



ST.MARY'S UNIVERSITY
School of Graduate Studies

**ASSESSMENT ON THE PRACTICE AND CHALLENGES OF
ENTERPRISE RESOURCE PLANNING (ERP) IMPLEMENTATION
THE CASE OF AFRICA UNION COMMISSION**

BY:

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ID No. SGS/0142/2007B

SMU
June, 2017

Addis Ababa, Ethiopia

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I, the undersigned, declare that this thesis is my original work, prepared under the guidance of, Mohammed M. (Asis.Prof). All source of materials used for the thesis have been duly acknowledged. I further confirm that the thesis has not been submitted either in part or in full to any other higher learning institution for the Purpose of earning any degree"

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Endorsement

This is to certify that Binam Tolla he carried out his research work on the topic entitled “Assessment on the existing Practice and challenges of SAP ERP: In the Case of Africa Union commission”. The work is original in nature and is suitable for the submission for the award of Masters of Business Administration.

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LIST OF ACRONOMYS AND ABREVIATION

AUC	African Union Commission
APS	Advanced Planning Schedule
BPR	Business Process Engineering
DLCs	Development of Shadow system
CRM	Customer Relation Management
ERP	Enterprise Resource Planning
ETC	Ethiopian Telecom
E-Business	Electronic Business
MIT	Massachusetts Institute Technology
MIE	Mesfin industrial Engineering
SAP	System Application Product
SMEs	Small to Medium Enterprise
SCM	Supply Chain Management

Abstract

The world has become more digitalized. Businesses are depending on technology to help them enhance their business processes. Organizations are looking for an information system that can handle massive workloads. This is where Enterprise Resource Planning (ERP) systems come into play. An ERP integrates different subsystems into one huge system that shares one database. This study was designed to assess the existing practice and challenges of System Application Product (SAP) ERP in African Union Commission (AUC) Addis Ababa, Ethiopia. Related literature was reviewed; theoretical frame work and models of other scholars were used to know facts related to ERP. The data were obtained through questionnaires that were distributed to 287 employees of the AUC at head office in which 253 were fully completed and returned. The questionnaire was distributed to the employees based on the stratified random method to get the perspective of the system users. Interviews were also conducted with two HR and finance Mangers and three SAP system experts. The collected data was analyzed using SPSS (Statistical Package for the Social Sciences) version 20. The findings of the study indicated that SAP ERP implementation supported the Organization by reducing the financial cycle time, decision making cycle time and procurement lead time. On the other hand there are challenges related to, lack of appropriate training for all system users, the deployed ERP system doesn't make the working process fully automated, the organization still using both manual and automated working system, Finally, the reporting formats as per the user friendly nature of the system has been identified as a major challenge in relation to the decision making activity and other stakeholders usage.

Key Words: *Enterprise Resource Planning, Practice, Challenge.*

CHAPTER ONE

INTRODUCTION

1.1 Background of Research

Enterprise Resource Planning (ERP) systems are software packages that provide organizations with an integrated platform for managing real-time transactions across different functional areas. ERP systems replace disparate patchworks of legacy systems into one suite of enterprise-wide applications (Hunton et al, 2003). This means that organizations no longer need to have different systems that serve different functional areas but can have the convenience of a single database where transactions and data are integrated between the different functions on a real time basis. The vast capabilities offered by ERP's have influenced many organizations, public and private, small and large, to implement an ERP system with the anticipation of realizing many benefits for the organization. ERP systems have found their way into many organizations and their implementation is seen to be on a constant rise across various industries (Gargeya & Brady 2005).

According to Nwankpa (2015) the increasing attention to the implementation of ERP systems that is driven by firms who are continually seeking ways to gain strategic and competitive advantage by leveraging on these technologies. As enterprise-wide systems that provide high integration capabilities, ERP systems provide organizations with the opportunity to harness business benefits from preconfigured end-to-end business processes that are founded on best practices as well industry specific solutions. ERP systems do indeed revolutionize organizational work processes making them more operationally efficient and perhaps even economical for organizations to run in terms of their deployment and the management as a single platform IT business solution.

Many business organizations that adopted ERP systems attained the benefits they sought (Hitt et al, 2002). After ERP systems were successfully implemented, companies could set up standards on financial management and operating procedures like managing inventory systems (Langenwalter A, 2000). However, not all adopters had successful implementation, and some organizations failed because ERP system implementation was much more complex than just developing a computer application for a single business function. More than 90% of ERP implementations have been delayed and required additional budget amounts due to numerous

changes in the original plan (Wang G. et al, 2003). Even when a company realizes that its ERP implementation is not going to be successful, it is usually impossible to cancel the effort (Bingi, P et al, 1999). Such IT driven initiatives require change of the organization's socio-economic system, which is intertwined with technology, task, people, structure, and culture (Hong et al, 2002).

African countries, like most of the developing countries, are endowed with a specific context. This context is characterised by low economic capacities, limited infrastructures, limited human skills, and a particular culture (Al-Debei and Al-Lozi, 2012). Given the complexities and risks related to ERP systems implementing within African context might enhance Challenge (Mukwasi and Seymour, 2015).

Akeel and Wynn (2015) analyzed the implementation of a SAP ERP R/3 within a Libyan Oil company. In this case, defining a good implementation strategy was critical for the success. The commitment by senior management and the users' involvement in the project positively impacted the success.

Boltena and Gomez (2012) focused on understanding the reasons that underpin the implementation success in an African country. The authors followed a case study methodology in an Ethiopian medium-sized organization that experimented with the implementation of a Microsoft ERP. In this context, defining a good project team and identifying and managing risks were critical to the success. Managing the project by splitting it "into manageable sub projects and put more attention on those critical management aspects" (Boltena and Gomez, 2012) was revealed to be a good implementation strategy

According to (Grabski, et al. 2011), End-users are essential for the success of ERP implementation Thus; their acceptance becomes a key concept of to succeed the project. This reasoning led to an investigation of the factors which influence the ERP user acceptance in South Africa made by Seymour et al. (2007). By means of a quantitative approach, they showed that performance expectancy, effort expectancy, project communication, training and shared beliefs influence the end-user acceptance in this context. The age is listed as a moderator of the various relations between the identified factors and the End-user acceptance of the system.

Eyitayo (2014) studied the impact of culture in ERP implementation in Botswana using the Hofstede's cultural theory. The author found that the cultural context in Botswana is different from the context of western countries like Canada and USA. According to the author, people in

Botswana are likely to accept easily hierarchical orders and avoid uncertainty contrary to western countries. The author has shown in its study the cultural differences existing between the two contexts and believed in the need for systems adapted to this kind of context.

Ramburn and Seymour (2014) found that Inadequate training, lack of technical and process knowledge, lack of management support and change management was important Knowledge Management challenges. According to the authors, “understanding the process, contextualization and customization of the training content from the users’ perspective” has to consider during the implementation process.

The focus of this study is the African Union Commission (AUC) that serves as the secretariat of the African Union and which handles large transaction volumes across different departments and organs located in different countries. As a public organization the AUC is accountable to 54 member states and many funding partners who all demand high accountability of the funds given to the organization. The intricate nature of the organization’s operations places on it high expectations in regard to the operational efficiency and transparency of its processes. Furthermore, the complex and diverse reporting requirements of the various stakeholders place a huge demand on the organization’s ability to provide, at short notice, reports in different formats. With different funding agencies requiring the organization to adhere to certain regulatory requirements, the need to adopt an integrated technological solution seems to have been the only option for AUC.

In Ethiopia only few studies are conducted. Sintayehu Demeke (2014) studied on success factors for implementation of Enterprise Resource Planning system at Ethiopian Airlines; Engidayehu Getachew (2014) conducted on Assessment of Enterprise Resources Planning (ERP) Implementation: The case of ethio telecom. Abiot and Jorge (2012) assessed Ms-Dynamics ERP implementation in a private company. However, none of them studied about the existing Practices and challenge after the implementation. Observing this gap, the researcher believes that assessing the existing practice and challenges of ERP implementation in analysing the contribution of ERP system may help the organization to take the correct remedy and to fill the existing gap of the limited research output

1.2 Statement of the Problem

The exponential growth and advancement in IT (information technology) is a significant factor that influence today's business and service environment. Therefore, if organizations wish to remain successful and to be competitive managers need to engage technologies for the benefit of their organizations. These technology solutions broadly referred to as Enterprise Resource Planning systems.

The Africa Union Commission SAP Enterprise resource planning system was implemented in 2009, in order to improve the service quality for users of AUC's and its member states and stakeholders. The system has been productive since its implementation in offices and organs spread over three continents. SAP ERP addresses the core business software requirements of midsize and large organizations in all industries and sectors and it has included four individual solutions that support key areas of enterprise resource planning: - Human Capital Management, Financials, Operations, Corporate services.

Currently the organization has scheduled to implement the SAP ERP system in all Regional Offices that would help to integrate the work through one system. However, before expanding the implementation of the system, its practice and existing challenges need to be assessed on the offices implemented and using the system. The researcher, as practically involved in the system, has observed the existing practices and realized some of the challenges of ERP system in the Africa Union Commission. These include lack of people and management commitment, technological adaptability, process, lack of training, and culture.

1.3 Basic Research Questions.

This study primarily aimed to assess, the existing practice and challenges of SAP ERP implementation, more specifically to answer the following basic research questions.

- ✓ What are the factors that affect the practice of SAP Enterprise resource planing implementation in AUC?
- ✓ What are the major challenges of SAP Enterprise resource planing system in AUC?
- ✓ What measures are taken to resolve the challange?
- ✓ To what extent the SAP system meet its anticipated objectives?

1.4 Research objective

1.4.1 General Objective

The general objective of the study is to assess the existing practice and Challenge of SAP ERP implementation in Africa union Commission.

1.4.2 Specific Objective

1. To analyze the factors that affect the SAP Enterprise resource planing practice in Africa union Commishion
2. To identify the major challeng of SAP Entreprise resouce Planing system in AUC.
3. To identify the measures that are taken to reduce the Challenge.
4. To forward possible recommendations based on the study.

1.5 Significance of the study

- The out put of this study provide important information to managers of the AUC at different level and users about the existing problem which trigger SAP ERP system and provides possible suggestions
- It may serve as a benchmark to those institutions that did not fully implement ERP .
- It helps the researcher to acquire knowledge and practical experience about SAP ERP and also for the partial fulfillment of the requirements for master's degree in business administration.
- Moreover, the researcher also believes that this study can potentially serve as a stepping stone for the future research in this area.

1.6 Scope of the Study

The researcher belived that it would be appropriate to conduct the study on the large scale, however; AUC is one of the largest Organization in Africa with different departments and Reginal Office that would be unmanageable to conduct the study in terms of time, finance and research manageability. Also there are different Variables on the Practice and challenges the study area emphasized only on six variables. Therefore, the scope of the study is geographically delimited in

Ethiopia to assess the existing practice and challenges of SAP ERP implementation at the headquarter of Africa union Commishion .

1.7 DEFINITIONS OF THERMS

Terms frequently used throughout this study are defined as follows:

Enterprise Resource Planning: which is business process management software that allows an organization to use a system of integrated applications to manage the business and automate back office functions. ERP software integrates all facets of operations, including Procurement, Financial Management and Human Capital Management

Staff Member: means any person employed by the Union as on regular, fixed-term or short term basis.

Business Owner: The Individual who owns the business processes and data residing in an information system.

Employee Self Service: a web-based application that provides employees with access to their personal records and their payroll details. This self-service functionality provides employees with an easy and convenient way to update their personal information and manage work-related transactions.

System Application Product: Software consists of a number of fully integrated modules, which covers virtually every aspect of the business management.

1.8 Organization of the study

This study was organized into five chapters. The first chapter dealt with the introductory part of the study including the background of the study, Significances of the study, statement of the problem, objectives of the study, scope and limitation and organization of the paper. The second chapter were described a brief literature review regarding the research topic. The research methodology and design were discussed in the third chapter. Chapter four dealt with research analysis and interpretation of the finding and finally summary of the major findings, conclusion, and recommendation were discussed in chapter five.

CHAPTER TWO

LITREATURE REVIEW

Introduction

Driven by the increased complexity of business and the growth in business transactions organizations are more inclined to resort to one form or another of an integrated information technology based enterprise solution. These technology solutions broadly referred to as Enterprise Resource Planning systems (ERP's) enable organizations to transform radically by streamlining their business processes and operations. ERP systems provide companies with a single platform which helps them manage all business transactions and which supports the organizational processes. As enterprise-wide systems, they have the capability to support end-to-end business processes such as the procure-to-pay process, hire-to-fire process and order-to-cash process amongst other business processes. According to Sammon & Adam (2007) 'this all-encompassing nature and high degree of business integration' is critical in distinguishing ERP systems from other technological based business systems.

According to Nwankpa (2015), ERP systems are seen as essential tools for organizations seeking competitive advantage as well as strategic growth goals. This is particularly the case for private firms whose quest to remain competitive depends on how they leverage on the latest business support technologies. On the other hand, for organizations in the public sector, it is the increased need for process transparency, financial accountability and regulatory compliance that has spurred more publicly funded organizations to implement ERPs. Hellang et al. (2013) observe that new requirements for accountability have necessitated new ways of reporting and administering the use of public funds including the capability of evaluating performance indicators that reflect such changes and which requirements public organizations are fulfilling through the implementation of an ERP. However Sahin & Hamsioglu (2008) caution that since organizations planning to implement ERP systems are often compelled to accept the vendor's solutions in regard to processes and procedures they must from the onset be clear of the critical needs and functionalities that an ERP must have before settling for an ERP that serves the organizations' purpose.

As Chen (2001) states, a primary motivator for organizations seeking an ERP solution is to improve on the firm's competitiveness and as such firms need clarity in the goals to be achieved

by ‘developing a vision of life after implementation’ and which is an important determiner of the modules and functions to be implemented. Most of the research Papers are written about the factors that affect the ERP implementation.

2.1 Enterprise Resource Planning (ERP) Adoption

According to Egdair et al (2015) the adoption of ERP is seen by organizations as a basis to improve standards by strengthening the discipline and consistency in service operations and as a way of consolidating and simplifying processes of providing information to both managers and employees. By providing a single point of access for all the enterprise administrative processes many organizations stand to benefit from the end to end processes that ERP’s provide. Chang, et al. (2008) note that though ERPs were initially conceived to address challenges in the manufacturing setting they have since evolved to support all facets of both business and industrial operations noting that typically such systems now encompass modules that support Financial Management, Human Resource Management, Manufacturing, Procurement Management as well as Supplies and Distribution modules. Park & Kusiak (2005) posit that ERP systems ensure that the organization pushes towards ‘full process integration’ and they serve to solve fragmentation of information. This integrative capacity of ERPs is one of the benefits of standardization providing relevant real-time information to various stakeholders in the company (Gatticker & Goodhue, 2004). Certainly for many organizations, the biggest appeal of the ERPs lie in their powerful integration (Laukkanen et al., 2005; Chang et al., 2008; Alves & Matos, 2013) and functional capabilities and which the organizations recognize can bring about operational efficiencies when ERP systems have been implemented. ERP’s are also attractive as they provide organizations with the flexibility to map organization-specific processes and informational requirements. As Laukkanen et al., (2005) state these systems are available as configurable information system packages which enable the organizations to customize the ERP’s to their specific organizational processes and operations. However according to Stefanou (2000) though ERP’s provide organizations with the flexibility to customise their institutional business operations there is often the risk that organizations may adopt and reproduce organizational inefficiencies thus suggesting that perhaps organizations are better placed adapting their business processes to those best practices that are inbuilt in the ERP. Chen (2001) also cautions against making major modifications to the delivered ERP stating that these be very costly and that they can jeopardize the key benefits of integration. As Kamhawi (2008) stresses it is the promise of

transference of best practices which are surrounded in such systems that many organizations hope to gain.

In a study by Shiao et al (2009) they found ERP adoption was driven by the characteristics of the CEO and the perceived benefits of implementing the ERP system noting that CEO's who appreciated the potential benefits of ERPs were at the forefront of ensuring its adoption. Furthermore, ERP system adoption is also seen to be of strategic value to organizations as these help in promoting better business practices and which links to its increased adoption (Kosalge & Ritz, 2015). When examining the adoption of ERPs in the private and public sectors, Alves & Matos (2013) found that despite their differences in business outlook, both private and public sector organizations were motivated by the same reasons to adopt an ERP system namely: - integration of applications, integration of information, information for decision making and increased need for real time information. In a closely related study conducted by Laukkanen et al. (2005) the authors investigated the question of enterprise size in the adoption of ERP's they found that adoption of ERP systems by small, medium and large sized enterprises was spurred by the same top reasons to 'develop business and integration capabilities' followed by reasons of improving efficiency and decommissioning of stand-alone legacy systems. These two separate studies provide valuable insights in that it becomes more evident that the potential benefits that come with ERP implementations are a key driver for their adoption in small to large organizations, across both private and public sectors and with the possibly these same motivators to ERP adoption cut across different industries. In fact according to Uwizeyemungu & Raymond (2010) 'the rate of adoption of ERP systems confirms their ubiquity in organizations' implying that organizations now consider an ERP as a basic necessity. As a public sector organization that like many others chooses to implement an ERP, it will be of interest to see what the key motivators for AUC were in choosing to adopt an ERP system.

2.2 Benefit of Implementing ERP System

Chang et al. (2008) identify benefits of implementing an ERP system as improved information sharing, improved planning and decision making, better coordination amongst different departments which in turn help the organization to have faster transaction turn-around times and improved business relationships with customers. Along the same lines, Davenport (2000) also identified ten key benefits that organizations reap from the implementation of ERP systems which

in addition to those identified by Chang et al. (2008) as listed above include the reduction in headcounts, improvement in asset and inventory management, improved logistical capabilities, better financial management as well as increased revenue. It is undisputed that when well implemented organizations realise a good number of the envisaged benefits. Even more interesting is that according to Hawking & Stein (2004) many implementing organizations will often realise many unexpected benefits which generally stem from the improved operational performance brought about by the ERP system.

- **Better Information Management through Business Automation**

Performance metrics and Measurements are vital in evaluating business progress and also aid in setting up future goals. However, as a business grows, it will become increasingly difficult to manually calculate sales margin, profit ratios and other such metrics. ERP bring a degree of automation to the business by allowing employees across the organization to access shared data without the need to maintain manual records. This also enables generation of synchronized reports on key business metrics. Immediate access to data is significant to take timely decisions.

- **Improved Workflow**

Workflow is improved all processes gets streamlined and access is simplified through user-friendly interfaces, employees are better able to acquire the relevant information that is necessary to do their job. Whether it's extracting a custom or standard report or formulating a report for presentation, ERP software makes each employee's job easier, which leads to increased productivity.

- **Streamlining Of Processes**

The principle objective of any ERP is to integrate all the functions of a business into a unified platform. Many businesses are still stuck in the unenviable position where their data is stored in multiple locations and systems. By centralizing this data and streamlining the means of accessing (as well as adding to) data, ERP contributes to greater efficiency within a business model.

- **Modular Yet Integrated Approach**

ERP software integrates various processes that are essential to run a business enterprise into one single database. These processes include inventory and order management, accounting, human resources, customer relationship management (CRM), among others. By streamlining all the

processes into one effective system, ERP provides your business with a shared database that supports multiple functions across your enterprise.

- **Simplicity In Business Accounting**

A growing business will struggle with its accounting procedures if they are still either manual or if the sales, accounting, finance and HR departments do not have access to shared data. Financial reporting and everyday accounting will particularly require a lot of time and effort which can be easily reduced with the use of ERP. Using ERP to integrate and analyse financial data will improve employee productivity and reduce delays considerably.

- **Transparency Throughout Organization**

For any business, information and data are extremely essential business assets. Data security and integrity is extremely important to ensure that strategic business information is processed and accessed by the right people. With an ERP, while the data is maintained safely, access of data can also be given only to people who have the authority. Also, strategic information can be maintained at one place while updates to such information can be done by one or more authorized people. Thus Role based system makes ERP transparent as well as secure.

- **Elimination Of Redundancies**

One of the biggest problems with a non-centralized data management system is the continued occurrence of redundant data. Redundant data is simply data that has been repeated twice, which can lead to inconsistencies and confusion down the line. It's a common problem with businesses that have multiple data storage locations and is something which can be rectified with the use of ERP.

- **Mingled Operational, Financial And Strategic Insight**

ERP systems tie data and processes together so you always have a 360-degree view. Whether you're viewing costing amounts on a sales order, pulling up a customer's record and seeing their sales interactions and orders/shipments side-by-side, or forecasting sales using historical sales orders and production data, ERP gives you the "big picture".

- **Better Customer Satisfaction**

Keeping your customers satisfied while managing your sales and inventory efficiently can be a herculean task if you have your customer and inventory data housed on different platforms. There could be times when you will have to report product related information to your customer and if you lack updated inventory data, this could spell trouble. ERP helps in maintaining up-to-date information and will also facilitate real-time updating of all data. This will help customer representative's access accurate, updated data and deal with your customers efficiently.

2.3 Challenges of ERP implementation

There are a number of challenges that companies may encounter when implementing ERP. Dillard and Yuthas (2006) stated that most multinational firms are using ERP and that more small and midsize companies have begun to adopt ERP. Despite ERP's promises to benefit companies and a substantial capital investment, not all ERP implementations have successful outcomes. ERP implementations commonly have delayed an estimated schedule and overrun an initial budget (Ehie & Madsen, 2005; Helo, Anussornnitisarn & Phusavat, 2008).

According to Helo et al., (2008), "Unlike other information systems, the major problems of ERP implementation are not technologically related issues such as technological complexity, compatibility, standardization, etc. but mostly about organization and human related issues like resistance to change, organizational culture, incompatible business processes, project mismanagement, top management commitment, etc.". Huang, Chang, Li and Lin (2004) presented the top ten risk factors causing ERP implementation failure (See Table 1-1 below).

Priority	Name
1	Lack of senior manager commitment
2	Ineffective communications with users
3	Insufficient training of end-users
4	Failure to get user support
5	Lack of effective project management methodology
6	Attempts to build bridges to legacy applications
7	Conflicts between user departments
8	Composition of project team members
9	Failure to redesign business process
10	Misunderstanding of change requirements

Table -1 Top ten risk factors of ERP source from Huang, Chang, Li and Lin (2004)

These risk factors illustrate various organizational considerations: organization fit, skill mix, project management and control, software system design, user involvement and training, and technology planning.

Since ERP implementation inevitably causes organizational changes, it requires the engagement of senior management from across the organization that is able to resolve conflicts. Without the commitment of senior management, ERP implementation has a high risk of failure.

In other words, due to changes in business processes across an organization, there can be resistance to adopting the ERP system. ERP connects and integrates all business functions within the organization. Therefore, it is critical that management staff be committed, and particularly that they equip employees who are using business functions influenced by ERP with clear channels of communication. Lack of end user training increases risks by creating confusion and inaccuracy, thereby decreasing user satisfaction and the credibility of the system.

Excellent project management is also needed for successful ERP implementation. Project teams should have clear guidelines to execute ERP implementation from their project objectives and work plan to their resource allocation plan. Without good project management, ERP implementation projects that are large in scale and must take place over longer time periods may end in failure. Furthermore, the composition of team members plays a crucial role in ERP

implementation. ERP integrates diverse business functions across an organization into one single system, necessitating a complex and integrated software package. If a project team does not clearly understand the changes in its organizational structure, strategies, and processes from ERP implementation, it will not be in a position to benefit from ERP's competitive advantage. In order to best implement ERP, project team members should be selected with a balance between members with business experience within the organization and external experts with specialties in ERP. From the perspective of project management, the iron triangle can illustrate how important it is to balance the three corners of the triangle – scope, schedule and cost. (Lamers, 2002) However, in ERP implementations, both schedule and cost tend to be underestimated, while scope is overestimated (Aiken, 2002). ERP changes the entire organizational environment by reengineering the entire business process; thus, after implementation, it is not easy to revise previous processes. Therefore, ERP implementations need accurate estimation, preparation with a holistic view, and systematic management of the entire implementation process.

2.4. The ERP Implementation process

In order to better understand the process of ERP adoptions, a number of researchers have developed conceptual ERP life cycle frameworks or process models. Ehie and Madsen (2005) suggested a five-stage ERP implementation process using various reviews of the previous literature: project preparation, business blueprint, realization, final preparation, “Go-Live” and support. Project preparation refers to a comprehensive planning phase that forms a project team with leadership roles, sets budget targets, and defines the project objectives and plan. In the business blueprint phase, the current business process is analyzed in detail in order to select an appropriate ERP system. A project team then is trained on functionality and configuration of the selected ERP system. An understanding of the selected ERP system allows a project team to gain insight to reengineering its business processes.

In the realization phase, a project team concentrates on implementing an ERP system including modification, development of interfaces, and data conversion. At the same time, each process design is tested on a conference room pilot⁴. In the final preparation phase, the entire process is fully integrated and tested throughout the organization with full data and various scenarios. End users are trained in this phase as well. Finally, in the “go-live” and support phase, the ERP system is constantly stabilized and may have extensions for competitive advantage.

2.4.1 Critical Success Factors for ERP implementation

Rabaa'i (2009) researched previous studies identifying critical success factors (CSFs) for ERP implementation. Top management commitment and support, change management, project management, business process reengineering and system customization, training, ERP team composition, visioning and planning, consultant selection and relationship, communication plan, ERP system selection, ERP systems integration, and post-implementation evaluation measures.

Top management commitment and support Successful ERP implementation depends on management to prepare for challenges that might be faced (Motwani, Mirchandani, Madan & Gunasekaran, 2002), as well as senior management who are involved in overall strategy of the company and are not familiar with technical aspects (Yusuf, Gunasekaran & Abthorpe, 2004). Also, top management commitment and support leads to overall organizational commitment across an organization. It results in the successful ERP implementation (Umble & Umble, 2002).

Change management Ehie and Madsen (2005) stated that ERP implementation involves more than changing software or hardware systems. Ideally, by reengineering business processes, ERP implementation can help an organization to benefit from higher levels of efficiency and improved performance. Therefore, ERP implementation may cause changes that lead to resistance among employees (Glover, Prawitt & Romney, 1999). Consequently, balancing conflicts between staff and technology and effectively managing employees in the change process are key elements for the successful ERP implementation (Ash & Burn, 2003).

Project management Effective project management is critical for the successful ERP implementation Umble, et al., (2003) found that “a lack of proper understanding of the project needs and the inability to provide leadership and guidance to the project” are the main factors when ERP implementation fails. Thus, effective project management should define clear project objectives, develop a work and resource plan, and carefully track the project's progress.

Business Process Re-engineering and system's customization There are two approaches to implementing ERP systems in an organization: reengineering business processes and ERP customization (Shehab, et al., 2004). Business process reengineering creates deep changes in organizational processes in order to fit them to ERP functions. On the other hand, when an organization wishes to maintain its existing processes using an ERP system, it can customize ERP

functions. However, many researches indicate that ERP customization should be avoided or minimized in order to achieve the full of benefits offered by ERP systems (Nah & Delgado, 2006).

Training End user training has been recognized a critical factor for ERP implementation (Bajwa et al. 2004). Due to the complexity of the integrated ERP system, end user training is essential for a robust understanding of how the system works and how to use it. Consequently, appropriate end user education and training will maximize ERP benefits and increase user satisfaction.

ERP team composition Since ERP covers diverse functional areas across an organization, ERP team composition is also important for the successful ERP implementation; an ERP project team should consist of representatives from all functional units related to ERP.

Consultant selection and relationship ERP consultants play a critical role in ERP implementation. Consultants can be essential knowledge resources for ERP's hardware, software, and personnel. They also can help staff, have responsibility for project management, and audit the project. On the other hand, in order to be successful system maintenance after post-implementation, knowledge transfer from consultants is crucial for the organization (Thanasankit & Seddon, 2000).

Communication plan Strong communication within the entire organization during the implementation process increases success for ERP implementation. It allows the organization's stakeholders to understand the goal and the expected benefits of the project as well as to share the progress of the project.

An "***open information policy***" protects the various communication failures for the project. (Al-Mashari, Al-Mudimigh, and Zairi, 2003) While the critical success factors can lead to success of ERP implementation, they do not guarantee it. AlMashari, Al-Mudimigh, and Zairi (2003) state that the delivery of the critical success factors is one major condition to lead to benefits from ERP implementation, and they suggests that IT projects can be considered successful as according to the following terms:

- Correspondence success, which occurs when there is a match between IT systems and the specific planned objectives.
- Process success, which occurs when IT project is completed within time and budget.
- Interaction success, which occurs when users attitudes towards IT are positive.
- Expectation success, which occurs when IT systems match users expectations.

User support refers to the psychological state of business users toward the changes caused by the implemented ERP system, as well as toward the use of the system for performing their tasks (Wang and Chen, 2006). The users of an ERP system are usually the ones required to adjust their daily working practices to the new system's requirements. Apparently, becoming familiar with a new ERP system is not an easy task and involves hard working and patience from the part of users (McLachlin, 1999). In order to favourably affect users' perceptions about new technology, the real benefits and advantages of using the ERP system need to be continuously reminded (Umble et al., 2003). Otherwise, users are not motivated to support the ERP system in that they are not willing to cooperate with the consultants and assimilate the knowledge transferred to them. This situation provokes conflicts in the consultant-client relationship and hinders communication (Wang and Chen, 2006).

Suitability of Software and Hardware: Due to the lack of professional expertise and experience on developing ERP systems in-house, many companies prefer to buy off-the-shelf systems to shorten the ERP implementation cycle. ERP packages provide generic off-the-shelf business and software solutions to customers. More or less they can't fully meet the company's needs, especially when the business processes of the company are unique. Thus, to increase the chance of success, management must choose software that most closely fits its requirements. ERP vendors use different hardware platforms, databases, and operation systems and certain ERP packages are only compatible with some companies' databases and operation systems. Thus, companies should conduct requirements analysis first to make sure what problems need to be solved and select the ERP systems that most fit their requirements. The hardware then is selected according to the specific ERP systems' requirements (Umble et al., 2003).

User Involvement

End users are the front line soldiers of the organization who have direct contact with the ERP system (Rasmy et al., 2005). User involvement is effective because it restores or enhances perceived control through participating the whole project plan. There are two areas for user involvement when the company decides to implement an ERP system: (1) user involvement in the stage of definition of the company's ERP system needs, and (2) user participates the implementation of ERP systems (Zhang, Lee, Zhang, & Banerjee, 2002). Lack of user training and failure to completely understand how enterprise applications change business processes frequently appear to be responsible for ERP implementation problem and failures (Somers, 2001).

Change Management: Role of Change Management are Change the dynamics of the organization to ensure the new system succeeds by ensuring there is readiness to the demands of a very hard task master, Educate users in current business best practices and devotedly train them in the technical uses of the system, (Frimpon, 2012).

Culture: organization implementing ERP must understand their corporate culture. Many people may think it is a cure for all problems, but it does not sort out the cultural issues. Understanding the culture is not enough; companies must use long term strategies to change it. It will not change overnight and strategies need to be used to get staff not only to change how they work but also how they behave. One of the key findings is that staff were reluctant to share information and knowledge. They saw this as a threat to their jobs. Some organizations need to start changing the culture long before ERP is implemented, as it will take people many years to change their ways. This cannot be achieved just by understanding the culture. (Bancroft, et al 1998)

2.5 Emperical Letrature of ERP Implmention

ERP Implmention in Universities

ERP systems have found widespread usage in large organizations across various continents. To keep up with the management demands in the 21st century as observed by Nyandiere *et al* (2012), universities have turned to ERPs to replace their legacy systems. Though initial implementation was observed in manufacturing industries, universities have taken up the systems to provide institutional-wide automation for their processes (Ferrell, 2003). This has aided them automate their core business areas in student administration, finance, staffing, client management among others. On implementation, these systems are anticipated to provide increased efficiency and effectiveness of processes, reduce overhead costs in ICT, improve decision making, improve resource management as well as building business innovation while supporting strategic change (Sullivan and Bozeman, 2010).

Pollock (2004) in a study aimed on ERP systems use in a UK university points out that the uniqueness of a university set up makes most business ERP systems incompatible with their functions. This necessitates a custom development of a system compatible with the structure and functions of a specific university. The choice of either a custom development or adoption of a

readily available system should be informed by a thorough systems analysis and design evaluation while putting the institutional strategic objectives into consideration (Basoglu and Kerimoglu, 2007). This can be achieved by drawing up an elaborate implementation framework to guide the process.

According to Abbas (2011), the major benefits of ERP implementation are improved productivity and reduced cost. Particularly, the central repository that stores data can give universities to easy and up-to date access to users. Also, he indicated that “One of the common goal of all the educational institutions is a paper free environment and these ERP systems need to be able to facilitate this change”. By implementing ERP system, MIT converted many paper processes to ERP system processes. Although some processes still allow a paper work for handling exceptions, this resulted in decreasing manual work. universities have turned to ERP systems as a means of replacing existing management and administration techniques by use of computer systems.

Ethio Telecome ERP Implention

According to Verville and Halington (2003), ERP systems are used to connect back-office operations such as manufacturing, financial and human resources into one system. In the current decade, enterprise resource planning has evolved to a suite of application modules that are used to link back-office operations to front-office operation as well as internal and external supply chains. Ethio Telecom, has been serving the public for long period of time. However, it was very challenging to continue with the existing management style and technology as a result of the dynamic environment of the sector. According to Engidayehu (2014) ERP implementation in Ethio Telecome had some encountered challenges: an overall observation of the system, The system lacks some integration with the existing commercial system named Zsmart. Hence employees are forced to work on two separate systems to know the financial position of the company. Management of the company are not giving due attention for the proper implementation of the system and they are not conducting periodic review to check the efficiency of the system and employees who are working on it. luck of expertise from the company side is still a challenge for the system utilization, in addition the company not yet considering the lessons obtained from the first phase deployment

MIE's ERP Implementation

According to Abiot et.al, (2012), Study Conducted in Mesfine Industrial Engineering (MIE) recognize that the adoption of ERP System was the most significant factor that could be enable the company to overcome the challenges and lead the bussiness success. The Implimention Project team expected a high acceptance of the system in areas that Provide just as good or better functionality than the old system. However some of functions and processes might not get the full apprechiation the legacy system once had. The new system requires the retrival of old data from the legacy systems that has to be normalized, screened and stored in sensiable data format with in the new system data repository. The depulcated data was a major concern that MIE had to address.

2.6 Conceptual Framework.

The Conceptual framework developed by researcher based on the literature review. There are many Factors on Practice of ERP implementation. This research study has mainly focused on Top Management Commitment, Education and Training, User Support, Suitability of Software, user friendliness and Organizational Culture after ERP implementation.

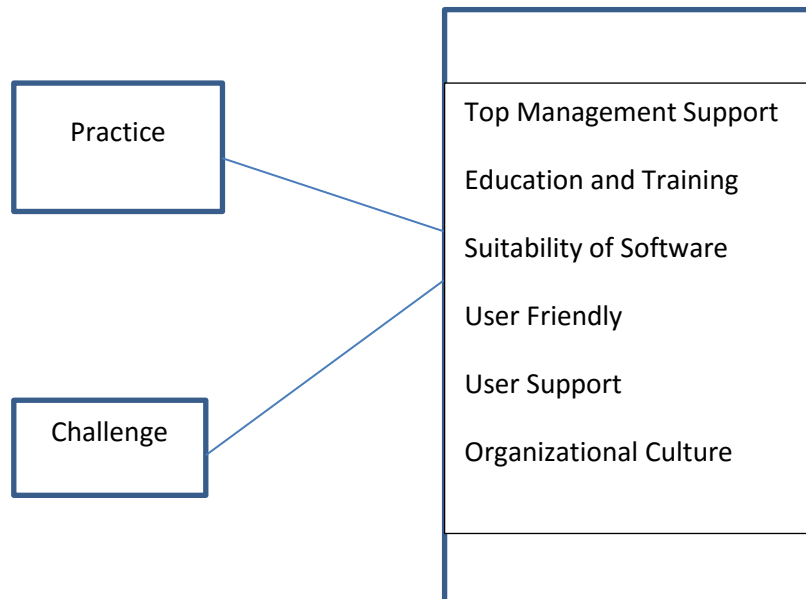


Figure 1. Researcher own conceptual framework.

CHAPTER THREE

RESEARCH METHODOLOGY AND DESIGN

INTRODUCTION

This chapter describes the research methods and Designs. It deals specifically on the research design, Research approach, Target Area and Population Size, Sample size, Sampling Techniques, Source of Data and Instrument of Data Collection, Data Analysis, and Ethical Consideration.

3.1 Research Design

The method of the study was descriptive in nature because the study was aimed at examining the situation regarding the SAP ERP existing practice and its possible challenges. Among the three categories of research methods namely exploratory, descriptive and explanatory, descriptive research method was chosen because it describes the characteristics of objects, people group, organization or environments. In other words, descriptive research tries to paint a picture of a given situation by addressing who, what, when, where and how questions. According to zakmaund, (2010) descriptive research method describes —what existll in a given situation. So that, the researcher believed that this method would described the existing practices and challenges of SAP enterprise resource planning in AUC.

3.2 Research Approach

The researcher has used both quantitative and qualitative method to analyze the data. According to Creswell (2003), the use of both approaches is tandem so that the overall strength of the study is greater than either qualitative or quantitative research.

3.3 Target Area and Population Size

The study population is the Staff who works at the head quarter of the commission which is found in Addis Ababa, Ethiopia. As of August, 2016 the number of employees working at the head quarter indicated 1,128. The samples were focused on the employees who use SAP ERP system at different stages.

3.4 Sample size and Sampling Techniques

For this study, the researcher has used both stratified random sampling to distribute a questionnaire and purposive sampling to conduct an interview. A stratified random sampling techniques were used by dividing departments and give an equal chance of being selected for each stratum. Each member of the subset has an equal probability of being chosen for the entire users would be targeted for the survey as a means to get the perspectives of the system users. Purposive sampling technique was used for the selected Managers and SAP ERP experts.

No	Department	Layer Size	Strata
1	Chairperson Office	193	50
2	Deputy Chairperson Office	188	48
3	Administration and Human Resource	195	51
4	Programing Financing and Budgeting	82	20
5	Human Resource Science and Technology	45	11
6	Peace and Security	197	52
7	Political Affairs	35	8
8	Social Affairs	52	13
9	Trade and Industry	25	6
10	Rural Economic and Agriculture	48	12
11	Economic Affairs	35	8
12	Infrastructure Energy	33	8
		1128	287
	Strata= sample size/population size *Layer Size		

Table 2. Stratified random Sampling method

Due to limitedness in capacity and geographical constraint, the study did not address the entire population of all employees in the commission; rather represent a sample in Ethiopia the headquarters. To determine the sample size Krejcie and Morgan's (1970) sampling size formula was used. Thus, in the present study the sample size was determined using the following formula;

$$s = \frac{x^2(Np(1-p))}{D^2(N-1) + x^2 P(1-P)}$$

Where: S= required Sample size, X^2 = the table value of 95% Confidence interval

P =the Population Portion (assume 0.5 for it maximum sample size)

D= the Degree of accuracy expressed as a proportion (0.05)

N= the Population size

$X^2 = 1.96$ $N = 1128$ $D^2 = 0.05$ $P = 0.5$

$S = \frac{(1.96)^2 (1128) (0.5) (1-0.5)}{0.05^2 (1128-1) + 1.96^2 (0.5) (1-0.5)}$

$= \frac{(1.96)^2 (1128) (0.5) (1-0.5)}{0.05^2 (1128-1) + 1.96^2 (0.5) (1-0.5)} = \underline{\underline{286.75}}$

Therefore, as per the above formula out of 1128 employees who work in the organization two hundred Eighty Seven (287) employees were selected to which questionnaires were distributed and administered.

3.5 Source of Data

The researcher has used both primary and secondary data sources. With regard to primary data, the data collected through questionnaire filled by the employees and interview was conducted with management and SAP ERP Experts. The necessary documents also reviewed to get required secondary data i.e. Official reports and employees feedbacks.

3.6 Data Gathering Instrument

The data gathering instruments were used questionnaires to AUC Staffs at the Headquarter of Addis Ababa in addition to face to face interview with Management and SAP system experts those are using the system in each functional area. The questionnaire developed by the researcher based on the research questions and the literature which has open-ended and closed – ended questions that used for gathering basic data from a large number of respondents with fewer amounts of time. The questionnaire included level of agreement using a five level rating scale measurement where: Strongly Agree (SA) = 1; Agree (A) = 2; Neutral (N) =3, Disagree (D) = 4; and Strongly Disagree (SD) = 5. To triangulate the data from different angles and increase its reliability, interview was conducted with purposively selected HR manager, Finance manager and system experts.

3.7 Methods of Data Analysis

The data collected were organized in line with the objective of the study and both qualitative and quantitative analytical procedures were used. In the qualitative analysis, employee's opinions, feelings,

behaviors and experiences were investigated in a deep manner to discover the Practices and Challenges of SAP ERP system. While in the case of quantitative analysis, the data were analyzed and interpreted using some statistical techniques such as; tables, percentages and charts.

3.8. Pilot Testing

According to Hair et al. (2003), validity and reliability of the measures need to be assessed for the Instrument. Most research studies, either qualitative or quantitative, strive to attain validity and reliability. ‘Validity concerns the soundness, legitimacy and relevance of a research theory and its investigation. Whereas reliability refers to the consistency of finding, Reliability has to do with the extent to which measures obtained by using a particular instrument are repeatable. The reliability of the questioner was tasted by the developer of the model and in the pilot study of this research, for accuracy analysis and interpretation.

Table 3. Reliability Statistics

Cronbach's Alpha	No. of Items
.753	30

Source: pilot survey, 2017

As indicated in the Table above, the Cronbach Alpha is 0.753, According to George & Mallery (2003), the value of alpha should be greater than 0.7 so as to accept the instrument. And the closer Cronbach’s alpha coefficient is to 1.0 the greater the internal consistency of the items in the scale.

3.9 Ethical Consideration

The study has used data from primary and secondary sources. Ethical concerns included the following: voluntary participation, no harm intended to participants, privacy, and confidentiality of participants were ensured. The findings of the study were reported in aggregated form, thus no individual respondent can be identified.

CHAPTER FOUR

DATA ANALYSIS AND INTERPRETATION

4.1 Introduction

This chapter deals with the interpretation and analysis of the data obtained from the respondent. The study was conducted to evaluate the existing Practice and Challenges of ERP system in African Union Commission, Addis Ababa.

A total of 287 copies of questionnaires were distributed, out of which, 253 or 88% were fully completed and returned while 34 copies were not returned. In addition to the questionnaires interview was conducted with the two Human resource and finance managers and three Functional area System experts.

Therefore, 253 questionnaires were considered for the study as respondents working in the selected organization. The data received from the respondents are analyzed with help of statistical software program SPSS-20. The following are the data analyzed and interpreted using some statistical techniques such as; tables, percentages and charts used to ensure easily understanding of the analysis.

4.2 Demographic Characteristics

Under this section the researcher gathered information about the general background of the respondents, Such as Gender, Educational background and year of service in the Organization.

Table 4. Characteristics of the Study Population

	Variable	Frequency	Percentage
Gender	Male	132	53.2
	Female	121	47.8
	Total	253	100
Qualification	Diploma	14	5.5
	First Degree	158	62.5
	Master's Degree	65	35.7
	PhD and above	16	6.3
	Total	253	100
Year of Service	< 5 years	12	4.7
	6-10 years	153	60.5
	11-15 Years	48	19.0
	16-20 years	34	13.4
	21 and above years	6	2.4
	Total	253	100

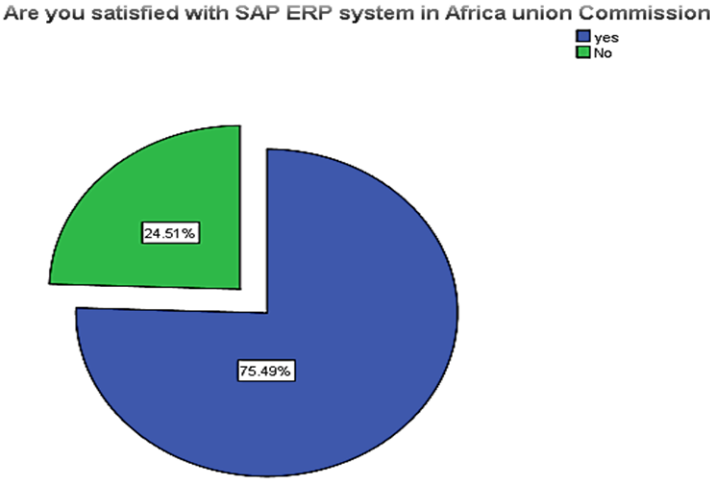
Source: Own survey 2017

Demographic characteristics of the respondents' are summarized in Table 4. Out of 253 participants 53.2% and 47.8% respondents were male and female respectively. Therefore, the majority of the respondents are male. Result from the Table also shows about Educational background of the respondents' and it revealed that the majority 62.5% of the respondents had first degree level. The rests 35.7%, 6.3%, and 5.5% had Master's degree, PhD and above, and diploma respectively. This implies that the majority of employees under this study are first degree graduates.

Based on service year of sample respondents, 60.5% of them have 6-10 year service in the organization. 19.0% of respondents have from 11-15 years of service and 4.7% has less than five years of service and 2.4% of respondents have 21 and above years of service in the Organization. From this result we can say that, this study target respondents have different work experience in the organization and have knowledge to reply the questions regarding the existing SAP ERP Practice and Challenge in AUC.

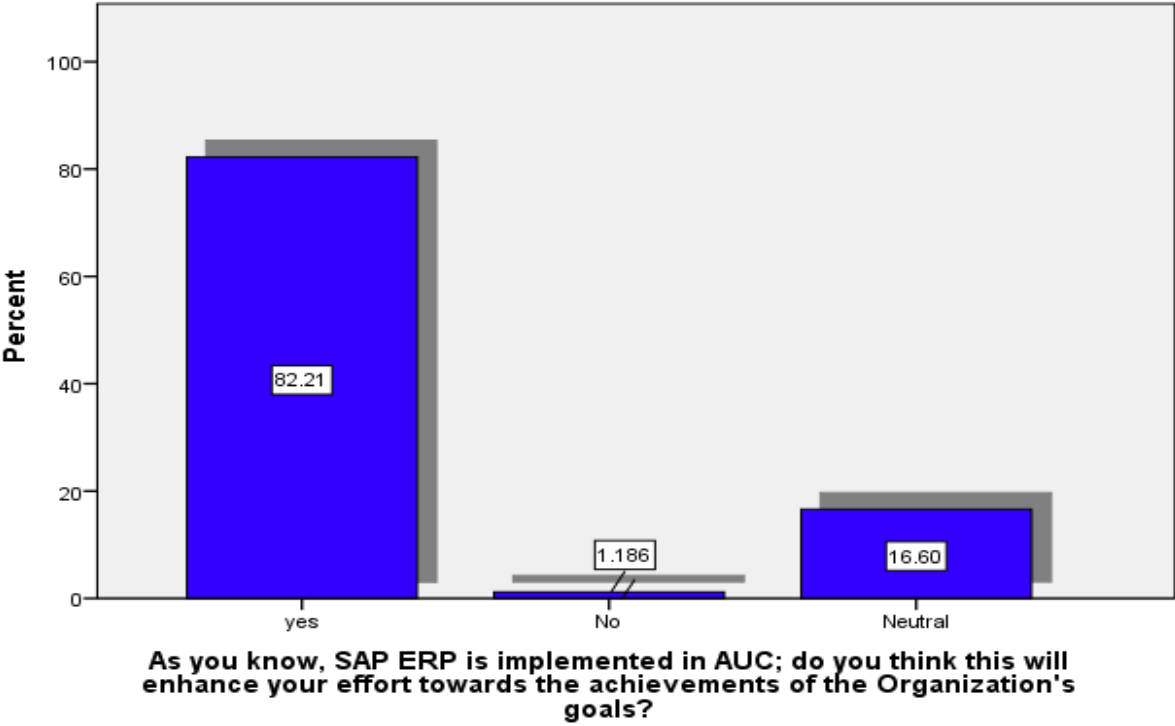
4.3 Respondent Opinion on the level of agreement on SAP ERP implementation.

Figure 2. Level of agreement on the Satisfaction



According to the above figure, 75.5% of the respondents are satisfied with the implementation of SAP ERP system in the organization. The remaining, 24.5% of the respondents are not satisfied with the ERP system of the organization. From the open ended questions, the major reasons for the dissatisfactions are lack of training about the system, lack of using all the functionalities of the systems by the organization and there is no update when there are new changes on the system. However since the majority of the employees are satisfied with the SAP ERP system it can be concluded that the deployed ERP system is a preferable solution to meet the expectation of user requirement even though it requires attention to make the entire user on the same page. Dezdard & Sulaiman (2009) found that that organizational impact and user satisfaction were the two most frequently used measures for ERP implementation. The user's satisfaction can be defined as those feelings and attitudes towards a variety of factors related to the delivery of information products and services, including being up-to-date, being precise, being comprehensive and so forth.

Figure 3.- Level of agreement toward the Organization goal.



As we can see from the above Figure 3, majority of the respondents' 82.6% replied that SAP ERP implementation enhances their effort towards the achievements of the Organization goal, and the rest of 16.6% were neutral. Therefore it can be concluded that the employees are aware of the deployed ERP system has its own contribution in enhancing their effort towards the achievements of the Organization goals.

4.4 Level of agreement related to practice and challenges of SAP ERP system.

4.4.1 Response Management Support and Commitment.

Table 5. - Management support commitment responds.

Statement	Rating	Frequency	Percent
Managers are committed to use SAP ERP system in the Organization.	Strongly Disagree	11	4.3
	Disagree	118	46.6
	Neutral	52	20.6
	Agree	53	20.9
	Strongly Agree	19	7.5
	Total	253	100.0
Middle managers are cooperative in solving problems with the use of SAP ERP system	Strongly Disagree	1	.4
	Disagree	52	20.6
	Neutral	47	18.6
	Agree	107	47.9
	Strongly Agree	32	12.6
	Total	253	100.0
Managers support and encourage the use of SAP ERP	Strongly Disagree	11	4.3
	Disagree	37	14.6
	Neutral	60	23.7
	Agree	138	54.5
	Strongly Agree	7	2.8
	Total	253	100.0

Source: Own survey, 2017

The results in Table 3 indicate that, 50.9 %, of the respondents argued that Managers are not committed to use SAP ERP system in the Organization, 27.3% preferred middle-of-the-road. The rest, 28.4% of respondent believed that Managers are dedicated to use SAP ERP system in the organization. From the finding the majority of respondent implicit that managers are not committed to use the system.

The researcher has raised a question on Cooperativeness of middle managers in solving problems with the usage of SAP ERP system, 60.6% of respondents believed that managers are cooperative to solve problems. On the other hand, 21.6% of respondent were disagreed. Furthermore, 30.0% of respondent preferred to stay neutral on the matter. Considering these all facts, it is possible to say that largest proportion of the employees believed that managers are Cooperative to solve problems in the usage of SAP ERP system.

Regarding Managers Support and encouragement, 57.8 % of respondent believed that management support and encourages the use of SAP. Then again, 18.6% of respondents were disagreed. The rest, 23.7% of respondent preferred to stay neutral on the matter. Considering these all facts, it is possible to say that largest proportion of the employees believed that management are support and encourage the use of SAP ERP system.

According to Nandhakumar et al., (2005) Support of top managers for ERP initiatives is important in enhancing the overall success of the software. Therefore, to increase the prospects of having a successful ERP acquisition in which the expectations of individuals, workgroups or departments, and the entire organization are adequately met, top managers must offer their support and commitment for the ERP both at the implementation and post-implementation phases. It may not be sufficient to show support during the implementation phase and adopt a hands-off approach at latter stages in the ERP lifecycle. To ensure greater levels of ERP success, management must continually show support for the software and pay attention to all the affected departments in the organization.

4.4.2 Response on Training and Education.

Table 6 - Training and Education Respondent

Statement	Rating	Frequency	Percent	
The training given on the SAP ERP system was adequate and useful to you	Strongly Disagree	11	4.3	
	Disagree	80	31.6	
	Neutral	103	40.7	
	Agree	47	18.6	
	Strongly Agree	12	4.7	
	Total	253	100.0	
Further enhancement training is required on the SAP ERP system use.	Strongly Disagree	0	0	
	Disagree	1	.4	
	Neutral	21	8.3	
	Agree	128	58.9	
	strongly Agree	104	41.1	
	Total	253	100.0	
Trainings was given exhaustively for all users	Strongly Disagree	57	22.5	
	Disagree	109	43.1	
	Neutral	49	19.4	
	Agree	29	11.5	
	Strongly Agree	9	3.6	
	Total	253	100.0	
	The trainers were knowledgeable and aided me in my understanding of the SAP ERP system	Strongly Disagree	3	1.2
		disagree	16	6.3
Neutral		89.1	35.2	
Agree		118	46.6	
Strongly Agree		27	10.7	
Total	253	100.0		

Source: Own survey, 2017

The researcher has raised a question the trainings given on the SAP ERP system are adequate and useful. As indicated in the above table, 34.9% of respondents argued that the trainings given by the organization didn't adequate and useful enough. On the other hand, 23.3% of the respondents were declared that the training given was adequate and useful. The rest 40.7% of the respondents remain neutral. Thus it is noted that the organization still needs to work on the adequacy and usefulness of the training.

In addition to the adequacy and usefulness of training, employees requested if further enhancement training is required on the system, and 91.7% of the respondents believed that additional training is highly required to cop up with the detail feature of ERP system and this will benefit the organization as well as the employees. The rest, 8.3% of the respondents were neutral. It can be concluded that, the majority of the respondents believed that additional training is highly required to enable employees efficient in the system.

Concerning the trainer Knowledge, 57.3% of the respondents declared that the trainers was experienced and helped them on the understanding of the SAP ERP system. Then again, 6.3% of them are disagreed. The rest, 36.4% of them are neutral. From the above fact the trainers were capable and helpful on the given training.

The respondents requested if the trainings are given exhaustively. 43.1%, and 22.5%, of the respondents were strongly disagreed and disagreed respectively and also 19.1% remained neutral. Whereas, 3.6 % and 11.5 % of respondent were strongly agree and agree respectively.

To check the validity of the respondents a triangulated interview question raised to the managers and they confirmed that there is a gap on the training program to the users of ERP system and the organization change management is on the process tried to coach user to transfer knowledge on the three different modules. According to Welti N. (1999) training and change management are matters that affect all the phases of the ERP implementation. Similarly, O'Leary D. E. (2000) stresses that by saying the importance of training cannot be neglected and it is not something that should be conducted only before or after the implementation but rather it has to be present in each part of the ERP life cycle; but the organization doesn't exhaustively exert its effort to enhance the knowledge of its employees through different means (i.e. class room training, on the job training, coaching, mentoring and so on). Therefore in order to enhance the employee's effort towards their work performance and to make the system friendly trainings should be given exhaustively.

4.4.3 Response on Overall assessment on suitability of SAP ERP Software.

Table 7- Suitability of Software.

Statement	Rating	Frequency	Percent
SAP ERP implementation makes the working process of AUC fully automated (in the area it's deployed)	Strongly Disagree	0	0
	Disagree	93	36.8
	Neutral	78	30.8
	Agree	69	27.3
	Strongly Agree	13	5.1
	Total	253	100.0
There are some functional areas still using both the manual and automated working system	Strongly Disagree	0	0
	Disagree	0	0
	Neutral	104	41.1
	Agree	117	46.2
	Strongly Agree	32	12.6
	Total	253	100.0
The Organization apply and utilize all the features of SAP ERP system	Strongly disagree	53	20.9
	Disagree	72	28.5
	Neutral	79	31.2
	Agree	47	18.6
	Strongly Agree	2	.8
	Total	253	100.0
SAP ERP helps to improve employee "participation in the organization.	Strongly disagree	15	5.9
	Disagree	42	16.6
	Neutral	103	40.7
	Agree	92	36.4
	Strongly Agree	1	.4
	Total	253	100.0
Due to the implementation of SAP ERP the service delivery time and effort is improved in the departments	Strongly disagree	33	13.0
	Disagree	12	4.7
	Neutral	81	30.8
	Agree	112	45.5
	Strongly Agree	15	5.9
	Total	253	100.0

The SAP ERP System are linked to departmental, team and individual goal	Total	253	100.0
	Strongly disagree	26	10.3
	disagree	56	22.1
	Neutral	65	25.7
	Agree	94	37.2
	Strongly Agree	12	4.7
SAP ERP System reduce cycle time for decision making	Total	253	100.0
	Strongly disagree	26	10.3
	disagree	10	4.0
	Neutral	79	31.2
	Agree	129	51.0
	Strongly Agree	9	3.6
SAP ERP System reduce the financial cycle closing time	Total	253	100.0
	Strongly disagree	1	.4
	disagree	26	10.3
	Neutral	87	34.4
	Agree	113	44.7
	Strongly Agree	26	10.3
SAP ERP System reduce procurement cycle lead time	Total	253	100.0
	Strongly Disagree	0	0
	disagree	19	7.5
	Neutral	80	31.6
	Agree	120	47.4
	Strongly Agree	34	13.4

Source: Own survey, 2017

To have an overall view about the system the researcher raised questions whether SAP ERP system makes the working process of AUC fully automated (in the area it's deployed) 27.3 % and 5.1% of the respondents agreed and Strongly agreed respectively. 36.8 % of the respondents were disagreed. The remaining 30.8% of respondent were neutral. As shown in the table largest number

of respondents of employees believed that the implementation of SAP ERP system didn't make the working process of AUC fully automated in the area it's deployed.

The respondents requested if there are functional areas that are still using both manual and automated working system even though ERP is already deployed, 58.8 % of the respondents argued that the organization is still using both the manual and automated systems. The rest, 41.1% of the respondents chosen neither agreed nor disagreed. It can be concluded that the majority of the respondents reflected that there are some factional areas that are still using both manual and automated working system.

Regarding the extent of the organization utilizes all the features of ERP system and 49.4% of respondents have asserted that the organization is not utilizing all the features of ERP system exhaustively. While, 26.6% of respondent replied that the organization exploit all the features of the system. 31.2% of the respondents remain neutral. Based on the above fact, majority of the respondents believed that the Organization is not exhaustively utilizing all the features of ERP system even though the package for SAP ERP system is procured by huge investment.

As shown in the above table, 51.5% of the respondents believed that the system improved Participation in the organization. On the other hand, 17.6% of respondent argued that the system doesn't improved participation. The rest, 30.8% of respondents were neutral. From this fact it can be conclude that even if majority of the respondents believed that SAP ERP helps to improve employee "participation in the organization, the organization needs to work further on the employee participation.

The above table also revealed that, 50.2% of respondent believed that SAP ERP System improves the service delivery time and effort. Then again, 17% of the respondent argued that the service delivery time effort doesn't improve. And 32% of respondent remained neutral. This implies that the majority of respondents agreed that the implementation of SAP ERP system improves the service delivery time of the organization.

Concerning the extent of SAP ERP System is linked to departmental, team and individual goal. 32%, of respondents have disagreed. On the contrary, 42% of respondent believed that that the system linked to the departmental, Team and individual objective. The remaining 25.7% of

respondents didn't take either of the two. Based on the presented fact, larger proportion of respondent believed that the SAP ERP system linked to departmental, team and individual goal.

The researcher has raised a question the extent of decision making cycle time has been reduced or not. Thus, 54.6 % of respondents replied that the decision cycle time has been reduced after the implementation of SAP ERP. On the other hand, 14.3% of respondents believe that there is no time reduction in the decision making even if the system has been deployed. The rest, 31.2% of respondent preferred to stay neutral on the matter. Considering these all facts, it is possible to say that largest proportion of the employees believed that there is a time reduction in the decision making cycle time.

To have an overall view about the system the researcher also questioned the respondents if the ERP system reduces the financial cycle closing time or not, 55% of respondents believed that the deployed ERP system reduces the financial cycle closing time. While 14.3% replied that there is no reduction in the financial cycle closing time, 34.4% of respondent have taken neither of the two sides. Having all these facts in mind, we can infer that majority of the employees are feeling that the financial cycle closing time has been reduced after the implementation of ERP when it is compared to the time that there was no ERP system. The researcher also interviewed the selected managers.

In addition, employees were requested to indicate their opinion if the procurement cycle time is reduced or not, 58% of respondent believed that there is a reduction in the procurement cycle time after the implementation of ERP. On the contrary, 39.1% of argued that the existing SAP ERP system has not reduced the procurement cycle time. While, 31.6% remained neutral. Therefor it can be said that the majority of the respondents reflected there is a time reduction in procurement cycle.

4.4.5 Respondents Opinion on User support. User Support

Table 8- Respondents Opinion on User Support

Statement	Rating	Frequency	Percentage
My Organization has effective IT support to the SAP ERP system	Strongly Disagree	0	0
	Disagree	10	4.0
	Neutral	136	53.8
	Agree	104	41.4
	Strongly Agree	3	1.2
	Total	253	100.0
The functional and technical support of integrations are successful in relation to knowledge transfer	Strongly Disagree	2	0.8
	Disagree	118	46.6
	Neutral	84	33.2
	Agree	44	17.4
	Strongly Agree	5	2
	Total	253	100.0
I know where to go to when I need any assistance with SAP ERP system	Strongly Disagree	0	0
	Disagree	9	3.6
	Neutral	52	20.6
	Agree	142	56.1
	Strongly Agree	50	19.8
	Total	253	100.0

Source: Own survey, 2017

Concerning IT support the respondents, were asked whether the organization has effective It Support. 42.4 % of the respondents believed that there Is an effective It support in the organization .On the other hand 4.0% of respondents argued that the organization doesn't have effective It support. The rest 53.8% of the respondents remained neutral. As per the findings most of the respondents believed that the organization has an effective IT support activity and these will help in making the end-users familiar with the system,

In addition to the above question respondents were asked if the functional and technical support of integration are successful or not in relation to knowledge transfer, and 19.2% of replied that the integration were successful in transferring knowledge. On the contrary, 46.6% of respondents have asserted that the technical as well as functional support of integrations were not successful in transferring knowledge for the entire users. Furthermore, 34.0 % of respondents have chosen

neither of the two sides. Based on these facts, it can be inferred that the expected knowledge transfer was not achieved as a result organization’s employees are forced to consult the integrators expertise whenever they faced a problem.

As indicated in the table, 75.8% of respondents know where to go when they need assistant related to the System. On the other hand 3.6% of the respondents don’t know where to go. The remaining of 20.6% replied neutral. Therefore, we can reach on consensus that the majorities of employees they know where to go when they need support and this shows there is awareness about the system helpdesk and technical support.

Per the interviews and the observations in this study, the support team is established as one major section in IT department. Staff members in this support section are selected from IT and each of the functional units (finance, logistics/purchasing and human resources). Since ERP is a business process system, it needs multi-functional support team.

4.4.6 User Friendliness (Easiness) of the System Interface

In this part data related with the easiness or user friendliness of the system has been presented, analyzed and interpreted It also focused on the general user interface, navigation panel and related steps.

Table 9– User friendliness (easiness) of the system interface

Statement	Rating	Frequency	Percent
Users interface of the system is easily understandable	Disagree	18	7.1
	Neutral	109	43.1
	Agree	97	38.3
	Strongly Agree	29	11.5
	Total	253	100.0
The reporting formats are easily understandable by users and decision makers	Strongly disagree	8	3.2
	Disagree	35	13.8
	Neutral	155	61.3
	Agree	55	21.7
	Total	253	100.0

Users can work on the system without any challenge	Strongly disagree	10	4.0
	Disagree	112	44.3
	Neutral	97	38.3
	Agree	34	13.4
	Total	253	100.0

Source: Own survey, 2017

The researcher asked the respondents whether the system is easy and understandable 82% of respondents replied that the system is easy and understandable to work on the user interface. On the contrary, 14% of respondent argued that the existing system interfaces complex and it is not easily understandable to work on it. Apart from these perspectives, 25% of the respondent preferred to be neutral. This all figures indicate that the user interface of the system is easily understandable to work on it.

Having the above issue the researcher raised a question whether the users are working on the system without any challenge. Therefore, 13.4% of respondents responded as there is no challenge while working on the system. On the other perspective, 44.3% of respondent believes that even if the navigation panels & user interfaces are easily understandable, there is still a challenge in doing the day to day operation of the organization, this could be due to the, lack of training, lack of Communication when the system was updated or changed the business requirement and other related reasons. The rest 38.3% of the respondents have taken neither of the sides. Having this fact in hand, system users are working with lots of challenges and this implies that even if the system by itself is not complex in doing the daily routines, the organization is not materializing these benefits by giving appropriate trainings and related supports in order to make employees capable of doing their business on the system.

Respondents also requested whether the reporting formats are easily understandable by the users and internal decision makers. Subsequently only 48% of respondent argued that the reporting formats are not easily understandable to the users and decision makers. On the contrary, 21% of the respondents advocated the existing reporting formats are not complex and are easily understandable by the users and decision makers. Furthermore, 44.3% of respondents neither agreed nor disagreed on the matter. From this fact we can determine that there are still issues that

need to be done on the reporting formats of the system, because any users or organization decision makers need to the generated report in order to make a genuine and professional decision.

4.7 Responds concerning Culture

Table 10- Respondents Concerning organization Culture

Statement	Rating	Frequency	Percent
The Organization has Clear norms and Value	Strongly Disagree	9	3.6
	Disagree	49	19.4
	Neutral	155	61.3
	Agree	32	12.6
	Strongly Agree	8	3.2
	Total	253	100.0
SAP ERP system Changed the organization work culture	Strongly Disagree	0	0
	Disagree	44	17.4
	Neutral	80	31.6
	Agree	117	46.2
	Strongly Agree	12	4.7
	Total	253	100.0
Employees are happy with changes made on SAP ERP system	Strongly Disagree	0	0
	disagree	39	15.4
	Neutral	71	28.1
	Agree	124	49.0
	Strongly Agree	19	7.5
	Total	253	100.0

Source: Own survey, 2017

Based on the above Table, 23% of respondents have declared that the organization does not have clear norms and value. On the other hand, 15.8% of respondent believed that the organization has clear norms and value. The majority, 61.3% of respondents didn't take either of the two. Based on the presented fact, the organization should work on the awareness of culture.

Regarding the organization work culture 59% of respondents believed that SAP ERP system have changed the organization work culture. On the other hand 17.4% believed that the system does not change the organization work culture. The rest 31.6% of respondents remain neutral. Therefore, we can reach on consensus that the majorities of employees believed that there is a culture change in the organization.

In addition to that the researcher has raised a question to assess whether employees are happy with changes made on the SAP ERP system, as a result 50.5% of the respondents are happy with the system change and 15.4% of respondent argued that they are not happy with the change made. The rest, 28.1% of respondents preferred to be neutral. From above interpretation, the researcher can conclude that employees are happy with the change made in the organization

According to Densley (1999) Organization who implements an ERP system has to change its business processes to the ERP best practice processes. The change both impacts on the customer's organizational culture (i.e. the ways that things are done in the organization). The implementation of ERP systems mandate changes business process and organization culture. Organizational culture plays an important role during implementation of ERP systems and consequently its success (Shah *et al.*, 2011).

The researcher also interviewed the selected managers and system experts about the ERP system meets the expect objective and they explained that the SAP ERP system meets its objective and it manages, controls and integrates the three enterprise resources: Human, financial and Materials. They also confirmed that it is not full used all the features of the system due to the following reasons,

- Too much customization in each of departments needs
- Some system experts are left the organization with different reason,
- Long Process to get approvals from Member State. (Member states are those who represent their countries from all 54 African Countries)
- Financial implications are raised.

The managers reflected that there are some measures are taken to use the system fully automated and to reduce paper less work.

- Review a new work flow to reduce unnecessary steps and authorization.
- The Management is working to have more system experts in each functional area.

- Introduce SAP Open text users can attach the entire relevant document in the system this resolve to make the organization paperless environment.
- Trying to link the necessary of SAP training with the provision of online Access. That means user can login online by their email and get access the training manual.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1. Summary of Findings

The study was conducted to assess the existing Practice and Challenges of SAP ERP system in African Union Commission. In order to attain these, relevant data were gathered through questionnaire and interview with 253 employees at the head office. The data were analysed with the help of descriptive statistics (percentage), Based on the discussion of the data, the following summaries of findings are drawn:

- Regarding the level of agreement toward the Organization goal, 82.6% of respondent believed that SAP ERP implementation enhances their effort towards the achievements of the organization goal.
- Concerning the user satisfaction, 75.5% of the respondents are satisfied with the SAP ERP system in the organization. Conversely, 24.5% of respondents are not satisfied because of lack of training about the system, there is no update (proper communication) to the users and unable to use all the functionalities of the systems by the organization.
- On the subject of top manages support and commitment, More than half of respondent argued that managers are not committed to use SAP ERP system. However, 60% of respondents believed that managers supportive and encourage the users.
- Regarding the training and education, 87% of the respondents believed that additional training is highly required to the users in addition more than half of the respondents have argued that training given by the organization was not adequate and useful.
- With regard to suitability of the software the largest proportion of the employees believed that there is a time reduction in the decision making cycle time, procurement cycle and financial Closing time.
- The majority of the respondents believed that the deployed ERP system doesn't make the working process fully automated in the area it's deployed. Similarly, 58.8 % of the respondents argued that there are some functional areas still using both manual and automated working system.

- The larger share of the respondents have stated that there are number of ERP features which is not yet exploited by the organization even if the entire package of the system has been procured.
- Concerning the extent of SAP ERP System linked to departmental, team and individual goal. 41.2% of respondents have believed that the ERP System is linked to departments and individual goals. Similarly, 51.4% of respondent confirmed that the service delivery time improved in the departments.
- Regarding user support, the majority of 75.8% of respondents know where to go to when they need any assistant. Likewise, 41.4 % of respondent believed that there is an effective IT supports in the organization.
- The majority of respondents asserted that the technical as well as functional support of integrators was not successful in relation to the knowledge transfer for the entire users.
- From the user friendliness perspective, majority of the respondents asserted that the system interface, the navigation panels and the navigations steps are simple and understandable to work on the system. But on the contrary, the reporting formats are somehow difficult to understand for both internal decision makers and Users
- Concerning the users working on the system without any challenge. 61.3% there is still a challenge in doing the day to day operation of the organization, this could be due to the, lack of training, lack of communication when the system was updated or changed the business requirement and other related reasons.
- Regarding the organizational culture, 59% of respondents believed that SAP ERP system changed the organization work culture. Similarly half of the respondent believed that employee are happy with the change made with SAP ERP System.

5.2 Conclusion

The study was conducted to assess the existing practices and challenges of SAP Enterprise resource planning implementation in the case of Africa Union Commission. It considered six variables and identified their level of practices and major challenges encountered.

According to the finding, Conclude that the employee has been satisfied with the SAP ERP system and the in the organization. The System user interfaces, the navigation panels and the navigation steps are not difficult to understand and work. In addition the implemented ERP Support the organization by reducing the financial cycle time, decision making cycle time and procurement lead time.

The findings result shows that there are some functional areas that are using both the manual as well as systems based working methods. From this fact the practice of the deployed ERP system is not helping the organization to fully automate in its deployed area and is not getting the expecting benefits from the system. Also the existence of both working methods is highly affecting the efficiency of the organization because of the time consuming and the energy taking nature of the manual working methods. Apart from the mix up usage of the system the organization, efficiency has been hampered due to non-utilization of the entire feature of the system even if the system license has been fully procured. This implies that, the organization is unable to utilize all the features of the system.

Based on the result the major challenges are the inadequacy of training and proper communication when there is a change on the business requirement to capacitate employees on the system. Even though the organization is aware of the importance of training valuable effort has not been applied. From this implication, I conclude that there is lack of Leadership commitment and support regarding to arrange a training program for employees. Also the reporting formats are difficult to understand by decision makers as well as internal users.

The researcher further conclude the measures that are taken to resolve the existing challenges are not sufficient and didn't addressed the identified challenges.

Limitation:

- The study was carried out using a particular type of technological innovation which is ERP System. As such, the research needs to be replicated to examine the robustness of the findings across a wider range of technological solutions and samples.
- Questionnaires were not returned on time because some of the employees were out of their principal work place .As a result, the response rate is to some extent negatively affected. Some of the employees were not volunteers to fill the questionnaire because they are busy of their daily routine. Moreover, some of them seem bored of feeling lots of questionnaire from different researchers every year.
- Finally, there are some possibilities of measurement errors. The study focused on perception of the respondents and the instrument relied on self-reports and perceptions of the respondents alone. This could have resulted in some degree of perceptual inflation of self-assessment scores. Those who enjoyed great satisfaction with new technology may have inflated their response with respect to their intention to continue to use the system.

5.3 Recommendation

- ✓ Managers need to understand the processes as well as the basic concept of systems optimization. This will help encourage the managers to use the system effectively.
- ✓ To apply all the benefits expected from the system, AUC has to exert all its effort to utilize the features of the system from the procured license, so that the intervention of manual working methods can be highly minimized. This will help to enhance both the efficiency of Employees and the organization.
- ✓ Since the major purpose of Enterprise Resource Planning (ERP) system implementation is to reinforce the efforts and performance of employees towards the achievement of organizations goals and objectives, AUC has to do a lot by delivering the required training programs for both end-user as well as super users in order to bring the required level of

skills on the system. Therefore, a competency assessment has to be implemented to examine the required skill level and the actual system functionality, so that the right training for the right target group can be delivered for the better utilization of the system. Moreover, super users of the organization have to be properly identified and trained in a manner that can be fully handled the work in the departments. As indicated by O'Leary (2000) training is not something that should be conducted only before or after the implementation, but rather it has to be present in each part of the ERP life cycle.

- ✓ AUC need to focus on the knowledge transfer of its employee. So by defining some parameters the organization need to check how far the knowledge transfer has been achieved.
- ✓ The organization also needs to work on the existing culture and use the knowledge to successfully map the steps needed to accomplish a successful change. Adaptations in the culture of an institution take a long time and require special attention from top management who has to accommodate it as part of strategic management. Cultural change commences with diagnosing the prevailing culture of the organization and adapting this culture to current or proposed strategy. As there is a close relationship between culture and strategy of an organization.
- ✓ AUC needed to revisit the reporting formats already defined in the system, this is because any individuals need to understand what exactly the report is saying without the support of others. For that reason, easily understandable reporting formats have to be designed and integrated in the system so that anyone can read and interpret what it exactly mean.
- ✓ This study is a generally assessed the existing practices and Challenges of SAP ERP in the Head office and AUC need to take these remedies as well as the other regional office.

References

- Abbas, M.(2011). *ERP Systems in HEI Context from a Multiple Perspective View: A Case Study, MIT selects sap's r/3 to support reengineering efforts.*
- Abiot and Jorge (2012) A successful ERP Implmentinon: A case Study of ERP Implmentinon in Mesfin Industrial Engineering , Carl von Ossietzky University of Oldenburg.
- Aiken, P. (2002). Enterprise resource planning (ERP) considerations. *VCU/Institute for Data Research.*
- Al-Mashari, M. (2002), "Enterprise resource planning (ERP) systems: a research agenda", *Industrial Management & Data Systems*, Vol. 102, pp. 165-70
- Al-Mashari, M., Al-Mudimigh, A. and Zairi, M. (2003), "Enterprise resource planning: a taxonomy of critical factors", *European Journal of Operational Research*, Vol. 146, pp. 352-364
- Alves, M, & Matos, S (2013), 'ERP adoption by public and private organizations - a comparative analysis successful implementations', *Journal of Business Economics and Management*, 14(3), pp. 500-519.
- Bajwa, D. S., Garcia, J. E., & Mooney, T. (2004). An integrative framework for the assimilation of enterprise resource planning systems: Phases, antecedents, and outcomes. *Journal of Computer Information Systems*, 44(3), 81-90.
- Beheshti, H. M. (2006). What managers should know about ERP/ERP II. *Management Research News*, 29(4), 184-193.
- Beheshti, H. M. (2006). What managers should know about ERP/ERP II. *Management Research News*, 29(4), 184-193.

- Bingi, P., Sharma, M. K., & Godla, J. K. (1999). Critical issues affecting an ERP implementation. *Information Systems Management*, 16(3), 7-14.
- Chang, M-K., Cheung, W., Cheng, C-H., & Yeung, J. H.Y (2008) 'Understanding ERP system adoption from a user's perspective' *International Journal of Production Economics*, 113, pp. 928 – 942
- Chen, I.J. (2001) 'Planning for ERP systems: analysis and future trend', *Business Process Management Journal*, 7(5), pp. 374-386
- Coombs, C.R. (2015). 'When planned IS/IT project benefits are not realized: a study of inhibitors and facilitators to benefits realization'. *International Journal of Project Management*, 33 (2), pp. 363-379
- Davenport, T. H. (2000) *Mission Critical: Realising the Promise of Enterprise Systems*. Boston, Massachusetts: Harvard Business School Press.
- Dezdar, S., & Sulaiman, A. (2009). Successful enterprise resource planning implementation: taxonomy of critical factors. *Industrial Management & Data Systems*, 109(8),
- Egdair, I., Rajemi, M. F., & Nadarajan, S. (2015) 'Technology Factors, ERP System and Organization Performance in Developing Countries' *International Journal of Supply Chain Management*, 4(4), pp.82 –89
- Ehie, I. C., & Madsen, M. (2005). Identifying critical issues in enterprise resource planning (ERP) implementation. *Computers in Industry*, 56(6), 545-557.
- Engidayehu Getachew (2014), Assessment of Enterprise Resources Planning (ERP) Implementation: The case of ethio telecom, Addis Ababa University
- Esteves, J. (2009) 'A benefits realization road-map framework for ERP usage in small and medium-sized enterprises' *Journal of Enterprise Information Management*, 22(1/2), pp. 25 - 35

- Esteves, J.M., & Pastor, J.A. (2001). Enterprise Resource Planning Systems Research: An Annotated Bibliography. *Communications of the Association for Information Systems*, 7, 8, 1-51
- Eyitayo, O.T. (2014). Enterprise Resource Planning (ERP) Systems: Is Botswana Winning? A Question on Culture Effects. *Issues in Informing Science and Information Technology*, 11, 47-55
- Federici, T. (2009), "Factors influencing ERP outcomes in SMEs: a Post-introduction assessment," *Journal of Enterprise Information Management*, Vol. 22, No. 1, pp. 81-98.
- Fisher, M. D. (2006). *Staff Perceptions of an Enterprise Resource Planning System Implementation: A Case Study of Three Australian Universities*,
- Frimpon, M.F. (2012). A Re-structuring of the Enterprise Resource Planning Implementation Process. *International Journal of Business and Social Science*, 3, 1:232-243.
- Gargeya, V. B., & Brady, C. (2005) 'Success and failure factors of adopting SAP in ERP system implementation' *Business Process Management Journal*, 11(5), pp. 501 - 516
- Gattiker, T.F. and Goodhue, D.L.,(2004). 'Understanding the local-level costs and benefits of ERP through organizational information processing theory', *Information & Management*, 41(4), pp. 431- 443.
- Grabski, S.V., Leech, S.A., and Schmidt, P.J. (2011). A Review of ERP Research: A Future Agenda for Accounting Information Systems. *Journal of Information Systems*, 25, 1, 37-78.
- Hawking, P., Stein, A., & Foster, S. (2004) 'Revisiting ERP Systems: Benefits Realisation' *Proceedings of the 37th Hawaii International Conference on System Sciences*. 5 - 8 January, Big Island, Hawaii, USA: IEEE Computer Society. pp. 3563-3570
- Helo, P., Anussornnitisarn, P., & Phusavat, K. (2008). Expectation and reality in ERP implementation: Consultant and solution provider perspective. *Industrial Management & Data Systems*, 108(8), 1045 1059

- Huang, S., Chang, I., Li, S., & Lin, M. (2004). Assessing risk in ERP projects: Identify and prioritize the factors. *Industrial Management & Data Systems*, 104(8), 681-688.
- Hunton, J.E., Lippincott, B. & Reck, J. L. (2003) 'Enterprise resource planning systems: comparing firm performance of adopters and nonadopters', *International Journal of Accounting*, 4, pp. 165 – 184
- Kamhawi, E.M. (2008) 'Enterprise resource-planning systems adoption in Bahrain: motives, benefits, and barriers' *Journal of Enterprise Information Management*, 21(3), pp. 310 – 334
- Kosalge, P. U & Ritz , E (2015), 'Finding the tipping point for a CEO to say yes to an ERP: a case study', *Journal of Enterprise Information Management*, 28(5) pp. 718 – 738
- Laukkanen, S., Sarpola, S., & Hallikainen, P. (2005) 'ERP System Adoption - Does the Size Matter?', *Proceedings of the 38th Hawaii International Conference on System Sciences*. 3-6 January, Big Island, Hawaii, USA: IEEE Computer Society, pp. 1 - 9
- Lin, C. & Pervan, G. (2003). 'The practice of IS/IT benefits management in large Australian organizations' *Information & Management*, 41, pp. 13 - 24
- Murphy, K.E. and Simon, S.J., (2002). 'Intangible benefits valuation in ERP projects'. *Information Systems Journal*, 12(4), pp.301-320
- Nwankpa, J. K. (2015) 'ERP system usage and benefit: A model of antecedents and outcomes' *Computers in Human Behavior*, 45 (2015) pp. 335–344
- O'Leary, D. E. (2000). *Enterprise resource planning systems: Systems, life cycle, electronic commerce, and risk* Cambridge University Press.
- O'Leary, D.E., (2004). 'Enterprise resource planning (ERP) systems: an empirical analysis of benefits'. *Journal of Emerging Technologies in Accounting*, 1(1), pp.63-72
- Park, K, & Kusiak, A. (2005), 'Enterprise resource planning (ERP) operations support system for maintaining process integration', *International Journal Of Production Research*, 43(19), pp. 3959-3982.

- Peng, G. C., & Nunes, M. B. (2009), "Identification and Assessment of Risks Associated with ERP post-implementation in China," *Journal of Enterprise Information Management*, Vol. 22, No. 5, pp. 587-614.
- Pollock & Cornford, (2004) "ERP systems and the university as a "unique" organisation", *Information Technology & People*, Vol. 17 Iss: 1, pp.31 – 52
- Rabaa'i, A. A., Bandara, W., & Gable, G. (2009). ERP systems in the higher education sector: A descriptive study. *Proceedings of the 20th Australasian Conference on Information Systems*, 456-470.
- Sahin, M., & Hamsioglu, D. (2008), 'Enterprise Resource Planning: Comparison Implementation Procedures of Two Companies', *Lex ET Scientia International Journal*, 15(2), p. 215 - 224
- Sammon, D. & Adam, F. (2007) 'Justifying an ERP Investment with the Promise of Realising Business Benefits' *Proceedings of the European Conference on Information Systems*. [Online] Available from: <http://aisel.aisnet.org/ecis2007/94> (Accessed 13 February 2017) pp. 1655 – 1668
- Seymour, L., Makanya, W., & Berrangé, S. (2007). End-users' Acceptance of Enterprise Resource Planning Systems: An Investigation of Antecedents. *Proceedings of the 6th Annual ISOnEworld Conference* (1-22).
- Seymour, L.F., & van Vuuren, I.J. (2014). ERP User Adoption Constraints: A Significant Risk for Emerging Economy SMEs. *Proceedings of the 16th International Conference on Information Integration and Web based Applications & Services* (499-507). ACM.
- Sintayehu Demeke (2014), Success factor for implementation of Enterprise Resource Planning System: A case study in Ethiopian Airlines, Addis Ababa University
- Stefanou, C.J. (2000) 'The Selection Process of Enterprise Resource Planning (ERP) Systems' *AMCIS 2000 Proceedings* pp. 988 - 991
- Stein, A., Hawking, P. & Foster, S. (2003) 'ERP Post-Implementation: A new journey' *Proceedings of 14th Australasian Conference on Information Systems*, 26 – 28 November, Perth, Western Australia

- Tome, L., Allan, K., Meadows, A., & Nyemba-Mudenda, M. (2014). Barriers to Open Source ERP Adoption in South Africa. *The African Journal of Information Systems*, 6, 2, 26- 47.
- Umble, E. J., Haft, R. R., & Umble, M. M. (2003). Enterprise resource planning: Implementation procedures and critical success factors. *European Journal of Operational Research*, 146(2), 241-257.
- Uwizeyemungu, S, & Raymond, L (2010), 'Linking the Effects of ERP to Organizational Performance: Development and Initial Validation of an Evaluation Method', *Information Systems Management*, 27(1), pp. 25-41
- Yusuf, Y., Gunasekaran, A., & Abthorpe, M. S. (2004). Enterprise information systems project implementation: A case study of ERP in rolls-royce. *International Journal of Production Economics*, 87(3), 251-266.

Appendix

ST. MARY'S UNIVERSITY SCHOOL OF GRADUATE STUDIES MBA PROGRAM

Questionnaire to be filled by AUC staff at headquarter.

Researcher: Biniam Tolla

Research topic: The practices and challenges of SAP ERP implementation in AUC.

Dear respondents; - I would like to express my sincere appreciation for your generous time and honest prompt responses.

Objective: This questionnaire is designed to collect information about the existing practices and challenges of SAP ERP (**Enterprise Resource Planning**) system in AUC. The information that you respond shall be used as a primary data in my case research which I am conducting as partial requirements of master's degree at St Mary's university. Therefore, the information gathered will be used fully and with due attention for academic purpose only and I would like to assure you that the data collected will not be misused in any ways.

General Instructions

There is no need of writing your name.

For questions that demand your opinion, please try to describe your answer as per the questions on the space provided.

Contact address: Tel: 0911103733 Email nbintada@gmail.com, biniamt@africa-union.org

I. Personal Information

1. Your Department: _____

2. Sex

Male Female

3. Education Status:

Below Diploma Diploma First Degree
Master's Degree PhD and Above

Other please specify _____

4. Your service year:

≤ 5 6-10 10-15 15-20 21 and Above

	Education and Training	SD	Dis	N	A	SA
12	The training given on the SAP ERP system was adequate and useful to you.	1	2	3	4	5
13	Further enhancement training is required on the SAP ERP system use.	1	2	3	4	5
14	SAP ERP system training was given exhaustively for all users.	1	2	3	4	5
15	The trainers were knowledgeable and helped me in my understanding of the SAP ERP system	1	2	3	4	5
	Suitability of Software	SD	Dis	N	A	SA
16	SAP ERP System makes the working process of AUC fully automated (in the area it's deployed)	1	2	3	4	5
17	There are some functional areas still using both the manual and automated working system	1	2	3	4	5
18	The Organization apply and utilize all the features of SAP ERP system	1	2	3	4	5
19	SAP ERP helps to improve employee "participation in the organization.	1	2	3	4	5
20	Due to the implementation of SAP ERP the service delivery time and effort is improved in the departments	1	2	3	4	5
21	The SAP ERP System are linked to departmental, team and individual goal	1	2	3	4	5
22	SAP ERP System reduce cycle time for decision making	1	2	3	4	5
23	SAP ERP System reduce the financial cycle closing time	1	2	3	4	5
24	SAP ERP System reduce procurement cycle lead time	1	2	3	4	5
	User support	SD	Dis	N	A	SA
25	My Organization has effective IT support to the SAP ERP system	1	2	3	4	5
26	The functional and technical support of integrators are successful in relation to knowledge transfer	1	2	3	4	5

27	I know where to go to when I need any assistance with SAP ERP system	1	2	3	4	5
	User friendly	SD	Dis	N	A	SA
28	Users interface of the system is easily understandable	1	2	3	4	5
29	The reporting formats are easily understandable by users and decision makers	1	2	3	4	5
30	Users can work on the system without any challenge	1	2	3	4	5
	Culture	SD	Dis	N	A	SA
31	The Organization has Clear norms and Value	1	2	3	4	5
32	SAP ERP system Changed the organization work culture	1	2	3	4	5
33	Employees are happy with changes made on SAP ERP system	1	2	3	4	5

If there is any other issues that you observed in relation to the existing Practice and challenges of SAP ERP system, Please write down here;

Thank you!!

Interview Questions

1. What are the Major challenges faced related to SAP Enterprise resource planning system Practice?
2. What measures are taken to overcome the above problems?
3. Top Management support is consistently available to employees in solving problems encountered while implementing SAP ERP?
4. Does the SAP system meet its anticipated objectives?
5. Is enough training provided about SAP ERP implementation and do employee has appropriate awareness about SAP?
6. Any ideas and comments of your experience on the SAP ERP Implementation?