaluates web-based e-Government services developed with a citizen-centric approach. The model is comprised of three components: information users, information problem, and information pool. They supply government agencies with a model that not only can evaluate their web-based e-Government services, but also help them to understand why citizens succeed or fail to find information.

- Different approaches to measuring the development of e-Government are identified by Marcin Sakowicz1 (2006). Approaches to evaluating e-Government are identified in this contribution, which contains remarks on methodologies, misleading e-Government indicators, and the necessity of applying a holistic approach when evaluating e-Government. The main conclusions of this contribution are: (1) The correct evaluation of e-Government should focus on four domains, e-Services, e-Management, e-Democracy, and e-Commerce. (2) The core consideration of a critical issue should be devoted to measuring the effective use of Internet enabled technologies.
- An initial framework for local accountability is proposed by Dave Griffin and Eddle Halpin (2005). This framework includes principal stakeholders, scrutiny processes, sanctions, joined-up accountability, and the political dimension. This research is an exploratory study based on a small sample of local authorities by not only interviewing council elected members and officers responsible, but also by providing them with a short questionnaire. They discover that the scrutiny committee has power over the council executive but is dependent upon the council executive for continued participation in the process.

In conclusion, there are areas of research in e-Government based on a number of different evaluation frameworks. The previously mentioned researches are critical about implementing e-Government in an effective and efficient manner. The existing evaluation frameworks are used for specific reasons and aspects of the concerns of each country and government organizations. The specification of evaluation framework that is suitable for the implementation of e-Government service providing of each country can not be considered as a standard that generic government organizations can apply in controlling the quality of e-Government services. Thus, the generic evaluation framework for e-Government services is significant in controlling cost and benefits gained by citizens to become citizen-oriented e-Government services. Therefore, our evaluation framework for e-Government services will be proposed to act as guidance in controlling the quality of e-Government service processes to ensure the achievement in providing government services with quality and within the budget while using ICT. Finally, we define the term evaluation framework for e-Government services as "*the comprehensive guidance for a government organization which can be used to develop the quality and efficiency of the objectives and strategies of its services and for conforming to citizens' requirements*."

PRINCIPLES CONCERNING THE PROPOSED EVALUATION FRAMEWORK FOR E-GOVERNMENT SERVICES

One aspect mentioned by George Spafford (2003) about the benefits of standards is that the wheel exists that describes saving of time and effort by the use of existing standards to develop the new framework instead of creating a new one. Consequently, all following two principles and one model can be used as the basis standard for proposing an evaluation framework for e-Government services. The two principles are derived from the core of Control Objectives for Information and related Technology 3rd edition (COBIT 3rd edition) and the core of the ISO 9000 standard series, which we then merge into the Technology Acceptance Model (TAM). This section is therefore devoted to giving a short description of these foundations of our framework.

Principles of the COBIT Framework

The Control Objectives for Information and related Technology (COBIT) (IT Governance Institute 2000) marked the entry of a new primary and published by the Information Systems Audit and Control Association (ISACA). COBIT provides good practices across a domain and process framework and presents activities in a manageable and logical structure. COBIT is designed to be a breakthrough IT governance tool that helps understanding and managing the risks and benefits associated with information and related IT. The four high-level domains, Planning and Organization, Acquisition and Implementation, Delivery and Support, and Monitoring comprise of 34 IT process objectives with 318 detailed control objectives. All four high-level domains are combined together with the seven information criteria and five IT resources in the COBIT framework. Information criteria are needed to conform to certain criteria and to satisfy business objectives. IT resources are primarily impacted by control objectives and can be defined as data, application systems, technology, facilities, and people.

COBIT, an open standard for controlling over information and related technology, provides guidance for achieving the effectiveness and efficiency in managing, implementing, and evaluating IT resources. COBIT is applied in many projects such as the internal control for financial report in US Sarbanes-Oxley Act of 2002 (IT Governance Institute 2004a); the Applying the CobiT Framework to Spreadsheets (Raymond J Butler 2006); and the IS department of Curtin University of Technology (IT Governance Institute 2004b). Such evidence reflects that COBIT framework is a valuable standard. Therefore, COBIT framework can be used as the main framework for the evaluation framework for e-Government services to develop e-Government services with clear policy. Moreover, COBIT framework can be used as the evaluation standard for IT control in e-Government services

development and implementation to achieve good compliance with a set of quality standards. The core of COBIT, IT process and domain, information criteria, and IT resources are considered in our proposed evaluation framework. In addition, to help focus on the service criteria, the principles of ISO 9000 standard and Technology Acceptance Model (TAM) were used. These are assisted to identify the requisite criteria of service in the aspect of persuading and supporting citizens to acquire e-Government services and the intention to use e-Government services by citizens. These service criteria from the ISO 9000 standard and the Technology Acceptance Model (TAM) are described in following sections.

Principles of the ISO 9000 Standard

The ISO 9000 standards (ISO 2006) are a collection of formal International Standards, Technical Specifications, Technical Reports, Handbooks and web based documents on Quality Management and Quality Assurance. The objective of ISO 9000 standards is to gain business benefits that depend on the innovativeness of application. The aims of ISO 9000 are to: (1) Improve the quality of products and activities; (2) Reduce costs; (3) Promote cooperation and communications in order to increase understanding between people and organizations; and (4) Reduce obstacles in the way of cooperation. The value that will gain from the assuring quality in ISO 9000 is the high expectation on performance and development. The value basis of the ISO 9000 standards (Juhani Anttila et al. 2001) consists of eight Quality Management Principles:

- Customer focus implies customer-driven and oriented action that strives towards customer value, satisfaction, retention, market share, and growth in a balanced way.
- Leadership implies visible and innovative management that values stakeholders.
- Involvement of people results in respect, commitment, and learning.
- Process approach implies implementing effective, efficient, and agile process management approaches.
- System approach to management implies implementing comprehensive and systematic business management.
- Continual improvement consists of improvement in smaller and bigger steps from corrective and preventive measures to real learning and innovative improvement.
- Factual approach to decision making consists of leadership that utilizes an empirical fact-basis in a superior manner, is consistent with it, and is results oriented. Information is combined with knowledge and wisdom.
- Mutually beneficial supplier relationships result in the win/win principle in practice in a sustained manner.

To make the proposed evaluation framework for e-Government services complete with the aspect of training, maintainability, and flexibility. Therefore, the aspects of involvement of people, continual improvement, and mutually beneficial supplier relationship from the basis value of ISO 9000 standards are included. Within these three aspects, the requisite criterion of service concerning the involvement of people (training) is the ability to persuade and train citizens. These will make them agree and satisfy to cooperate with the requesting e-Government services. Moreover, the continual improvement (maintainability) is the ability to undergo change continuous for serving the citizens' satisfaction in e-Government services. Finally, the mutually beneficial supplier relationship (flexibility) is adaptable to a wide range of e-Government services.

The Technology Acceptance Model

The Technology Acceptance Model (TAM) (Aziz Alrafi 2006) is an influential extension of Ajzen and Fishbein's theory of reasoned action (TRA). It was introduced and developed by Fred Davis in 1986. The Technology Acceptance Model (TAM) is a model derived from a theory that addresses the issue of how users come to accept and use a technology. The model suggests that when users are presented with, for instance, a new software package, a number of variables influence their decisions about how and when they will use it. In Technology Acceptance Model (TAM) (Patrick Y.K. Chau 1996), perceived usefulness and perceived ease of use are hypothesized and empirically supported as fundamental determinants of user acceptance of a given Information System/Information Technology. Moreover, the goal of Technology Acceptance Model (TAM) (Andrew Dillon et al. 1996) is to predict information system acceptance and diagnose design problems before users have experience with a system. These two factors from Technology Acceptance Model (TAM), perceived usefulness (PU) and perceived ease of use (EOU) are also included for the requisite criteria of e-Government services. These criteria can be used not only to identify the intention for requesting services, but also to evaluate the perception for accepting services by citizens.

Because of the proposed evaluation framework for e-Government services aim to provide management direction to achieve the quality of e-Government services, therefore the COBIT framework, the ISO 9000 standard, and the Technology Acceptance Model (TAM) all serve as the outstanding principles and model. These two

principles and a model have differently strong benefits for the proposed evaluation framework for e-Government services. The COBIT framework gives benefits and understanding in IT control, The ISO 9000 standard and the Technology Acceptance Model (TAM) cover some criteria which are not provided in COBIT. The three criteria that is specified in ISO 9000 standard but not mentioned in the COBIT 3rd edition are training, maintainability, and flexibility. Beside, the criteria that is identified in TAM but not mentioned in the COBIT 3rd edition are perceived usefulness (PU) and perceived ease of use (EOU). Therefore, rather than selecting only the COBIT framework, the ISO 9000 standard and Technology Acceptance Model (TAM) should be used to supplement the COBIT framework to make the proposed evaluation framework for e-Government services more complete.

THE COMPONENTS OF THE PROPOSED EVALUATION FRAMEWORK FOR E-GOVERNMENT SERVICES

Two sources of guiding principles and one base model of the proposed evaluation framework for e-Government services, the COBIT framework, the ISO 9000 standard, and the Technology Acceptance Model (TAM) were described in the previous section. In order to specifically identify that the proposed evaluation framework is the one that concerns the e-Government service providing, the word "service" will be used in each component of the evaluation framework to specify that it is the evaluation of service provided by the government organizations. The components of our e-Government services framework comprise the service evaluation processes, service criteria, and service resources.

Service Evaluation Processes

The service evaluation processes comprise service domains and service processes. The service domains are based on four broad domains found in COBIT. The list of service domains consist of the four stages of the evaluation, from planning and organization to monitoring and control. In each domain there are service processes address the process statement. The service processes will be defined by service domain group. The consideration of service process of each service domain will be made from factors that government organizations should realize to have an e-Government service that meets the set objectives and is in accordance with the needs and satisfaction of related stakeholders.. Therefore, the process statements should be applied to ensure that the provided services from a government organization fully meet not only e-Government services objectives, but also citizens' requirements. The description of each domain stage and service processes in the service evaluation processes is as follows:

- *Service Planning and Organization*. This domain relates to the evaluation at the beginning of the services processes. Therefore, the main evaluation in the service processes for this stage is concerned with: (1) The services strategy. (2) How to achieve the services objectives. (3) The services infrastructure.
- *Service Acquisition and Implementation*. To formulate strategies and objectives, service acquisition and implementation should be evaluated. The most important evaluation for this stage concerns the type of services requested by citizens. The identification, development, and implementation of the provided services by the government organization are dealt with in this stage. Moreover, the aspect of important functionality that should be considered at this stage are not only the way that contribute to developing and implementing services but also the issuing of instructive documents that are used as a guide for acquiring services.
- *Service Delivery and Support*. Service delivery and support is not only the actual delivery of required services to citizens but also the processes that make the services available. Training for citizens to use a service is considered at this stage. Moreover, the aspect of security and continuity developing services must be addressed.
- *Service Monitoring and Control*. This stage is concerned with the monitoring of the service processes and the assessment over time of the quality of the service. The assessment should be based not only on the citizens' requirement but also on strategies and objectives.

Service Criteria

The service criteria, the measurement of government services quality, can be translated to quality to conform to service processes. All service criteria are related with service processes and are not only used to identify for considering the achievement of service processes, but also to ensure that the e-Government services are delivered with the right requisite services. Therefore, all requisite criteria which are identified in this section can be used as the criteria for assessing the readiness provided by government services. The service criteria for the evaluation framework for e-Government services are based on the COBIT information criteria, the ISO 9000 standards, and

the Technology Acceptance Model (TAM) which are explained in the preceding section. The service criteria of e-Government services can be grouped into three major perspectives: service procedure, service provision, and service prolongation. The definitions of all three major perspectives of services with their requisite criteria of service are described in Table 1.

The requisite criteria of service can be divided into three categories:

- Principal requisite criteria (P) represent the major requisite criteria gained after achieving in each service process.
- Subordinate requisite criteria (S) represent the minor requisite criteria gained after achieving in each service process.
- Blank represents the requisite criteria not related to the achievement in each service process.

Requisite Criteria of Service	Description
Service Procedure	
This perspective relates to the procedure for managing e-Government services. The requisite criteria of service in this perspective are Effectiveness, Integrity, Reliability of services, and Compliance.	
Effectiveness	This aspect deals with services delivered in a timely, correct, consistent, and usable manner.
Integrity	This aspect relates to the accuracy and completeness of services as well as to its validity as they relate to expectations and satisfaction.
Reliability of services	This aspect relates to the ensuring no process fail during services transmission.
Compliance	This aspect deals with complying with those laws, regulations, and contractual arrangement to which the service is subject.
Service Provision	
This perspective concerns providing e-Government service processes. The requisite criteria of service in this perspective are Efficiency, Confidentiality, Availability, and Ease of Use.	
Efficiency	This aspect concerns the provision of services through the most suitable use of resources.
Confidentiality	This aspect concerns the protection of sensitive services from unauthorized access.
Availability	This aspect relates to services being available when required by the citizens.
Ease of Use	This aspect is concerned with a citizen's understanding of a services application and its instructions.
Service Prolongation	
This perspective is relevant to the ongoing development of e-Government service processes. The requisite criteria of service in this perspective are Usefulness, Maintainability, Training, and Flexibility.	
Usefulness	This aspect relates to the benefit which is gained by citizens when requesting government services.
Maintainability	This criterion is concerned with the cost and effectiveness of operating the e-Government service system.
Training	This aspect relates to the helping hands to citizens in training and persuading them to request the e-Government services.
Flexibility	This aspect deals with the ease of making changes with the service application when it needs a change to support the citizens' satisfaction.

Table 1: The Descriptions of All Requisite Criteria of Service

Service Resources

The service resources relate to all components that contribute to the e-Government services objective with the satisfying provided services to citizens. The service resources identified in the proposed evaluation framework for e-Government services are based on IT resources in COBIT framework. They comprise:

Service People include staff skills, awareness and productivity to plan, organize, acquire, deliver, support, and monitor information systems and services.

- *Service Data* are service objects that are internal and external, structured and non-structured, graphic, sound, etc.
- *Service Policy* is all the documents and resources that support the ongoing services systems.

- *Service Technology* covers hardware, operating systems, database management systems, networking, multimedia, etc.
- *Service Application Systems* are understood to be the sum of manual and programmed procedures for providing services.

The e-Government services block can be shown in Figure 1.

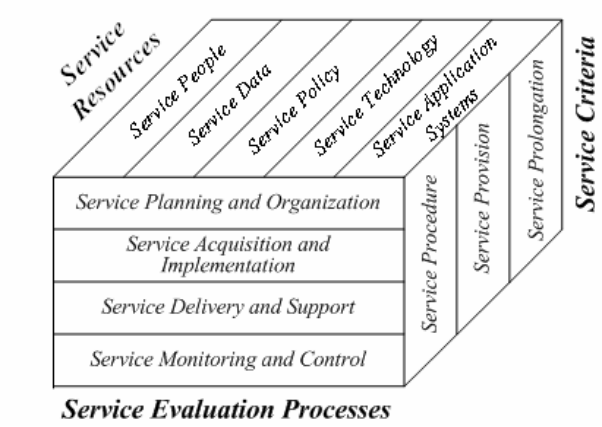

Figure 1: The e-Government Services Block

THE PROPOSED EVALUATION FRAMEWORK FOR E-GOVERNMENT SERVICES

The incident input for the e-Government service evaluation begins with the consideration of service requirement documents such as the citizens' requirements, service objectives, service strategies, or service regulations. Then the service evaluation processes combined with four domains stages of development, and 24 service processes are achieved with support from the service resources. Moreover, the achievement of each service process within four domains will determine assurance by consideration of the service criteria. The service criteria implied the gained quality of each service process. These service criteria can also be ascertained for the quality of services by all 12 requisite criteria of service. Therefore, the proposed evaluation framework for e-Government services can be shown in Figure 2. The goals and criteria in the proposed framework are shown in Table 2.

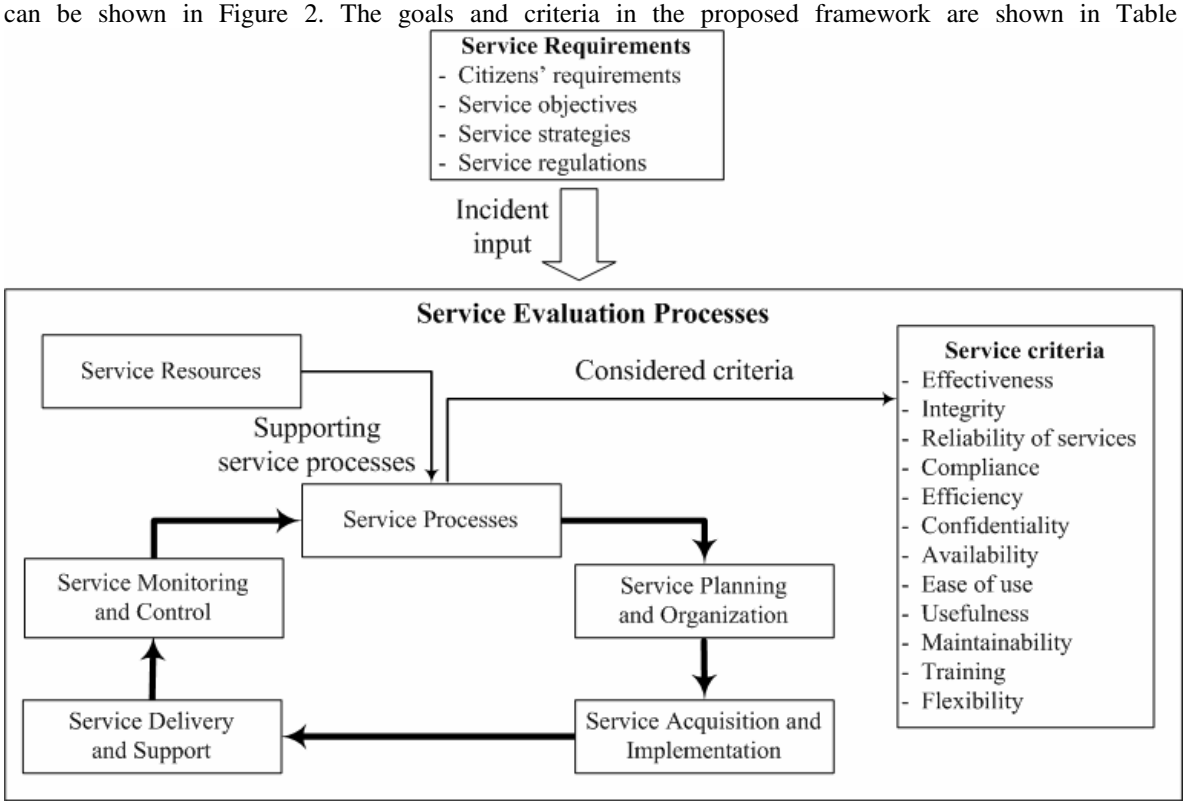

Figure 2: The Proposed Evaluation Framework for e-Government Services

Service Evaluation Processes		Service Criteria												Service Resources				
		Service Procedure				*Service Provision*				*Service prolongation*								
Service Domains	**Service Processes**	Effectiveness	Integrity	Reliability of services	Compliance	Efficiency	Confidentiality	Availability	Ease of use	Usefulness	Maintainability	Training	Flexibility	Service People	Service Data	Service Policy	Service Technology	Service Application Systems
Service Planning and Organization	1. Determine the good research and survey of citizens' need and expectation from e-Government services.		S		P					S				√	√			
	2. Prioritize the implementation in response to citizens' need and expectation from e-Government services.			S		S	S	S	S	P				√				
	3. Determine the skill and knowledge of government officers in providing e-Government services to all citizens.								S	S		P		√				
	4. Review e-Government service process planning.		S		P					S				√	√	√		
	5. Identify objectives and strategy of e-Government services.		S		P					S				√		√		
	6. Issue the regulations or charters of e-Government services for citizens.		S		P					S				√		√		
Service Acquisition and Implementation	1. Correct the data and information of e-Government services which is posted on the government websites.	P	P						S	S				√	√			
	2. Classify service requests under different types of e-Government services, e.g. warning, consulting, discussion, complaints/claims, service request, forum, and suggestion.	P						S	S	S				√	√	√		
	3. Identify clear instructions and conditions for the requests of e-Government services.	P							S	S		P		√	√			
	4. Ensure that rapid response of e-Government services to citizens is in place.	P	S				S			S				√		√		
	5. Determine the transfer of all e-Government service requests from citizens to the right person responsible for consideration of the requests.	P	S				S							√	√	√		
	6. Examine e-Government service processes for sustainable adaptation and development of new e-Government service processes.										P		S	√		√		
Service Delivery and Support	1. Inform new or updated e-Government services.				P			S		S		P		√	√	√		
	2. Ensure that citizens are trained on the use of tools in requesting for e-Government services.								S			P		√		√		√
	3. Ensure that citizens use different channels in requesting for e-Government services.								S			P		√		√	√	√
	4. Search for the methods to provide the right e-Government services at the right time using appropriate applications or tools, e.g. call center, toll-free number, email, postal mail, short messages, internet/government website, DiTV, and in person.	P	S			P	S	P	S	S							√	√
	5. Ensure that the consideration of citizens' request for e-Government services is in time.	P	P				S			S				√	√	√		
	6. Ensure that the tracking process following the request of e-Government services by citizens is in place and can be viewed anytime.	S	P	P		S		P		S				√		√	√	√
	7. Ensure that citizens' requests for e-Government services are replied to the right citizens on the right topics.				P			P		S	S			√		√		
	8. Ensure the security of e-Government service system.						P			S							√	√
	9. Ensure the authentication of e-Government service system.		P				P			S							√	√
	10. Ensure the verification of e-Governmenvt service system.							P					P				√	√
Service Monitoring and Control	1. Monitor the e-Government service processes.	S				S					P		P	√	√	√	√	√
	2. Assess the budget of e-Government service processes.	S				S					P		P	√	√	√	√	√

Table 2: Goals and Criteria in the Proposed Evaluation Framework

THE EXPECTED BENEFITS OF THE PROPOSED EVALUATION FRAMEWORK FOR E-GOVERNMENT SERVICES

The benefits that should be gained from the implementation of the proposed evaluation framework for e-Government services are directly related to government organization and citizens. For the aspect of the government organization, the government organization will achieve the settled e-Government services objective not only with the accruing quality, but also in the fruitful streamlining within the budget and time frame. These will make the government organization improve the e-Government services in a systematically continuing way and gain the sustained citizens satisfaction in acquiring e-Government services. For the benefit of citizens, the qualified e-Government services should not only serve all citizens without any discrimination, regardless of age, education level, etc., but also meet their different needs. The citizens will have more trustworthiness in government organization with the written document for the e-Government services development. Moreover, citizens gain the side benefit of transparent and balance in implementing e-Government services processes by government organization. These will lead to meeting citizen requirements and achieving citizen satisfaction through services provided by government organizations.

CONCLUSION

The recent e-Government service development is a significant factor that contributes the citizens-oriented services. The e-Government service providing is different from general service providing. E-Government service providing must be in accordance with the objectives of service providing that emphasizes on the quality of e-Government service that meets the needs of related stakeholders. This will results in a convenient, fast, and transparent service that can create the trust of related stakeholders. In this contribution, the COBIT framework, the ISO 9000 standard, and the Technology Acceptance Model (TAM) all serve as the outstanding principles and model to propose the evaluation framework for e-Government services. The proposed evaluation framework for e-Government services comprises of service evaluation processes, service criteria, and service resources, all of which can be used to monitor the achievement of the objectives and strategies from government organization, and the performance of the e-Government service processes and to benchmark the government organization improvement. Moreover, it integrates the good development of e-Government services in the aspect of service

planning and organization, service acquiring and implementing, service delivering and supporting, and service monitoring and control. This proposed evaluation framework for e-Government services could be used to assure the accomplishment of appropriate cost and continuously improving e-Government services level in e-Government service processes. However, the provided e-Government services will not achieve all service criteria if they lack support from a government leadership. In obtaining more understanding in controlled service processes, the control statements and control practices in each service process which satisfied the service objective should be studied and identified. Moreover, to ascertain the use of this framework to maximize cost and budget by government organization should be concerned for the further work of this paper.

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