

# ASSESSMENT OF USERS' SATISFACTION ON GOVERNMENT ACCOUNTING INFORMATION SYSTEM

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## Abstract

*The purpose of the study is to determine the impact of accounting information system on users' satisfaction in performing their tasks. Users' satisfaction is a vital construct in assessing system's achievement and effectiveness. It is because their experiences with the system have a significant influence on their satisfaction. A high satisfaction would imply that the system is helpful and relevant to the daily tasks of the users, which might also add value and improve their performance. A set of questionnaire was distributed to the users of accounting system in selected government agencies in Malaysia. From the responses, it showed that the users to be overwhelmingly pleased with the current accounting system. Most of them believed that the system provides up to date financial information, makes their tasks easier and more efficient, and provides accurate and sufficient information. Therefore, it shows that the findings led to the conclusion that the current accounting information system used in the government agencies has a significant influence on the users' satisfaction.*

**Keywords:** users' satisfaction, accounting information system, government agencies

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## 1. Introduction

Nowadays, there has been a vast advancement in information technology system which has increased the dependency of many organizations on the systems. The application of the system in the organizations has changed organization procedures and practices regardless of type and size of organizations. Recognize the advantages of the technology, most of the organizations have embraced the advancement of the technology to facilitate them in accomplishing all undertakings in efficient and effective way.

In accounting discipline, the advancement of technology has transformed the flow of accounting information in and out of the organizations. The technology system automates the traditional function of accounting system and used as a tool to produce accurate, reliable and timely information (Elpez & Fink, 2006) while simultaneously maintaining effective internal controls (Hunton, 2002). In common, for the government agencies, accounting system is to prepare the government's financial statements, to demonstrate government's financial position, cash flows and financial performance (Wan Zakaria and Ilias, 2016). The automated accounting system tracks financial events and summarizes information, supports adequate management reporting, policy decisions, fiduciary responsibilities, and the preparation of auditable financial statements (Dorotinsky, 2003). The system may eventually resulted in the changes to management, accounting and budgeting with greater strategic control of total spending and priority setting for more efficient and effective government (Ouda, 2003). In consequence, it may provide public assurance regarding how much financial statements fairly

reflect the financial position of the organization and that the technology system infrastructure is reliable (Hunton, 2002).

In Malaysia, the government took a number of initiatives in implementing advanced accounting system in government agencies. The purpose of the system was to assist the organizations to discharge their responsibilities in an efficient, effective and responsive manner (Siddiquee, 2005; Tayib et al., 1999). For that reason, millions of dollars were invested to replace traditional systems with more advanced accounting information systems (Wan Zakaria & Ilias, 2016). In year 2008, it was approximately MYR30 million cost for the implementation and development of systems. With the huge investment into the system, it was anticipated that the systems should be able to create more advantages and provide support in achieving fiscal control, strategic and efficient allocation and expenditure of public resources (Cole, 2010). As a pre-requisite for improving governance (Hashim, 2010), the failure of the systems might cause poor management of public resources which linked to the unreliable revenue and expenditure data for budget planning, monitoring, expenditure control and reporting (Diamond & Khemani, 2006). By means of complicated, costly and hard to manage and maintain (Rodin-Brown, 2008), thus, it is essential to assess the performance of the current system in order to evade or reduce possible and current issues within organizations to gain public trust with a strong financial stewardship, accountability and transparency (ACCA, 2010).

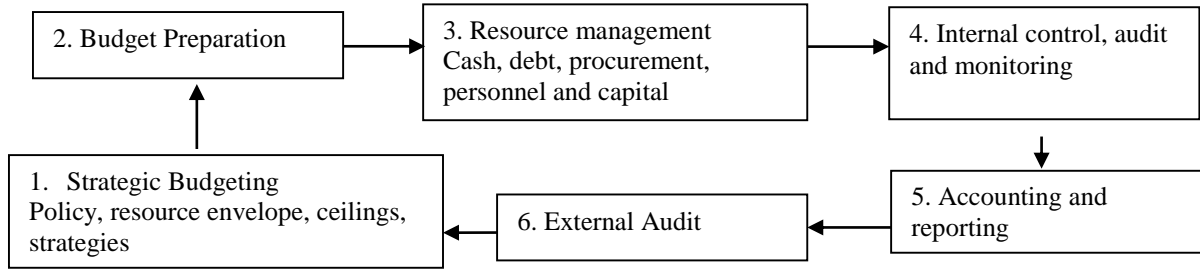
Performance is commonly defined as a measure of the success of an organization either using quantitative or qualitative approach (Fagbemi & Temitope, 2016) whereas it became increasingly popular research area for many years. In measuring performance of the system, it is important to emphasize on the ‘benefit of use’ to see the impact of the system on the individual and organization (Torkzadeh & Doll, 1999). The utilization of system might impact differently to individuals (Danziger & Andersen, 2002) such as positive impacts if the individuals got actual benefits from utilizing the system (Gullkvist, 2003) while others were not. Therefore, Chang et al., 2009 proposed the performance of the system could be measured by evaluating the impact on how a job was performed and the individual interaction with the system itself. Since it is necessary for organizations to determine the costs and benefits of the system, the study is carried out to assess the satisfaction of the users on the functionality of the current government accounting system in Malaysia.

## **2. Literature Review**

### **Government Accounting Information System**

Government accounting or public sector accounting has a custodian and stewardship role of a nation’s wealth which should reflect specific policies and criteria for allocation and use of resources, measurement of efficiency in public administration and the effectiveness of service and welfare delivery (MICPA, 2000). Nowadays, most of government agencies in many countries are making imperative and impressive achievements to strengthen the government accounting systems (ACCA, 2010). It involved the use of integrated government accounting system which is to computerize public expenditure management processes including budget formulation, budget execution, and accounting for line ministries (Diamond & Khemani, 2005) to meet their obligations to the nation. The system might help the government to demonstrate compliance with approved spending authorities, to show the overall picture of national fiscal condition and the efficiency of public resources management for discharging accountability (Wan Zakaria, 2016).

Figure 1: Basis of Government Accounting Information System



Source: World Bank (2005)

As an important benchmark in government accounting system, the changes in the government accounting system might had profound impact on public resources management process and level of transparency and accountability. Since any actions taken by government agencies may affect the lives of their citizens (Masrek, 2009), therefore, some countries took proactive actions in order to strengthen the management of public resources including Malaysia. In Malaysia, the government agencies are responsible to create a conducive and vibrant economic environment; to expedite growth and the competitiveness of the industry and the private sector; to support the country’s manpower needs; and to improve the quality of life of Malaysian citizens (MAMPU, 2003). For the purposes, Malaysian Government has developed the government accounting system in few phases involving different agencies.

Table 1: Chronology of Malaysian Government Accounting Systems Development

Year	Accounting Systems
1969	Programme Performance Budgeting System (PPBS)
1980s	Modified Budgeting System (MBS)
1990	Computerized Vote Book System
1992	Micro Accounting System (MAS)
1996	Standard Accounting System for Government Agencies (SAGA)
2000	Electronic Budget Planning and Control System (e-SPKB)
2002	Standard Accounting System for States Government (SPEKS)
2005	General Financial & Management Accounting System (GFMAS)
2008	<i>e-Terimaan</i>

Source: AGD, 2010

In general, the implementation of computerized accounting information system in government agencies had mixed results. In most developing countries, the implementation of the system took place a bit later than the developed countries. For instance, the system was implemented in Iraq (2003), Uganda (2002), Vietnam (2001), Malawi (2001), Ghana (2001) and Tanzania (1998). However, there are some developing countries who are still do not implement the system and few are still in the process of implementation (Ouda, 2003).

Relevant literature and prior studies pertaining to the effectiveness of government accounting system, for example, Dener et al. (2011) focused on the impacts of government accounting system on efficiency, fiscal outcomes and quality of budgeting in some countries. Comparing between two countries, Mongolia and Turkey, they found that one country has ineffective system while another country has an effective one. The system used by Mongolian Government had inconsistencies between budget classification and chart of accounts and could not provide sufficient data for budget entities. The system was not capable to improve the management of public resources, enhance budgetary controls and strengthen fiscal discipline. In contrast, the government accounting system in Turkey was more efficient with adequate

preparation and realistic system design. The system able to support decentralization of budget execution, improve the efficiency of civil service spending, and consolidate public sector accounting reform. While in Iran, the current system was also incapable to provide sufficient information which caused ineffective control over all government resources (Mahdavi and Funnell, 2003).

It seems that there were still some issues or problems resulted from the ineffective government accounting system in some developing countries. They continued to grapple with the problems (Siddiquee, 2005) in order to improve the system. The system has a vital role to benefit all the government agencies as sound medium term expenditure frameworks; solid cash and debt management, as well as commitment control; and a reliable basis for audit (IFAC, 2011). As a consequence, the level of transparency, accountability and performance of each government could be measured from the all published budgets, financial statements, audit reports and including other financial information (Parry, 2010).

### **Information System and Users' Satisfaction**

The advancement of accounting information system has changed the traditional process of accounting practices which reflected on the users' experience and satisfaction. It influences how a task is performed and what the outcome might be (Torkzadeh et al., 2005). Rainer and Harrison (1993) defined end-user satisfaction as individual's attitude toward computer uses, or related activities required in performing tasks in an organization. As the main objective of information system is to accomplish specific objectives or tasks (Stone et al., 2007), thus, it can be generalized that users' satisfaction is related to individual capability in completing their individual task or activities. If the users able to complete tasks easily and quickly with the help of the system, they might get more satisfaction with the system. For that reason, many studies used users' satisfaction as an indicator in measuring performance of the system which is related to the accomplishment of a portfolio task by an individual (Goodhue and Thompson, 1995).

In measuring users' satisfaction, Soegiharto (2001) focused on the relationship of influence factors and AIS performance. The influence factors were categorized into user involvement, user capability, management support, organization size, and formalisation of IS development. The measures of AIS performance were AIS satisfaction and user system usage. He found that more involvement of the users in the design, development and implementation of the system led to the frequency of the system usage but not users' satisfaction. But, Aziz (2003) separated satisfaction into two categories: users' satisfaction and job satisfaction. He carried out the study to determine the relationship between users' satisfaction and job satisfaction among accountants by identifying specific tasks performed by the accountants which related to the output from the current system. He also included other variables, such as gender, type of AIS, number of tasks, frequency of computer usage, and computer literacy. From gender perspective, he revealed that there were no significant differences in AIS satisfaction and job satisfaction between male and female accountants. However, there were significant relationships between frequency of computer usage and job satisfaction and AIS satisfaction and job satisfaction.

Another literature be relevant to the users' satisfaction, Alves (2010) believed that the performance or success of the system depending on satisfaction expressed by the user. But, in a comprehensive theoretical model approach, Sabherwal et al. (2006) categorized user satisfaction as one of the constructs representing the success of a system. Others constructs included were system use, perceived usefulness and system quality. A set of outcome measures

also was developed Doll (1999) in distinguishing system's effectiveness within the context of management control, task innovation, task productivity, and customer satisfaction.

A comprehensive study on users' satisfaction was carried by Vaezi (2013). In getting overall satisfaction of the system, he investigated users' satisfaction from three aspects (i.e. information output (information satisfaction), technical system (system satisfaction), and supporting services (service satisfaction) which reflected in an attribute-level model of satisfaction. The model focuses on outcomes instead of process that has a greater analytical and diagnostic capabilities. By testing the model to the students, he found that student satisfaction with the system turned out to be strongest predictor of their overall satisfaction, followed by student satisfaction with information and service. The result suggested that satisfaction with the core functionality of the system is the most important contributor to user overall satisfaction with the system.

### **3. Methodology**

A quantitative survey was carried out to gather information on the users satisfaction with the current government accounting system used in Malaysian Government. The research instrument used was questionnaire survey with Likert-scale technique with a total of 643 questionnaires were distributed to the users of government accounting system in Putrajaya and Selangor. The collected questionnaires were 399 with 374 usable for further statistical analysis. The data was analyzed using statistical procedures of SPSS version 18.0. The study performed descriptive analysis to gain understanding on their satisfaction level of the system used and other related information.

### **4. Findings and Discussion**

#### *Descriptive Analysis*

Descriptive analysis is an analysis to transform raw data into information to describe a set of factors in a situation (Sekaran, 2010). In other words, the analysis will summarize the data set in a statistical format to provide more information on the characteristics of the data such as frequencies, skewness, kurtosis, standard deviation, cross-tabulation, minimum, maximum, mean and more. For this part, the descriptive analysis was performed in order to obtain some information on demographics, current accounting information system used by the organizations and cross-tabulation analysis. The descriptive analysis performed in the study was summarized as follows.

#### **Demographic Background Information**

The demographic background information provides some important characteristics of the respondents involved in the study. The details of the demographic information of the respondents were presented as shown in Table 2. The analysis showed that most (73%) of the respondents were female, whilst 27% were male. The age of the respondents was categorized into three different ranges, 20 to 30, 31 to 40 and above 41 years. The first age range had the highest value (47%) and followed by the second age range (30%). In terms of years of experience in the current position, it was found that most of the respondents had less than five years' experience (57.2%). For the respondents' job position, 56% of respondents were staff accountant and the remaining were CEO/CFO, senior accountant, senior auditor and others which reflected on the frequency use of the system. Regarding on accounting education background, 82% of the respondents having accounting background and the remaining having no accounting background. Whilst 26 respondents had a Master's degree (7%), 159 had a

Bachelor degree (42.5%) and the 189 remaining respondents had a diploma or lower qualification (50.6%). Surprisingly, the analysis was also showed that 81% of the respondents had no professional qualifications while 19% had some professional qualifications. The analysis also showed the frequency use of the system among the respondents which the majority (84.8%) of the respondents used the system at least once a day, 8% used the system a few times a week and the rest used the system a few times a month and at least once in a month.

Table 2: Demographic Background

Demographic Information		Frequency	Percent (%)
Gender	Female	273	73.0
	Male	101	27.0
Age	20-30	174	46.5
	31-40	111	29.7
	above 41	89	23.8
Current Position	CEO/CFO	8	2.1
	Senior Accountant	50	13.4
	Senior Auditor	3	0.8
	Staff Accountant	211	56.4
Education Background	Other	102	27.3
	Yes	307	82.1
Academic Qualification	No	67	17.9
	Master	26	7.0
	Bachelor	159	42.5
Experience in Current Position	Diploma	117	31.3
	Other	72	19.3
	0-1 year	45	12.0
	1-5 years	169	45.2
Professional Qualification	6-10 years	59	15.8
	10-15 years	35	9.4
	More than 15 years	66	17.6
Frequency Use of System	Yes	71	19.0
	No	303	81.0
	At least once a day	317	84.8
	A few times a week	30	8.0
	A few times a month	14	3.7
	Once a month or less	13	3.5

In order to achieve the objective of the study, the users' satisfaction on the system were assessed using the following characteristics:

Table 3: Characteristics of the System

No	The characteristics of the system	Percent %	Mean
1.	Provides up to date information	84.7	4.06
2.	Makes tasks easier and more efficient	83.6	4.02
3.	Provides accurate information	82.5	4.01
4.	Provides sufficient information	80.2	3.96
5.	Provides report as required	78.1	3.94

From the respondents' response, 84.7% satisfied that the system provided them with up to date financial information, 83.6% were satisfied with the system to make their tasks easier and more efficient and the respondents were satisfied with the accuracy of information and sufficient information with a value of 82.5% and 80.2, respectively. The users (78.1%) were also satisfied as the system was able to provide reports as required. In general, most of them (82.6%) were satisfied that the system did help them in doing their routine tasks in a more efficient and effective way. The overall mean of each item was obtained in order to assess the level of satisfaction perceived by the respondents. The means had the values ranged from 3.94 to 4.06. The highest mean showed that the respondents were most satisfied with the characteristic of the system while the lowest mean showed the least satisfaction on the characteristic of the system. From the findings, it showed that the users would get their satisfaction if the system was helpful and relevant with their daily tasks. It means that if they were able to perform their tasks with efficiently and effectively, they were more satisfied with the system which might also add value and improve their performance.

## **5. Conclusion**

In improving the efficiency of public resources management, most of the countries attempted to implement the most advanced system in their public financial management system. Therefore, they sought after that the investment on the system would benefit them at the most. From the users' perspectives, in general, the findings of the study showed that the current system used by Malaysian Government had benefit them in fulfilling their obligations to the nation. It is because most of the respondents perceived that the system was able to help them in performing their tasks with efficiently and effectively which might reflect on the overall process of public resources management in the organizations. But, in order to expansively evaluate the system, a further analysis on the system should be done in future. However, the current study might also useful to provide insight into the ability of the system in performing tasks. It means that the government should also particularly consider the influence of the system on the users attached to the system to ensure that the system is successfully implemented and efficiently worked. On the other hand, it might help the public or stakeholders to undoubtedly realize the importance of the system in creating value to the organizations and improving public financial management.

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