

# Accounting Information Systems and Organizational Performance in Hotel Industry in Rwanda the Case of Selected Hotels

David Ruhumuliza

University of Tourism, Technology and Business Studies, Rwanda

**Abstract:** Accounting information System is a vital role in the every organization to achieve their management objectives. Nowadays hospitality organizations have been failing because of shortcomings of the accounting information system adoption and satisfactory. This study focuses in hospitality organization specifically hotel institutions. This study examined whether the accounting information system leads to increase organizational performance. In this study, accounting information system is measured by Agreements on the importance of each of the determinants of AIS and Agreements with the steps necessary to implement a successful AIS and organizational performance are measured by profit, efficiency and liquidity respectively. The study population comprised of 65 people from selected two hotels in Rwanda; this study considered the whole population as a sample size, and the researcher used universal sampling as the right sampling technique. Questionnaire was used in collecting primary and secondary data was obtained through documentation and observations. Excel was used to analyze all data and the data were processed using frequency distribution, mean, and percentages. The findings of the study revealed that there is a relationship between Accounting Information Systems and organizational Performance in hotel industry. The study concluded that Accounting Information Systems has a profound influence to the organizational Performance. Also the findings revealed that appropriate use of accounting information system is considered as one of factors contributed in organizational performance. It is recommended that the effort of the Ministries of Health is needed to implement, invest and improve their Accounting Information Systems.

## INTRODUCTION AND BACKGROUND

A system of organizational performance is intended to the organizational members to take actions and make decisions consistent with the organization's objectives. Some people ask how in this age of technology with sophisticated computer systems and top investment, managers, companies, large and small; or institutions, private and public fail to insure the accuracy and the security of their funds. Across the world, international organizational reporting standards are adopted. This is done in effort to reduce fraud and increase investor confidence in organizational reports. Today, our businesses, government, organizations are incredibly dependent on information systems and are therefore highly vulnerable if these systems fail.

Accounting Information Systems (AIS) are tools which, when incorporated into the field of Information and Technology systems (IT), were designed to help in the management and control of topics related to institutions' economic-

organizational area (El Louadi, 2013). Accounting Information System (AIS) is vital to all organizations (Borthick and Clark, 2009) and perhaps, every organizations either profit or nonprofit-oriented need to maintain the AISs (Wilkinson, 2010).

In managing an organization and implementing an Accounting Information System the role of accounting information system (AIS) is crucial. (Nicolaou, A., 2010). Accounting information systems are a decades-old business function. AIS of the past focused on the recording, summarizing and validating of data about business organizational transactions. These functions were performed for the various groups within the organization that were concerned about the respective decisions associated with organizational accounting, managerial accounting, and tax compliance issues (Hollander, *etal.*, 2014).

Further analysis would provide additional insight on trends or other operational issues needing attention. While this system worked well for its time period, companies only develop new techniques for improving organizational information reporting. Modern day accounting information systems are usually an automated function using computers, servers and intranets for electronically processing organizational information. These systems allow companies to collect and gather organizational information in a real-time format. This process ensures managers have the most up-to-date information for organizational decisions. Although the information generated from an accounting information system can be effective in decision-making process, purchase, installation and usage of such a system are beneficial when the benefits exceed its costs.

Benefits of accounting information system can be evaluated by its impacts on improvement of decision-making process, quality of accounting information, performance evaluation, internal controls and facilitating company's transactions. Regarding the above five characteristics, the effectiveness of AIS is highly important for all institutions. The company needs to improve their systems and data processing capacity to match their information needs (Van de Ven and Drazin, 2013). In a bid to restructure the health sector after the 1994 Genocide of Tutsi and the war and to rebuild the country's organizational performance, the Government of Rwanda has put more effort in adopting the system of ICT in order to improve the information quality including accounting information system, to improve efficiency, reduce operational costs and enhance competitiveness. This study sought to examine the use of accounting information systems (AIS) by the hotels in Rwanda. This study also aimed to ascertain the relationship between the Accounting Information System and the Organizational Performance. It highlighted the users of the system and the way information adds value to the organization.

## **STATEMENT OF THE PROBLEM**

The essence of accounting information systems in any organizations is to transform data into meaningful information used in management process. It shows organizational position of the organization, serves as road map for credit granting,

facilitates audit work and controls the work within the organizational structure. Accounting information systems is a critical resource for all institutions. The concept of accounting is quite well established and numerous commercial packages as well as tailor-made systems have been developed. Despite having Accounting Information Systems in an organization, staff, politicians seem not to follow the procedures. For instance, under purchases (procurement of goods or services) people always by-pass the laid down policies; this has an implication on the organizational performance of the organization. Therefore this study seeks to find if there is a relationship between accounting information systems and organizational performance.

## **RESEARCH METHODOLOGY**

The researcher used a case study research design whereby descriptive methods were used to collect both qualitative quantitative data. Quantitative data were collected in numeric terms. It was a strategy to be used in data collection and therefore it will help to specify clearly what the researcher wants to find out and the way to do it. The population under this study targeted the employees from selected hotels in Rwanda. The target population was 125 according to staff structure manual and these are accountants, procurements, logistic, Accounting Information System, budget officers, auditors, and departmental staffs, in selected hotels in Rwanda and therefore the researcher will use them as the target population.

This refers to the number of items to be selected from the universe to constitute a sample. The size of sample should neither be excessively large, nor too small. It should be optimum (Kothari, 2004). The selected sample size will provide the researcher with a desired degree of accuracy in order to analyze the. To determine the sample size, the researcher will use Solvins formula through the confidence interval of 5% and 95% of the confidence level to give a total sample of 101. The researcher applied simple random sampling method in obtaining the respondents which is a type of sampling technique that allows researchers to collect data in which each element in the population has a known and equal probability of selection. This technique was convenient to achieve the research objectives because the respondents will be having the same chance to be in sample. The respondents consisted of accountants, procurements, logistic, Accounting Information System, budget officers, auditors, and departmental directors, in selected hotels in Rwanda. The information obtained from these respondents will be treated as representative of the entire public sector. The above respondents will be chosen because of their vast knowledge and familiarization with the situation on ground in the area of study. The data were collected using self-administered questionnaires and documentation.

## **THE RESULTS AND DISCUSSION**

This section presents statistical analysis and interpretations of research questions which are: what is the level of accounting information system at hotel industry? What is the level of financial performance in the hotel industry? And

lastly is there significance relationship between Accounting information system and financial performance in hotel industry?

### **Level of accounting information system in hotel industry**

The independent variable of this research is accounting Information Systems so in order to determine the second objective which is to determine the level of accounting information systems, the investigations was based on the following aspects: The importance of the determinants of AIS; The steps necessary to implement a successful Accounting Information Systems; The efficiency and effectiveness of AIS; the importance of AIS on different areas; Categories of software best describe the AIS in the organization; Use of accounting data from AIS on different areas and the factors important to evaluate the performance of AIS. It is important to take that the opinions of all categories of workers converge for the aspects mentioned in the table a below:

**Table 1A: Level of Accounting Information Systems in Ministries of Health**

<b>Agreements on the importance of each of the determinants of AIS</b>	<b>Mean</b>	<b>Interpretation</b>
Qualified People	3.69	High
Internal control and measures	3.57	High
Updated data	3.55	High
Software	3.49	High
Procedures and instructions	3.43	High
Modern Information technology infrastructure	3.14	moderate
<b>Sub-total</b>	<b>3.48</b>	<b>high</b>
<b>Agreements with the steps necessary to implement a successful AIS</b>		
Detailed requirements analysis	3.62	High
Training	3.58	High
Support	3.38	High
Systems designs	3.12	Moderate
Data conversion	3.09	Moderate
Testing	2.89	Moderate
Documentation	2.85	Moderate
<b>Sub-total</b>	<b>3.21</b>	<b>Moderate</b>

Source: Primary data, 2017

Results in table 1A as they are shown, the respondents were asked a question to indicate if the determinants of Accounting Information Systems have an importance to the organization. The respondents rated qualified people as very important (mean = 3.69), equivalent to high, internal control and measures (mean = 3.57), equivalent to high, updated data (mean = 3.66), equivalent to high, software (mean=3.49), equivalent to high, procedures and instructions (mean=3.43), equivalent to high and modern information technology infrastructure (mean=3.14) equivalent to moderate.

The respondents were rated the steps necessary to implement a successful AIS as follows: they rated detailed requirements analysis to be high (mean=3.62), training to be high (mean=3.58), support to be high (mean=3.38), systems design as moderate (mean=3.12), data conversion to be moderate (mean=3.09), testing to be moderate (mean=2.89) and documentation to be moderate (mean=2.85).

### **Level of organizational performance**

The dependent variable in this study was organizational performance; it was measured using qualitative questions in the questionnaire. To achieve the second objective which was to determine the level of organizational performance the respondents were asked to rate the questions using Likert scaled between one to four, where 4 = strongly agree; 3= agree; 2 = disagree; and 1 = strongly disagree. Their responses were analyzed using SPSS’s summary statistics showing the mean as indicated in Table 4 below

**Table 4: Level of organizational performance of Ministries of Health**

<b>Level of organizational performance</b>	<b>Mean</b>	<b>Interpretation</b>
The hotel recognize their expenses in order to assess their revenues requirements	3.66	High
Hotel performance entirely depends on a well-designed AIS	3.66	High
the hotel services that our hotel offers are efficient and effective	3.63	High
AIS ensure workflow improvements	3.56	High
The hotel often use AIS to provide support for management decisions	3.53	High
The hotel have a comprehensive income	3.52	High
The hotel prepares financial statements, current internal balance sheet and income statement are required	3.44	High
The hotel is able to pay off its short term debt as it comes due	3.44	High
Internal document relate to hotel reports for government and managers, while external ones represent information relating to the hotel growth	3.37	High
The AIS give the required feedback in terms of organizational statements	3.28	High
The institutions finances its activities and meets its cash requirements and its commitments	3.19	Moderate
The organization obtains and uses resources in accordance with adopted budget and other legal requirements	3.17	Moderate
The organization is well utilizing its assets to produce revenues	3.12	Moderate
AIS allow for easier payments	3.02	Moderate
The organization has sufficient funds to meet its short term and long term liabilities	2.89	Moderate
<b>Total</b>	<b>3.36</b>	<b>High</b>

Source: Primary data, 2017

As shown in table 4 above, the respondents stated that the level Organizational Performance in Ministries of Health is high (mean=3.36). the organization recognize their expenses in order to assess their revenues requirements at a high level (mean=3.66) and the respondents stated that the organizational performance entirely depends on a well-designed AIS on a high level (mean=3.66), the respondents rated to be high the public services that the institutions means Health offer are efficient, effective, and economical (mean=3.63),the AIS ensure workflow improvements to a high level as rated by the respondents with a mean=3.56, the respondents strongly agree =high (mean=3.53) with that the organization often use AIS to provide support for management decisions.

The respondents rated to be high that the organization has a comprehensive income (mean=3.52).

As with in table above the institutions prepare organizational statements, current internal balance sheet and income statement are required at a high level with a (mean=3.44), the staff of Health stated that the organizational is able to pay off its short term debt as it comes with a mean of 3.44.

The respondents ranked with a high level (mean 3.37) that the internal document relate to organizational reports for government and managers, while external ones represent information relating to the organizational growth and they were strongly agree(mean=3.28) with that the AIS give the required feedback in terms of organizational statements.

While they were agreed (mean=3.19) with that the institutions finance its activities and meet its cash requirements and its commitments.

The respondents of Health agree (mean=3.17) with that the organization obtains and uses resources in accordance with adopted budget and other legal requirements, the organizations are well utilizing its assets to produce revenues as stated by the respondents at a moderate level (mean3.12); they stated also that the AIS allow for easier payments at moderate (mean=3.02) and they stated that the organizations has sufficient funds to meet its short term and long term liabilities at a moderate level which is equal to (mean=2.89).

### **Relationship between Accounting Information Systems and Organizational Performance in Ministries of Health in Rwanda**

The third and last objective in this study was to determine if there is a relationship between the level of AIS and the level of Organizational Performance in Ministries of Health in Rwanda, for which it was significantly correlated. The results above show that there is a positive significant relationship between the level of Accounting Information Systems and the level of Organizational Performance in Ministries of Health. For instance the level of Accounting Information Systems is positively and significantly correlated with organizational performance, it means that the Accounting Information Systems have a considerable influence on the organizational performance.

## CONCLUSION

The purpose of this study was to investigate the contribution of Accounting Information Systems to Organizational Performance in Ministries of Health in Rwanda, to generate new information from the existing data and to validate the conceptual framework of Ismail and King considering the results, they indicate that the results affirmed that there is positive relationship between Accounting Information Systems and Organizational Performance in Ministries of Health in Rwanda.

The findings have proved that the level of Accounting Information Systems is significantly correlated with Organizational Performance in Ministries of Health in Rwanda, indicating that the moderate level of AIS is significantly responsible for the better organizational performance in that Ministries of Health in Rwanda.

The findings have proved the conceptual framework of Ismail and King which stated that the independent variable which is Accounting Information Systems when worked in hand with intervening variables have a direct influence to the dependent variable which is organizational performance and the results showed that the level of Organizational Performance is on a higher level.

## REFERENCES

- Abushaiba, I. A. & Zainuddin, Y. (2012). Performance measurement system design, competitive capability, and performance consequences-A conceptual like. *International Journal of Business and Social Science*.
- Adeyemi, O. O., Akindele, S. T. & Agesin, B. (2012). Review: Institutionalizing the culture of accountability in local government administration in Nigeria. *African Journal of Political Science and International Relations*.
- Aguolu, O. (2009). Designing an effective internal audit group. *Association of Accountancy Bodies in West Africa*.
- Ahmad, N., Othman, R. & Jusoff, K. (2009). The effectiveness of internal audit in Malaysian public sector. *Journal of Modern Accounting and Auditing*.
- Aikins, S. K. (2011). An examination of government internal audits' role in improving organizational performance. *Public Finance and Management*, 11(4), 306-337.
- Aldridge, R. & Colbert, J. (1994). Management's report on internal control, and the Accountant's response. *Managerial Auditing Journal*, 9(7), 21-28.
- Al-Twaijry, A. A. M., Brierley, J. A. & Gwilliam, D. R. (2003). The development of internal audit in Saudi Arabia: An Institutional Theory perspective. *Critical Perspective on Accounting*, 14, 507-531.
- Al-Twaijry, A. A. M., Brierley, J. A. & Gwilliam, D. R. (2004). An examination of the relationship between internal and external audit in the Saudi Arabian corporate sector. *Managerial Auditing Journal*, 19(7), 929-944.
- Amudo, A. & Inanga, E. L. (2009). Evaluation of Accounting Information Systems: A case study from Uganda. *International Research Journal of Finance and Econominternal control system*, 3, 124-144.
- Arena, M. & Azzone, G. (2009). Identifying organizational drivers of internal audit effectiveness. *International Journal of Auditing*, 13, 43-60.
- Arena, M. & Azzone, G. (2010). Internal audit effectiveness: Relevant drivers of auditee's satisfaction 1-35.
- Ayman, R., Chemers, M. M. & Fiedler, F. (1995). The contingency model of leadership effectiveness: Its levels of analysis. *Leadership Quarterly*, 6(2), 147-167.
- Baltaci, M. & Yilmaz, S. (2006). Keeping an eye on Subnational Governments: Internal control and audit at local levels. World Bank Institute Washington, D.

- Beckmerhagen, I. A., Berg, H. P., Karapetrovic, A. & Willborn, W. O. (2004). On the effectiveness of quality management system audits. *The TQM Magazine*, 16(1).
- Bota, C. & Palfi, C. (2009). Measuring and assessment of internal audit's effectiveness. *Economic Science Series*, 18(3).
- Candrea, P. J. (2006). Controlling internal controls. *Public Administration Review*.
- Cassandra, S. L., Yee, A. S., Kieran, J. & Jenny, K. S. (2008). Perceptions of Singaporean internal audit customers regarding the role and effectiveness of internal audit. *Asian Journal of Business and Accounting*.
- Cohen, A. & Sayag, G. (2010). The Effectiveness of internal auditing: An empirical examination of its determinants in Israeli organizations. *Australian Accounting Review*
- Changchit, C., Holsapple, C. W. & Madden, D. L. (2001). Supporting managers' internal control evaluations: An expert system and experimental results. *Decision Support Systems*.
- Chaveerug, A. (2011). The role of Accounting Information System knowledge on audit effectiveness of CPAS in Thailand. *International journal of business strategy*.
- Chenhall, R. H. (2003). Management control systems design within its organizational context: Findings from contingency-based research and directions for the future. *Accounting Organizations and Society*.
- Church, B. K. & Schneider, A. (2008). The effect of auditors' internal control opinions on loan decisions. *Journal of Accounting and Public Policy*.
- Dittenhofer, M. (2001). Internal auditing effectiveness: An expansion of present methods. *Managerial Auditing Journal*.
- Donaldson, L. (2001). The contingency theory of organizations. Thousand Oaks, CA: Sage Publications London.
- Dhamankar, R. & Khandewale, A. (2003). Effectiveness of Internal Audits. *The Chartered Accountant*.
- Drazin, R. & Van de Ven, A. H. (1985). Alternative forms of fit in contingency Theory. *Administrative Science Quarterly*.
- Eko, S. & Hariyanto, E. (2011) Relationship between internal control, internal audit, and organization commitment with good governance: Indonesian Case.
- Feizizadeh, A. (2012). Strengthening internal audit effectiveness. *Indian Journal of Science and Technology*.
- Feng, M., Li, C. & McVay, S. (2009). Internal control and management guidance. *Journal of Accounting and EconomAccounting Information System*.
- Gundling, R. L. (2000). Effective Accounting Information Systems are keys to ensuring compliance. *Journal of Health Care Compliance*.
- Glance, A. (2006). Effectiveness of internal control. Local Government: Results of the 2006- 07 Audits, 19 – 26.
- IAG. (2008). Internal Audit Guidelines Department of Local Government Alternative Media Publications.
- Johnsen, A. & Vakkuri, J. (2001). Performance auditing in local government: an exploratory study of perceived efficiency of municipal value for money auditing in Finland
- Jokipii, A. (2010). Determinants and consequences of internal control in firms: a contingency theory based analysis. *J Manag Gov*.