

Research Application Summary

Implementation of a computerized accounting system at RUFORUM Secretariat

Nakyobe, J., Nambi, E., Aguti, E. & Ssewankambo, W.
Regional Universities Forum for Capacity Building in Agriculture (RUFORUM)
Makerere University Main Campus, P.O. Box 16811, Wandegaya, Kampala, Uganda
Corresponding author: j.nakyobe@ruforum.org

Abstract

While some organizations still do their bookkeeping by hand, most organizations generally have many transactions making manual accounting system difficult and inefficient. The more complicated the financial activities of your business are, the more likely it is that you will need a computerized accounting system to ensure effective financial reporting. Computerized accounting systems are software programs that are stored on a company's computer, network server or remotely accessed via the Internet. Computerized accounting systems allow you to set up income and expense accounts. They also can be used to manage bank accounts, pay bills, prepare and monitor budgets and prepare periodic financial reports. Depending on the versatility of the program, some accounting systems also allow you to prepare tax documents, handle payroll, and manage project costing. In some cases it is possible to customize the software to meet the needs of your business. It is important to make sure that your staff are trained and understand how to use the system correctly so that your company can successfully use your accounting program. This paper provides an overview of the RUFORUM Secretariat accounting system, the historical gaps faced and the needed functionalities from the computerized accounting system to be acquired. More importantly, this paper also examines the benefits of the computerized accounting system to RUFORUM Secretariat and the lessons learned from the use of the system.

Key words: Financial management, information systems

Résumé

Alors que certaines organisations font encore leur comptabilité à la main, la plupart des organisations ont généralement de nombreuses transactions rendant le système de comptabilité manuelle difficile et inefficace. De plus les activités financières de votre entreprise sont complexes, de plus il est probable que vous aurez besoin d'un système de comptabilité informatisé pour assurer une information financière efficace. Les systèmes comptables informatisés sont des logiciels qui sont stockés sur l'ordinateur d'une entreprise, un serveur de réseau ou accessibles à distance via Internet. Les systèmes comptables informatisés permettent de créer des comptes de revenus et de dépenses. Ils peuvent également être utilisés pour gérer les comptes bancaires, payer les factures, préparer et surveiller les budgets, et préparer des rapports financiers périodiques. Selon le programme, certains systèmes comptables permettent également de préparer des documents fiscaux, gérer la paie et gérer le coût du projet. Vous pouvez généralement personnaliser le logiciel pour

répondre aux besoins de votre entreprise. Il est important de s'assurer que votre personnel est formé et comprend comment utiliser le système correctement afin que l'entreprise puisse utiliser avec succès le programme de comptabilité. Le présent document donne un aperçu du système comptable du Secrétariat du RUFORUM, des lacunes historiques rencontrées et des fonctionnalités nécessaires du système de comptabilité informatisé à acquérir. Plus important encore, le présent document examine également les avantages du système de comptabilité informatisé pour le Secrétariat de RUFORUM et les leçons tirées de l'utilisation du système.

Mots Clés: la gestion financière, systèmes d'information

Introduction

The evolution of computer technology has completely transformed accounting systems and studies have shown that financial outcome of an organisation will always depend on how much one invests and improves the accounting information system being used (Imeokparia, 2013). In the area of accounting and finance, the use of manual financial reporting has been replaced by the use of computer softwares to enable quick reporting and easy processing and storage of financial information. This has made facilitation of accounting softwares, preparation and access of financial statements and use of accounting procedures easy (Kharuddin *et al.*, 2010). In the current business world, failure to use computer software almost implies that financial information may not be accurate, there are delays in financial reporting, and that financial information may not be stored for a long time and/ or accessed when needed.

Accounting Software is a class of computer programs that perform accounting operations. It is an application software that records and processes accounting transactions within functional modules such as accounts payable, accounts receivable, payroll, and trial balance. Thus, these software packages allow the whole accounting system to be run on a computer hence the name Computerised Accounting System (Daniel Bricklin, 1985). Every business has numerous processes; some simple, others complex and cumbersome. But as the business grows, acquires new customers, enters new markets and keeps pace with constant changes in information technology, companies need to maintain highly accurate and up-to-date accounting, inventory and statutory records. This is where a Computerised Accounting System helps simplify, integrate, and streamline all the business processes, cost-effectively and easily and helps present the true picture of all the business undertakings to users of financial reports. With the decrease in the price of computers and accounting programs, this method of book keeping is becoming popular (Raymond and Bergeron, 1992).

A computerised accounting system is an accounting information system that processes the financial transactions and events as per Generally Accepted Accounting Principles (GAAP) to produce reports as per user requirements. Every accounting system, manual or computerised, has two aspects. First, it has to work under a set of well-defined concepts called accounting principles. Secondly, there is a user-defined framework for maintenance of records and generation of reports. This paper shares steps taken, experiences and lessons

learnt to establish a computerised accounting system at the Secretariat of the Regional Universities Forum for Capacity Building in Agriculture (RUFORUM), a coordinating unit for 66 African universities in 26 African countries spanning all the five geographical regions of the continent. The RUFORUM, founded in 2004 as a member based organisation of initially 10 universities in five countries (Kenya, Malawi, Mozambique, Uganda and Zimbabwe), has grown over the years to become a continental organisation it is today (Osiru *et al.*, 2016). It not only works with the member universities (administration, academic and administrative staff and students) but also in partnerships with several organisations in and outside Africa. As part of its operations, the organisation receives and manages funds from diverse sources, hence the need for a fast and efficient financial management system. More information about RUFORUM can be found at www.ruforum.org

Accounting System at RUFORUM. Over the years since inception in 2004, RUFORUM has managed an annual budget of US\$ 3-10 million of which 70% constitutes re-grants to member universities. In 2009 the RUFORUM Secretariat initiated a process of migrating from manual financial management to computerized book-keeping. Based on procurement process, the system of choice was the PASTEL accounting software. Although it is designed to meet the need of any size of organisation, it was not user-friendly to the staff. As a result, the migration process stalled and it was until 2013 that a new software the “NAVISION” was recommended. The NAVISION was selected because of its handful of great features with capacity to support RUFORUM, a multi-donor organization, had a vast target beneficiary of over 30 member universities and a target final beneficiaries of over 2,000 faculty and 500 postgraduate students within Eastern, Central and Southern Africa. This portfolio required a robust Accounting System especially considering the nature of activities of RUFORUM with the core being re-grants (ranging from US\$ 60,000 – US\$ 350,000) to member universities and target beneficiaries. Other smaller grants were also awarded as institutional strengthening grants to deal with specific institution need or emerging gap areas. As of June 2016, the NAVISION accounting software at RUFORUM has been used to process over 300 re-grants and manage funding from several donors including Bill and Melinda Gates Foundation, Carnegie Corporation of New York, German Academic Exchange Programme (DAAD), DFID, European Union, International Development Research Centre (IDRC), Rockefeller Foundation, USAID, Member Universities (pay an annual membership subscriptions of US\$5,000) and several other sources.

The accounting system at RUFORUM Secretariat has been used as a tool for building trust from all stakeholders (donors, governments, member universities, researchers, staff, students and other stakeholders). Previously, the financial operating environment was characterized by the following: a) a mix of manual and software processing of financial information; b) computer assisted financial management which was not networked to aid ease of sharing information; c) budget management and control – Budgets were controlled off the computer system, presenting difficulties in tracking expenditure and delays in disbursements; d) low staffing levels in the Finance Unit leaving very limited room for segregation of duties as a prerequisite for proper finance and accounting; and e) delays in

accountability by grantees and compliance to accounting procedures plus non – timely submission of relevant source documents that are required to trigger financial disbursements. The RUFORUM Secretariat had also other challenges in the finance unit considering the significant growth in operations (donors and grants awarded) but with minimal staffing which limited proper segregation of duties that resulted in inadequate self checks and audit queries. This operating environment posed the following other challenges; a) delays in information processing and reporting; b) limited timely coordination with the other units at RUFORUM Secretariat (especially that between Finance and Grants Unit) in generation and sharing of data leading to delayed decision making on disbursements; c) difficulty in generation of management reports, budget and actual analysis and reporting; and, d) delays in disbursement of funds due to longer verification periods of submitted reports, lack of proper accountabilities and source documents from beneficiaries.

In order to overcome the above challenges, there was urgent need to strengthen the RUFORUM financial management system but most especially the accounting system. Based on this need, the following activities and modifications were proposed: a) upgrading the accounting system to facilitate reporting under multi –donor and multi – currency environment. Use of computerized accounting system would enable quick assessment of finance reports submitted by grantees and minimize delayed disbursement; b) networking data and computer equipments to facilitate capture, processing, reporting and sharing of data while ensuring segregation of duties both within the finance unit and among the different RUFORUM units; and c) capacitate the finance unit to ensure adequate segregation of duties. In addition to the two then existing staff, a Finance Manager and a Management Accountant, with a portfolio of over US\$ 5 million, RUFORUM Secretariat required dedicated Accountants or Finance officers to focus on grants, specific projects at RUFORUM Secretariat, General Ledger reconciliations and Treasury.

Process of developing Accounting System at RUFORUM Secretariat

In 2008 the Bill and Melinda Gates Foundation (BMGF) contracted KPMG to review the RUFORUM Financial System and Organizational Capacity before making a decision to award RUFORUM an institutional strengthening grant. The review appreciated the process of institutionalising RUFORUM from a regional project to an African-led institution but also pointed out number of areas that necessitated strengthening and particularly in areas of finance management, and these included inadequate accounting systems, policies and procedure. Part of the BMGF Grant subsequently awarded stipulated the need to upgrade the Financial System especially the accounting system/software at RUFORUM. In 2009, a financial system review and Internal Audit carried out by an external consultant called for urgent attention to strengthen staff capacity in the Financial Unit and automating the RUFORUM Accounting System. In February 2010 the RUFORUM management mandated the Program Managers of ICT, Finance and Monitoring and Evaluation to work together towards building and strengthening RUFORUM Management Information Systems (MIS). The management team agreed that the Accounting System was an important base and starting point for the planned RUFORUM integrated MIS. The approach RUFORUM Secretariat used recognized that the best people to design a system are the users of the

system. The consultants were used only for specific technical aspects of the project. A number of RUFORUM management meetings were held to commence the project and monitor its progress. All staff at the RUFORUM Secretariat were kept abreast of activities via email and staff meetings. As part of these efforts a process was begun in 2010 to improve the Accounting System by focusing on upgrading the Pastel Partner to version 10.2.4 and engaging in retreats to design the software to cater for multiple donors. The idea was to properly configure the software that was already in place – before concluding that it did not meet RUFORUM needs. In 2011, Backhouse was appointed to assist RUFORUM acquire a robust computerized accounting system. This process was concluded with Backhouse recommending that the RUFORUM Secretariat purchases a computerized accounting system. The features needed are outlined in Table 1 below and the NAVISION was selected based on these requirements.

| Main Activity | Features | Characteristics |
|----------------------|---|---|
| Functionality | Multi-currency | Must be able to handle not less than four currencies:UGX, USD, Euro and Pound Sterling as a minimum |
| | User friendly | Windows driven |
| | Different bases of accounting | Should handle cash, accrual etc. |
| | Budget control | Must be able to encumber funds at the time a commitment is entered. Must be able to warn and block payments and activities that have run-out of funds. In the case of RUFORUM, expenditure in “anticipation of receipts”, is a commitment on RUFORUM as an institution. Capacity to track budgets, actual, forecast, life of the project Ability to track physical performance indicators as required by the project. Ability to track and search by specific transaction references Fixed asset/inventory management Ability to report based on both donor and local reporting requirements Multiple location installation and consolidation Ability to track and report on multiple projects |
| | Electronic generation of key accounting documents | These should atleast include system generated payment vouchers thereby saving accounting staff the time duplication of effort. Ability to process at least 50 cashbooks in different currencies and facilitate within the system reconciliations of the cash books to bank statements. Ability to support at least five classes of control accounts with each control account able to handle at least 1,000 ledgers. |

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|------------------|---------------------------|--|
| | | Ability to have many charts of accounts some under accrual while others under cash basis. Ability to support multi-user processing of transactions and online retrieval of information by authorized staff. |
| Reporting | Flexible reporting cycles | Ability to track and report monthly, quarterly and annually Ability to track and report by project funder Ability to track and report by grant agreement category - with exact layouts Ability to track and report by project component or activity (capacity to customise reports). Ability to generate key financial management review report formats with a clear audit trail. Ability to report on key individual activities seen through time, for example 5 to 8 years, as compared to the conventional accounting packages that loses profit and loss items every two years of comparability . |
| Security | Security features | Ability to export data into excel for financial processing (e.g defined levels of access, password protection, encryption or other methods) Back up and system maintenance procedures Self diagnostic checks to ensure integrity |

What has worked well?

The Microsoft Navision system which was eventually selected met all the set user requirements and has enhanced the efficiency, accountability and transparency of finance unit functions at RUFORUM Secretariat. The benefits from the use of the Microsoft Navision system are given in Table 2.

| Attribute | Details |
|---|--|
| Ability to deal in multiple currencies easily | – with the use of Microsoft Navision system just like the other computerized accounting packages, one can easily trade in multiple currencies. Although RUFORUM Secretariat currency is based in an economy dealing in Uganda shillings, it's functional currency is US Dollars. The system provides for input of current exchange rates for the different transactions thereby minimizing the problems associated with exchange rate changes. |
| Staff motivation | – the use of the Navision system required staff to be trained to use new skills, which made them feel more motivated. |
| Up-to-date and impromptu information | – the accounting system enables automatic |

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|---|--|
| and reports | update of the accounting records and reports whenever a posting is made. Therefore financial reports such as: trial balance, balance sheet, income statement, customer summary and aging report, vendors statement and payroll analysis, among others can be generated whenever they are required. |
| Budget monitoring and variance analysis | – the system integrates budgeting estimates with actual accounting data/expenditure, in order to track the progress of projects along with the RUFORUM core areas. |
| Backing Up Facility and Easy Error Correction | Backing up all your data is easier with computerized accounting. You can maintain a hard copy of all your yearly accounting in the form of printouts, along with a parallel software backup. Another advantage is easy error correction, which can be difficult in manual accounting. |
| Improved cash management | – it improves cash management in order to: improve cash flows and forecasts, assure the availability of funds when needed and facilitate payment of bills. |
| Timely and accurate financial reporting | – the computerised accounting system aggregates financial information and enables the use of the data to produce financial snapshots of the organisation. This has enabled the production and reporting of timely and accurate financial information, thus improving the confidence of creditors and donors in RUFORUM financial capabilities. |

Lessons learned. Installation of a Computerized Accounting System (CAS) like Microsoft Navision brings lots of benefits to the organization, however, several factors have to be considered before, during and after the installation of the CAS and these include the following:

Computerization cannot solve your accounting system problems. The CAS by itself, cannot improve the organizational structure, balance the accounting books, increase cost-efficiency or improve management. The CAS cannot solve problems like unskilled or unmotivated staff, poor managerial skills or inappropriate organizational policies and procedures. A CAS can only improve a well-functioning system or organizational structure. The system needs accurate and current data. The data entered in the CAS should be checked and updated regularly to ensure that it is current, relevant and error-free.

Identification of a project team and team leader to undertake routine performance assessments. Management should name an accountant or better yet, a project team made up of accountants and computer experts to conduct the assessment. The team should work with each department in the organization that will either use the system or contribute information to it. The team should examine the accounting and computer skills of the people who will be using it. If they lack sufficient knowledge, separate training programs should be established; often a software vendor can help with training. The team should ensure that the software you buy should be capable of supporting two or three times the volume of business you are doing now.

Be unrealistic in your data migration expectations. The new system may be 1,000 times better than your old one but for each coin you spend migrating 'old' data to enhance your 'new' reports, that data is a quickly wasting asset. What's wrong with a few more months of the old spreadsheets until the new system fills up with relevant data? A CAS may require new skills in the organization. In order to avoid the implementation delays or failures and to maximize the benefits of a CAS, the organization's management may need to hire new staff, train the existing ones or re-organize the accounting department. The training should not be left to the vendor to deliver: get your key users to train others on how they think the system should work when 'live'. They are the ones that need to tell others how it is going to work in real life.

Computerization may have hidden costs. These costs include expenses for purchase of peripheral equipment (additional printers, servers, backup facilities) and needed supplies (toner, paper). Future costs include upgrading the system, seeking technical support and data storage.

Computerization involves risks. Management should watch out for viruses and other threats to the data integrity. Confidentiality of sensitive information may be an issue, and access to some information should be limited to specific people only. Data-entry errors could result into inaccurate calculations and inaccurate representation of the organizational financial position and performance.

Conclusion

The use of CAS (Microsoft Navision) at the RUFORUM Secretariat has brought opportunities for the organization to perform the accounting functions more effectively and efficiently due to the significant time and cost savings. The use of information technology to perform accounting functions has created chances for companies to progress toward paperless offices. Although the cost of maintenance and designing an effective computerized accounting system and the purchase of the associated facilities needed for it is high, if the organization is committed to improving their performance and enhancing higher quality of work performed for higher profitability, they should go for it as well as ensure that the lessons shared above are critically followed.

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