

An Analysis of the Adaptation of Electronic new Government Accounting System (eNGAS) among Government Agencies in Nueva Ecija

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Abstract— *The Philippine Government, specifically the Commission on Audit, has made efforts to develop an Accounting System called the e-NGAS. It has an objective to improve productivity, transparency and accountability in financial management. However, as a system was introduced for agency adaptation, after a decade many agencies have not yet adopted it and it includes some agencies in the Province of Nueva Ecija. The researcher believes that understanding the factors of not adapting to the said system is the first step for a successful system implementation. Thus, this study seeks to identify, summarize, and better understand the factors that could affect user resistance. Adapted from the Theory of resistance by Klaus and Blanton (2010), factors are classified into four determinants as Organizational, Individual, Technical and Process Factors. However, technical factors are not included in the analysis of this study and are recommended for future studies. A total of thirty Government Accounting Employees from agencies that do not yet adapt to the eNGAS have answered the given structured questionnaire. And as a result, it reveals that Organizational and Process factors significantly affect the users. The factors such as lack of communication, lack of top management support, lack of training, lack of resources, work inconvenience, needed changes in employee's jobs and skills and communication process are among the factors specifically identified by the respondents. Through the information brought about by these studies, the researcher aims that it can help the eNGAS Steering Committee to develop more comprehensive strategies that can address such said factors.*

Keywords — *Accounting, System, Adaptation, COA, eNGAS, Resistance*

I. INTRODUCTION

Over the years, the Philippine government has faced pressure on how to improve its accounting system in order to become more efficient and effective in providing financial data. This is to promote greater transparency, on government expenditures, and accountability, on government officials. The overriding objective of Government Accounting, like in any other accounting of business entities is to provide useful information for decision making. They provide information through financial reports that show the financial position, operating

results, and cash flows for a particular period. This financial report utilizes a number of diverse objectives, including assessing the short-term liquidity, financial conditions, budget, legal compliance, capital, etc. Also, it may vary in format and details depending on the needs of the user.

The differences in financial information necessary for different users and the daily voluminous number of transactions in agencies create difficulties to provide the said needed data. The old Accounting System that was done manually was prone to material errors in recording the transactions and was ineffective to provide financial

information in a timely manner. It encountered issues such as late submission of financial statements to National Government Agencies and being unable to provide, track and record other relevant information for decision-making. Thus, to address the said problem and to achieve high-quality information, embracing the advantages of technologies as a tool for industrial and economic development, in July 2001, the Commission on Audit initiated their "Government Accounting Simplification and Computerization Project" to design a New Government Accounting System (COA, 2018).

The e-NGAS was developed by Information Technology (IT) experts from COA to simplify government accounting, conform to international accounting standards and generate periodic and relevant financial reports for better monitoring of national funds and agency performance (COA, 2018). Testimonials from the users said that through eNGAS they can easily generate trial balances, financial statements, and schedules of accounts receivable and payable resulting in quick, reliable, and well-documented information, this is from Mr. Romeo C. Cruz, State Auditor IV, COA and also operations became more efficient and errors were minimized, this is from Dir. Lucila M. Isidro, Director IV, COA. In this regard, different head and national agencies issued a memorandum with the purpose to inform and encourage their jurisdictional agencies on the availability and use of the said system in line with the thrust on good governance.

However, following the milestone of eNGAS system enhancement and COA nationwide rollout strategies for system adaptation, after a decade many government agencies have not yet adopted the said system and including some government agencies in the Province of Nueva Ecija. Thus, this study tries to uncover such factors that influence Agency users to not make use of the said system. Specifically, this study describes the financial systems currently in use by government agencies; describes the factors that affect users' resistance to implementing the eNGAS and describe the standpoint of government agency users in the future adaptation of eNGAS, if any resistance issue will be resolved. Understanding the factors that provoke their resistance can help the eNGAS Steering Committee pinpoint the problems that such agencies are dealing with, whether it is in terms of organizational, individual, technical or process factors. Overall, the assessment of this study is for the success of having an efficient and effective government accounting system in order to deliver better financial services to the general public.

II. RESEARCH METHODOLOGY

This research utilized the descriptive research method because it was used to obtain information concerning the current status of the phenomena to describe 'what exists' concerning variables or conditions in a situation (Given, 2007). Secondary and primary data sources are used to collect data for the study. The researchers gathered data from eight selected government agencies in Nueva Ecija through a Convenience and Purposive Sampling method. The respondents answered a four-part survey form through Google and a hard copy form. Part 1 of the questionnaire was composed of questions about their socio-demographic profiles, Part 2 was composed of questions about the characteristics of the current system used by the respondents, Part 3 was composed of questions on factors that identify the causes of user's resistance towards the adaptation of eNGAS and Part 4 was composed of questions on the standpoint of government agency users in the future adaptation of eNGAS, if any resistance issue will be resolved. Part 2 and Part 3 were rated using a 4-point Likert scale which rated as 4 – Strongly agree, 3 – Agree, 2 – Disagree and 1 – Strongly disagree. To summarize and analyze the data gathered, for Part 1 and Part 4 a frequency percentage was used and for Part 2 and Part 3, a weighted mean computation was used, with a legend of 3.51 - 4.00 (Very high), 2.51- 3.5 (High), 1.51 - 2.5 (Low) and 1.00 - 1.5 (Very Low), where the degree of agreement was based.

III. RESULTS AND DISCUSSION

Out of 40 distributed questionnaires only 30 had given voluntary consent and participated in the study. The majority of respondents are Female (73%) aged 20-30 years old (80%) with an educational attainment of a bachelor's degree (73%) and currently holding a position of Administrative Officer (53%) at their Agency. Educational Attainment is important in this study to emphasize that the users of the accounting system possess an academic background that allows them to be competent enough to understand matters related to their work. With regards to years of experience, most are in service for 1-5 years (57%).

1. The Financial System currently in use by the government

1.1 Current Accounting System Used by Government Agencies

Table 1. Accounting System Currently used by Government Agencies

Accounting System	No. of Agencies	Percentage
Microsoft Office Excel	6	75%
GAAMS (Exclusive System for Agency)	1	12.5%
Financial Management Information System -FMIS (Exclusive System for Agency)	1	12.5%
Total	8	100%

Table 1 shows that out of the eight agencies being surveyed, 75% used the most accessible software program, Microsoft Excel, to record their agencies' daily financial transactions and to prepare the needed financial reports. On the other hand, 25% of the surveyed agencies used an exclusive system created or acquired for their Agency. GAAMS was

used by the Local Government Unit of San Jose City and FMIS was used by the Philippine Rice Research Institute.

1.2 Characteristics and Functionality of Accounting Systems currently used by the Government

Table 2. Summary of Responses about the Characteristics and Functionality of the Accounting System Currently Used by the Government Agencies

Characteristic	Indicator	Mean	Level of Agreement
User-friendly	Current Accounting System caters for all types of users, simple and easy to navigate	3.42	Very High
Relevant	Current Accounting Systems can be used in making financial decisions	3.02	High
Automated	Current Accounting System can provide real-time updated reports	2.15	Low
Reliable	Using the current Accounting System data can present what it needs to represent	2.53	High
Accessible	Using the current Accounting System data can access quickly and efficiently	3.17	High
Enough Storage Capacity	The current Accounting System can store enough data needed by the Agency.	3.04	High
Verifiable	Current Accounting Systems can easily identify and reduce manual errors	2.21	Low
Secured data	Data in the current Accounting System are secured and can be retrieved	2.41	Low
Total		2.74	High

Table 2 shows that the participants of the study strongly agreed that the current system they are using is significantly user friendly having the highest weighted mean of 3.42. They also agreed that the current system is relevant, reliable, and accessible and has enough storage capacity to use. However, in some characteristics such as being automated, verifiable and secured data participants respond with low agreement. Overall, with a 2.74 total weighted mean, the

current system used by the agencies is still useful and acceptable to the agency users.

2. The factors that affect users' resistance to implementing the eNGAS

2.1 Organizational Factors that Affect Government Agencies to Resist the Implementation of eNGAS

Table 3. Summary of Responses about Different Organizational Factors that Affect Government Agencies to Resist Implementation of eNGAS.

Dimensions	Indicator	Mean	Level of Resistance
Lack of communication	There is no discussion yet by the higher authorities at our agency regarding the implementation of eNGAS.	2.96	High
Organizational Mismatch	Our agency has a priority towards other objectives rather than paying attention to changes in the Accounting System.	2.89	High
Lack of Management Support	There is no guidance, support or allocation of necessary resources for the implementation of the new Accounting System.	2.75	High
	The department head of our Agency is not supportive of changes.	2.04	Low
Lack of Training	There is no training conducted regarding the use of the Accounting System for the past year.	2.79	High
Timing of Implementation	The timing for system training and implementation is postponed due to Covid19.	2.25	Low
Lack of Resources (Technology, People, Funds)	Our Agency has a lack of technological resources (Internet, high-speed computers etc.) to be able to implement a new Accounting System.	2.11	Low
	Our Agency has no IT or technical personnel knowledgeable about troubleshooting the Accounting System.	2.53	High
	Our organization believes that the implementation of eNGAS is too costly for the Agency.	2.5	Low
Peer Pressure	My colleagues are not supportive of the change and think that using eNGAS is not a good idea.	2.14	Low
Total Mean		2.53	High

Table 3 shows that out of ten (10) indicators of organizational resistance half of it is highly agreed by the respondents. Specifically, these are the dimensions such as the lack of communication, lack of top management support, lack of training and lack of human resources (IT personnel) in the organization. And with a 2.53 weighted

mean in total, it can be generalized that organizational factors contribute to the grounds for not implementing the eNGAS.

2.2 Individual Factors that Affect Government Agencies to Resist Implementation of eNGAS

Table 4. Summary of Responses about Different Individual Factors that Affect Government Agencies to Resist Implementation of eNGAS.

Dimensions	Indicator	Mean	Level of Resistance
Routine seeking	I like to work with the current system rather than trying a new and different one.	2.44	High
Lack of awareness	I am not aware that there is a system called eNGAS.	1.68	Low
Lack of Control/Power, Change of Status quo	I would lose a lot in my work if a new accounting system is implemented.	2.00	Low

Uncertainty	I don't know how this Accounting System (eNGAS) can make my job efficient and effective.	2.44	Low
Conservatism Attitude	I don't think that changing our current system is necessary.	2.20	Low
Lack of capability	I am not capable of using another new Accounting System.	2.20	Low
Fear	If I were to be informed that there's going to be a change in the accounting system, I would probably feel stressed and tense up a bit.	1.92	Low
Negative attitude/ Inconvenience	Changing our current Accounting System seems like a real hassle to me.	2.08	Low
Cognitive Rigidity/ Fear / Uncertainty	I'm worried about how the new system will change my job.	2.12	Low
Lack of involvement	I do not want to be involved in using a new accounting system.	1.88	Low
	Total Mean	1.85	Low

Table 4 shows that participants have a low level of agreement in most of the Individual factors listed above. Only in statement number 1 stating "I like to work with the current system rather than trying a new and different one" where the respondents highly agreed. The results of the overall 1.85 weighted mean are definitely not significant to conclude that such individual factors contribute to and/or

Table 5. Summary of Responses about Different Process Factors that Affect Government Agencies to Resist Implementation of eNGAS.

affects the resistance to eNGAS implementation. There is no issue regarding the following factors such as lack of employee capability, lack of control/power and attitude and behavior of the employees.

2.3 Process Factors that Affect Government Agencies to Resist Implementation of eNGAS

Dimensions	Indicator	Mean	Level of Resistance
Inconvenience	Switching to the new way of working with the new Accounting System could result in unexpected hassles.	2.77	High
Reliability Issues	Implementing a new Accounting System can hamper the daily operation of the Agency.	2.5	Low
Non-readiness	There may be delays in the submission of reports during the period of implementing a new Accounting System.	2.57	High
Extra time for work	Implementing the eNGAS would make daily tasks longer as compared to using the current system.	2.37	Low
Invalidity	The availability of data at our Agency is not complete so implementing the eNGAS can be difficult to achieve.	2.17	Low
	Minimum technical and personnel requirements for eNGAS implementation are hard to achieve.	2.23	Low
Increase job complexity	Implementing the eNGAS would make the job complex and hard.	2.43	Low

Increase in Workload	Implementing the eNGAS means more work, to get the same information that we can have currently.	2.47	Low
Change in Job Contents	Implementing the eNGAS would require doing different and new tasks.	2.92	High
Lack of interaction (Between User and Developer)	Communicating with eNGAS developer/committee is hard since our Agency is located in the province.	2.8	High
Total Mean		2.52	High

Table 5 shows the possible Process Factors that may affect the users to resist the implementation of eNGAS and its equivalent weighted mean based on participant's responses. As a result, and shown in the table, the four statements such as (1) switching to the new way of working with the new Accounting System could result in unexpected hassles, (2) there may be delays in the submission of reports during the period of implementing a new Accounting System, (3) implementing the eNGAS would require doing different and new tasks and (4) communicating with eNGAS developer/committee is hard since their Agency is located

in the province are highly agreed upon by the respondents. These put forward that there are some process factors that need to be resolved, such as inconvenience, non-readiness, changes in job/skills and communication process. Moreover, a total mean of 2.52 respondents highly agreed that such process factors affect the implementation of eNGAS.

3. The standpoint of government agency users in the future adaptation of eNGAS

Table 6. Summary of Responses about the Standpoint of Government Employees in the future adaptation of eNGAS

Statement	Frequency	Percentage
If the resistance factor has been resolved I agree to the implementation of the eNGAS.	25	83%
If the resistance factor has been resolved I still don't want to use the eNGAS, because I am very satisfied with the current system we've been using.	3	10%
I don't think the resistance factor will be resolved so I oppose the implementation of the eNGAS.	0	0%
Even if the resistance factor cannot be resolved, still I agree to the implementation of the eNGAS.	2	7%
Total	30	100%

Table 6 shows the summary of responses in the last section of the survey questionnaire with the aim to determine the standpoint of agency users about the future implementation of eNGAS. Most of the respondents with a percentage of 83% are in the implementation of eNGAS if the resistance factor has been resolved. While 10% of them respond that if the resistance factor has been resolved still, they don't want to implement the eNGAS, because they are very much satisfied with the current system they've been using. And last, only 7% of them agreed that even if the resistance factor cannot be resolved, they still agree with the implementation of the eNGAS.

IV. CONCLUSION

In conclusion, resistance to a system is a common problem which is difficult to avoid during the process of adaptation. For an organization, it is not only an opportunity but also a challenge. Based on the results and discussions the following conclusions were made:

1. Most Government Agencies used Microsoft Excel as an alternative accounting system to record transactions and make financial reports. For the users, despite some of the problems they encountered using it such as error and data loss it is still useful, reliable and acceptable for them to accomplish their task.
2. Among the three factors analyzed in this study, two have significantly affected the adaptation resistance of the users and these are the Organizational factors and

Process factors. For the Organizational factors users identified a specific cause such as the lack of communication, lack of top management support, lack of training, lack of human resources (IT personnel) in the organization, working inconvenience, non-readiness of agencies and changes in employee's job and skills are the factors that affect the users in resisting the implementation of eNGAS. On the other hand, Individual factors cannot be looked upon as a contributing factor that affects the user's resistance, there is no issue with regard to the employee's lack of capability, lack of control/power and attitude and behavior.

3. According to the results, agency users said that if the organizational factors and process factors enumerated above will be resolved they agree to the adaptation of the eNGAS in order to have a better government financial system.

Moreover, based on the results obtained and after a rigorous review of the literature, the researcher proposes the following areas for further research:

1. The Assessment of eNGAS Effectiveness and Efficiency as a Government Accounting System after Implementation.
2. A Comprehensive Study about User's Expectations and Fears in Using eNGAS.
3. Challenges and Problems Encountered Before and after the eNGAS Implementation Process.

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