



University of Mohamed El Bachir El Ibrahimi –Bordj Bou Arreridj-

Faculty of Economic and Commercial Sciences and Management Sciences

Department of Finance and Accounting

**Memorandum submitted to fulfill the requirements for the
academic Master's degree**

Field: Economic, Commercial, and Management Sciences

Branch: Finance and Accounting Sciences

Specialization: Advanced Accounting and Taxation

Prepared by the students:

-LEFKIR Chaouki

-BENOUELHA Farouq

Title:

**THE IMPACT OF ENTERPRISE RESSOURCE
PLANNING (ERP) ON THE QUALITY OF
ACCOUNTING PROCESS
(A CASE STUDY OF SPA CONDOR ELECTRONICS)**

Examination Committee Members

Imane MELLALA	Lecturing professor A	President
Yacine LAKIKZA	Lecturing professor A	Supervisor
Amina BENKHAZNAJI	Lecturing professor A	Examiner

The academic year: 2023-2024

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

1438



Dedication

**We dedicate this humble academic work
To our honorable families,
To our gracious teachers and professors,
Who have contributed greatly to us, after Allah
Almighty**

Acknowledgements

Praise be to Allah, always and forever. Without His grace and guidance, we would not have been able to complete this work and say, 'O Allah, all praise is due to You until You are pleased, and all praise is due to You when You are pleased, and all praise is due to You after being pleased.'

After praising and thanking Allah, we extend our deepest gratitude and appreciation to Dr. Yassine Laakikza for his invaluable guidance and advice throughout our academic journey, and for his supervision and scholarly contributions during the preparation of this academic work.

We also express sincere thanks to all our esteemed professors and staff of the Faculty of Economic and Management Sciences at the University of Bordj Bou Arreridj.

Furthermore, we do not forget to extend our heartfelt thanks and appreciation to the honorable members of the examination committee, each by name, for the time and effort they dedicated to reviewing this work in service of scientific research. We pray to Almighty Allah to benefit us from their knowledge. May Allah bless you all and reward you with the best.

Abstract:

This study aimed to examine the effects of Enterprise Resource Planning (ERP) systems on the quality of accounting processes, focusing on SPA Condor Electronics as a case study.

To achieve this, the descriptive analytical approach was employed, utilizing the tool of observation. Through data collected from reviewed documentation, this research sheds light on the extent to which ERP implementation impacts various dimensions of accounting process quality within the entity.

The study yielded several findings, the most significant of which indicate both challenges and benefits associated with ERP adoption in enhancing accounting process efficiency, accuracy, and overall quality. This research contributes to the understanding of ERP's role in shaping accounting process and provides insights for practitioners and researchers alike.

Key words: Enterprise Resources planning (ERP), Accounting Process, SPA Condor Electronics, ERP Implementation, Modules.

List of contents

Title	Page
Dedication	-
Acknowledgements	-
Abstract	I
Table of contents	II
List of tables	III
List of Figures	III
List of Appendices	IV
Introduction	a-c
I. The Theoretical Framework of The Study	04
I.1 Enterprise Ressources Planning (ERP)	6
I.2 The Accounting Process	16
I.3 Previous Studies	25
II. The Practical Study	34
II.1 Field and Study Tools Used	35
II.2 ERP SAP Implementation in SPA Condor Electronics	39
II.3 A Comparison Between ERP SAP Accounting Process and Traditional Accounting Process in SPA Condor Electronics	61
General conclusion	71
References	75
Appendices	78
Table of contents	90

List of Tables

Table number	Table title	Page
01	The comparison between our study and academic thses in arabic	27
02	The comparison between our study and academic articles in arabic	29
03	The comparison between our study and previous studies in foreign languages	31
04	Technical card for SPA Condor Electronics	36
05	Stock movement type code list	41
06	Standard predefined accounting keys	51

List of Figures

Figure Number	Figure Title	Page
01	Evolution of ERP	8
02	Closed Loop MRP	9
03	Enterprise Resource Planning	10
04	Common ERP Modules	13
05	Qualities of Accounting Information	18
06	The Accounting Process	21
07	Company Organizational Chart of SPA Condor Electronics	38
08	Invoice Verification Process	45
09	Organizational Structure of SD Module	46
10	Basic Functions in Customer Order Management	47
11	Customer Order List	47
12	CO-PC Information Flow	49
13	Chart of Accounts Domain	50
14	Financial Position and Income Statement Structure 1	52
15	Financial Position and Income Statement Structure 2	52
16	FI-AP Submodule	53
17	FI-AR Submodule	55
18	Asset Account Determination	56

Memorandum lists

19	Main Procurement Process Flows and its Integration with Financials and Management Control Modules	58
20	Customer Order List	59
21	FI and CO Modules Integration	60
22	SAP CO Modules and Data Flow	60
23	Procurement and Payment Procedure Flowchart Before SAP Implementation	62
24	Procurement and Payment Procedure Flowchart After SAP Implementation	64
25	Recording Sales Invoices and Receipt Procedure Flowchart Before SAP Implementation	66
26	Recording Sales Invoices and Receipt Procedure Flowchart After SAP Implementation	68
27	Accounting Closing Procedure Flowchart Before SAP Implementation	69

Appendices List

Appendice number	Appendice title	Page
01	Technical card	79
02	Organizational Chart	80
03	Accounting Entry Allocation Sheet	81
04	EY ERP SAP Conception Chart (FI Module)	82
05	EY ERP SAP Conception Chart (Co Module)	83
06	EY ERP SAP Conception Chart (SD Module)	84
07	EY ERP SAP Conception Chart (MM Module)	85
08	Recording Sales Invoices and Receipt Procedure	86
09	Procurement and Payment Procedure	87
10	Accounting Closing Procedure	88

Introduction

-Preface

In the dynamic landscape of modern business operations, the quest for efficiency, accuracy, and transparency in accounting processes stands as an enduring challenge. Over the years, Enterprise Resource Planning (ERP) systems have emerged as pivotal tools in revolutionizing the way entities manage their resources, streamline operations, and enhance decision-making. From their humble beginnings as standalone software solutions to their integration into comprehensive enterprise-wide platforms, ERP systems have undergone remarkable evolution, catalyzing significant shifts in accounting paradigms along the way. At the heart of this transformation lies the profound impact that ERP systems have had on the quality of accounting processes.

However, amidst all benefits that ERP systems offer, challenges arise. From implementation hurdles to data security concerns, entities grapple with a host of issues in harnessing the full potential of ERP systems to enhance accounting quality. Thus, urging stakeholders to adopt a strategic approach towards ERP implementation, invest in continuous training and development, and embrace a culture of innovation and adaptability.

In essence, the intricacies of this dynamic relationship charts a course towards excellence in accounting process.

-Problem Statement: In light of the above, the research problem revolves around the following main question:

-How does the implementation of Enterprise Resource Planning systems affect the quality of accounting processes within entities?

To address and analyze this problem and to achieve a clear understanding of it, the following sub-questions were posed:

-What specific aspects of accounting processes are most affected by the implementation of Enterprise Resource Planning (ERP) systems?

-How do ERP systems influence the accuracy, relevance, and completeness of financial data within entities?

-What are the key challenges associated with integrating ERP systems into accounting processes?

-Study Hypotheses: To answer the aforementioned questions and subsequently address the study problem, the following hypotheses were formulated:

- The implementation of Enterprise Resource Planning (ERP) systems significantly impacts the efficiency of data entry and management, and also enhances the integration and coordination of various accounting functions.

Introduction.....

- ERP systems play a pivotal role in improving the accuracy of financial data within entities, while also enhancing its relevance, thereby enabling expedited decision-making and strategic planning

- Challenges arise in effectively utilizing ERP systems for accounting due to limited user expertise and inadequate training, resulting in errors, inefficiencies, and suboptimal performance.

-Study Importance: The importance of this study lies in:

- Understanding the impact of Enterprise Resource Planning (ERP) systems on the quality of accounting processes and what significance it holds in today's business landscape.

- Putting a bridge between technological advancements and traditional accounting process, offering invaluable insights into how ERP implementation influences efficiency, accuracy, and transparency in financial reporting. By uncovering both the benefits and challenges associated with ERP integration.

- Equipping entities with the knowledge needed to optimize their accounting systems, enhance decision-making processes, and meet evolving regulatory requirements.

-Study Objectives: The main objective of this study is to show the extent to which the implementation of ERP systems affect the accounting process, in addition to:

- identifying the key barriers influencing the integration of ERP systems into accounting processes.

- providing actionable recommendations for entities aiming to optimize their accounting process through ERP integration, based on empirical evidence and theoretical frameworks derived from the analysis of ERP's impact on accounting quality.

-Study Methodology: Within the framework of this research and to address the problem of the study topic, the descriptive analytical approach was adopted. This approach is the most commonly used in economics, business, and management sciences. The observation tool was utilized in addressing the practical section by analyzing how the integration of SPA Condor Electronics ERP system was implemented in the accounting process, in addition to a comparison between the flow of accounting information before and after the ERP implementation.

-Study Limitations:

Objective Limitations: This study addresses the subject of the impact resulted from the integration of ERP system on the quality of the accounting process.

Time Limitations: This study was done from January 2024 to May 2024.

Spatial Limitations: The study was conducted at the Accounting and Finance Directorate, and the Information Systems Directorate of SPA Condor Electronics, located in the industrial zone of the province of Bordj Bou Arreridj.

Introduction.....

-Reasons for Choosing the Topic: There are several reasons for choosing this topic, including personal and objective reasons summarized as follows:

- Professional engagement with the business world and companies utilizing Enterprise Resource Planning systems.
- Previous ideas about Enterprise Resource Planning systems through scientific articles and publications.
- Interest in accounting software topics.
- Lack of sufficient awareness and knowledge about Enterprise Resource Planning systems and their role in the field of accounting within the Algerian academic community.

-Study Difficulties:

- ERP implementation is a time-consuming process, and conducting a comprehensive study may be hindered by limited timeframes, especially considering the need for longitudinal data collection to assess long-term impacts.
- Studying the impact of ERP systems on accounting processes requires interdisciplinary knowledge spanning technology, accounting, management, and information systems, which can pose challenges in research design and analysis.
- The absence of possible alternatives for selecting the study sample

-Study Structure: To answer the research problem, this study was divided into two chapters:

- The first chapter includes the theoretical framework of the topic, divided into three sections. The first section covers an overview of ERP systems, its evolution and Implementation steps and requirements, while the second section addresses the accounting process, accounting information systems and the Executive Decree No. 09-110 Determining the requirements and procedures for maintaining accounting using computer systems, and the third section shows the previous studies related to this topic.
- The second chapter delves into the practical study, that was a field visit to the accounting and information systems departments of SPA Condor Electronics, divided into three sections. The first section presents the field and study tools used, and also gives a detailed presentation about the company under study, while the second section shows the ERP SAP Implementation in SPA Condor Electronics, and the third section compares Between ERP SAP Accounting Process and Traditional Accounting Process in SPA Condor Electronics.

Finally, the study concludes with a summary of the results of the three chapters, along with an explanation of hypothesis testing, followed by a series of concluding suggestions, and finally, the formulation of the study prospects.

I. The Theoretical Framework of the Study

Preface:

Entities tend to increasingly adopt ERP systems to streamline their operations, by integrating their different structures into a single database, facilitating the flow of information within the entity, easy access and more importantly providing a system of internal control, so understanding the theoretical framework behind the interaction between ERP and accounting becomes paramount.

This chapter endeavors to elucidate the theoretical concepts and principles, it also aims to provide a nuanced understanding of their functionalities, and implications for accounting processes. By exploring key theoretical perspectives and frameworks, giving insights into how ERP systems reshape the landscape of accounting process within entities, paving the way for informed decision-making and strategic implementation within entities.

Ultimately, this theoretical chapter serves as a springboard for further discussions and analyses regarding the impact of ERP systems on the quality of accounting process. Through rigorous theoretical inquiry, divided into three sections, the first section gives valuable insights about ERP systems, their definitions, history, and steps of implementation, the second section dives into the fundamental concepts of accounting, accounting processes and accounting information systems within entities, and lastly the third section shows the previous studies within the same scope as this study, presented in a comparative way.

I.1 Enterprise Resource Planning (ERP)

I.2 The Accounting Process

I.3 Previous Studies

I.1 Enterprise resource planning (ERP)

In the realm of modern business, ERP systems stand as the bedrock of streamlined operations, integrating processes seamlessly to empower entities with efficiency and agility. And this first section offers a concise overview of ERP systems, its history, Characteristics, and requirements of implementation.

I.1.1 Overview of ERP Systems:

I.1.1.1 Definitions:

1- Enterprise Resource Planning (ERP):

-An enterprise resource planning (ERP) system is a multi-module software system that integrates all business processes and functions of the entire organization into a single system. Each module is intended to collect and process data of a functional area of the organization and to integrate with related processes.¹

-Enterprise Resource Planning (ERP) is:

An enterprise-wide set of management tools that balances demand and supply, containing the ability to link customers and suppliers into a complete supply chain, employing proven business processes for decision-making, and providing high degrees of cross-functional integration among sales, marketing, manufacturing, operations, logistics, purchasing, finance, new product development, and human resources, thereby enabling people to run their business with high levels of customer service and productivity, and simultaneously lower costs and inventories; and providing the foundation for effective e-commerce.²

- An ERP, short for Enterprise Resource Planning, refers to a specific subset of the information system that integrates the following overarching characteristics:

- Effective management of multiple areas of the company through integrated modules or software packages capable of facilitating process collaboration.
- The existence of a single data repository, defined as the collection of data references along with the necessary indications to retrieve the data within a database.
- Rapid adaptation to operational rules (professional, legal, or resulting from internal organization and market-driven rules).
- Unified administration of the application subsystem (applications).
- The availability of development tools or customization for application add-ons.

¹ Leslie Turner, Andrea Weickgenannt, Mary Kay Copeland, Accounting Information Systems Controls and processes, Third Edition, Library of congress Cataloging-in-Publication Data, USA,2017, P183.

² Thomas F. Wallace, Michael H. Kremzar, ERP: Making It Happen -The Implementers' Guide to Success with Enterprise Resource Planning-, John Wiley & Sons, Inc, New york, 2001, P 05.

- Standardization of Human-Machine Interfaces (HMIs), including consistent screen ergonomics, buttons, a common family of menu bars, and identical function and shortcut keys.¹

From the previous definitions we could deduce that an ERP is a collection of sub-systems that reflects the real world applications of processes, business models and the integration of different structures of a company in a virtual manner and in a single database enabling smooth and automatic flow of information avoiding mistakes and errors, ensuring transparency and easy access, and most importantly internal control of each step of business processes.

2- Operational Database: contains the data necessary to conduct day to day operations and produce management reports. The operational database contains the data that is continually updated as transactions are processed.

Each time a new transaction is completed, parts of the operational data must be updated. For example, recording a sale means that sales, inventory, and accounts receivable balances must be updated.²

3- Data Warehouse: is an integrated collection of enterprise wide data that generally may include 5–10 years of nonvolatile data. It is used to support management in decision making, planning, and reporting. The data is enterprise wide because it is pulled from operational databases and maintained in the data warehouse for many fiscal periods. The data in the data warehouse is pulled from sales order processing, inventory systems, receivables, and many other transaction processing systems within the organization. In a data warehouse, data is also pulled from multiple operational databases and integrated into one reporting source. The information in a data warehouse is called nonvolatile because it does not change rapidly in the same way that operational data changes. Periodically, new data is uploaded to the data warehouse from the operational data, but other than this updating process, the data in the data warehouse represent historical data that will not change.³

I.1.1.2 The Evolution of ERP Systems :⁴

1-Material Requirements Planning (MRP):

ERP began life in the 1960s as Material Requirements Planning (MRP), an outgrowth of early efforts in bill of material processing. MRP's inventors were looking for a better

¹ Jean-Louis Lequeux, Manger avec les ERP, Third Edition, Eyrolles édition d'organisation, Paris, 2008, P 31

² Leslie Turner, Andrea Weickgenannt, Mary Kay Copeland, Op.cit, P185.

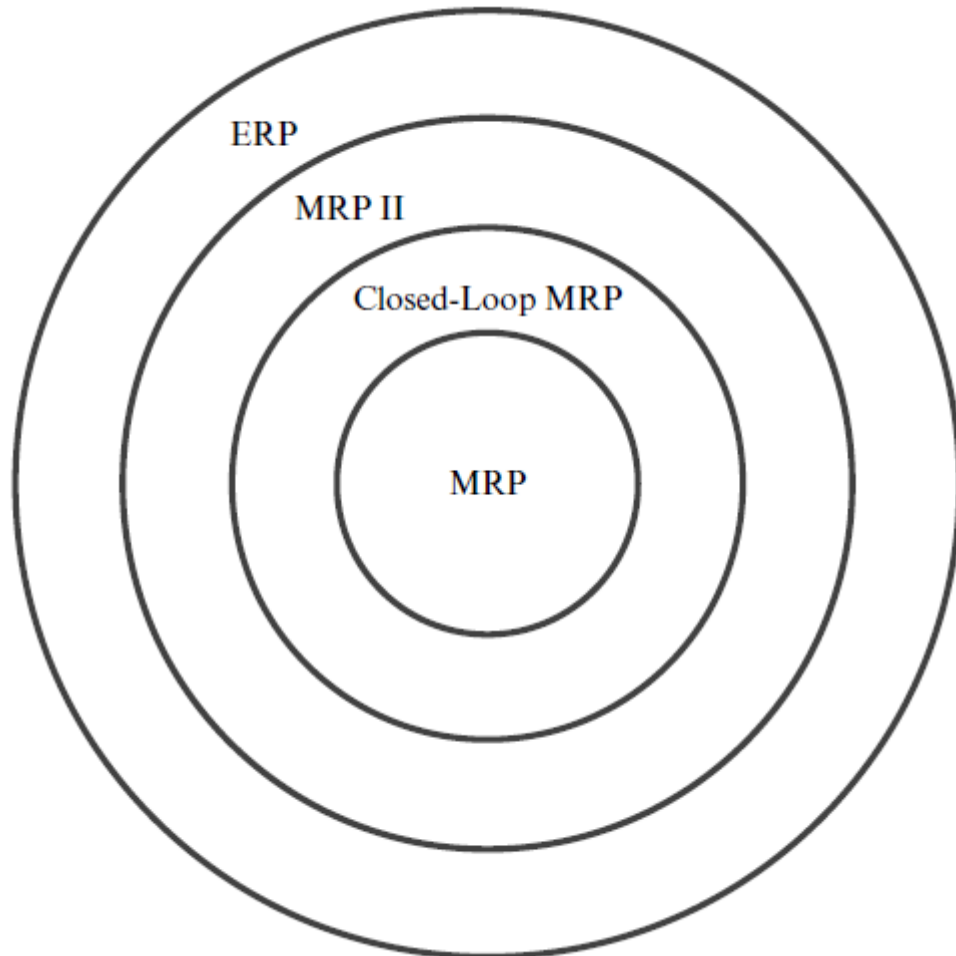
³ Leslie Turner, Andrea Weickgenannt, Mary Kay Copeland, Ibid, P185.

⁴ Thomas F. Wallace, Michael H. Kremzar, Op.cit, P 06-12.

method of ordering material and components, and they found it in this technique. The logic of material requirements planning asks the following questions:

- What are we going to make?
- What does it take to make it?
- What do we have?
- What do we have to get?

Figure N°01: Evolution of ERP



The Source: Thomas F. Wallace, Michael H. Kremzar, Op.cit, P 07.

2- Closed-Loop MRP:

MRP quickly evolved, however, into something more than merely a better way to order. Early users soon found that Material Requirements Planning contained capabilities far greater than merely giving better signals for reordering. They learned this technique could help to keep order due dates valid after the orders had been released to production or to suppliers. MRP could detect when the due date of an order was out of phase with its need date.

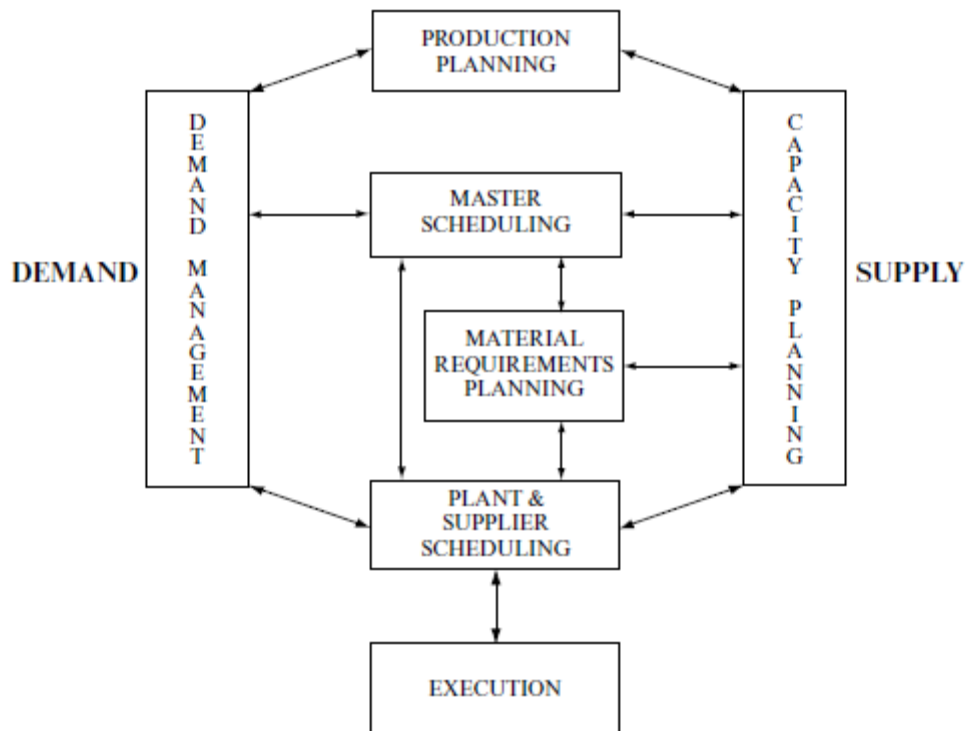
Closed-loop MRP has a number of important characteristics:

-It's a series of functions, not merely material requirements planning.

-It contains tools to address both priority and capacity, and to support both planning and execution.

-It has provisions for feedback from the execution functions back to the planning functions. Plans can then be altered when necessary, thereby keeping priorities valid as conditions change.

Figure N°02: Closed Loop MRP



The Source: Thomas F. Wallace, Michael H. Kremzar, Op.cit, P 09.

3-Manufacturing Resource Planning (MRP II):

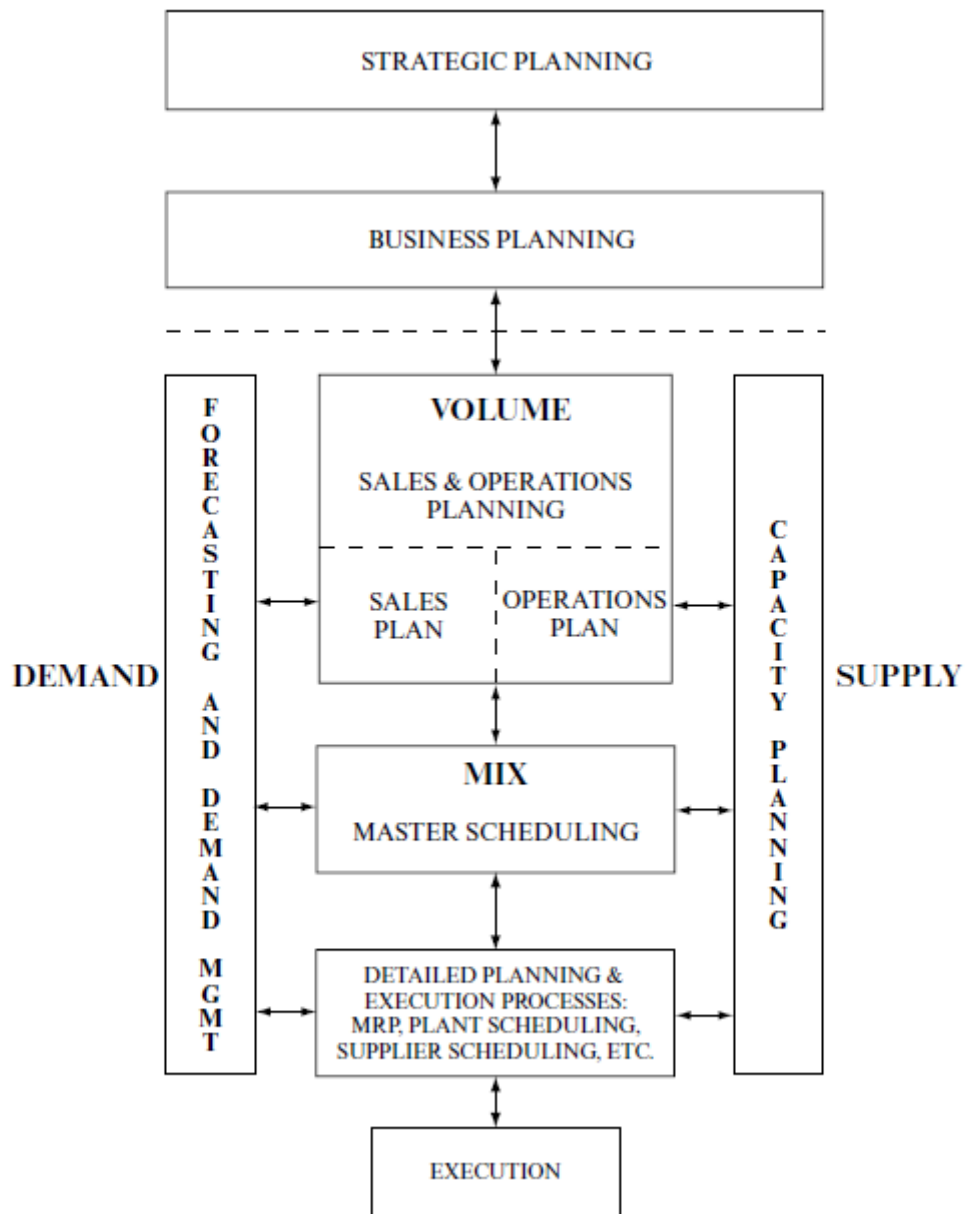
The next step in this evolution is called Manufacturing Resource Planning or MRP II (to distinguish it from Material Requirements Planning, MRP). A direct outgrowth and extension of closed-loop MRP, it involves three additional elements:

1. Sales & Operations Planning: a powerful process to balance demand and supply at the volume level, thereby providing top management with far greater control over operational aspects of the business.
2. Financial interface: the ability to translate the operating plan (in pieces, pounds, gallons, or other units) into financial terms (dollars).
3. Simulation: the ability to ask “what-if” questions and to obtain actionable answers in both units and dollars.

4- Enterprise Resource Planning (ERP):

The latest step in this evolution is Enterprise Resource Planning (ERP). The fundamentals of ERP are the same as with MRP II. However, thanks in large measure to enterprise software, ERP as a set of business processes is broader in scope, and more effective in dealing with multiple business units. Financial integration is even stronger. Supply chain tools, supporting business across company boundaries, are more robust.

Figure N°03: Enterprise Resource Planning



The Source: Thomas F. Wallace, Michael H. Kremzar, Op.cit, P 11.

I.1.1.3 Characteristics of ERP Systems :¹

- Flexibility: An ERP system is designed to be responsive to changing needs within the organization, allowing for future adaptations. This is facilitated by the architecture of ERP systems, which builds technology on top of a unified database foundation.
- Comprehensiveness: ERP systems have the ability to encompass a variety of organizational processes through modular units. These units are modular and standardized, allowing for easy connection or disconnection as needed, thus enabling the addition of other units.
- Single Database: ERP systems are characterized by the use of a single database across the entity, storing data as a part of the entity 's data, rather than scattered across multiple centralized database systems. This promotes information sharing across various functional areas and operations, with capabilities to handle large volumes of data.
- Best Practices and Openness: ERP reflects best practices for process implementation and continuous improvement. Its presence extends beyond the organizational boundaries, enabling connections with entities outside the entity.
- Immediacy: ERP systems feature immediate nature of operations, reflecting reduced processing times and allowing for real-time feedback to management.

In summary of these features, it's noted that ERP facilitates the standardization and integration of information it contains due to its foundation on a single database. Primarily, it addresses the financial and inventory management needs, eliminating the challenges of gathering information when using disparate systems and relieving the pressure on personnel regarding the transition between different activities.

I.1.2 Requirements of a Successful ERP System :²

Many specialists have worked on extracting various components and requirements that support the success of an Enterprise Resource Planning (ERP) system, stemming from an in-depth study of the reasons leading to the total or partial failure of the system. Several components and requirements have been identified, known as critical or crucial success factors for system implementation, including organizational, technological, strategic, and tactical aspects. These requirements, in general and according to the findings of many specialists, consist of:

I.1.2.1 Compatibility with Enterprise Processes: This factor necessitates the organization's attention to the alignment of processes within the ERP system with its

¹ نعيمة بسي، نظام معلومات ERP: أداة لتنسيق مراجعة التسويق والرقابة الإدارية - دراسة حالة لمجموعة حيدارا فارم الجزائرية، رسالة دكتوراه، تخصص علوم الإدارة، جامعة الجزائر 3، 2017-2018، ص 12.

² منى كشاف، متطلبات نجاح نظم تخطيط موارد الشركات (ERP) ، مجلة الأصيل للبحوث الاقتصادية والإدارية، المجلد 02، العدد 3، يونيو 2018، ص 97-99.

organizational structure, and their alignment with all professional practices. It requires managing operations to meet the need for integration across all levels of the organization on one hand and achieving integration between all functions on the other, contributing to the system's success.

I.1.2.2 System Supplier Support: Selecting the appropriate supplier ensures the success of system implementation, especially if system suppliers are responsive to the organization's requirements and inquiries regarding system application and possess both the technical expertise and knowledge of administrative work and its mechanisms. Additionally, system suppliers must closely monitor the implementation stages, particularly the initial stages, as this will enhance the organization's confidence in the system. Their support should not end there, they should allocate and organize training sessions for system users, especially employees working with it.

I.1.2.3 Senior Management Support: Successful ERP system implementations require strong management support, commitment, and continuous involvement. They need to review existing processes and operations, and the implementation committee should be committed to the organization's integration and understanding of the ERP system, assuming continuous support for its requirements by providing leadership and necessary resources. For ERP implementation to be successful, management must monitor progress and provide clear direction for the organization, being prepared to allow for a significant amount of learning that needs to be done at all levels.

I.1.2.4 Communication: Communication is among the essential requirements for completing guidance operations and a means to effect the necessary changes at all stages of ERP system implementation. It enhances formal communication within organizational teams, announces progress made, informs employees in advance about the scope, goals, activities, updates, and changes that will occur.

I.1.2.5 Project Management: Also referred to as implementation management, project management involves orchestrating a set of activities aimed at ensuring that the project is executed as planned. Since executing this type of project involves multiple and diverse groups, it can lead to a high level of uncertainty. Therefore, project management requires a level of knowledge and skills capable of reducing this uncertainty.

I.1.2.6 Business Process Reengineering and Change Management: Business process reengineering is essential for the successful implementation of an ERP system by aligning organizational processes with the software. entities must be prepared to adapt to the new system. Additionally, the organization must be prepared for change management by ensuring individuals are ready for the changes that will occur with system implementation and addressing various issues related to change resistance.

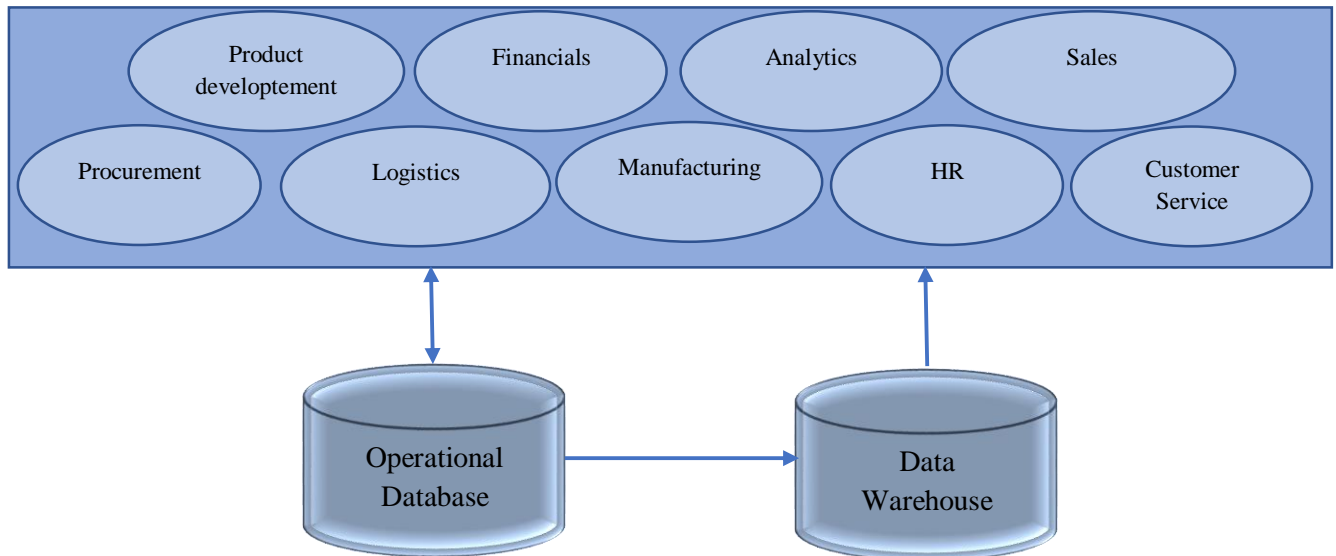
I.1.2.7 Training: The organization should focus on training individuals on the use of the ERP system. This task should be undertaken by specialized individuals with a high level of expertise, considering that the training process will contribute to improving the skills and capabilities of employees in executing tasks related to system implementation. Therefore, adequate training programs should be developed to ensure that individuals can address potential problems in implementing the ERP system.

I.1.3 Implementation of ERP Systems:

I.1.3.1 ERP Modules:¹

ERP modules can work in a separate or combined way to form an integrated system, these are the common modules of ERP systems:

Figure N°04: Common ERP Modules



The Source: Leslie Turner, Andrea Weickgenannt, Mary Kay Copeland, Op.cit, P185.

I.1.3.1.1 Financials Module: The financials module contains what is normally considered the components of an accounting system. This includes the general ledger and financial reporting components.

Some systems also include cash management, banking and fixed assets in the financial modules series.

The difference between a typical accounting software system and the financials module of an ERP system is that the financials module is tightly integrated to the other modules on a real-time basis. This means that as events occur in the entities, and as soon as the transaction is entered at the source by an employee, the data is updated in records that are akin to subsidiary ledgers, special journals, and the general ledger. Management can see the financial effects of those events immediately.

This real-time availability of financial data allows managers to have immediate feedback useful for making operating decisions and managing operating events.

This type of real-time integration did not exist in accounting systems before ERP systems were developed. With the type of real-time feedback available to management

¹ Leslie Turner, Andrea Weickgenannt, Mary Kay Copeland, Op.cit, P190-191.

in an ERP system, management is in a better position to make strategic and operational decisions necessary to make the organization successful.

I.1.3.1.2 Human Resources Module: This module in an ERP system incorporates all human resource and payroll processes and data. This would include all employee information on processes such as performance review, raises, and current wage and deductions.

I.1.3.1.3 Procurement and Logistics Module: Included in this ERP module are all processes and data related to the purchase and movement of materials and finished goods.

I.1.3.1.4 Product Development and Manufacturing Module: The planning, scheduling, and management of production are incorporated into this module.

I.1.3.1.5 Sales and Services Module: All processes involved in taking and filling customer orders are incorporated into this module.

I.1.3.1.6 Analytics Module: Management must examine feedback from the ERP system to assist in the proper management and control of operations and financial conditions. The ERP system is designed to incorporate all enterprise processes into a single database that can be uploaded to a data warehouse.

I.1.3.1.7 Supply Chain Management Module: SCM is the management and control of all materials, funds, and related information in the logistics process, from the acquisition of raw materials to the delivery of finished products to the end user (customer). Processes in the supply chain involve trading processes from a supplier to a business, as well as trading processes between the business and its customers and other intermediaries. Similar to internal processes, the efficiency of trading processes can be improved by the use of ERP systems to initiate, record, store, and report these processes.

ERP systems now include SCM modules. An SCM module represents a module that can assist an organization in supply chain management.

I.1.3.2 ERP Systems Implementation Plan:¹

There are many issues to consider when a company decides to integrate an ERP system into its operational system, these issues include the following:

I.1.3.2.1 Choosing the best-fit ERP system: An organization must choose the ERP system that best suits its needs. Those concepts apply also in selecting an ERP system; however, there are additional factors unique to ERP systems that must be considered. One such factor is the system's area of specialization. While ERP systems encompass all business processes, each vendor's software has special areas of strengths. For example, SAP's ERP system evolved from manufacturing resources planning (MRP II) software and therefore has been considered particularly strong in its manufacturing related modules. Thus, a manufacturing firm might prefer SAP.

I.1.3.2.2 Determining which modules to implement: ERP systems have modules available for all typical processes and functions of an organization. However, each

¹ Leslie Turner, Andrea Weickgenannt, Mary Kay Copeland, Op.cit, P195-198.

additional module that an organization chooses to purchase and implement adds cost, implementation time, and implementation difficulties.

For some processes, a company may choose to keep a legacy system rather than purchase an ERP module. For example, a company may have an existing legacy system that records and reports fixed asset processes. Rather than purchase a fixed asset module of an ERP system, the organization may choose to continue using the legacy system.

I.1.3.2.3 Calculation of costs: The cost of an ERP software system varies depending on the size of the organization, the number of modules to implement, and whether any best of breed modules are to be purchased. As discussed earlier, a minimum cost of tier one ERP systems is approximately \$1 million, and in the largest corporations, the total cost can be as much as \$100–200 million.

I.1.3.2.4 Customization of the ERP system: As often as possible, entities should attempt to undertake BPR to match their processes to the ERP system. However, there are cases in which it may be necessary to customize the ERP system rather than change the business processes. Most consultants and experts would recommend that the number of customizations be limited to the least amount necessary. The two primary reasons for limiting customization is cost and upgrading of the system. Any customization may require changing or writing new programming code, which can be a very expensive and time consuming task. The cost of customization can easily exceed the cost of packaged ERP software.

Second, customizations cannot be automatically incorporated when the ERP vendor provides an upgraded version of the ERP system. Therefore, upgrading to the next version may require rewriting the customization to work with the new version of the software.

I.1.3.2.5 Testing the ERP system: It can involve integrating ERP modules, legacy systems, and best of breed modules. The primary measure of success for ERP implementation is ERP integration. Because an ERP implementation may involve integration of legacy systems and various modules from different vendors, it is imperative that these systems undergo extensive testing prior to implementation.

I.1.3.2.6 Employee training: Since ERP system implementation usually requires BPR, many processes that employees are involved with will change. Thus, training is necessary because workers will often have to learn a new set of processes. As is true of data conversion, it is expensive and time consuming to train employees. However, this is a step that entities should not take lightly. Poorly trained employees may prevent the organization from fully realizing the benefits of the ERP system and can cause errors and problems in the processes. Such errors can disrupt business processes and introduce incorrect data into the system.

I.1.3.2.7 Method of conversion: Near the end of the implementation process, the organization must “go live” with the new ERP system. That is, after data conversion, training, software installation, and related tasks, a shift to the new ERP system must take place. There are several methods of making this switchover. The usual approaches are big bang, location wise, and modular implementation.

I.1.3.3 Challenges of ERP Systems implementation:

Trying to integrate an ERP system into a company's process will certainly trigger a number of obstacles and challenges as follows:

-Lack of proper testing during implementation, and exclusion of additional test cycles after the implementation.¹

-It requires top management leadership and participation and the involvement of every department throughout the company, and there maybe mismatch created because most of the times managers do not understand the integration between their core business, IT processes, and firm's positioning, they may not know about the role that IT can play to their entities.²

- an ERP could be viewed as a limitation on the discretion of managers in changing managerial controls in the future, since it is difficult to forecast the long-term implications of ERP during its initial phase of implementation.³

- The ever-changing business environment forces medium and large companies to adapt, but they can only do it by defining new workflows and procedures and restructuring existing ones. The larger the company, the more people, assets, and partners will be involved in any change dictated by the market, which makes the process of change very expensive and resource-consuming which only exacerbates the basic logistical complexity of defining, testing, and implementing new business processes across multiple business units.⁴

- The enterprise resource planning system requires continuous care, support, and nurturing to ensure its continuity and peak performance. Maintaining compatibility with a wide range of constantly evolving software applications necessitates keeping pace with ongoing developments and changes in technology. However, failure to adapt to these changes can lead to decreased effectiveness and the inability to achieve desired outcomes. Considering the investment cost in implementing the initial programs for this system, the expenses of technology integration should not exceed the allocated financial budget.⁵

¹ Sreekumar A. Menon, Marc Muchnick, Clifford Butler & Tony Pizur, Critical Challenges in Enterprise Resource Planning (ERP) Implementation, International Journal of Business and Management, Vol. 14, Issue No. 7, June 2019, P 61.

² Khaled Al-Fawaz, Tillal Eldabi, Aisha Naseer, Challenges and Influential Factors in ERP Adoption and Implementation, European, Mediterranean and Middle Eastern Conference on Information Systems 2010, Abu Dhabi, April 12-13 2010, P 03.

³ Carlo Caserio, Sara Trucco, Enterprise Resource Planning and Business Intelligence Systems for Information Quality an Empirical Analysis in the Italian Setting, Springer International Publishing, Switzerland, P 31.

⁴ Mudit M. Saxena, ERP Implementation in Industries and Its Challenges, International Journal of Engineering Research & Technology (IJERT), Vol. 4, Issue No. 10, 2016, P 02.

⁵ بوزولواغ رضوان، دور نظام تخطيط موارد الشركات في تحقيق الوعي الاستراتيجي للمؤسسة - دراسة ميدانية لعينة من المؤسسات الاقتصادية، رسالة دكتوراه، تخصص علوم الإدارة، مركز الجامعة عبد الحفيظ بوعنوان، ميله، 2021-2022، ص 45.

I.2 The Accounting Process

In today's dynamic business environment, shareholders rely on financial reports to assess the performance, stability, and prospects of companies. From investors and creditors to regulators and managers, the demand for transparent and trustworthy financial information is paramount. Hence, understanding the nuances of accounting quality is essential for anyone navigating the complexities of modern commerce.

I.2.1 Quality of Accounting Information and process:

I.2.1.1 Qualities of Useful Information:

Accounting quality is considered a metric against which accounting information should be assessed, the primary objective of financial reporting is to provide financial information that is useful to investors and creditors for making decisions about providing capital. Useful information should possess two fundamental qualities, relevance and faithful representation

-Relevance: Accounting information has relevance if it would make a difference in a business decision. Information is considered relevant if it provides information that has predictive value, that is, helps provide accurate expectations about the future, and has confirmatory value, that is, confirms or corrects prior expectations. Materiality is a company-specific aspect of relevance. An item is material when its size makes it likely to influence the decision of an investor or creditor.¹

-Faithful Representation: means that information accurately depicts what really happened. To provide a faithful representation, information must be complete (nothing important has been omitted), neutral (is not biased toward one position or another), and free from error.²

In addition to the two fundamental qualities, there are a number of enhancing qualities of useful information. These include:

-Comparability: means the quality of the information is such that users can identify differences and similarities among companies they are evaluating or among different financial periods for the same company.³

-Understandability: if it is presented in a clear and concise fashion, so that reasonably informed users of that information can interpret it and comprehend its meaning.⁴

¹ Jerry J.Weygand, , Paul D.Kimmel, Donald E.Kieso, Accounting Principles, 12th edition, Wiley Publishing, Inc., Indiana, 2015, P 119.

² Jerry J.Weygand, , Paul D.Kimmel, Donald E.Kieso, Ibid, P 119.

³ Maire Loughan, Financial Accounting for Dummies, Wiley Publishing, Inc., Indiana, 2011, P 16.

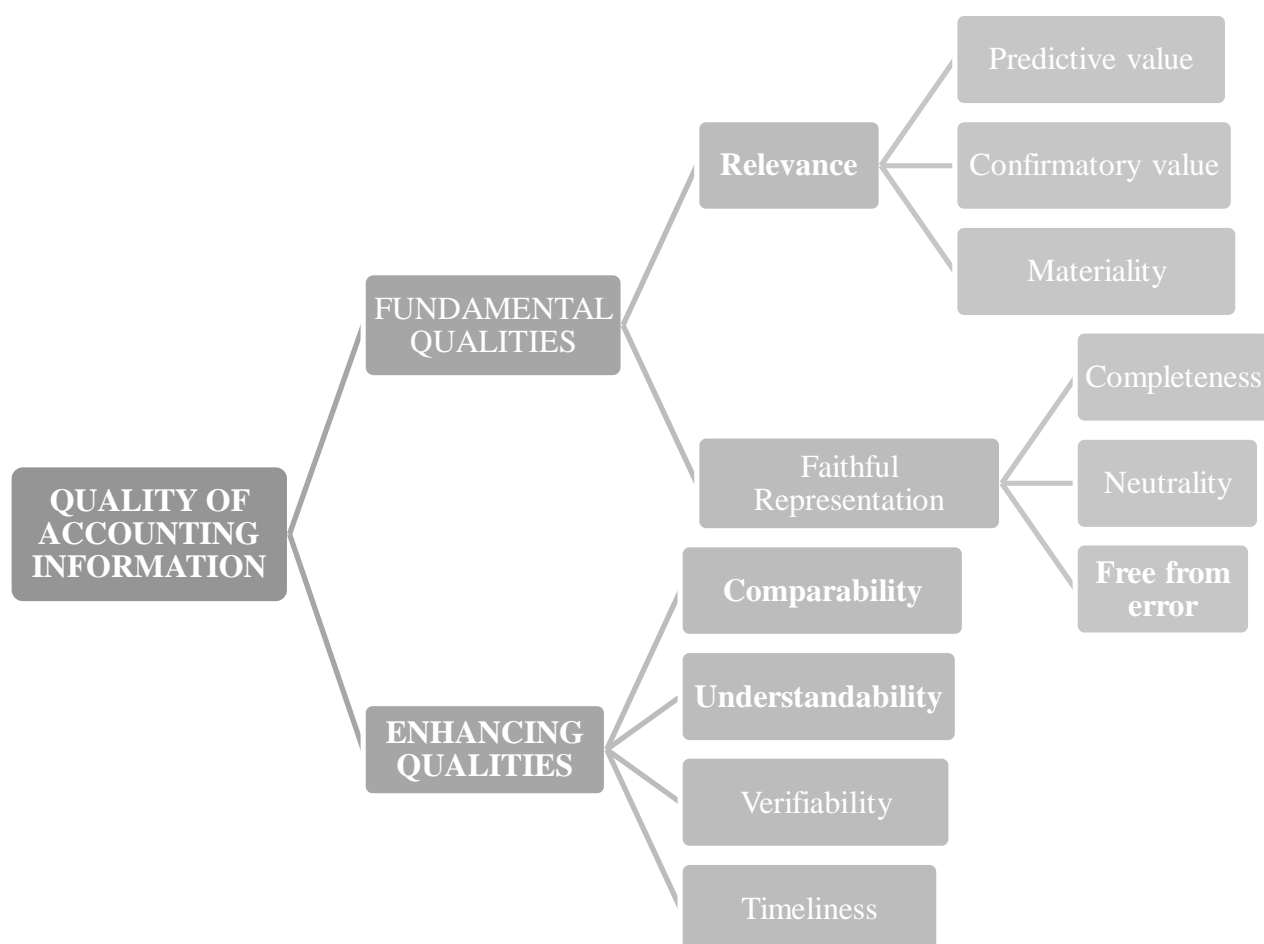
⁴ Jerry J.Weygand, , Paul D.Kimmel, Donald E.Kieso, Op.cit, P 119.

-Verifiability: Verifiability occurs when independent measurers, using the same methods, obtain similar results.¹

-Timeliness: means having information available to decision-makers before it loses its capacity to influence decisions. Having relevant information available sooner can enhance its capacity to influence decisions. A lack of timeliness, on the other hand, can rob information of its usefulness.²

The figure below represents a recapitulation of all the qualities cited previously

Figure N°05: Qualities of Accounting Information



The source: Prepared by the students based the IASB conceptual framework.

I.2.1.2 The Accounting Process:

Accounting is often regarded as the language of business, providing a systematic way to record, analyze, and communicate financial information. At the heart of accounting lies the accounting process, a series of interconnected steps that culminate in the

¹ Jerry J.Weygand, , Terry D. Warfield, Donald E.Kieso, Intermediate Accounting, 15th edition, Wiley Publishing, Inc., Indiana, 2013, P 51.

² Jerry J.Weygand, , Terry D. Warfield, Donald E.Kieso, Ibid, P 51-52.

Chapter One:.....The Theoretical Framework of the Study

preparation of financial statements. And as follows the most common steps to the accounting process:

-Recording of Transaction: Recording transactions in the accounting system requires knowledge of the important characteristics of the elements of financial statements, such as assets and liabilities. In addition, accountants must understand the inherent uncertainty in accounting measures and distinctions between related accounting concepts that are important in evaluating the effects of transactions on the financial statements.¹

-Journal: the transactions are recorded in journal chronologically; the journal is referred to as the book of original entry. For each transaction, the journal shows the debit and credit effects on specific accounts. Companies may use various kinds of journals, but every company has the most basic form of journal, a general journal. Typically, a general journal has spaces for dates, account titles and explanations, references, and two amount columns. The journal makes several significant contributions to the recording process, It discloses in one place the complete effects of a transaction, It provides a chronological record of transactions, It helps to prevent or locate errors because the debit and credit amounts for each entry can be easily compared.²

-Ledger: ledger is the second accounting record book that is a list of a company's individual accounts list in order of account category. While the journal lists all types of transactions chronologically, the ledgers separate this same information out by account and keep a running balance of each of these accounts. Each account has its own ledger page. The account name appears across the top. The ledger form has six columns: Date, Item, Debit, Credit, Debit, Credit. The first set of Debit and Credit columns are where amounts from the journal transactions are copied. The second set of Debit and Credit columns are where the account's running total is maintained. An account's running balance typically appears in either the Debit or the Credit column, not both.³

-Trial Balance: A trial balance is a list of accounts and their balances at a given time. Customarily, companies prepare a trial balance at the end of an accounting period. They list accounts in the order in which they appear in the ledger. Debit balances appear in the left column and credit balances in the right column. The trial balance proves the mathematical equality of debits and credits after posting. Under the double-entry system, this equality occurs when the sum of the debit account balances equals the sum of the credit account balances. A trial balance may also uncover errors in journalizing and posting.⁴

¹ Jerry J.Weygand, , Terry D. Warfield, Donald E.Kieso, Op.cit, P 153.

² Jerry J.Weygand, , Paul D.Kimmel, Donald E.Kieso, Op.cit, P 55.

³ Christine Jonick, Principles of Financial Accounting, University of North Georgia Press, Georgia, 2017, P 06.

⁴ Jerry J.Weygand, , Paul D.Kimmel, Donald E.Kieso, Op.cit, P 68.

-Adjustment Entries: Adjusting entries are special entries made just before financial statements are prepared at the end of the month and/or year. They bring the balances of certain accounts up to date if they are not already current to properly match revenues and expenses. So far we have dealt with companies that did not need adjusting entries under the cash basis of accounting. Now we will see situations where they are necessary and will be using the accrual basis of accounting.

Many ledger account balances are already correct at the end of the accounting period; however, some account balances may have changed during the period and have not yet been updated. This is what adjusting entries will provide, and this will ensure that the financial statement numbers are current and correct. Adjusting entries are typically necessary for transactions that extend over more than one accounting period that include the part of the transaction that belongs in one accounting period and exclude the part that belongs in a previous or future accounting period. This relates to the matching process.¹

-Adjusted Trial Balance: After journalizing and posting all adjusting entries, the company prepare another trial balance from its ledger accounts, this trial balance is called an adjusted trial balance. The purpose of an adjusted trial balance is to prove the equality of the total debit balances and the total credit balances in the ledger after all adjustments. Because the accounts contain all data needed for financial statements, the adjusted trial balance is the primary basis for the preparation of financial statements.²

-Closing Entries: At the end of the accounting period, the company transfers temporary account balances to the permanent owner's equity account, Owner's Capital, by means of closing entries. Closing entries formally recognize in the ledger the transfer of net income (or net loss) and owner's drawings to owner's capital. The owner's equity statement shows the results of these entries. Closing entries also produce a zero balance in each temporary account. The temporary accounts are then ready to accumulate data in the next accounting period separate from the data of prior periods. Permanent accounts are not closed.

Journalizing and posting closing entries is a required step in the accounting cycle. The company performs this step after it has prepared financial statements. In contrast to the steps in the cycle, companies generally journalize and post-closing entries only at the end of the annual accounting period. Thus, all temporary accounts will contain data for the entire year.³

Preparing Financial Statements:

The goal of journalizing, posting to the ledgers, and preparing the trial balance is to gather the information necessary to produce the financial statements. The time period concept requires companies produce the financial statements on a regular basis over

¹ Christine Jonick, Principles of Financial Accounting, Op.cit, P 46.

² Jerry J.Weygand, , Terry D. Warfield, Donald E.Kieso, Op.cit, P 108.

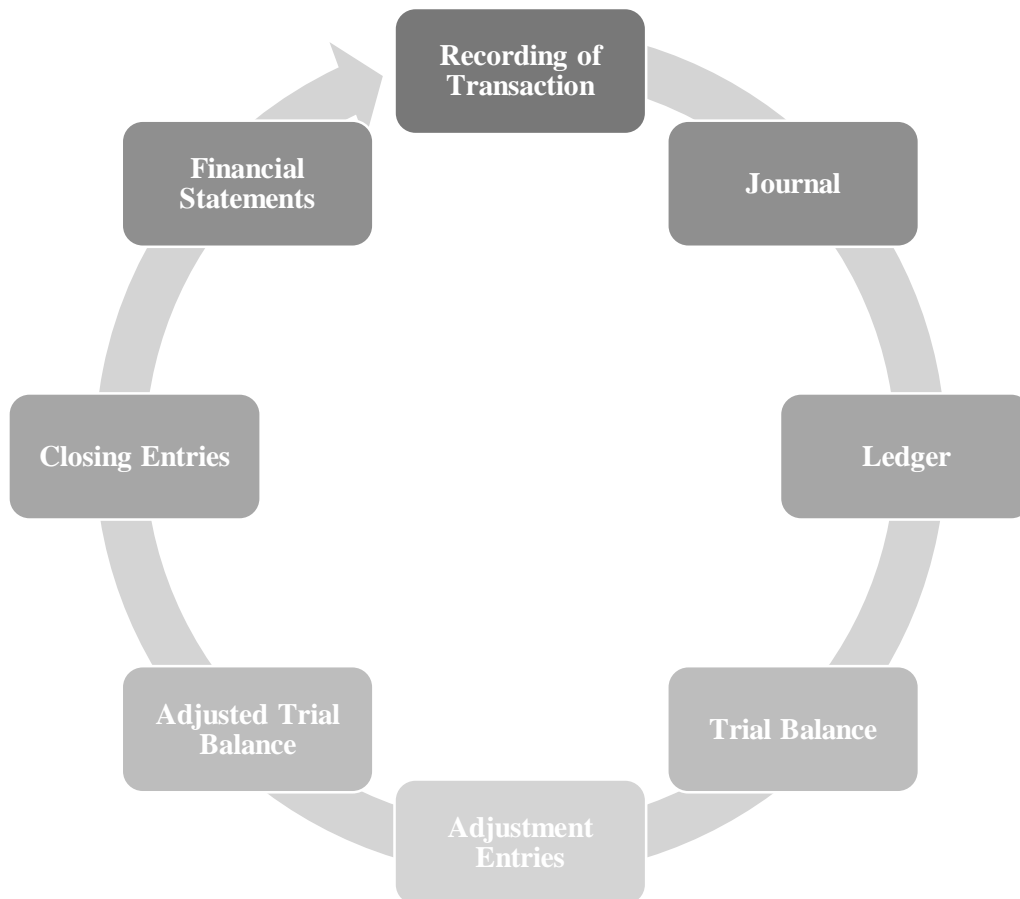
³ Jerry J.Weygand, , Paul D.Kimmel, Donald E.Kieso, Op.cit, P 159.

Chapter One:.....The Theoretical Framework of the Study

the same time interval, such as a month or year. Most of the amounts on these statements are copied directly from the trial balance, and then appropriate calculations and summary amounts are also displayed.¹

The following figure shows the fore mentioned Steps that generally make up the accounting process:

Figure N°06: The Accounting Process



Source: Prepared by students based on Accounting Process elements.

I.2.2 The Accounting Information Systems:

I.2.2.1 Definitions:

An accounting information system is a collection of data and processing procedures that creates needed information for its users.²

¹ Christine Jonick, Principles of Financial Accounting, Op.cit, P 13.

² Mark G. Simkin, Jacob M. Rose, Carolyn Strand Norman, Core Concepts of Accounting Information Systems, 12th edition, John Wiley & Sons, Inc., United States of America, 2012, P5.

The accounting information system is one of the most important systems in any company. Its objective is to provide the needed information to managers at various levels. This information helps them to effectively and efficiently carry out their responsibilities in planning, resource monitoring, performance assessment and decision-making.¹

I.2.2.2 Accounting information systems' objectives²:

Accounting information system aims at achieving a general objective represented by providing the accounting information that benefits its users. Achieving this general objective leads to achieving several sub-objectives at the same time, the most important among which are:

1. Measuring all economic events that take place within the institution through the processes of data collecting and storage, recording, labeling and summarizing in the accounting registers.
2. Delivering the accounting information through a set of documents and reports to all those who can benefit from it, among which is the institution administration which uses this information in performance evaluation and making appropriate decisions.
3. Achieving internal control over all material elements that exist in the institution.

I.2.2.3 Accounting System Elements:³

Any system can be considered to consist of the following elements:

-Inputs: These represent the starting point of the system's operation and consist of basic (initial) requirements necessary for the system to function. Inputs may take the form of raw numbers or graphical representations expressing a certain state or states, or they may be descriptive (such as administrative orders, for example). Inputs of a particular system can also serve as outputs for another system or several other systems when used as new inputs in operation through feedback or through interrelation, integration, and coordination between those systems.

In the accounting system, inputs represent the set of data obtained from objective evidence supporting financial events (transactions) and the estimated data prepared through other system elements. This includes quantitative, economic, behavioral, legal, regulatory, and instructional data governing the operation of the accounting system in each economic unit.

-Operational Processes: These are the set of processes carried out by devices or forces that transform inputs into outputs by directing the pathways of interaction of these inputs and adjusting them using human, material, and other specific procedures. In the accounting system, operational processes involve processes of aggregation, tabulation,

¹ Firas A. N. Al-Dalabih, The Impact of the Use of Accounting Information Systems on the Quality of Financial Data, International Business Research, Vol. 11, Issue No. 5, 2018, P146.

² Firas A. N. Al-Dalabih, Ibid, P147.

³ زياد هاشم السقا، نظام معلومات المحاسبة، الطبعة الثانية، دار الطريق للنشر والتوزيع، العراق، 2011، ص 18-20.

and summarization carried out on inputs (data) in books and accounting records according to accounting principles, concepts, and rules, in addition to using various methods to analyze the relationship between cost, volume, and profits, operational research, statistical maps for cost control, and others.

-Outputs: These are the results of the operational processes carried out on the inputs according to the objectives set for the system. In the accounting system, outputs include a set of reports, financial statements, and various information resulting from the operational interactions of inputs within the framework of environmental and self-variables of the entities that can use and benefit from them.

-Feedback (Control): This is the process of obtaining the necessary data and information to evaluate the previous elements of the system (inputs, operational processes, outputs) and ensure their accuracy and capability to achieve their objectives.

In the accounting system, feedback is achieved through the process of controlling the previous elements with the aim of evaluating them and directing them correctly, ultimately achieving the objectives that the accounting system aims to achieve in service of the economic unit as a whole.

I.2.3 Executive Decree No. 09-110 Determining the requirements and procedures for maintaining accounting using computer systems:

I.2.3.1 The Objectives of the Decree:

The purpose of this decree is to define the conditions and procedures for maintaining financial accounting using computer systems; The provisions of this decree are applicable to all entities falling within the scope of application of Law No. 07-11 of 25th of November, 2007, since its accounts are kept using computer systems and when these systems participate directly or indirectly in the justification of an accounting entry¹.

A computer system within the meaning of this decree is a combination of hardware resources and computer programs which allows²:

- the acquisition of information, according to a conventional or regulatory form;
- the processing of this information;
- the restitution of data or results, in different forms.

¹ Executive Decree 09-110, Determination the requirements and procedures for maintaining accounting using computer systems, dated 04/07/2009, The Official Journal of the Algerian Republic dated 04/08/2009, Issue N°21, P 04.

² Executive Decree 09-110, Ibid, P 04.

I.2.3.2 The conditions for maintaining financial accounting using computer systems¹

The text discusses the essential conditions for maintaining financial accounting using computer systems. It emphasizes adherence to existing obligations, accounting principles, and regulatory provisions. Accounting records generated by computer systems must detail the origin, content, and allocation of each data item alongside references to supporting documents. These computer-generated editions must be promptly identified, numbered, and dated to ensure their verifiability.

Additionally, the text underscores the irreversibility of entries in computer accounts, mirroring the validation procedures applied to manual accounts, which prohibit any unauthorized modifications or deletions. Entities utilizing accounting software are required to establish comprehensive documentation describing accounting procedures and organizational structures, facilitating system comprehension and oversight.

Moreover, entities must secure commitments from software publishers regarding software compliance with regulatory requirements and the provision of technical documentation upon request. Backup procedures are mandated to mitigate data loss or corruption risks, including mechanisms to ensure data reliability and automatic daily and partial backup procedures.

Furthermore, computerized accounting systems must comply with prevailing tax procedures, enabling tax authorities to scrutinize information, data, and processing contributing to accounting or tax outcomes. Lastly, computerized accounting systems must facilitate the reconstruction of financial data from supporting documents, ensuring transparency and traceability in financial reporting processes.

I.2.3.3 Procedures for maintaining accounting using computer systems²

-Documentation: Accounting software must include detailed documentation describing its configuration, specifications, and behavior, with one-to-one compliance between the software and its documentation.

-Statement Generation: The software must automatically generate all required financial statements based on entered data, ensuring strict compliance with legal or regulatory provisions.

-Fundamental Balances: The software must ensure compliance with fundamental double-entry accounting balances through both a priori and a posteriori checks, with regular production of centralizing journals grouping transaction totals.

-Entry Validation and Closure: After entry validation for any accounting period, the software must prevent any modification or deletion of operations, with limited functions post-closure allowing only consultation or edition of accounting statements.

¹ Executive Decree 09-110, Ibid, P 04-06.

² Executive Decree 09-110, Ibid, P 04-06.

Chapter One:.....The Theoretical Framework of the Study

Intangibility of Balance Sheet: The software must include a procedure for automatic reopening of asset and liability accounts consistent with the previous financial year's balance sheet.

-Data Export and Identification: The software must allow easy export of accounting entries to third parties and ensure financial statements contain entity identification information, publication date, and operation details.

User Authentication and Access Control: Each user must undergo identification and authentication procedures, with access control mechanisms restricting software functions to authorized personnel.

-Logging and Archiving: All software operations must be logged in an electronic event log, and the software must include archiving procedures for transferring and restoring accounting entries and data.

-Backup and Restoration: The software must have backup and restoration procedures ensuring full system restoration from removable media.

-Reliability Verification: The software must include mechanisms to verify its reliability, such as update tracking and automatic editing of parameter values.

These requirements aim to ensure the integrity, accuracy, and security of accounting data and processes conducted through accounting software.

I.3 Previous Studies

After addressing the most important theoretical aspects related to the topic at hand, This section delved into some studies that addressed the subject of the memorandum or were related to it, in addition to attempting a comparison between these studies and the study we conducted in terms of similarities and differences, and how to benefit from them.

I.3.1 Academic Theses in Arabic

I.3.1.1 Study: Muhammad Akram BALLOULA entitled:

"دور نظم تخطيط مورد المؤسسة ERP في تحسين جودة المعلومة المحاسبية -دراسة حالة مؤسسة نقاوس للمصبرات باتنة"

" The Role of Enterprise Resource Planning (ERP) Systems in Improving the Quality of Accounting Information - Case study of the company N'GAOUS Conserves Batna ", Doctoral Theses, in commercial sciences, specializing in accounting, Mohamed Khedr University – Biskra, academic year 2020/2021.

- The aim of this study was to explore the role of the ERP system in improving the quality of accounting information in the company N'GAOUS conserves.

- This study has concluded several important results, including:

- The implementation of the ERP system has a role in improving the quality of accounting information in the company N'GAOUS conserves.

- The role of information system integration and automation in the ERP environment in improving the dimensions of accounting information quality, while changes in

business processes within the ERP environment negatively impacted the quality and accessibility of accounting information presentation.

I.3.1.2 Study: MEFTAHI Muhammad entitled:

"تكنولوجيا المعلومات ودورها في تفعيل نظام المعلومات المحاسبية بالمؤسسة - دراسة حالة شركة المياه والتطهير للجزائر" - SEAAL

"Information technology and its role in activating the organization's accounting information system - A case study of the Algerian water and purification company - SEAAL ", Master Thesis, in commercial sciences, specializing in accounting and auditing, Algiers 3 University, academic year 2011/2012.

- The aim of this study was to identify the most important modern information technologies that we can find in the organization, and to explain Its impact on the organization's information system in general and the accounting information system in particular, with a focus on The most advanced software in the modern organization, which is enterprise resource planning software, explains how Activating the organization's accounting information system.

- This study has concluded several important results, including:

- Introducing the most widely used technical solutions in modern institutions, namely used the enterprise resource planning which is software that allows the integration of information about the various functions of the organization.

- The organization's accounting information system is activated, relying on two basic sub-parts: the accounting part (general and third party) and the analytical accounting and management control part.

I.3.1.3 Study: GHOUREB Radhia, CHELOUI Saliha entitled:

"فعالية التدقيق المحاسبي في ظل استخدام نظام ERP- دراسة آراء عينة من المهنيين في المؤسسات الاقتصادية الجزائرية"

"The effectiveness of accounting auditing in light of the use of the ERP system- Studying the opinions of a sample of professionals in Algerian economic institutions ", Master's Memorandum, in Financial and accounting sciences, specializing in accounting, Mohamed Khedr University – Biskra, academic year 2019/2020.

The aim of this study was to identify how the requirements of the ERP system in Algerian institutions can be applied and to demonstrate the effectiveness of accounting auditing under the use of ERP, by the impact of the dimensions of the effectiveness of these systems (information quality).

- This study has concluded several important results, including:

- The ability of organizations and various specialists to use and implement the requirements of Enterprise Resource Planning (ERP) through the existence of a statistically significant relationship between the effectiveness of ERP systems according to the combined dimensions (information quality, system quality, service quality) and the effectiveness of accounting auditing.

- the need for Algerian institutions to adopt and use systems, and to provide appropriate and integrated software that helps in the effectiveness of accounting auditing.

In terms of similarities and differences between the aforementioned previous studies and our memorandum, they are outlined in the following table. This table also illustrates what we have gained from these studies.

Table N° 01: The comparison between our study and academic theses in arabic.

The previous study	Similarities	Differences	Utility
Muhammad Akram BALLOULA, 2021	Impact of ERP Systems on accounting information systems	Emphasizing the Role of ERP System in Enhancing the Quality of Accounting Information through Statistical Analysis; whereas the impact in our study is on the process itself.	The Role of ERP System Integration in Improving the Quality of Accounting Information
MEFTAHI Muhammad, 2012	The Impact of ERP system on the Accounting Information System through Descriptive Methodology	Activate of ERP system for the accounting information system within the enterprise; whereas the impact in our study is on the process itself.	The requirements of ERP system integration in Algerian institutions
GHOUREB Radia, CHELOUI Saliha, 2020	The impact of using an ERP system on the effectiveness of accounting auditing, utilizing a descriptive methodology in the study	The Effectiveness of Accounting Auditing in the Context of Using an ERP System; whereas the impact in our study is on the process itself.	The extent of achieving the feasibility of implementing an (ERP) system in Algerian institutions

The source: Prepared by the students.

I.3.2 Academic Articles in Arabic

I.3.2.1 Study: AHMED KAYED Nour Eddine, HALAYLI Islam entitled:

"مساهمة نظام تخطيط موارد المؤسسة (ERP) في تفعيل نظم المعلومات المحاسبية في المؤسسة الاقتصادية"

The contribution of the enterprise resource planning (ERP) system to activating accounting information systems in the economic institution, the Journal of Financial Economics and Banking and Business Administration, Volume 5, Issue 2, 2020.

The aim of this study was to Identifying the contribution of the Enterprise Resource Planning (ERP) system in activating the accounting information system in the economic institution.

This study has concluded several important results, including:

-The ERP system is one of the most important information technology tools aimed at activating the accounting information system.

-The ERP system ensures that the accounting information system has integrated data in the appropriate quantity and at the right time..

I.3.2.2 Study: Hasna MECHRI, Zeinab TAMRABAT, Rayan BENABBAS entitled:

"دور نظام تخطيط الموارد (ERP) في تحسين جودة المعلومة المحاسبية - دراسة حالة بعض المؤسسات الاقتصادية بولاية سطيف"

"The role of the resource planning system (ERP) in improving the quality of accounting information - A case study of some economic companies in Setif", the Journal of EL-AFAQ for economic studies, Volume 1, Issue 7, 2022.

The aim of this study was to clarify the impact of the application of the resource planning system (ERP) in activating the quality of accounting information in the economic companies in Setif.

This study has concluded several important results, including:

- The resource planning (ERP) system contributes to improving the quality of accounting information.

- The credibility of accounting information increases as a result of the effectiveness of the application of the resource planning system (ERP).

I.3.2.3 Study: Khadejah Khaleel Salman, Tareq Oudeh Bani-Khalid, entitled:

"مستوى تبني نظام تخطيط موارد المؤسسة (ERP) وأثره في تحقيق جودة نظام المعلومات المحاسبية (AIS) في القطاع الصناعي الأردني: تصورات أصحاب المصالح الداخلية"

" The Adoption Level of Enterprise Resource Planning System (ERP) And its Effect in Achieving the Quality of Accounting Information System (AIS) In the Jordanian Industrial Sector: The Perception of Internal Stakeholders", Arab Journal of Administration, Volume 40, Issue 2, 2020.

Chapter One:.....The Theoretical Framework of the Study

The aim of this study was to identify the views of stakeholders on the level of adoption of the Enterprise Resource Planning (ERP) system and its impact on the Quality of Accounting Information System (QAIS) in Jordanian industrial companies.

This study has concluded several important results, including:

- There is a statistically significant effect of adoption of supply management system on the quality of accounting information systems.
- the top management should continue their support to the procedures of the supply chain system to improve the quality of accounting information systems.

In terms of similarities and differences between the aforementioned previous studies and our memorandum, they are outlined in the following table. This table also illustrates what we have gained from these studies.

Table N° 02: The comparison between our study and academic articles in arabic.

The previous study	Similarities	Differences	Utility
AHMED KAYED Nour Eddine, HALAYLI Islam 2020	The ERP system ensures integrated and timely data for the accounting information system.	Description and analysis of the contribution of the ERP system in activating the accounting information system ; whereas the impact in our study is on the process itself.	The ERP system contributes to activating the accounting information systems in the economic institution.
Hasna MECHRI, Zeinab TAMRABAT, Rayan BENABBAS 2022	The ERP system contributes to improving the quality of accounting information.	Determining the role of ERP system in improving the quality of accounting information through the use of an analytical study; whereas the impact in our study is on the process itself.	The credibility of accounting information increases as a result of the effective implementation of an ERP system.
Khadejah Khaleel Salman Tareq Oudeh Bani-Khalid 2020	The impact of adopting ERP on the quality of accounting	Analysis of the impact of adopting an ERP system on the quality of accounting	The necessity of senior management support for ERP system to enhance the quality of

	information systems.	information systems and its management support to enhance the quality of accounting information systems; whereas the impact in our study is on the process itself.	accounting information systems.
--	----------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------

The source: Prepared by the students.

I.3.3 Previous studies in foreign language

I.3.3.1 Study of Chairunnisa Kuntumand

Titled " Effect of Implementation of Enterprise Resource Planning System on Quality of Accounting Information", Department of Accounting, Faculty of Economics and Business, University of Airlangga, Surabaya, Indonesia, March 2019.

The aim of this study was to determine the effect of ERP system implementation on accounting information quality.

This study has concluded several important results, including:

- ERP system and the business world cannot be separated, because the ERP system will support and assist operational activities in order to improve efficiency and effective, which ultimately provide benefits for the company.
- the implementation of ERP in one of the manufacturing companies have a significant positive effect on the quality of accounting information. From the implementation of the ERP system produces quality accounting information that has reliability that can help management and investors in decision making.

I.3.3.2 Study of Hazar Daoud, Mohamed Triki

Titled " Accounting Information Systems in an ERP Environment and Tunisian Firm Performance ", The International Journal of Digital Accounting Research, Vol. 13, 2013.

The aim of this study was to examine the influence of the accounting information system in an ERP environment on firm performance. by investigating the direct effects of top management involvement and external expertise on the AIS

-It also aims to study the direct and interaction effects that exist between accounting information systems, contingency factors and business performance.

This study has concluded several important results, including

- Firm performance improves when firms have competent accounting staff.
- The results also show that accounting practices are determined by top management commitment to the ERP system deployment project and by qualified external expertise.
- These practices are also influenced by the information quality produced by the accounting information system and by the ERP system quality. However, information quality and ERP system quality do not have a significant effect on firm performance.

I.3.3.3 Study of Despina Galani, Efthymios Gravas, Antonios Stavropoulos Titled "The Impact of ERP Systems on Accounting Processes ", International Journal of Economics and Management Engineering, Vol. 4, No. 6, 2010.

The aim of this study was to explore the impact of the organization’s information system on strategic planning, operational planning, reporting, flexibility, efficiency. The tasks of data collection, reporting, analysis and budgeting are investigated. Additionally, the adoption of more advanced management accounting practices after the implementation of the integrated systems are explored.

This study has concluded several important results, including:

- High quality and the benefits of ERP systems exist only when ERP systems are comparing with the legacy systems and not when ERP systems are comparing with other integrated systems.
- High level of satisfaction from ERP adoption for data collection. The satisfaction of different management tasks is high with all mean ratings between adequate and good.

In terms of similarities and differences between the aforementioned previous studies and our memorandum, they are outlined in the following table. This table also illustrates what we have gained from these studies.

Table N° 03: The comparison between our study and previous studies in foreign languages.

The previous study	Similarities	Differences	Utility
Chairunnisa Kuntumand, 2019	Through the implementation of an ERP system, high-quality accounting information is produced, characterized by its reliability.	-The impact studied in this paper is on the quality of the accounting information, whereas the impact in our study is on the process itself.	The implementation of an Enterprise Resource Planning (ERP) system in a manufacturing company has a significant positive impact on the

Chapter One:.....The Theoretical Framework of the Study

		-The method of research used in the paper is Statistical analysis, meanwhile our study used a descriptive approach	quality of accounting information.
Hazar Daoud, Mohamed Triki, 2013.	Accounting practices are influenced by the quality of information produced by the accounting information system and the quality of the ERP system.	The impact studied in this research is the effect of the accounting information system within an Enterprise Resource Planning (ERP) environment on company performance.	Accounting practices are determined by the commitment of senior management to the ERP system implementation project and the involvement of qualified external expertise.
Despina Galani, Efthymios Gravas, Antonios Stavropoulos, 2010	The impact of using Enterprise Resource Planning (ERP) systems in Enterprises.	The impact studied in this research is the effect of the of ERP Systems on Accounting, whereas the impact in our study is on the process itself.	The high quality and benefits of Enterprise Resource Planning (ERP) systems are evident only when compared to legacy systems.

The source: Prepared by the students.

The summary of the First Chapter:

In conclusion, this theoretical chapter has provided a comprehensive overview of key aspects within the realm of enterprise resource planning (ERP) systems, the accounting process, and previous studies in the field. The exploration of ERP systems has illuminated their role as integrated software solutions that streamline business operations and enhance organizational efficiency. Furthermore, the second part delved into the intricacies of the accounting process, highlighting its fundamental importance in ensuring accurate financial reporting and decision-making within enterprises. Through an analysis of the third part, we have synthesized insights from previous studies, offering valuable perspectives on the challenges, trends, and advancements in ERP implementation and accounting process.

By examining these three sections, we have not only deepened our understanding of ERP systems and the accounting process but also gained valuable insights into the existing body of knowledge in this domain. Moving forward, this groundwork will serve as a solid foundation for further research, in the Practical study examined in the second chapter.

II. The Practical Study

Preface:

After understanding the theoretical framework of Enterprise Resource Planning (ERP) systems and the accounting process, and in order to apply it practically, SPA Condor Electronics was chosen for the preparation of the Practical study. Seeking a deeper understanding of the accounting process integrated into the ERP system, we decided to divide the practical aspect into three sections. Beginning with an introduction to the institution under study, including an overview of its organizational structure and technical specifications, as well as mentioning the methodology and tools used in this study. The second section involved presenting the measures for implementing the ERP system from the accounting perspective in SPA Condor Electronics. Finally, a comparison was made between the use of conventional software and the ERP system and its impact on the quality of accounting process.

II.1 Field and Study Tools Used

II.2 ERP SAP Implementation Procedures

II.3 A Comparison Between ERP SAP Accounting Process and Traditional Accounting Process in SPA Condor Electronics

II.1 Field and Study Tools Used

In this section, we will present the aspects of the study's field and the tools employed therein. We will delve into introducing the institution under study, where SPA Condor Electronics was selected as a model due to its utilization of the SAP Enterprise Resource Planning system. Additionally, we will outline the methodology and tools of the study, aiming to clarify our approach to addressing the subject of our study, which is The Impact of Enterprise Resources Planning (ERP) on The Quality of Accounting Process.

II.1.1 Methodology of the study:

Due to the nature of the study and in order to achieve the desired objectives, a descriptive analytical approach was adopted in order to describe the impact of using ERP SAP on the quality of the accounting process output.

II.1.2 Study tools used:

In order to assess the impact of using ERP SAP on the accounting process, we adopted:

-The observation tool: Observation played a significant role in our study, as we conducted field research in the Information Systems Directorate, in addition to the Finance and Accounting Directorate of SPA Condor Electronics. The engineer responsible for the accounting and management control unit in the ERP SAP system, known as SAP FI/CO, provided us with the original plan for integrating ERP SAP by EY in 2016.

II.1.3 Presentation of SPA Condor Electronics:

Established in 2002, Condor Electronics is one of the pioneers in the Algerian industrial sector, specializing in the manufacturing and sale of refrigerators, freezers, air conditioners, gas radiators, washing machines, dishwashers, electronic products, photovoltaic panels, cooking products, and small household appliances.

In Algeria, Condor is a highly established brand, renowned for its innovation, quality products, and continuous commitment to customer satisfaction. It holds a leading position in most of its activities.

II.1.3.1 Technical card:

Table N° 04: Technical card for SPA Condor Electronics

Name of the company	CONDOR ELECTRONICS
Legal form	SPA
Commercial registration number	0462772B02
Tax identification number	000234046277228
Employer identification number	34 586358 38
Taxable article	34014203792
Date of company establishment	02/09/2002
Date of commencement of production	11/23/2002
Trademark	CONDOR (Filing with INAPI on April 30, 2003)
Capital	4 277 000 000,00 DA
Chairman of the Board of Directors	Omar BENHAMADI
Chief Executive Officer (CEO)	Ahmed HARROUZ
Address	Business area: Route de M'Sila îlot 70, Section 161, Bordj Bou Arreridj 34000, Algeria
Phone Number	+213 35 87 63 00/04
Fax Number	+213 35 87 63 63
Website	www.condor.dz
E-mail	info@condor.dz
Customers	Wholesalers, Companies, and Establishments
Number of employees	4700

The source: Prepared by the students based on the institution's documents.

II.1.3.2 Missions and Objectives of SPA Condor Electronics:

For SPA Condor Electronics, it holds great importance in the national economy as it covers the national needs for electronic and household appliances. It also works on financing the private sector and local institutions with various necessary devices.

II.1.3.2.1 Missions of SPA Condor Electronics:

Among the company's missions are the following:

- Developing and improving the products and services provided by the institution.
- Providing job opportunities.
- Economic development.
- Supplying Algerian national products in the African and global markets.
- Maintaining market share by ensuring current customers' satisfaction and gaining new clients.
- Competing with global institutions operating in the same field.

II.1.3.2.2 Objectives of SPA Condor Electronics:

Among the company's objectives are the following:

- Maximizing profit.
- Strengthening investments by acquiring modern production means to develop and diversify products.
- Ensuring quality/price ratio.
- Continuous innovation and creativity.
- Developing professional efficiency in employees.
- Strengthening the Condor brand in the Algerian, African, and global markets.

II.1.3.3 Company Organizational Chart:

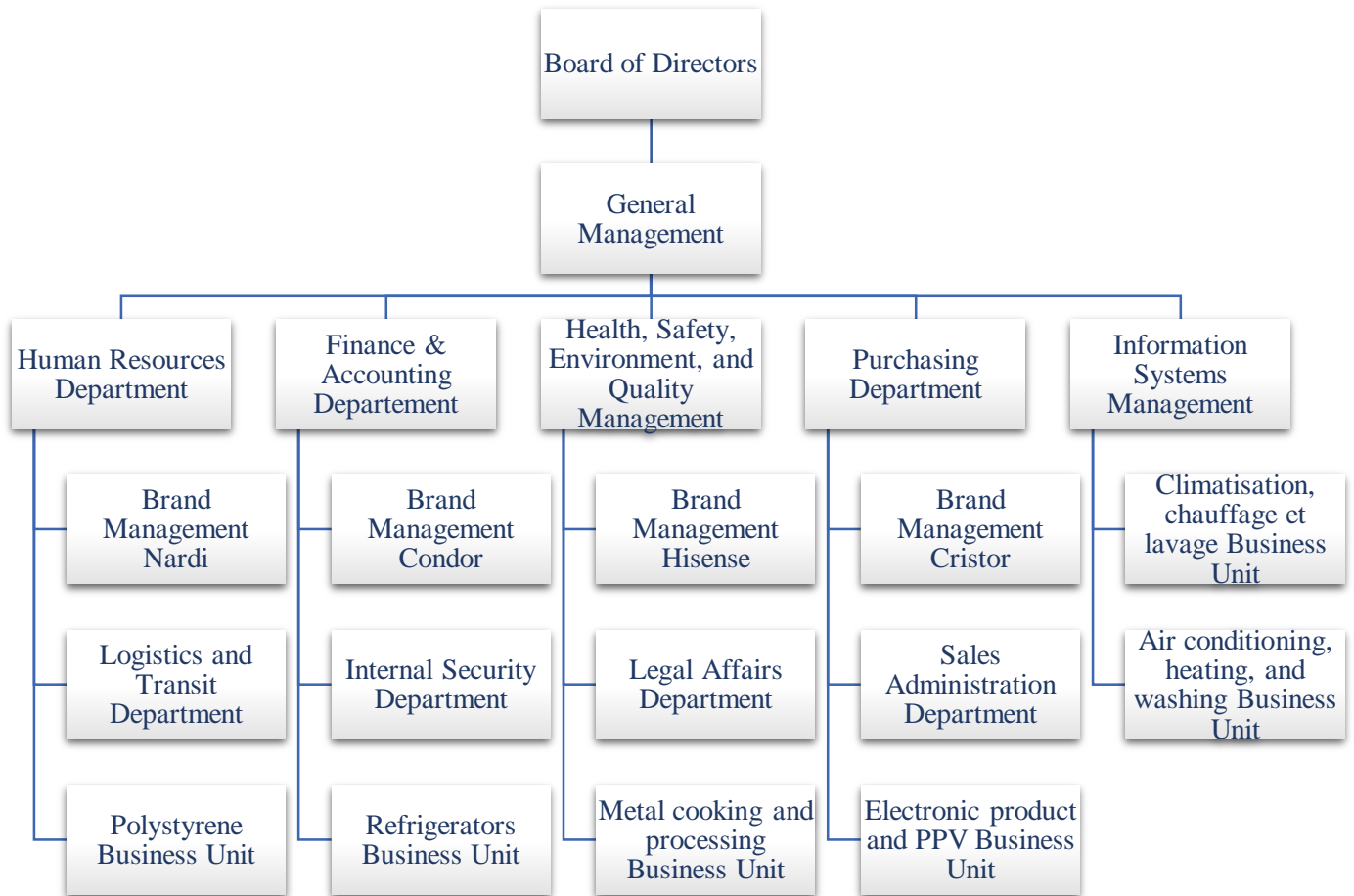


Figure N° 07: Company Organizational Chart of SPA Condor Electronics

The source: Prepared by the students based on the institution's documents.

II.2 ERP SAP Implementation in SPA Condor Electronics

During 2016, SPA Condor Electronics witnessed significant growth in business volume and expanded its market share in the Algerian mobile phone market. The Condor P6 Pro phone achieved remarkable success, prompting the company to double its production capacity. Additionally, several subsidiary companies were established under the Condor Electronics conglomerate, such as Condor Logistics and Condor Multimedia, resulting in a large-scale operation that necessitated precise and transparent monitoring to translate financial flows within the accounting information system accurately. This system, in turn, provides relevant financial information that faithfully reflects the company's financial position with high level of quality, enabling operational and strategic decision-making at all management levels. Consequently, the decision was made to acquire the SAP Enterprise Resource Planning (ERP) system with the help of EY company (Ernest and Young) one of the big four auditing companies in the world to organize the massive production process, manage the supply chain efficiently, and, most importantly, integrate accounting process and management control to enhance the accuracy and quality of both.

II.2.1 An Overview On SAP:

II.2.1.1 Presentation of SAP:

Founded in 1972, the company was initially called System Analysis Program Development (Systemanalyse Programmentwicklung), later abbreviated to SAP. Since then, it has grown from a small, five-person endeavor to a multinational enterprise headquartered in Walldorf, Germany, with more than 105,000 employees worldwide.

With the introduction of its original SAP R/2 and SAP R/3 software, SAP established the global standard for enterprise resource planning (ERP) software. Now, SAP S/4HANA takes ERP to the next level by using the power of in-memory computing to process vast amounts of data, and to support advanced technologies such as artificial intelligence (AI) and machine learning.

The company's integrated applications connect all parts of a business into an intelligent suite on a fully digital platform, thereby replacing the process-driven, legacy platform. Today, SAP has more than 230 million cloud users, more than 100 solutions covering all business functions, and the largest cloud portfolio of any provider.

II.2.1.1 SAP Company Objectives:

SAP helps companies and organizations of all sizes and industries run their businesses profitably, adapt continuously, and grow sustainably.

The company develops software solutions that are used by small businesses, midsize companies, and large corporations. With standard applications, industry solutions, platforms, and technologies, every business process can be mapped and designed. The software collects and processes data on one platform, from raw material purchasing to production and customer satisfaction. SAP solutions can be installed “on premise” at a user’s location(s) or used from the cloud, helping companies analyze and efficiently design the entire value chain. SAP solutions can also be used to create forecasts, such as when a machine needs to be repaired or how revenue will develop in the next half year.

In addition, SAP helps customers seamlessly link operational data on business processes with experience data on emotional factors such as purchase experience and customer feedback. This enables companies to better understand and respond to their customers.

II.2.1.3 Applications of SAP Software:

Traditional business models often decentralize data management, with each business function storing its own operational data in a separate database. This makes it difficult for employees from different business functions to access each other’s information. Furthermore, duplication of data across multiple departments increases IT storage costs and the risk of data errors.

By centralizing data management, SAP software provides multiple business functions with a single view of the truth. This helps companies better manage complex business processes by giving employees of different departments easy access to real-time insights across the enterprise. As a result, businesses can accelerate workflows, improve operational efficiency, raise productivity, enhance customer experiences – and ultimately increase profits.¹

II.2.2 SPA Condor Electronics Enterprise Resources Planning SAP Modules:

Condor Electronics’ acquisition extended to four modules of the SAP Enterprise Resource Planning (ERP) system, tailored to its production and managerial needs. This endeavor incurred costs amounting to **904 683 582,28 DA** by the end of 2023. As follows an explanation of these integrated modules within the company's management system:

II.2.2.1 Materials Management (MM): This module comprises three sections: procurement, inventory management, and monitoring invoices associated with them,

¹ <https://www.sap.com/about/what-is-sap.html> 16/05/2024.

with automatic recording of all flows in the financial accounting and management control modules.

II.2.2.1.1 Procurement: also called purchasing section, it uses in its procedures purchasing documents that are tools used by the Purchasing department to procure items or services.

Available purchasing documents as follows:

- Purchase Requisition: used to communicate the need for external items and/or services and to track these needs.
- Tender: communicates a defined need in a purchase requisition to suppliers.
- Quotation: contains supplier prices and conditions, forming the basis for supplier selection.
- Purchase Order: an order or instruction sent by a purchasing entity to a supplier, requesting the delivery of certain items or the execution of certain services or works.
- Contract: a type of "framework contract" or long-term purchasing agreement.
- Delivery Schedule: a longer-term purchasing agreement. These allow for the establishment of deadlines specifying purchased quantities, delivery dates, and potentially specific delivery times.

II.2.2.1.2 Inventory Management: Supports the following tasks:

- Management of item stocks in quantity and value: All operations that result in a stock change are captured in real-time, along with the stock updates resulting from these changes.
- Planning, recording, and documenting all stock movements: When recording a stock movement in the SAP system the user inserts A movement type code, that is a three-digit identification key specific to a stock movement, as follows in the table below:

Table N° 05: Stock Movement Type Code List

Movement Type	Description
101	Goods receipt for purchase order
103	Goods receipt for purchase order to GR blocked stock
105	Release from the GR blocked stock for the purchase order
121	Subsequent adjustment for subcontracting
122	Return deliveries to vendor
124	Return delivery to vendor from GR blocked stock
161	Returns for purchase order

201	Goods issue for a cost center
221	Goods issue for a project
251	Goods issue for sale (without sales order)
261	Goods issue for an order
281	Goods issue for a network
291	Goods issue for any account assignment
301	Plant to plant transfer in one step
303	Plant to plant transfer in two steps – stock removal
305	Plant to plant transfer in two steps – putaway
309	Transfer postings from material to material
311	Transfer of storage location to storage location in one step
313	Transfer of storage location to storage location in two steps – stock removal
315	Transfer of storage location to storage location in two steps – putaway
321	Transfer of inspection stock – unrestricted-use stock
323	Transfer of storage location to storage location – inspection stock
325	Transfer of storage location to storage location – blocked stock
331	Sample from the inspection stock
333	Sample from the unrestricted-use stock
335	Sample from the blocked stock
341	Status change of a batch (unrestricted-use to restricted)
343	Transfer of blocked stock – unrestricted-use stock
349	Transfer of blocked stock – inspection stock
351	Goods issue for a stock transport order (without shipping)
411	Transfer of special stock to own stock (only for sales order stock)
413	Transfer posting to sales order stock
451	Returns from customer (without shipping)
453	Transfer of blocked stock returns to unrestricted-use stock
455	Returns stock transfer
457	Transfer of blocked stock returns to inspection stock
459	Transfer of blocked stock returns to blocked stock
501	Goods receipt without purchase order – unrestricted-use stock
503	Goods receipt without purchase order – stock in quality inspection

505	Goods receipt without purchase order – blocked stock
521	Goods receipt without order – unrestricted-use stock
523	Goods receipt without order – inspection stock
525	Goods receipt without order – blocked stock
531	Goods receipt of by-products from order
541	Transfer of unrestricted-use stock to subcontracting stock
543	Consumption from subcontracting stock
545	Goods receipt of by-products from subcontracting
551	Scrapping from unrestricted-use stock
553	Scrapping from inspection stock
555	Scrapping from blocked stock
557	Issue from stock in transit (adjustment posting)
561	Initial entry of stock balances – unrestricted-use stock
563	Initial entry of stock balances – quality inspection
565	Initial entry of stock balances – blocked stock
581	Goods receipt of a by-product from network
601	Goods issue for delivery
603	Goods issue for a stock transport order (shipping) with additional item
605	Goods receipt for a stock transport order (shipping) with additional item
621	Transfer of unrestricted-use stock – returnable packaging with customer (shipping)
623	Goods issue from returnable packaging with customer (shipping)
631	Transfer of unrestricted-use stock – consignment stock at customer (shipping)
633	Goods issue from consignment stock at customer (shipping)
641	Goods issue for a stock transport order (shipping)
643	Goods issue for a cross-company-code stock transport order
645	Goods issue for a cross-company-code stock transport order performed in one step (shipping)
647	Goods issue for a stock transport order performed in one step (shipping)
651	Returns from customer (shipping)
653	Returns from customer (shipping) to unrestricted-use stock
655	Returns from customer (shipping) to inspection stock

657	Returns from customer (shipping) to blocked stock
661	Returns to vendor using shipping
673	Returns for a cross-company-code stock transport order (shipping)
675	Returns for a cross-company-code stock transport order (shipping) performed in one step
701	Inventory difference in unrestricted-use stock
703	Inventory difference in quality inspection stock (MM-IM)
707	Inventory difference in blocked stock
711	Inventory difference in unrestricted-use stock (LE-WM)
713	Inventory difference in quality inspection stock (MM-IM)
715	Inventory difference for returns
717	Inventory difference in blocked stock (LE-WM)

The source: Prepared by the students based on the institution's documents.

- Execution of physical inventory: SAP system offers the following inventory procedures:

- Fixed date inventory
- Continuous inventory
- Cycle counting
- Sampling inventory

The inventory process can be divided into three phases:

-Preparation for inventory: The importance of the stocks held by the company necessitated a meticulous preparation phase. All relevant managers are required to make preliminary arrangements for the smooth running of this important operation. This includes:

- Ensuring perfect organization of all items by homogeneous family and with appropriate identification tags.
- Keeping documents, cards, and computer files up to date.
- Clearing all transfer orders (TOs) and pending situations (transit) before the start of operations.

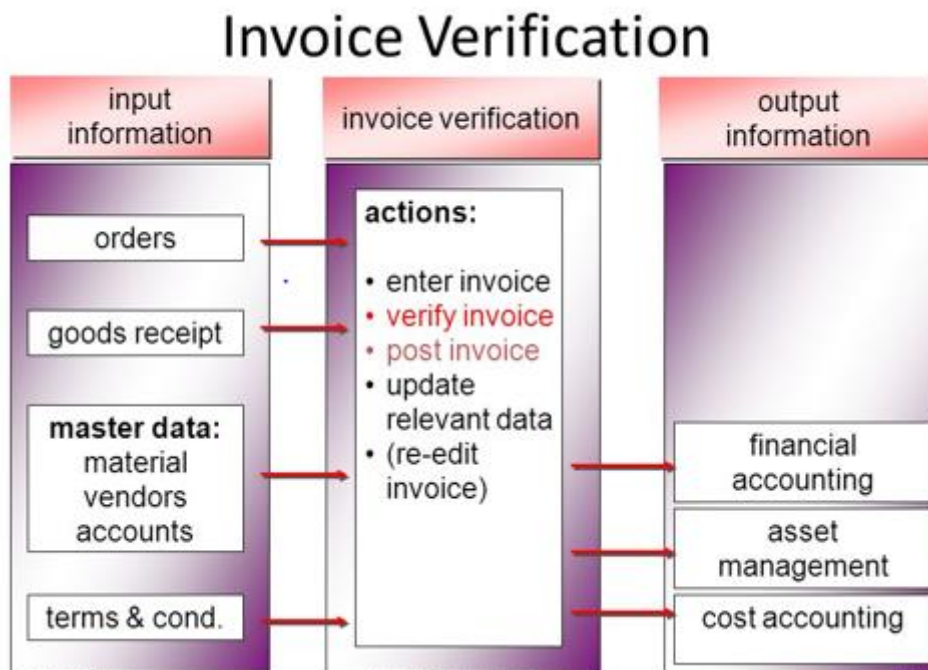
-Counting: This phase is done by a team selected by the principal committee of the inventory process to ensure the conformity of physical items with their theoretical counterpart on SAP system.

-Inventory analysis: After the counting operation is finished, the management control team approves the results of the counting operation and injects it in the system to calculate the differences between physical and theoretical inventory.

II.2.2.1.3 Monitoring Invoices: Invoice Verification is used to verify the accuracy of the content (quantities), prices, and calculations in supplier invoices.

When the invoice is recorded, the billing data is saved in the system. This data is then updated in the billing documents of Materials Management and Financial Accounting.

Figure N°08: Invoice Verification Process



The source: Prepared by the students based on the institution's documents.

II.2.2.2 Sales and Distribution (SD):

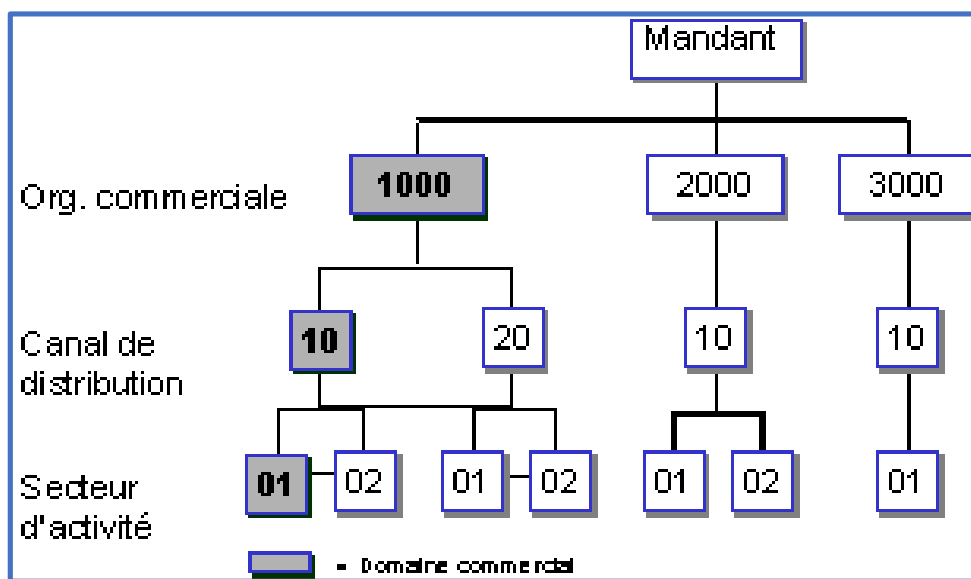
II.2.2.2.1 Organizational structures:

In the SAP R/3 system, there are several structures to represent the organizational and legal structure of the company that can be used. The organizational structures of the company form a framework within which all business transactions can be managed

- Business Areas: SD is organized based on a sales organization, distribution channel, and division. The combination of these three organizational entities forms the business area. The diagram illustrates these levels of organization.

- Sales Organization: Is an organizational entity within Logistics, which structures the company based on its sales requirements.
- Distribution Channel: Represents the channel through which marketable items or services reach customers. Typical distribution channels include wholesale, direct sales, and export sales.
- Business Sector: Represents the product families marketed, i.e., business sectors can be defined for different product ranges

Figure N°09: Organizational Structure of SD Module



The source: Prepared by the students based on the institution's documents.

II.2.2.2.2 Sales Operations:

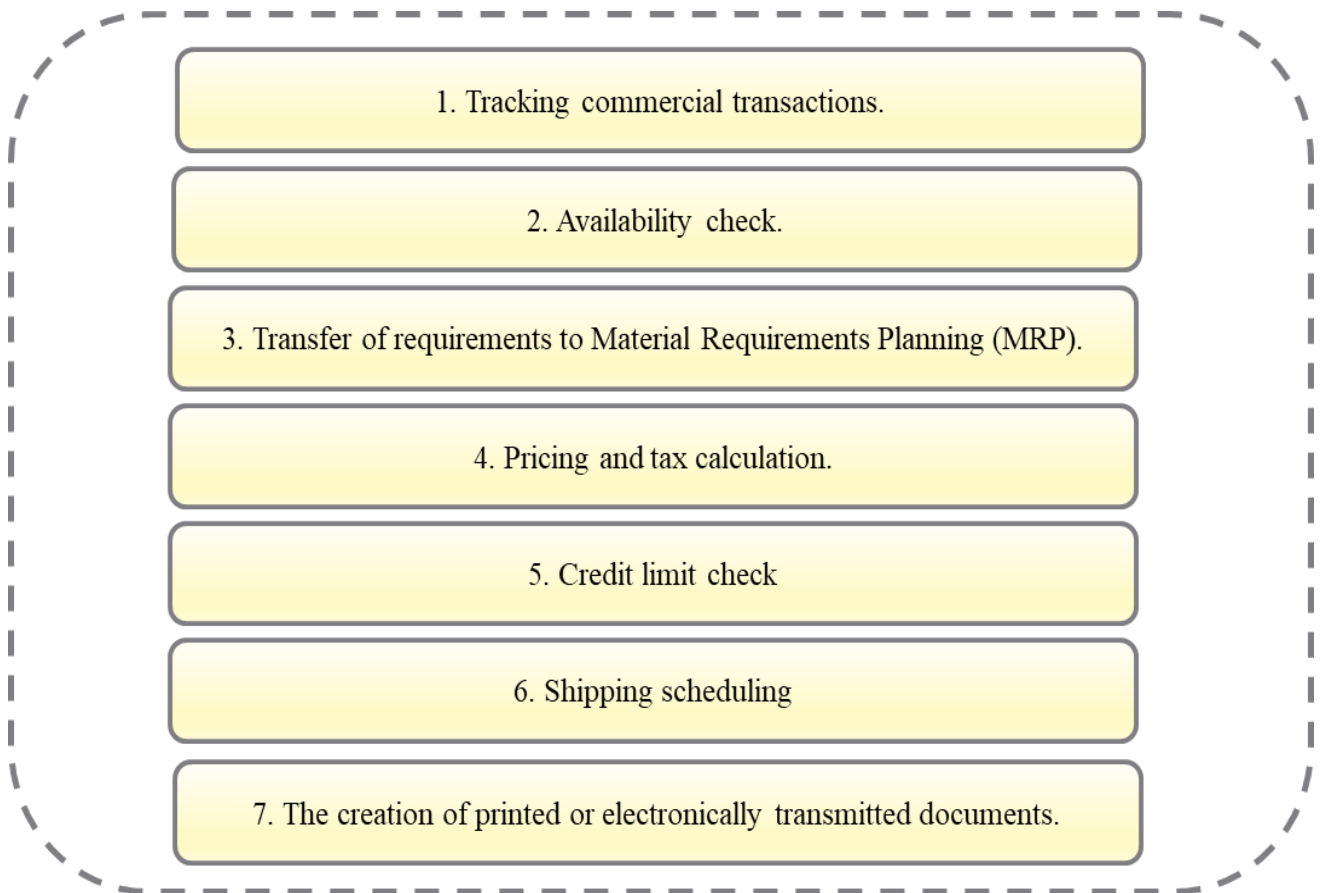
Sales transactions are recorded in the system as sales documents. There are four categories of sales documents:

Pre-sales documents; bids and quotations, customer orders, framework contracts (such as delivery schedules), customer complaints and issues resulting in free deliveries and requests for credit notes.

If business procedures require, the company can process delivery and billing documents directly from a sales document.

When managing customer orders, the system performs basic functions such as:

Figure N°10: Basic Functions in Customer Order Management



The source: Prepared by the students based on the institution's documents.

II.2.2.2.3 Reporting:

SAP can generate reports spanning all the sales documents and customer order such as:

Figure N°11: Customer Order List

Liste commandes client												
Liste commandes client												
Date doc.14.11.2016 Au 14.12.2016												
Date doc.	Document	Don. ordre	Nom 1	Désignation	QtéCdéeCum	Val. nette	Statut	BF	BI/LI	Créé le	Créé par	Cde achat
13.12.2016	I200002557	3584012	OKKU (SAMARCANDE)	COCA-COLA 100 VERRE	10	614,00	En cours trait.	ZD		13.12.2016	ATOMAS	200002557
13.12.2016				CASIER NU 12T (Générique)	10	614,00	En cours trait.	ZD		13.12.2016	ATOMAS	200002557
13.12.2016				BOUTEILLE GRANDE TAILLE (Générique)	120	614,00	En cours trait.	ZD		13.12.2016	ATOMAS	200002557
13.12.2016				CAISSE VIDE 24T GÉNERIQUE (CASIER+BLLES)	10	614,00	En cours trait.	ZD		13.12.2016	ATOMAS	200002557
13.12.2016				CASIER NU 24T (Générique)	10	614,00	En cours trait.	ZD		13.12.2016	ATOMAS	200002557
13.12.2016				BOUTEILLE PETITE TAILLE (Générique)	240	614,00	En cours trait.	ZD		13.12.2016	ATOMAS	200002557
13.12.2016	I200002556			COCA-COLA 100 VERRE	10	614,00	En cours trait.	ZD		13.12.2016	ATOMAS	200002556
13.12.2016				CASIER NU 12T (Générique)	10	614,00	En cours trait.	ZD		13.12.2016	ATOMAS	200002556
13.12.2016				BOUTEILLE GRANDE TAILLE (Générique)	120	614,00	En cours trait.	ZD		13.12.2016	ATOMAS	200002556
13.12.2016	I200002555	3584010	THE MEAT COMPANY(SAMARCANDE)	COCA-COLA 100 VERRE	10	614,00	En cours trait.	ZD		13.12.2016	ATOMAS	200002555
13.12.2016				CASIER NU 12T (Générique)	10	614,00	En cours trait.	ZD		13.12.2016	ATOMAS	200002555
13.12.2016				BOUTEILLE GRANDE TAILLE (Générique)	120	614,00	En cours trait.	ZD		13.12.2016	ATOMAS	200002555
13.12.2016				CAISSE VIDE 12T GÉNERIQUE (CASIER+BLLES)	12	614,00	En cours trait.	ZD		13.12.2016	ATOMAS	200002555
13.12.2016				CASIER NU 12T (Générique)	12	614,00	En cours trait.	ZD		13.12.2016	ATOMAS	200002555
13.12.2016				BOUTEILLE GRANDE TAILLE (Générique)	144	614,00	En cours trait.	ZD		13.12.2016	ATOMAS	200002555
13.12.2016	I200002554	100009	ACIMA 2 MARS (11430) Test	COCA-COLA 100 VERRE	1	452,45	En cours trait.	ZD		13.12.2016	EEAITOR	200002554

The source: Prepared by the students based on the institution's documents.

II.2.2.3 Management Control (CO):

II.2.2.3.1 Submodules of Management Control (CO):

-CO-OM-CEL Cost Element Accounting: Cost Element Accounting provides an overview of costs that occur within an organization. This submodule serves as the detailed recording tool for data that forms the basis of cost accounting: each operation relevant for cost analysis is reflected by a CO allocation object carried by an accounting nature. Most values are automatically transferred from financial accounting to cost accounting.

-CO-OM-CCA Cost Center Accounting: Analyzes overhead costs based on their origin in the company. It is used for control purposes within the company, supervising overhead costs and allocating them appropriately. (Example: allocation of expenses to the "research and development" cost center, or to the "warehouse" cost center).

-CO-OM-OPA Internal Orders: Used for pre-budgeting, grouping, and allocating costs of internal measures and tasks.

-Profit Center Accounting (EC-PCA): Profit centers manage profit calculation. Any entry made in CO is assigned to a profit center.

II.2.2.3.2 Controlling – Profitability Analysis (CO)

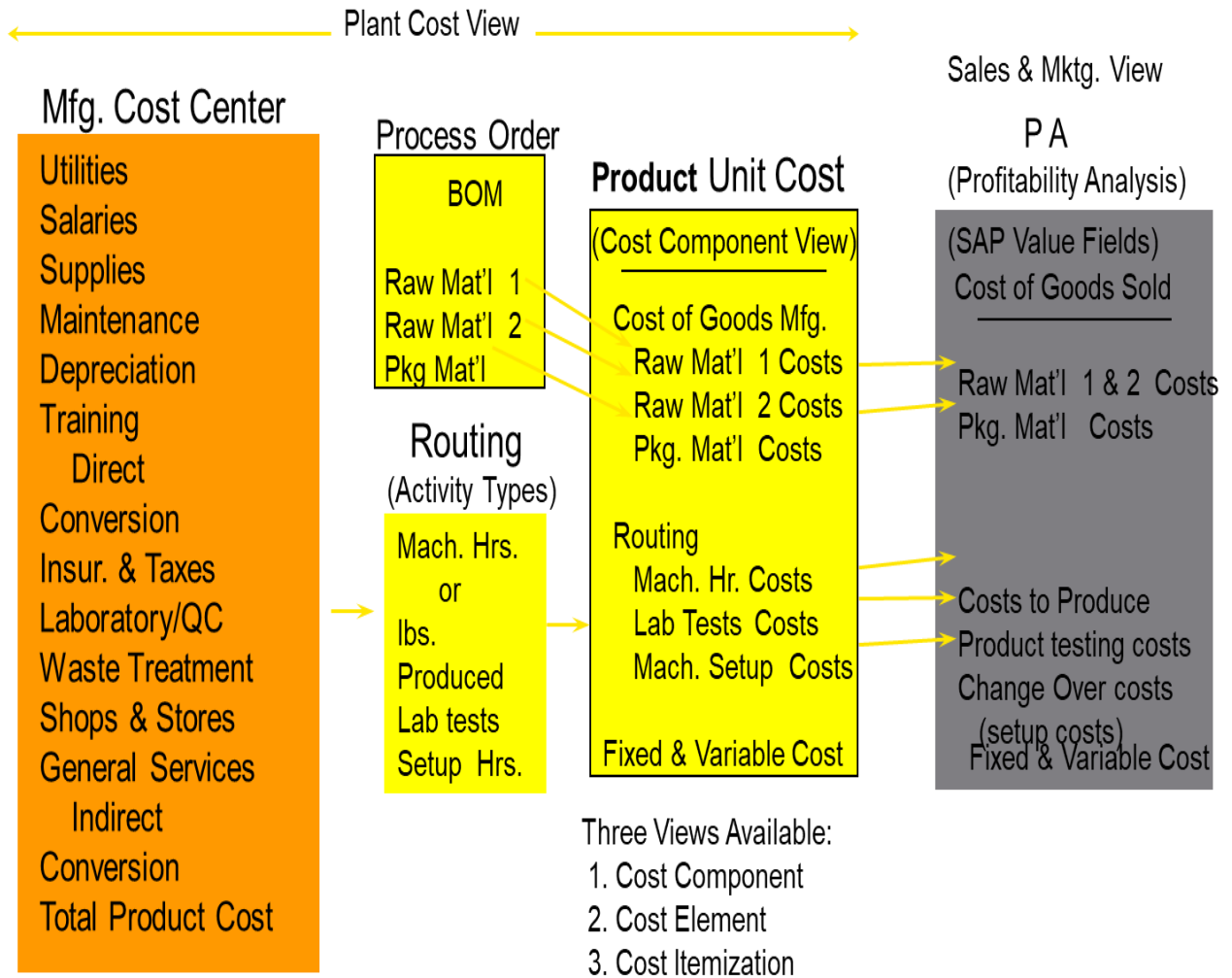
CO-PA (Profitability Analysis) is a module that enables the analysis of market segments, which can be classified into items, customers, or a combination of both, based on strategic business units such as sales organizations.

II.2.2.3.3 Product Cost Controlling (CO-PC)

The main objectives covered by the CO-PC module are as follows:

- Knowing the product cost to compile the income statement of units sold.
- Knowing the product cost to evaluate inventory in the warehouse.
- Providing feedback to management on the current performance of the production process compared to these objectives. Identified variances that may indicate inefficiencies that need to be investigated. Corrective actions can be taken.
- Establishing standards to measure efficiency in production operations.

Figure N°12: CO-PC Information Flow



The source: Prepared by the students based on the institution's documents.

II.2.2.4 Financial Accounting (FI):

This module serves as the cornerstone for all flows occurring within the enterprise management system, whereby all flows are directed to it to feed the accounting information system. This system, in turn, processes this data to produce financial statements of quality and credibility that aid management in the decision-making process. In Condor Electronics, this module consists of five submodules as follows:

II.2.2.4.1 Financials General Ledger (FI-GL):

II.2.2.4.1.1 Basic Data for FI-GL:

In essence, general accounting serves to record all commercial transactions carried out by the company. It constitutes the centralized and updated reference for financial reporting

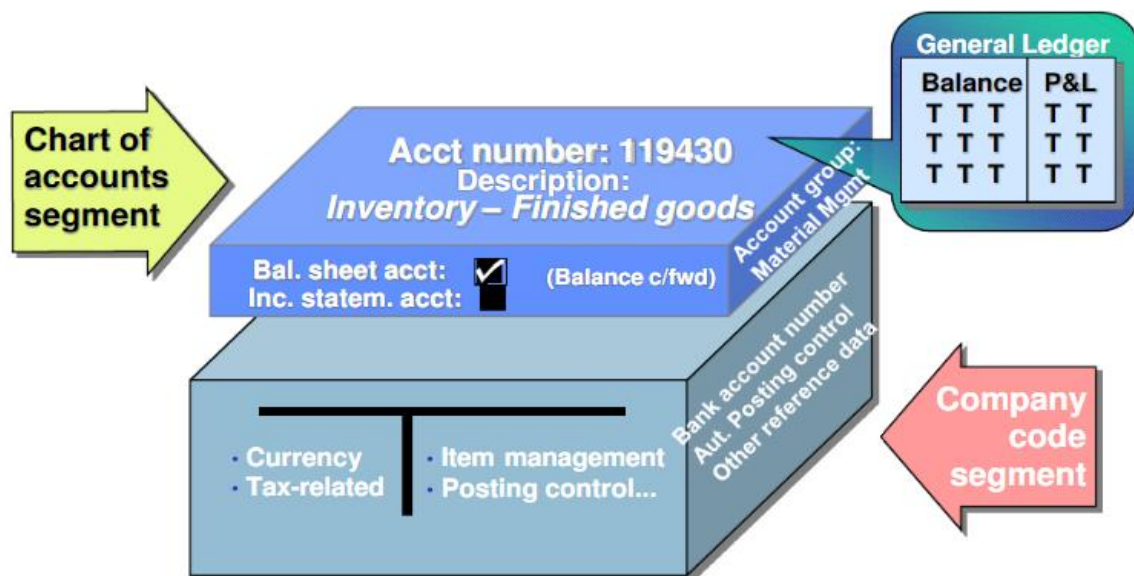
The basic data of general accounting are the general ledger accounts.

General ledger account sheets consist of two parts (referred to as 'domains') intended to enable companies using the same chart of accounts to utilize the same general ledger accounts.

-Chart of Accounts Domain: The chart of accounts domain includes data valid for all companies, such as the account number.

-Company Domain: The company domain includes data that may vary from one company to another, such as the currencies in which account amounts are recorded.

Figure N°13: Chart of Accounts Domain



The source: Prepared by the students based on the institution's documents.

II.2.2.4.1.2 FI-GL Documents:

The document in the FI-GL module is the accounting document. The document is the result of a posting in financial accounting. A document consists of a document header and at least two individual line items.

When entering a posting, an account assignment key must be entered for each line item. This key determines the posting mode for the item. Account assignment keys are defined at the client level; therefore, they are valid for all companies. The account assignment key determines:

- The data that can be entered in the individual line item.
- Determines which account to post to.
- Determines the type of posting (debit or credit).

SAP provides predefined account assignment keys in the standard system. The following table lists some of them.

Table N° 06: Standard predefined accounting keys

Account Assignment Key	Description
40	General Ledger Account Posting - Debit
50	General Ledger Account Posting - Credit
01	Customer Invoice
11	Customer Credit Note
21	Supplier Credit Note
25	Supplier Payment
31	Supplier Invoice

The source: Prepared by the students based on the institution's documents.

II.2.2.4.1.3 FI-GL Financial Position and Income Statement Structure:

Accounts can be organized according to regulations governing the creation of financial statements (financial position and income statement). Alternatively, they can be organized based on the company's requirements.

Figure N°14: Financial Position and Income Statement Structure 1

ZA03 Structure bilan et compte de résultats Algéri		
XI-RES-NET	XI - RESULTAT NET DE L.ENSEMBLE CONSOLIDE (1)	
1000000	Actif	Actif
2000000	Passif	Passif
3000000	Compte de resultat	
4000000	Resultat operations communes	
5000000	Resultat financier	
6000000	Resultat exceptionnel	
7000000	Participation des salaries	
8000000	Impots sur les benefices	
9000000	Resultat apres impots / benef.	Bénéfic/résult.
0000000	Comptes non affectes	Non affecté
1	Aucun texte existant	Note au bilan

The source: Prepared by the students based on the institution's documents.

Figure N°15: Financial Position and Income Statement Structure 2

Afficher structure bilan/cpte rés.		
ZA03 Structure bilan et compte de résultats Algéri		
XI-RES-NET	XI - RESULTAT NET DE L.ENSEMBLE CONSOLIDE (1)	
1000000	Actif	Actif
1010000	Actif immobilise	
1011000	Actionnaires	
1013000	Immobilisations incorporelles	
1015000	Immobilisations corporelles	
1015010	Terrains	
1015011	Valeur brute	
CAFR0000211100 - 0000212000 X _		
0000211100	TERRAINS NUS	
0000211200	TERRAINS AMENAGES	
0000211300	SOUS-SOLS ET SUR-SOLS	
0000211410	TERRAINS DE GISEMENTS (CARRIERES)	
0000211510	TERRAINS BATIS (ENSEMBLES IMMOB. INDUSTRIELS)	
0000211550	TERRAINS BATIS (ENSEMBLES IMMOB. ADM. & COM.)	
0000211580	TERRAINS BATIS (AUTRES ENSEMBLES IMMOB.)	
0000211600	COMPTE D'ORDRE SUR IMMOBILISATIONS	
0000212000	AGENCEMENTS ET AMENAGEMENTS DE TERRAINS	

The source: Prepared by the students based on the institution's documents.

II.2.2.4.2 Financials Accounts Payable (FI-AP):

The Accounts Payable component enables the recording and management of accounting data related to all suppliers. It is an integral part of the procurement system, in which deliveries and invoices are managed from the suppliers' perspective.

Entries made in the accounts payable are simultaneously recorded in the general ledger, where various general ledger accounts are updated according to the relevant transaction (liabilities, advances, etc.)

The basic data in FI-AP is suppliers. The specifications defined in the master records serve:

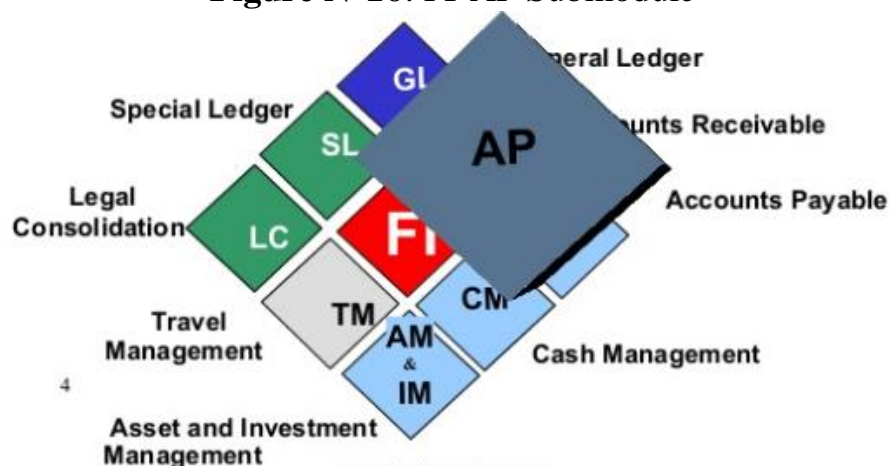
- As default values when recording items on the account. For example, the payment terms defined in the master record are proposed by default during document entry.
- During the processing of business transactions. For example, bank details and payment methods (such as check or bank transfer) are necessary for automatic payments.
- During any operation involving master records. The company can restrict certain users from accessing an account by defining authorization groups.

Data Structure:

To allow each company and purchasing organization to record their own information related to dealings with suppliers, the master records are structured into the following areas:

- General Data (This includes the supplier's name, address, language, and telephone number.).
- Company Data (This includes the collective account number and payment terms.)
- Purchasing Organization Data (FI-MM).

Figure N°16: FI-AP Submodule



The source: Prepared by the students based on the institution's documents.

II.2.2.4.3 Financials Accounts Receivable (FI-AR):

The Accounts Receivable component allows for the recording and management of accounting data related to all customers. It is also an integral part of sales management.

All entries in the accounts receivable are directly recorded in the general ledger as well. Various general ledger accounts are updated based on the relevant transaction (receivables, advances, promissory notes, etc.).

The basic data in FI-AR is customers. The specifications defined in the master records serve:

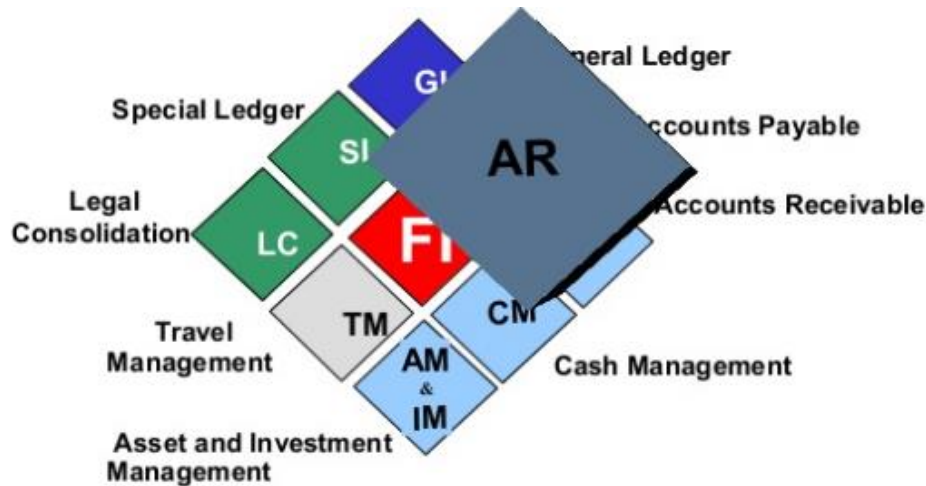
- As default values when recording items on the account. For example, the payment terms defined in the master record are proposed by default during document entry.
- During the processing of business transactions. For example, parameters manage account management data, such as the general collective account number.
- During any operation involving master records. Certain users can be restricted from accessing an account by defining authorization groups.

Data Structure:

To allow each company and sales organization to record their own information related to dealings with customers, the master records are structured into the following areas:

- General Data (This includes the customer's name, address, language, and telephone number.)
 - Company Data (This includes the collective account number and payment terms.)
- Sales Organization Data (FI-SD)

Figure N°17: FI-AR Submodule



The source: Prepared by the students based on the institution's documents.

II.2.2.4.4 Financials Cash and Bank (FI-BL/FI-TR):

This submodule is devised into two section:

-FI-BL: SAP has the FI-BL submodule dedicated to the management of bank accounts. This component is used to handle accounting transactions conducted with the company bank as well as with customer and supplier banks.

This submodule is used to manage the following tasks:

- Basic bank data management for the company's bank.
- Management of bank data for suppliers.
- Management of bank data for customers.
- Cash flow management.

-FI-TR: The main functions covered by the Treasury Management module are as follows:

- Recording and control of bank-related information (receipts, disbursements, purchase data, sales data, etc.).
- Bank statement loading.
- Bank reconciliation: Bank reconciliation is managed in SAP similarly to reconciliation in general ledger accounts by creating accounting entries

II.2.2.4.5 Financials Asset Accounting (FI-AA):

The Asset Accounting component (FI-AA) is used for the management and supervision of assets within the SAP system. As part of financial accounting, it serves as a

subsidiary ledger to the general ledger and provides detailed information on movements involving assets.

-Organizational Structure in FI-AA:

Asset Class: A structure that identifies asset classes, valuation areas, and available depreciation keys. The asset class determines the available depreciation criteria and includes the necessary information for analyzing and managing assets across different companies. Each company is assigned to a single asset class.

Valuation Areas: Allow for the calculation of different values in parallel for each asset for different purposes. Depreciation parameters and values required for this valuation are managed for each asset at the depreciation area level.

Account Determination: Asset accounting is a subsidiary ledger, so when making an accounting entry, the asset number, not the general ledger account, must be provided. The account is automatically determined by the system, and the account determination code is provided in the asset master record.

Figure N°18: Asset Account Determination

General data	
Description	Asset external number test
Asset main no. text	Asset external number test
Acct determination	200000 Acct.grp. text missing
Serial number	
Inventory number	
Quantity	0,000
<input type="checkbox"/> Manage historically	

The source: Prepared by the students based on the institution's documents.

-FI-AA Operations:

Capitalization: The main process in asset accounting involves the acquisition of assets and the commissioning of internally produced products or services.

Assets under Construction: These are asset entries that cannot be commissioned and depreciated immediately.

Direct Commissioning: Refers to asset entries that do not go through the under-construction status but are commissioned and depreciated immediately.

Asset Transfer Process: This involves a total or partial transfer of value from one asset to another. There are two possibilities for asset transfer in SAP: within the same company and to different companies.

Asset Retirement: Asset retirement involves the partial or complete removal of an asset from existing assets. Types of asset retirement include selling an asset or scrapping it.

Depreciation in FI-AA: The depreciation component manages the following depreciation methods in the system:

Automatically calculated depreciation methods (which can also be planned manually):

Ordinary Depreciation: Represents the expected deduction to account for the wear and tear of an asset under normal usage conditions.

Extraordinary Depreciation: Represents the deduction for asset wear and tear from a purely tax perspective.

Manually planned depreciation methods:

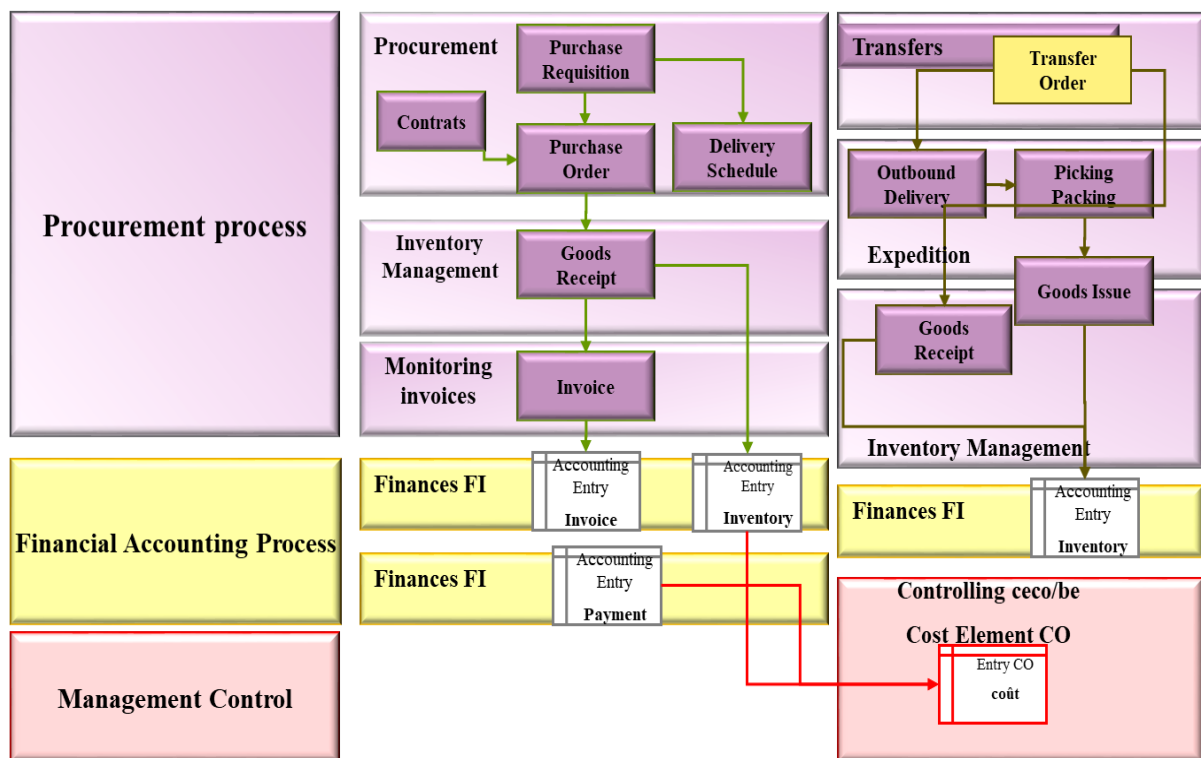
Unplanned Depreciation: Reflects the deduction for wear and tear under normal usage conditions of the asset. Unusual events, such as damage causing a permanent decrease in the asset's value, are covered by unplanned depreciation.

II.2.3 The Relationship between the Financial Module and the Flow of Information from Other Modules in Condor Electronics:

II.2.3.1 Financial accounting and Materials Management:

The following figure shows the flow of information beginning with the procurement process and ending with the accounting process, which demonstrates the transfer of information from one process to another in a smooth and easy way that can be controlled and audited, raising the quality of data transferred for better decision making.

Figure N°19: Main Procurement Process Flows and its Integration with Financials and Management Control Modules



The source: Prepared by the students based on the institution's documents.

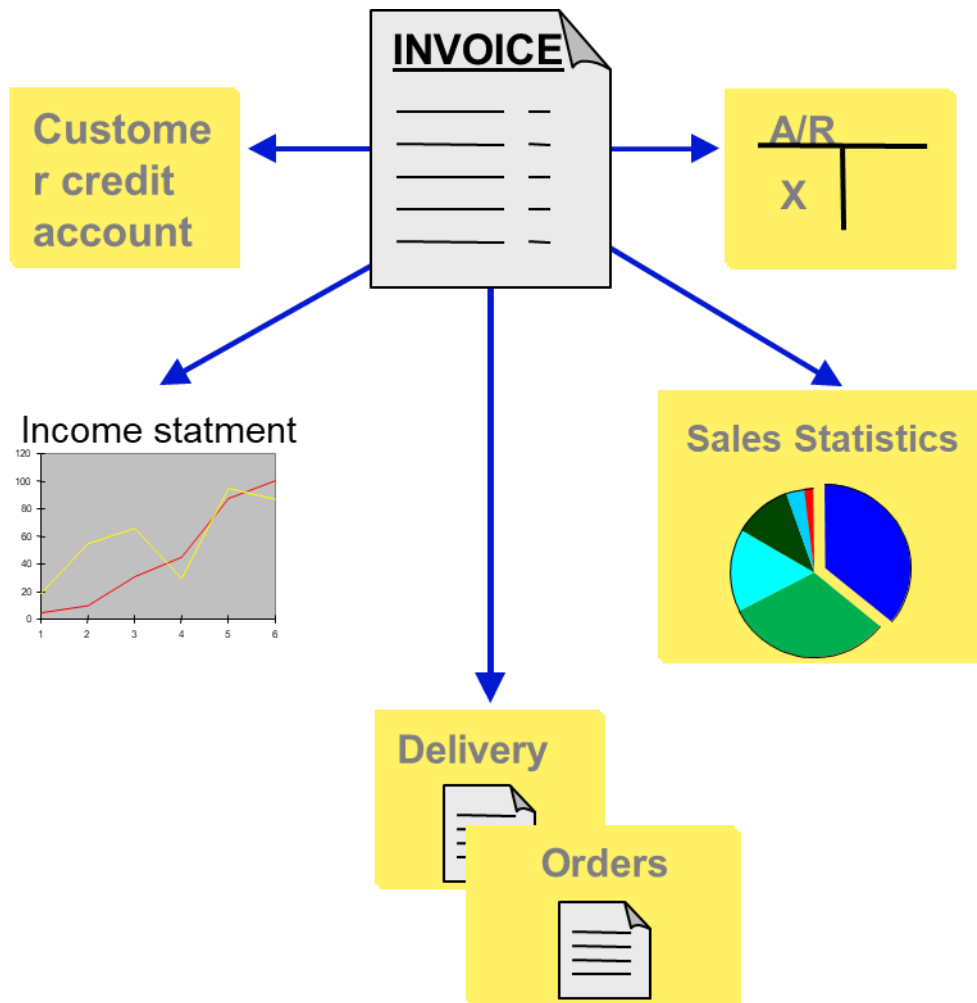
II.2.3.2 Financial accounting and Sales and Distribution:

Invoicing represents the final step of a sales and distribution business operation.

These invoices can be created from deliveries and customer orders, this final step links the two modules together, The moment of invoice creation:

- Automatic General Ledger Account Creation (Account receivable)
- Updating the corresponding statements for sales, delivery, and invoicing documents
- Updating the customer credit account
- Updating sales statistics
- Updating Controlling elements such as the income statement and profit center accounting.

Figure N°20: Customer Order List



The source: Prepared by the students based on the institution's documents.

II.2.3.3 Financial accounting and Management Control:

The financial and controlling module are directly linked together as shown in the following figures:

Figure N°21: FI and CO Modules Integration

-Primary accounting natures: The primary agent responsible for reflecting financial accounting to analytical accounting. This implies that creating a primary accounting nature is subject to the existence of an income statement in the corresponding control area. For this reason, primary accounting natures will correspond to the profit and loss G/L accounts in the chart of accounts.

-Secondary accounting natures: Secondary accounting natures do not have the FI module as a source, so they do not correspond to a general ledger account. They are directly used in the CO module. They are linked to the company's activity process. They are used for cost allocations.

II.3 A Comparison Between ERP SAP Accounting Process and Traditional Accounting Process in SPA Condor Electronics

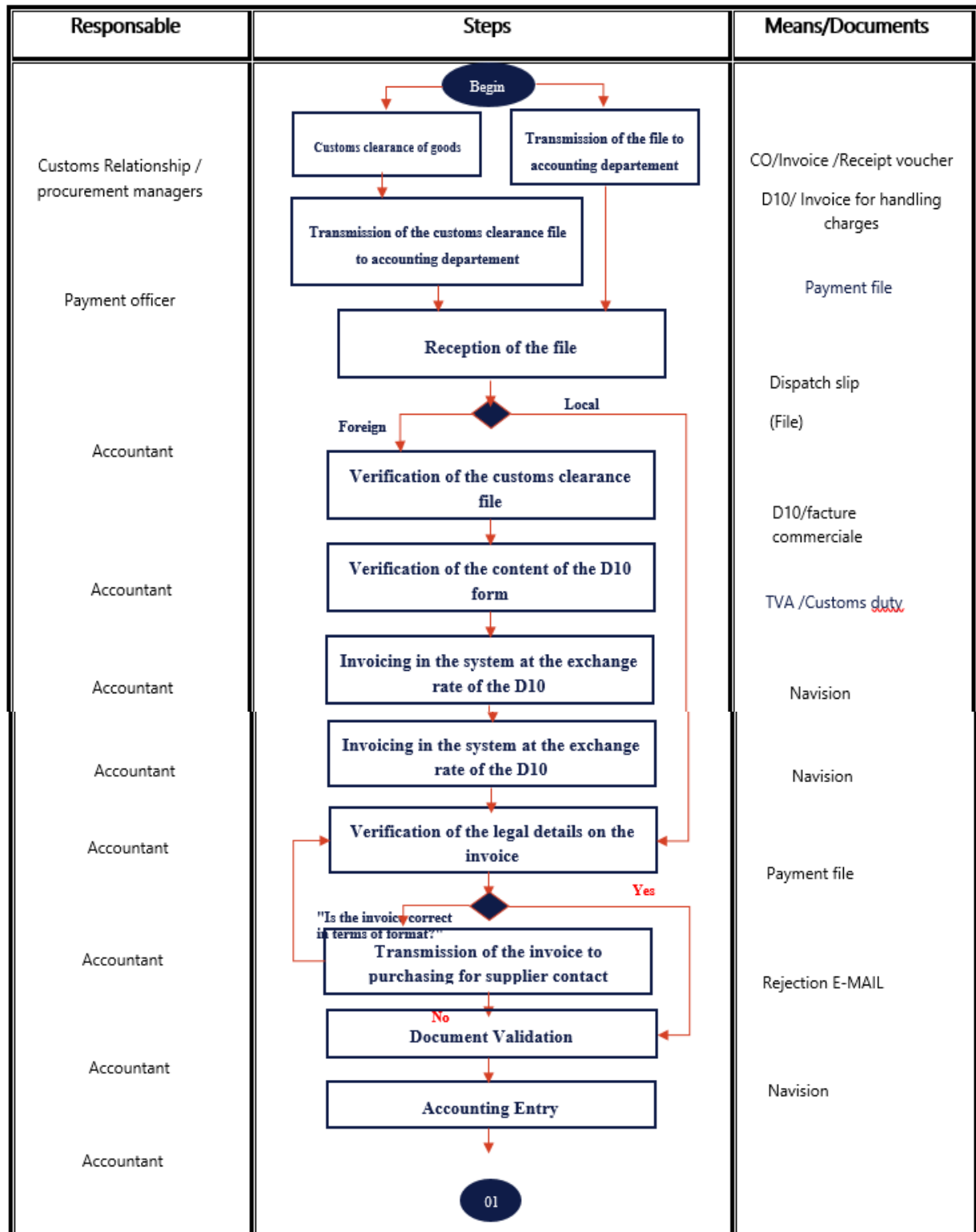
Before the Implementation of SAP in the accounting process of SAP Condor Electronics, there used to be three accounting procedures encompassing all steps of the accounting process using traditional software to record financial transactions, and prepare financial statements, in this section We will do a comparison between accounting recording procedures and financial statement preparation before and after integrating SAP, in order to determine the impact of this integration on the quality of accounting process and its outputs.

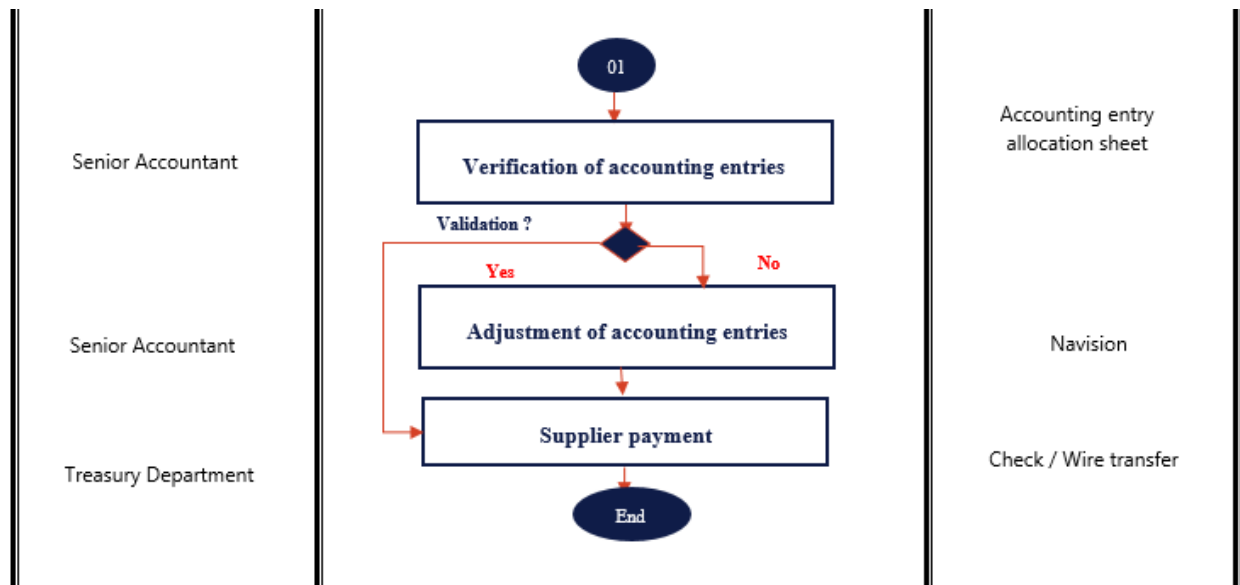
II.3.1 Recording Procurement and other Bills and Disbursement Procedure:

II.3.1.1 Procedure Application Before SAP Implementation:

This procedure aims to define the various steps to follow for the accounting operation of recording invoices for local and foreign purchases, as well as for supplier payments and other payments, by using Navision accounting software.

Figure N°23: Procurement and Payment Procedure Flowchart Before SAP Implementation



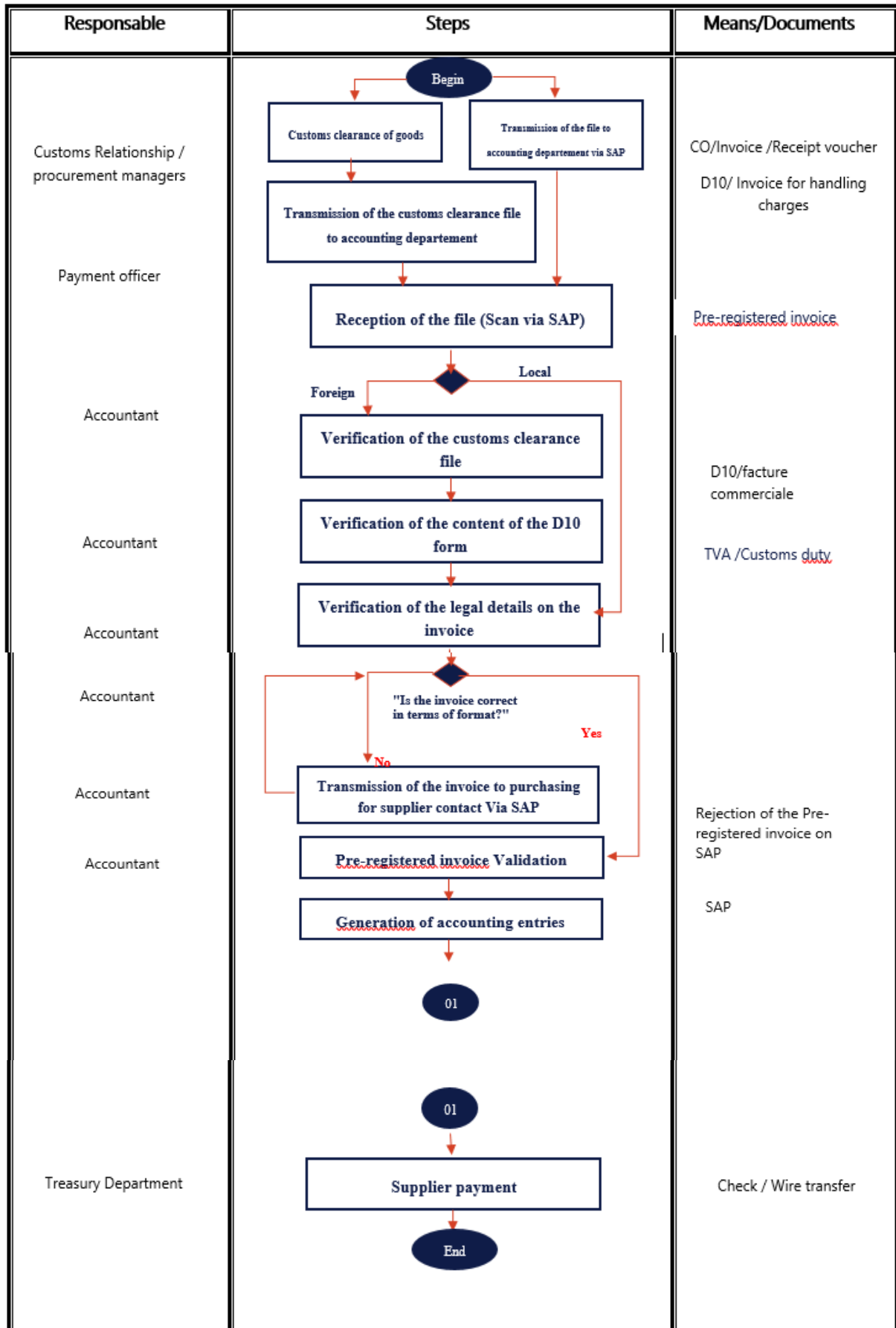


The source: Prepared by the students based on the institution's documents.

II.3.1.2 Procedure Application After SAP Implementation:

With the integration of SAP, accounting process became faster and less time-consuming, allowing for the processing of over 200 payment files per day compared to a maximum of 100 files previously. The following figure illustrates these procedures.

Figure N°24: Procurement and Payment Procedure Flowchart After SAP Implementation



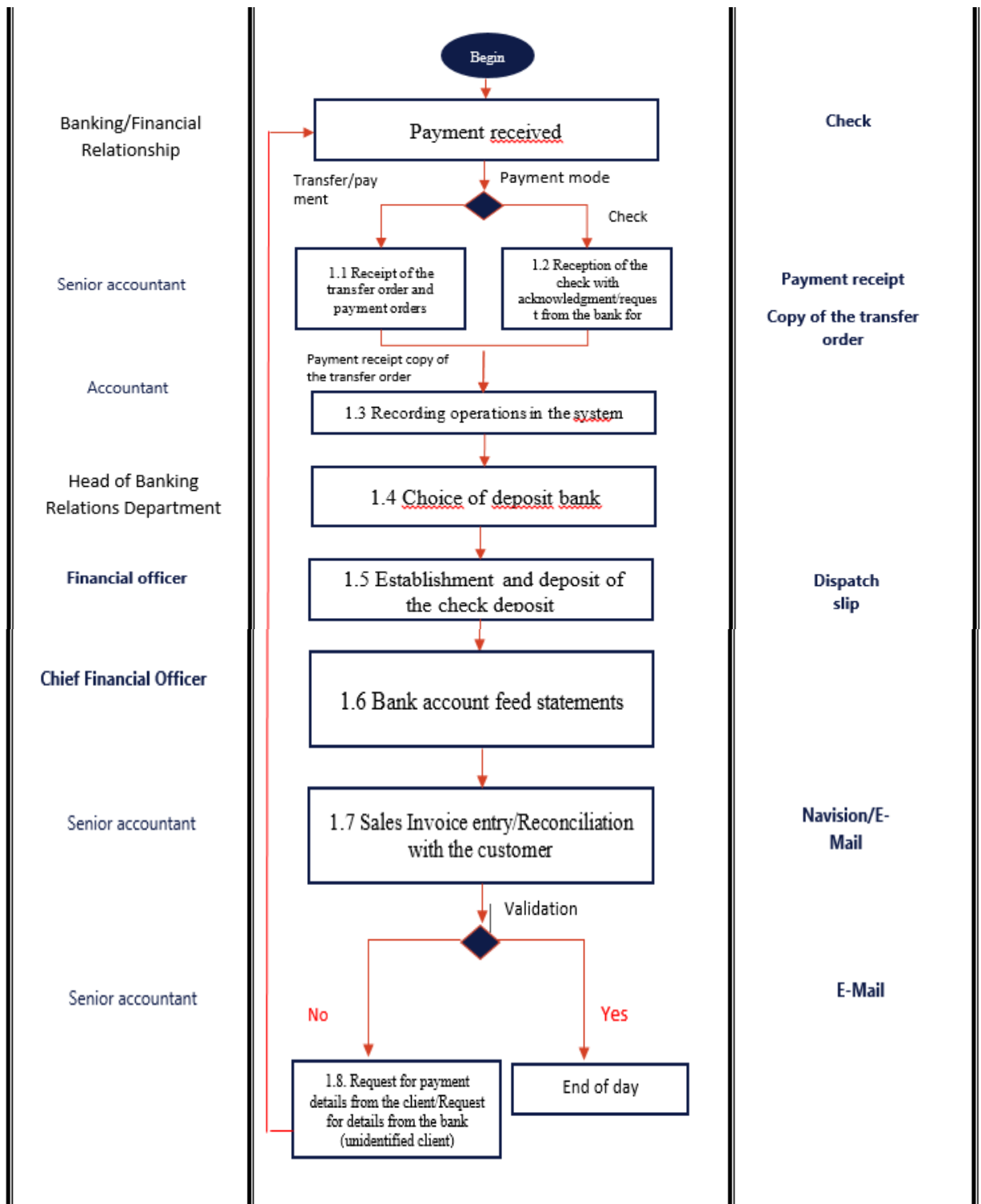
It can be noted that with the integration of SAP, all paper documents have been eliminated. All verification and control processes are now conducted through the system, and the physical submission of files has been discontinued. This has led to the acceleration of the daily purchase file processing. Moreover, relying on a single system for recording reduces the occurrence of errors and oversights.

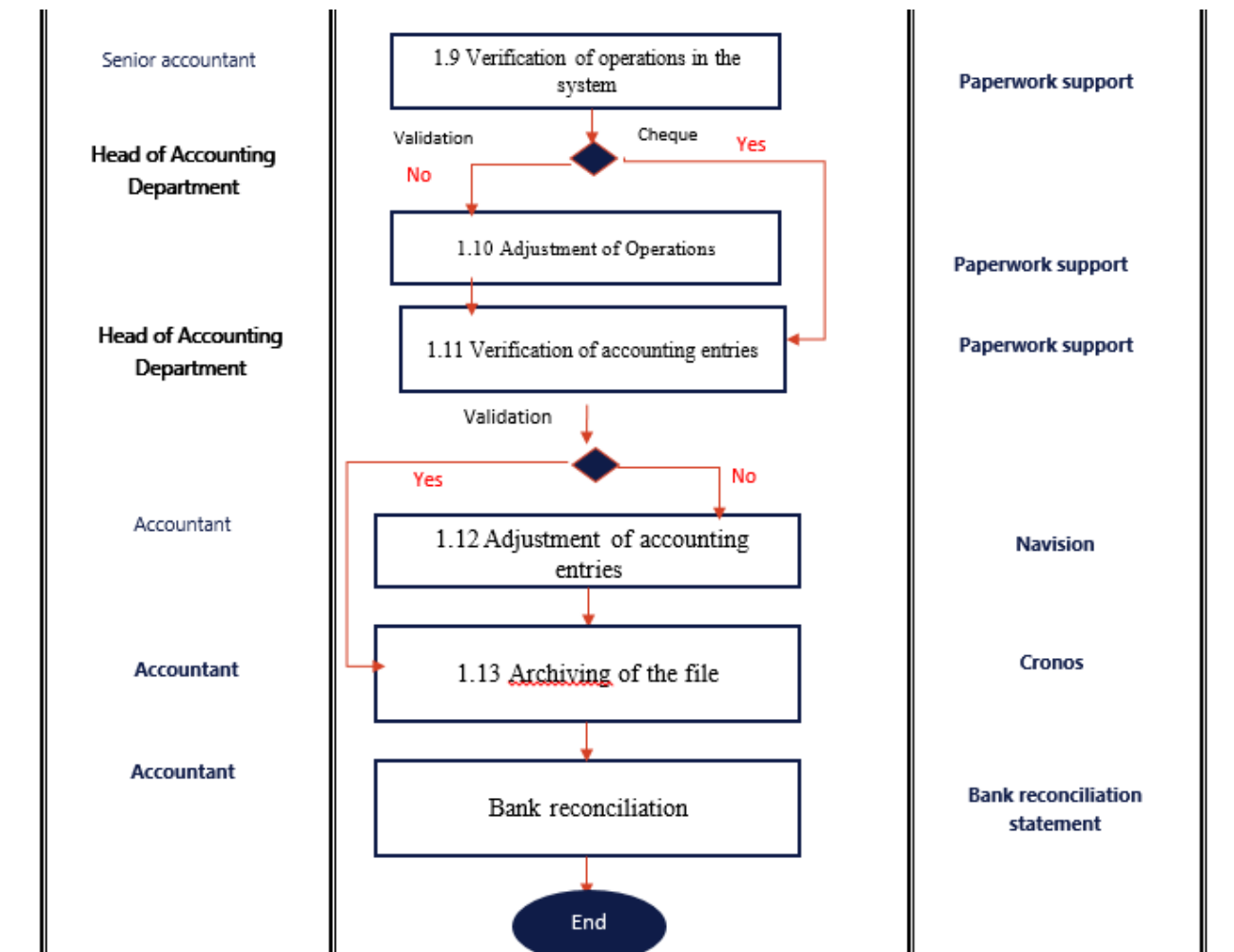
Furthermore, it is noticeable that the accounting registration, which is considered the first step in the accounting cycle, is now automated without the accountant having to manually determine account numbers from the chart of accounts or specify the amounts recorded in each account. Once the file's accuracy and contained information are verified, the pre-registered invoice can be confirmed, and the accounting entry is automatically recorded in the system. This eliminates the need for a verification stage of the accounting registration and making adjustments before sending the file to the treasury department for payment.

II.3.2 Recording Sales Invoices and Receipt procedure:

II.3.2.1 Procedure Application Before SAP Implementation: This procedure aims to define the steps and modalities of the accounting operation of recording invoices for sales, as well as for Customer receipts, by using Navision accounting software.

Figure N°25: Recording Sales Invoices and Receipt Procedure Flowchart Before SAP Implementation



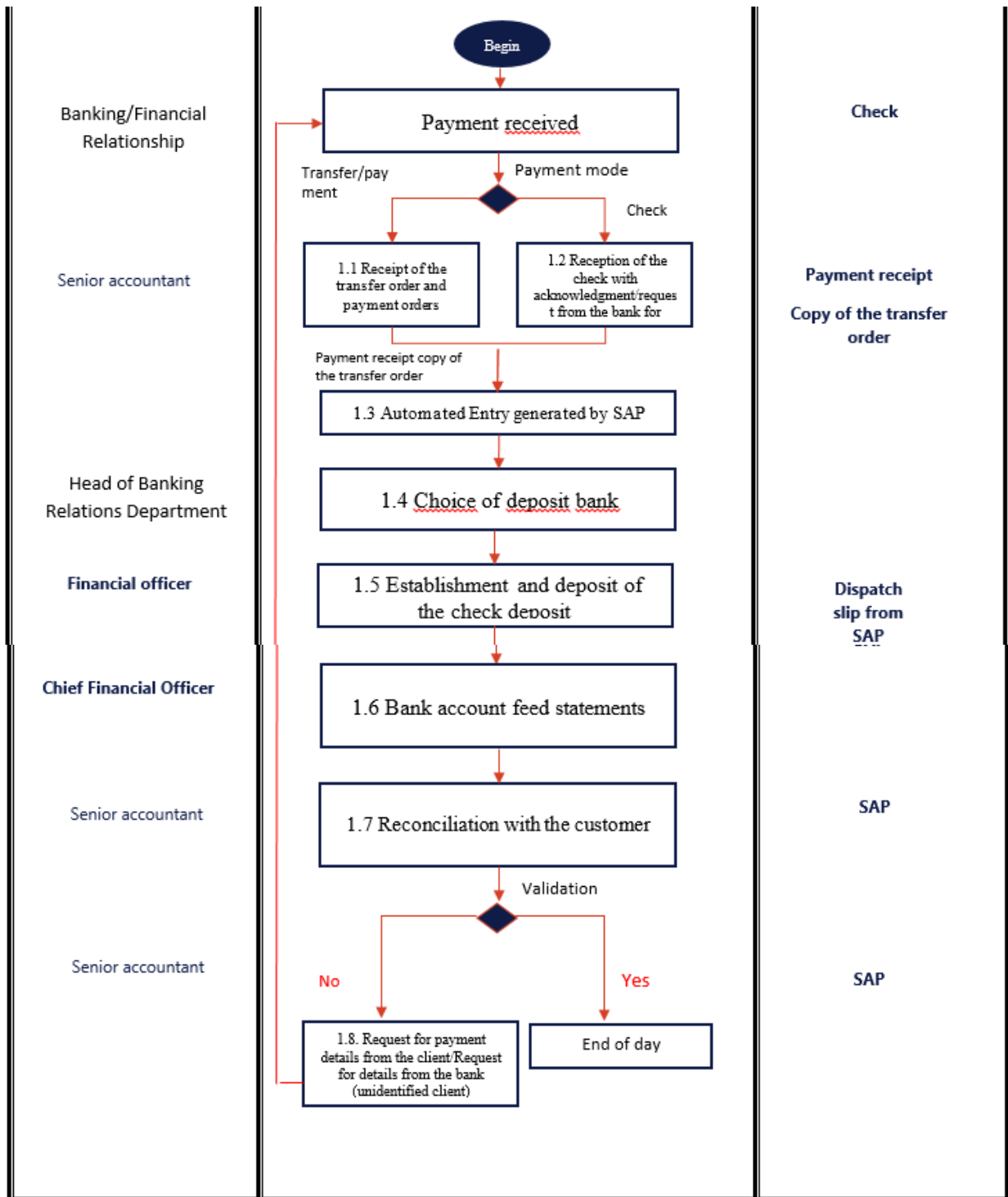


The source: Prepared by the students based on the institution's documents.

II.3.2.2 Procedure Application After SAP Implementation:

The implementation of SAP allowed for the almost complete abandonment of paper documents in transactions with banks and automatic entry in SAP, in addition to activating the sales department role in the invoice generation in the system as detailed below, this allows the accounting department to save more time and effort, and dedicate it towards other matters.

Figure N°26: Recording Sales Invoices and Receipt Procedure Flowchart After SAP Implementation



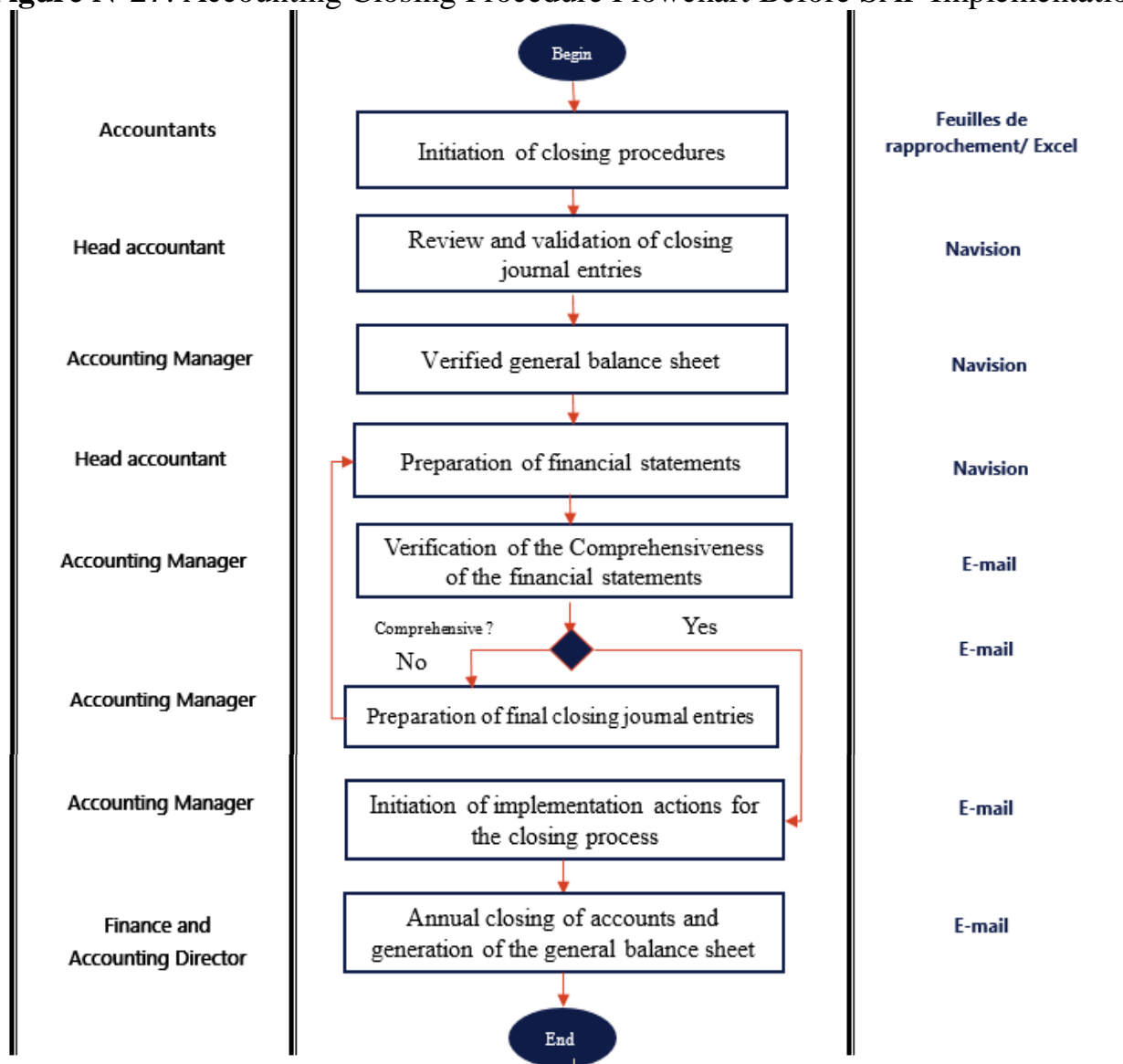
The source: Prepared by the students based on the institution's documents.

II.3.3 Accounting Closing Procedure:

II.3.3.1 Procedure Application Before SAP Implementation:

This procedure aims to define the various steps to follow for the financial closing operation, in order to prepare financial statements.

Figure N°27: Accounting Closing Procedure Flowchart Before SAP Implementation



The source: Prepared by the students based on the institution's documents.

II.3.3.2 Procedure Application After SAP Implementation:

For year-end closing procedures, there is not a significant difference in the time required to perform year-end tasks or the steps involved; the difference lies in the complete reliance on SAP to carry out these steps. This is facilitated by SAP allowing the accounting department to simulate accounting entries related to closing, enabling the preparation of adjusted financial statements each time entries are corrected, without impacting them directly and without the need for other software.

The Summary of the Second Chapter:

This Practical study conducted at SPA Condor Electronics employs a descriptive approach to investigate the impact of implementing ERP SAP on the company's accounting process. The study aims to provide a comprehensive overview of the changes and improvements observed in accounting process following the adoption of ERP SAP.

Through a detailed examination of various accounting procedures, the study identifies key areas affected by the implementation of ERP SAP. These include data entry and management, financial reporting, and decision-making processes. By gathering qualitative data through observations, and document analysis, the study offers insights into the experiences and perceptions of employees involved in the accounting process.

The findings reveal several significant impacts of ERP SAP implementation on the accounting process at SPA Condor Electronics. These include increased efficiency in data processing, enhanced accuracy in financial reporting, improved access to real-time information, and greater integration across departments. Additionally, the study highlights the role of ERP SAP in facilitating decision-making by providing timely and reliable data to stakeholders.

Despite the overall positive impact, the study also identifies challenges encountered during the implementation phase, training needs, and system integration issues. These challenges are discussed in the context of their implications for the effectiveness of the ERP SAP implementation and suggestions are provided for addressing them.

In conclusion, this Practical study offers valuable insights into the impact of implementing ERP SAP on the accounting process at SPA Condor Electronics. The findings contribute to our understanding of the benefits and challenges associated with ERP adoption in improving accounting process and inform recommendations for future implementations.

Conclusion

Enterprise Resource Planning (ERP) systems have become ubiquitous in modern entities, promising streamlined business processes and improved decision-making.

In the first chapter, a comprehensive overview is provided, encompassing enterprise resource planning (ERP) systems, the accounting process, and previous studies in the field. The exploration of ERP systems highlights their role in enhancing organizational efficiency, while the discussion on the accounting process emphasizes its fundamental importance in accurate financial reporting and decision-making. Insights from previous studies shed light on challenges, trends, and advancements in ERP implementation and accounting process.

Building on this groundwork, the second chapter presents a Practical study conducted at SPA Condor Electronics, focusing on the impact of implementing ERP SAP on the company's accounting process. Employing a descriptive approach, the study identifies key areas affected by ERP SAP implementation, including data entry and management, financial reporting, and decision-making processes. Findings reveal increased efficiency and accuracy in data processing, enhanced access to real-time information, and improved decision-making capabilities. Despite challenges encountered during implementation, the study provides valuable insights for addressing them and underscores the overall positive impact of ERP SAP implementation on accounting process.

-Study Results: Through our attempt to address the research question, we have arrived at the following conclusions, including findings that test the validity of our hypotheses:

- The implementation of ERP SAP at SPA Condor Electronics has significantly improved the efficiency of data entry and management in accounting processes. Through automation and standardization, SAP has streamlined data entry tasks, resulting in faster and more accurate processing of financial information, what achieves the first hypothesis.
- ERP SAP has enhanced the integration and coordination of various accounting functions within SPA Condor Electronics. By centralizing data and facilitating communication between departments, ERP SAP has improved the synergy and collaboration among different accounting functions, such as accounts payable, accounts receivable, and general ledger management.
- The adoption of SAP has led to a notable improvement in the accuracy of financial data within SPA Condor Electronics. Through the automation of data entry processes and the implementation of robust data validation mechanisms, ERP SAP has reduced manual errors and enhanced the reliability of financial information generated by the accounting process, also increased the relevance of financial data within SPA Condor Electronics by providing real-time access to updated information. This real-time visibility enables stakeholders to make more informed decisions and enables strategic

Conclusion

planning by offering timely insights into the financial performance of the organization, which validates the second hypothesis.

- The introduction of SAP has streamlined the accounts payable process at SPA Condor Electronics, leading to faster invoice processing and improved vendor management. This efficiency improvement has resulted in cost savings and enhanced cash flow management for the organization.

- ERP SAP has enhanced the accounts receivable process at SPA Condor Electronics by automating invoice generation, reducing billing errors, and expediting payment processing. This has resulted in improved cash flow and reduced outstanding receivables for the organization.

- Despite the benefits of SAP implementation, limited user expertise and inadequate training have posed challenges in effectively utilizing it for accounting purposes at SPA Condor Electronics. These challenges have resulted in errors, inefficiencies, and suboptimal performance in utilizing it for accounting tasks, this confirms the validity of the third hypothesis.

-Recommendations: Based on the tangible realities and findings obtained through our study of this topic, the following recommendations can be made to contribute to the development and improvement of ERP SAP usage at SPA Condor Electronics:

- Invest in comprehensive training programs given the challenges related to limited user expertise and inadequate training, it is essential for SPA Condor Electronics to invest in comprehensive training programs for employees involved in utilizing ERP SAP for accounting purposes. These programs should cover not only the technical aspects of using the software but also best practices for optimizing its functionality in accounting tasks.

- Foster cross-functional collaboration to enhance the integration and coordination of various accounting functions, SPA Condor Electronics should foster cross-functional collaboration among different departments involved in the accounting process. This could involve establishing regular communication channels and collaboration opportunities to facilitate knowledge sharing and alignment of goals.

- Enhance data validation mechanisms to further improve the accuracy of financial data, SPA Condor Electronics should focus on enhancing data validation mechanisms within ERP SAP. This could involve implementing additional validation checks and controls to minimize the occurrence of errors in financial reporting.

- Implement data governance best practices to maintain the integrity and reliability of financial data, SPA Condor Electronics should implement data governance best practices within ERP SAP. This could include establishing data quality standards, data stewardship roles, and data governance policies to ensure that data is accurate, complete, and consistent.

-Study Perspectives: While considerable effort has been exerted in conducting this research, it is not without its limitations due to our inability to address every aspect of the topic in detail. However, this research could serve as a bridge connecting previous studies, adding some novel insights to enrich and rejuvenate them, and laying the groundwork for future research topics that may pose challenges for further investigation, including:

- Exploring integration challenges faced during ERP SAP implementation and identifying strategies to overcome these challenges would be valuable. This could involve examining technical, organizational, and cultural factors that affect system integration and proposing solutions to facilitate seamless integration.
- Comparative studies comparing ERP SAP with other ERP systems or accounting software could offer valuable insights into the relative advantages and disadvantages of different systems. This could help entities make more informed decisions when selecting and implementing ERP solutions.
- Conducting financial performance analysis to assess the impact of ERP SAP implementation on key financial metrics would be informative. This could involve comparing financial performance before and after implementation, as well as benchmarking against industry peers.

References

The references in Arabic

1-Books

- زياد هاشم السقا، نظام معلومات المحاسبة، الطبعة الثانية، دار الطريق للنشر والتوزيع، العراق، 2011.

2- University dissertations

- نعيمة بسي، نظام معلومات ERP: أداة لتنسيق مراجعة التسويق والرقابة الإدارية - دراسة حالة لمجموعة هدارا فارم الجزائرية، رسالة دكتوراه، تخصص علوم الإدارة، جامعة الجزائر 3.

- بوزولواغ رضوان، دور نظام تخطيط موارد الشركات في تحقيق الوعي الاستراتيجي للمؤسسة - دراسة ميدانية لعينة من المؤسسات الاقتصادية، رسالة دكتوراه، تخصص علوم الإدارة، مركز الجامعة عبد الحفيظ بوعلوان، ميله، 2021-2022.

3-Journals and scientific conferences

- منى كشاف، متطلبات نجاح نظم تخطيط موارد الشركات (ERP)، مجلة الأصيل للبحوث الاقتصادية والإدارية، المجلد 02، العدد 3، يونيو 2018.

The references in foreign language

1-Books:

-Leslie Turner, Andrea Weickgenannt, Mary Kay Copeland, Accounting Information Systems Controls and processes, Third Edition, Library of congress Cataloging-in-Publication Data, USA, 2017.

-Thomas F. Wallace, Michael H. Kremzar, ERP: Making It Happen -The Implementers' Guide to Success with Enterprise Resource Planning-, John Wiley & Sons, Inc, New york, 2001.

-Jean-Louis Lequeux, Manger avec les ERP, Third Edition, Eyrolles édition d'organisation, Paris, 2008.

- Jerry J.Weygand, , Paul D.Kimmel, Donald E.Kieso, Accounting Principiles, 12th edition, Wiley, USA, 2015.

- Maire Loughan, Financial Accounting for Dummies, Wiley Publishing, Inc., Indiana, 2011.

- Jerry J.Weygand, , Terry D. Warfield, Donald E.Kieso, Intermediate Accounting, 15th edition, Wiley Publishing, Inc., Indiana, 2013.

- Christine Jonick, Principles of Financial Accounting, University of North Georgia Press, Georgia, 2017.

References.....

-Carlo Caserio, Sara Trucco, Enterprise Resource Planning and Business Intelligence Systems for Information Quality an Empirical Analysis in the Italian Setting, Springer International Publishing, Switzerland.

- Mark G. Simkin, Jacob M. Rose, Carolyn Strand Norman, Core Concepts of Accounting Information Systems, 12th edition, John Wiley & Sons, Inc., United States of America, 2012.

2-Articles

-Sreekumar A. Menon, Marc Muchnick, Clifford Butler & Tony Pizur, Critical Challenges in Enterprise Resource Planning (ERP) Implementation, International Journal of Business and Management, Vol. 14, No. 7, June 2019.

- Mudit M. Saxena, ERP Implementation in Industries and Its Challenges, International Journal of Engineering Research & Technology (IJERT), Vol. 4, Issue No. 10, 2016.

- Khaled Al-Fawaz, Tillal Eldabi, Aisha Naseer, Challenges and Influential Factors in ERP Adoption and Implementation, European, Mediterranean and Middle Eastern Conference on Information Systems 2010, Abu Dhabi, April 12-13 2010.

- Firas A. N. Al-Dalabih, The Impact of the Use of Accounting Information Systems on the Quality of Financial Data, International Business Research, Vol. 11, Issue No. 5, 2018.

3-Legal Legislation

-Executive Decree 09-110, Determination the requirements and procedures for maintaining accounting using computer systems, dated 04/07/2009, The Official Journal of the Algerian Republic dated 04/08/2009, Issue N°21.

Websites

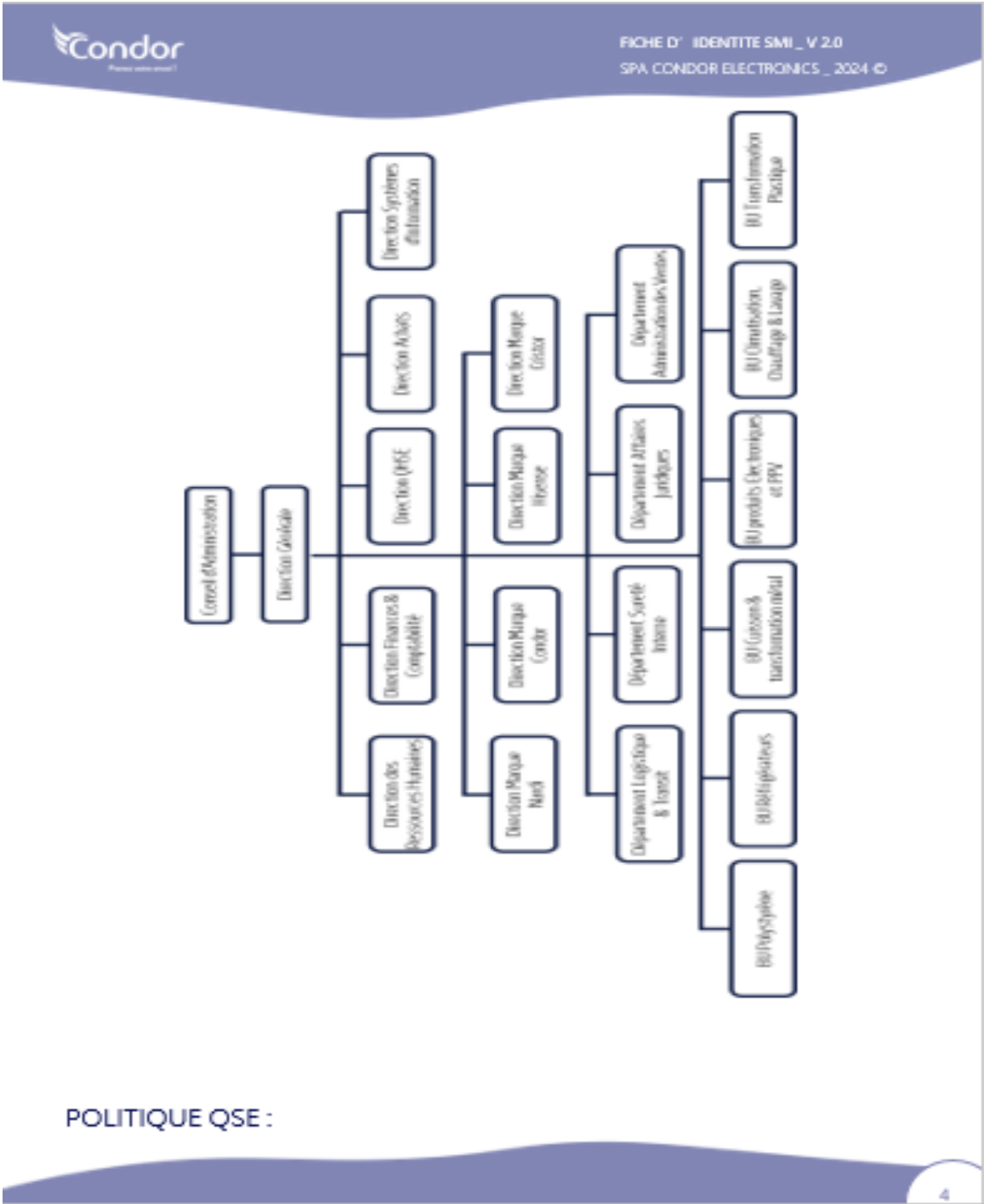
<https://www.sap.com/about/what-is-sap.html>

Appendices

Appendice N°01: Technical card


 FICHE D' IDENTITE SMI _ V 2.0 SPA CONDOR ELECTRONICS _ 2024 ©	
PRESENTATION DE L' ENTREPRISE :	
<p>Créé en 2002, CONDOR ELECTRONICS est l'un des pionniers dans le secteur industriel Algérien, spécialisé dans la fabrication et vente des Réfrigérateurs, congélateurs, Climatiseurs, Radiateurs à gaz, Machines à laver, Lave-vaisselles, produits électroniques, panneaux photovoltaïque, produits cuisson et Petits appareils ménagers.</p> <p>En Algérie, Condor est une marque très fortement implantée, et réputée pour sa capacité d'innovation, ses produits de qualité et son engagement permanent pour la satisfaction de la clientèle. Elle occupe une position de leader dans la plupart de ses activités.</p>	
Nom de la société	CONDOR ELECTRONICS
Forme juridique	SPA
Numéro de Registre de commerce	0462772802
Numéro d' identification fiscale	000234046277228
Numéro d' employeur	34 586358 38
Article Imposable	34014203792
Date de création de la société	09/02/2002
Date d' entrée en production	23/11/2002
Marque déposée	CONDOR (dépot à l' INAPI le 30 avril 2003)
Capital	4 277 000,000,00 DA
Président du Conseil d' Administration	Omar BENHAMADI
Directeur général	Ahmed HARROUZ
Adresse	Zone d' activité route de M' Sila lot 70, Section 161 Bordj Bou Areridj 34000-Algérie
Téléphone	+213 35 87 63 00/04
Fax	+213 35 87 63 63
Site Web	www.condor.dz

Appendice N°02: Organizational Chart



POLITIQUE QSE :

Appendice N°03: Accounting Entry Allocation Sheet

	CONDOR ELECTRONICS - GDS	VERSION : 01
	Feuille d'Imputation	

Code utilisateur : HBENRADOUANE

Exercice : 2024

N° Document : FAE-24-00583

Code Journal : A001

N° Opération : 1170

Date Document : 21/04/24

ACHATS

N° Transaction : 6730

N° Compte	Nom Complet	N° doc. externe	Montant débit	Montant crédit
38200000	Achats stockés, autres approvisionnements	0035/2024	48 000,00	
	Source : Fournisseur ; FRL-0644 ; SLIMANI KHALED			
64505000	Droits de timbre	0035/2024	480,00	
	Source : Fournisseur ; FRL-0644 ; SLIMANI KHALED			
40110000	Frs de stocks et services	0035/2024		48 480,00
	Source : Fournisseur ; FRL-0644 ; SLIMANI KHALED			
Totaux Ecriture			48 480,00	48 480,00

Visa du Cadre Comptable

Visa du Comptable Principal

BENRADOUANE
Comptable

(Handwritten signature)

Appendice N°04: EY ERP SAP Conception Chart (FI Module)



Index

01	Vision générale et entités organisationnelle FI
02	Comptabilité Générale (FI-GL)
03	Comptabilité Fournisseurs (FI-AP)
04	Comptabilité Clients (FI-AR)
05	Comptabilité Bancaire et Trésorerie (FI-BL, FI-TR)
06	Comptabilité des Immobilisations (FI-AA)



Appendice N°05: EY ERP SAP Conception Chart (Co Module)



Index

-
- 01 Vision générale et structure organisationnelle CO

 - 02 Natures comptables, Centres de coûts et Ordres Internes (CO-OM). Centres de Profit (EC-PCA)

 - 03 Analyse du compte de résultat (CO-PA)

 - 04 Contrôle des coûts par produit (CO-PC)



Appendice N°06: EY ERP SAP Conception Chart (SD Module)



Index

-
- 01 Données de base Administration des ventes

 - 02 Détermination du prix dans l'ADV (SD-BF-PR)

 - 03 Contrôle de disponibilité et besoins dans la gestion

 - 04 Gestion des crédits/gestion des risques

 - 05 Ventes (SD-SLS)

 - 06 Expédition (LE-SHP)

 - 07 Transport (LE-TRA)

 - 08 Facturation (SB-BIL)

 - 09 Calendrier de Facturation (SD-BIL-IV)

 - 10 Reporting
-



Appendice N°07: EY ERP SAP Conception Chart (MM Module)




Index

-
- 01 Achats
-
- 02 Gestion de Stocks
-
- 03 Contrôle des Factures
-



Appendice N°08: Recording Sales Invoices and Receipt Procedure

	SPA CONDOR ELECTRONICS	Code : PR.FC.01
		Version : 01
	Procédure de comptabilisation et encaissements	Date :14/06/2020
		Page : 4/10

1-Objet :

La présente procédure a pour objet de définir les étapes et les modalités de l'opération de comptabilisation et encaissements

2-Domaine d'application :

Cette procédure s'applique sur tout

3-Documents et références :

- ISO 9001 :2015
- PS.FC
- Loi de finance

4- Définitions et abréviations :

4.1- Définitions :

Comptabilisation :

Encaissements :

Hors espèces :

Espèces :


4.2-Abréviations :

/

5- Responsabilités :

- o La structure finances et comptabilité gère et veille à l'application de la présente procédure
- o La responsabilité de la mise en œuvre de cette procédure relève au département comptabilité.

Appendice N°09: Procurement and Payment Procedure

	SPA CONDOR ELECTRONICS	Code : PR.FC.03
		Version : 01
	Procédure de comptabilisation et décaissement	Date :14/06/2020
		Page : 4/24

1-Objet :

La présente procédure a pour objet de définir les différentes étapes à suivre de l'opération de comptabilisation et décaissement.

2-Domaine d'application :

Cette procédure s'applique sur toute l'activité de comptabilisation et décaissement au sein de la direction finance et comptabilité.

3- Documents et références :

- ISO 9001 :2015
- PS.FC
- Loi de finance

4- Définitions et abréviations :

4.1- Définitions :

∟

4.2- Abréviations :

DFC : Direction des finances et comptabilité.

QHSE : Qualité hygiène sécurité et environnement.

LC : lettre de crédit.

BC : Bon de commande.

RD : Remise documentaire.

TL : transfert libre.

C30 : Déclaration fiscale au fournisseur.

G 50 : Déclaration fiscale.

D10 : Document douanier.

ATF : Attestation du transfert de fond.

DGE : Direction des grandes entreprises.

5- Responsabilités :

- o La structure Finance et comptabilité gère et veille à l'application de la présente procédure
- o La responsabilité de la mise en œuvre de cette procédure relève aux chargés de l'opération comptabilité et décaissement.

Appendice N°10: Accounting Closing Procedure

	SPA CONDOR ELECTRONICS	Code : PR.FC.04
		Version : 01
	Procédure de clôture comptable	Date :14/06/2020
		Page : 4/10

1-Objet :

La présente procédure a pour objet de définir les différentes étapes à suivre de l'opération de la clôture comptable.

2-Domaine d'application :

Cette procédure s'applique sur tout le service de clôture comptable au sein de la direction finance et comptabilité.

3-Documents et références :

- ISO 9001 :2015

4- Définitions et abréviations :

4.1- Définitions :

/

4.2-Abréviations :

5- Responsabilités :

- o La structure Finance et comptabilité gère et veille à l'application de la présente procédure
- o La responsabilité de la mise en œuvre de cette procédure relève aux chargés de l'opération clôture comptable.

Table of Contents

Table of Contents.....

Title	Page
Dedication	-
Acknowledgements	-
Abstract	I
Table of contents	II
List of tables	III
List of Figures	III
List of Appendices	IV
Introduction	a-c
I. The Theoretical Framework of The Study	04
Preface	05
I.1 Enterprise Resource Planning (ERP)	06-16
I.1.1 Overview of ERP Systems	06-11
I.1.2 Requirements of a Successful ERP System	11-12
I.1.3 Implementation of ERP Systems	13-16
I.2 The Accounting Process	17-25
I.2.1 Quality of Accounting Information and process	17-21
I.2.2 The Accounting Information Systems	21-23
I.2.3 Executive Decree No. 09-110 Determining the requirements and procedures for maintaining accounting using computer systems	23-25
I.3 Previous Studies	25-32
I.3.1 Academic Theses in Arabic	25-27
I.3.2 Academic Articles in Arabic	27-30
I.3.3 Previous studies in foreign language	30-32
The Summary of the First Chapter	33
II. The Practical Study	34
Preface	34
II.1 Field and Study Tools Used	35-38
II.1.1 Methodology of the study	35
II.1.2 Study tools used	35
II.1.3 Presentation of SPA Condor Electronics	35-38
II.2 ERP SAP Implementation Procedures	39-61
II.2.1 An Overview On SAP	39-40
II.2.2 SPA Condor Electronics Enterprise Resources Planning SAP Modules	40-57

Table of Contents.....

II.2.3 The Relationship between the Financial Module and the Flow of Information from Other Modules in Condor Electronics	57-61
II.3 A Comparison Between ERP SAP Accounting Process and Traditional Accounting Process in SPA Condor Electronics	61-69
II.3.1 Recording Procurement and other Bills and Disbursement Procedure	61-65
II.3.2 Recording Sales Invoices and Receipt procedure	65-68
II.3.3 Accounting Closing Procedure	68-70
The Summary of the Second Chapter	70
Conclusion	72-74
References	76-77
Appendices	79-88
Table of Contents	91-92

Abstract:

This study aimed to examine the effects of Enterprise Resource Planning (ERP) systems on the quality of accounting processes, with a focus on SPA Condor Electronics as a case study.

and to achieve this, the descriptive analytical approach was employed utilizing the tool of observation Through data collected from documentation reviewed, this research sheds light on the extent to which ERP implementation impacts various dimensions of accounting process quality within the entity.

The study resulted in several findings, the most important of which include Findings that suggest both challenges and benefits associated with ERP adoption in enhancing accounting process efficiency, accuracy, and overall quality. The study contributes to the understanding of ERP's role in shaping accounting process and provides insights for practitioners and researchers alike.

Key words: Enterprise Resources planning (ERP), Accounting Process, SPA Condor Electronics, ERP Implementation, Modules.