MINISTRY OF EDUCATION OF THE REPUBLIC OF AZERBAIJAN

AZERBAIJAN STATE ECONOMIC UNIVERSITY

INTERNATIONAL MAGISTRATION AND DOCTORATE CENTER

MASTER THESIS

ON THE TOPIC

"IMPLEMENTATION OF ERP FOR ACCOUNTING AND AUDIT IN PRODUCTION INDUSTRY"

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THE MINISTRY OF EDUCATION OF THE REPUBLIC OF AZERBAIJAN
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MASTER DISSERTATION

ON THE TOPIC

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MƏHSUL İSTEHSALINDA MÜHASİBAT VƏ TƏŞKİLAT ÜÇÜN ERP TƏTBİQİ

Xülasə

Tədqiqatın aktuallığı: Tam sürətlə inkişaf etməyə davam edən informasiya və kommunikasiya texnologiyalarından istifadə bu gün özünü hər sahədə göstərir. Dünyada geniş istifadə olunan informasiya texnologiyalarından biri də müəssisə resurslarının planlaşdırılmasıdır.

Tədqiqatın məqsəd və vəzifələri: Tədqiqatın məqsədi kiçik və orta müəssisələrdə mühasibat uçotu sisteminin təkmilləşdirilməsi üçün metodiki alətlər və praktik tövsiyələr hazırlamaqdır.

Tədqiqatın metodları: Dissertasiya tədqiqatının metodologiyası həm biliklərin nəzəri səviyyəsinin həm də empirik biliklərin ümumi elmi metodlarına - analiz və sintez, induksiya və deduksiyaya əsaslanır.

Tədqiqatın informasiya bazası: Bu işdə informasiya bazası olaraq biz Azərbaycan və xarici ölkələrin qanunvericilik və normativ aktlarından, mühasibat və maliyyə hesabatlarını tənzimləyən tənzimləyici və metodoloji materiallardan, kiçik və orta müəssisələrdə mühasibat uçotu üçün beynəlxalq metodoloji materiallardan, beynəlxalq maliyyə hesabat standartları, bir sıra Azərbaycanın kiçik və orta şirkətlərinin faktiki məlumatları, Azərbaycanın kiçik və orta müəssisələrinin işçilərinin onlayn sorğusunun nəticələri, kiçik və orta müəssisələr üçün mühasibat və vergi məlumatları.

Tədqiqat məhdudiyyətləri: KOM-lərin əksəriyyətinin rəsmi veb saytları olmadığı üçün maliyyə almaq çətindir.

Araşdırmanın yeniliyi və praktiki nəticələri: Tədqiqatın elmi yeniliyi, Azərbaycanın kiçik və orta müəssisələrində metodoloji vasitələrin hazırlanması və mühasibat və maliyyə hesabatları sisteminin təkmilləşdirilməsindən ibarətdir.

Nəticələrin istafadə oluna biləcəyi sahələr: Dissertasiyanın praktik əhəmiyyəti ondan ibarətdir ki, onun əsas müddəaları, nəticələri, işlənmiş metodoloji yanaşmaları və tövsiyələri Azərbaycanın kiçik və orta müəssisələrinin mühasiblərinin, mütəxəssislərinin və maliyyə məsləhətçilərinin mühasibat və analitik işlərində istifadəyə yönəldilmişdir. KOM-lar üçün MHBS sahəsində.

Açar sözlər: Məlumat və rabitə, KOS, maliyyə hesabatı

“IMPLEMENTATİON OF ERP FOR ACCOUNTİNG AND AUDİT İN PRODUCTİON İNDUSTRY”

SUMMARY

The actuality of the subject: The use of information and communication technologies, which continue to develop at full speed, shows itself in every field today. One of the widely used information technologies around the world is enterprise resource planning.

Purpose and tasks of the research: The purpose of the study is to develop methodological tools and practical recommendations for improving the accounting system in small and medium enterprises.

Used research methods: The methodology of the dissertation research was based on both methods of the theoretical level of knowledge and general scientific methods of empirical knowledge - analysis and synthesis, induction and deduction.

The information base of the research: As the information base in this work, we used legislative and regulatory acts of the Azerbaijan and foreign countries, regulatory and methodological materials governing accounting and financial reporting, international methodological materials for accounting at small and medium enterprises, international financial reporting standards, actual data of a number of Azerbaijan small and medium-sized companies, results of an online survey of employees of Azerbaijan small and medium-sized enterprises, accounting and tax data for small and medium-sized enterprises.

Restrictions of research: Since most SMEs do not have official websites, it is difficult to obtain funding.

Scientific-practical significance of results: The practical significance of the dissertation is that its main provisions, developed methodological approaches and recommendations are focused on the use in the accounting and analytical work of accountants of Azerbaijan small and medium enterprises, experts and financial consultants in the field of IFRS for SMEs.

Keywords: İnformation and communication, SMEs, financial reporting

Elm andı

Mən İsmayılov Eldəniz Emin oğlu, and içirəm ki, “Implementation of ERP for accounting and audit in production industry” mövzusunda magistr dissertasiyasını elmi əxlaq normalarına və istinad qaydalarına tam riayət etməklə və istifadə etdiyim bütün mənbələri ədəbiyyat siyahısında əks etdirməklə yazmışam.

LIST OF ACRONYMS

ERP: Enterprise resource planning

CAAT: Computer-Aided İnspection Techniques

CONTENT

INTRODUCTION

The actuality of the subject: The use of information and communication technologies, which continue to develop at full speed, shows itself in every field today. One of the widely used information technologies around the world is enterprise resource planning. The system called ERP is an important system in terms of efficient use of resources and integration of work flows in today's world where competition is increasing and customer-oriented work is gaining importance. With ERP, companies can access more information, faster, on time and at lower costs.

ERP is an integrated system that provides information. ERP first started with material requirements planning (MRP) in 1960. Later, MRP II was developed and today there is a development from ERP to ERP II. ERP, which started to be used in the 90's in the world, has made great progress in recent years.

ERP installation and implementation consists of many stages. The business delivers its activities to international or national markets. In this era, where communication is accelerated and markets are reached at every point, and global production thinking prevails, it is mandatory for the management to adopt professional approaches. The decision process is specified as a process of change between the present and the future.

ERP is an important and necessary system in decision making. Especially senior management uses it very often in decision making. In this study, the general structure of the ERP system, its implementation process, its advantages and disadvantages, its cost and its effect on managerial decision making have been examined.

One of the characteristic features of the modern economic conditions of economically developed countries is the increase in the number of small and medium enterprises (SMEs). In the Azerbaijan, the share of SMEs in the country's economic system is still small, but the development of this sector of the economy is recognized as the most promising.

It should be noted that a significant obstacle to the entry of Azerbaijan SMEs into the global economic arena is the imperfection and significant inconsistency

of national legislation regarding the organization and maintenance of accounting and the preparation of financial statements, while compliance with the principles and qualitative characteristics of financial statements (transparency, reliability, relevance and comparability) is not possible without an effective accounting regulatory system.

This research paper considers the problem of introducing financial accounting for small and medium enterprises in Azerbaijan. The relevance of this problem is high, due to the growing role of international standards in world practice over the past five years and the lack of a consensus in Azerbaijan about the need to use it. The importance of introducing an international standard in Azerbaijan for small and medium enterprises in Azerbaijan is a necessary condition for successful interaction in the world market, increasing the reliability and transparency of financial accounting statements. The growing role of small and medium enterprises in the global economy and their impact on the economies of countries has long raised the question of the need for the introduction of comparable reporting. The simplified IFRS standard for small and medium-sized enterprises, created on the basis of a full set of IFRS, provided enterprises around the world with this opportunity.

In the research work, the historical development of the idea of creating an international standard for small and medium-sized enterprises is considered, and its distinguishing characteristics are compared with the full set of IFRS.

The relevance of the study is due to the special place of small and medium-sized enterprises in the Azerbaijan economy. In the current economic conditions, Azerbaijan small business could enter the international arena, however, this requires comparability of reporting of all participants in this market. International financial reporting standards for small and medium-sized enterprises provide such an opportunity, in view of which their study becomes even more necessary and in demand.

Problem setting and level of learning: The questions on this issue that scientists are dealing with are quite broad, as a result of which they can be divided

into groups. The role of small business in the country's economy was studied in the works of foreign researchers: P. Drucker, M. Porter, J. Hans Pichler, L.E.Slutsky, D. Tomich, V.Y. Fadeev, A.Y. Yudanova, V.M. Yakovleva et al. An analysis of the works of these authors showed that, along with a fairly deep elaboration of the potential opportunities of small and medium-sized businesses, there is a discussion of certain provisions. In particular, the prospect of further strengthening the position of small and medium-sized businesses is directly affected by the issue of determining criteria for classifying a business as a SME.

The work of O.A. Ageeva D.A. Endovitsky, M.V. Melnik, V.D. Novodvorsky, E.A. Murzina, S.N. Polenova, A.V. Orlova, N.G. Smirnova, A.V. Stakhnyuk, T.V.Shishkova, L.Z. Schneidman. At the same time, aspects of the transition of small and medium-sized enterprises to International Financial Reporting Standards for SMEs (IFRS for SMEs) have not been studied on the issue under consideration.

The purpose and objectives of the study: The purpose of the study is to develop methodological tools and practical recommendations for improving the accounting system in small and medium enterprises.

To achieve the goal of the study, the following tasks:

• to compare the criteria for classifying enterprises as small and medium-sized businesses in different countries;

• justify the feasibility of introducing IFRS for SMEs (IFRS for SMEs) in the practice of accounting for small and medium enterprises in Azerbaijan and analyze the current status of accounting regulations in Azerbaijan small and medium-sized enterprises;

• identify the main differences in Azerbaijan and international accounting standards for small and medium-sized businesses;

• substantiate proposals for the development of accounting for non-current assets in small and medium-sized enterprises.

The object and subject of the research: The object of research is the accounting system in small and medium-sized businesses. The subject of the

research is the process of reforming and adapting the organization and accounting system of Azerbaijan SMEs in accordance with the requirements of IFRS for SMEs.

Research methods: The methodology of the dissertation research was based on both methods of the theoretical level of knowledge and general scientific methods of empirical knowledge - analysis and synthesis, induction and deduction. In addition, the work used a systematic and integrated approach, logical and comparative methods, historical and analogy methods. As a theoretical base, we used the research of domestic and foreign scientists in the field of accounting for small and medium-sized businesses, materials from all-Azerbaijan and international scientific and practical conferences, concepts and theories of Azerbaijan and foreign authors, materials of a scientific and economic nature published in monographic and periodicals, and as well as economic journals on accounting problems of the small and medium business sector.

The information base of the study: As the information base in this work, we used legislative and regulatory acts of the Azerbaijan and foreign countries, regulatory and methodological materials governing accounting and financial reporting, international methodological materials for accounting at small and medium enterprises, international financial reporting standards, actual data of a number of Azerbaijan small and medium-sized companies, results of an online survey of employees of Azerbaijan small and medium-sized enterprises, accounting and tax data for small and medium-sized enterprises.

The limitation of the study: Since most SMEs do not have official websites, it is difficult to obtain funding.

Scientific novelty of the research: The scientific novelty of the study consists in the development of methodological tools and the refinement of the accounting and financial reporting system at small and medium enterprises of the Azerbaijan.

Practical significance of the results and areas of application: The practical significance of the dissertation is that its main provisions, results, developed methodological approaches and recommendations are focused on the use in the accounting and analytical work of accountants of Azerbaijan small and medium

enterprises, experts and financial consultants in the field of IFRS for SMEs. Of practical importance are: proposals for the development and organization of activities related to the implementation of the IFRS for SMEs standard in Azerbaijan small and medium-sized enterprises; recommendations for improving the regulatory framework of the accounting system for small and medium enterprises of the Azerbaijan; clarification of the concept of “fixed asset”, allowing companies to facilitate the identification and assessment of these accounting objects; a proposal for the use of an additional method for valuing fixed assets and intangible assets that increase the reliability of the financial statements of small and medium enterprises, as well as recommendations for choosing a depreciation method based on the expected pattern of obtaining future economic benefits.

The materials of the dissertation research can be used as the basis for conducting scientific research on the problems of organizing and maintaining accounting and presenting financial statements of small and medium-sized enterprises.

I CHAPTER. THE FACTORS THAT MAKE THE ERP SYSTEM ESSENTIAL FOR MANUFACTURING INDUSTRY AND ITS ROLE IN THE ECONOMY

1.1. The factors that make the ERP a key element in the management of advanced practices

In the radical structural change that has emerged with globalization, the industrial society leaves its place to the information society with structural differences and new structures that show completely differences in quality are formed. In the new society based on different models, factory and material production loses its characteristic of society, instead, the production of knowledge and service gains importance with symbolic elements. Similarly, capital, which has a strategic factor in the industrial society, leaves its place to knowledge, and knowledge becomes an important resource as much as energy and machinery required for an organization.

Information systems are a combination of hardware, software and communication networks. Technically, it is a whole in which interconnected parts work together in the collection, extraction, processing, storage and distribution of information to support the control and decision-making mechanisms in the organization. In addition to coordination, control and decision-making support, it helps managers and employees in analyzing problems, shaping complex issues and creating new products. The main goal of the information system is to keep information and facilitate decision-making for the decision maker.

Integrated information system. Integrated information systems are systems developed by using information and communication technologies to ensure that information is obtained, stored, transmitted and used, that is to be questioned and reported, in accordance with defined rules and order in order to increase the efficiency and effectiveness of the business. In the information system, correct information that supports the decision mechanism is fed by real and detailed data.

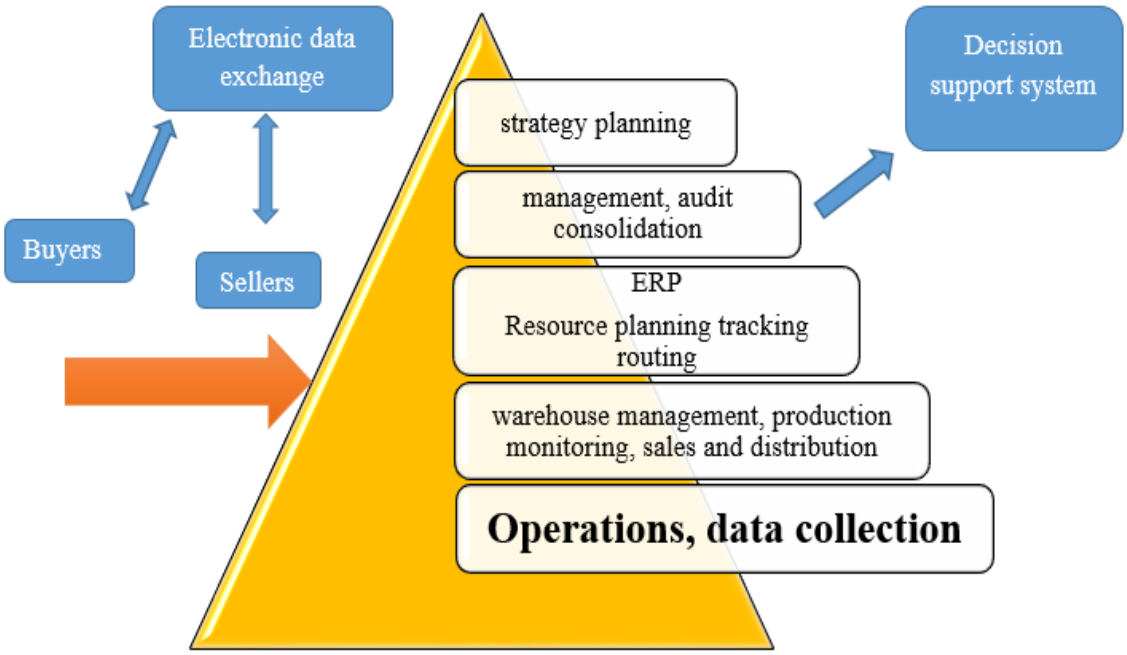
The contributions of the integrated information system to the business can be

listed as follows:

I. Provides competitive advantage;
II. It helps in creating and developing new products based on knowledge;
III. Increases operational efficiency in businesses;
IV. It gives customers the opportunity to provide better service;
V. It allows to recognize and capture new opportunities in the market.

Place of ERP in Integrated Information System. ERP Systems constitute the infrastructure of the Information system pyramid as shown in Figure 1 (Allen D., Kern T., 2012: p.324).

Figure 1: The place of ERP Systems in Information systems. ERP reporting.



Source: Klaus M. & Rosemann G.G. 2010: p.300

ERP Systems do not make decisions regarding businesses, process data collected for decision-making, provide data integration between functions, and present up-to-date data that the enterprise can use in strategic decisions. Business resources should be used in order to reduce the lead times in the enterprises, to realize the production in accordance with the constantly changing customer demands, to ensure the desired level of communication between the supplier company, manufacturer company, vendor company and customers in the supply

chain in accordance with the principles of efficiency, productivity and performance. The main manager of resource use in businesses is the Strategic Planning System. The interaction between the Strategic Planning System (SPS) and ERP systems is provided by Decision Support Systems. Decision Support Systems (DDS) use decision models, namely Operations Research, to generate information from data. Decision options required for strategic planning are created by Decision Support Systems. DDS reveals these options by using the data produced by the ERP system within the decision models.

It is understood from here that planning the resources correctly, making the activities sensitive to change and integrating the data that will affect the decision process is only possible with the ERP approach, paying attention to the goals and objectives determined by the strategic planning studies.

Definition of ERP. With the increase of international competition, the removal of customs walls and the spread of international trade, all companies have started to seek and follow new systems and strategies. ERP is one of them. Although there are general concepts on what ERP is understood in an academic context, debates continue on its definition. Although it is possible to make different definitions by looking at different angles for the concept of ERP, it can be defined as commercial software packages that provide the integration of all ongoing information flow in a company (Klaus M. & Rosemann G.G. 2010: p.300).

ERP is a software package that consists of many modules such as production, sales, finance and human resources. ERP systems are also large and complex software packages that support standard business activities.

ERP software; It has been developed based on the philosophy that the whole is bigger than the parts that make up this whole. It handles the functions of the enterprises, which were previously considered separately, as parts that work to achieve the objectives of the enterprise, and aims to maximize the efficiency of all kinds of resources (money, material, labor, machinery, time) in the enterprise.

It is the coordinated planning of the resources of the factories of the enterprise, their supplier companies and distribution centers located in geographically different

regions. It plans to meet the customer's order from which distribution center or in which factory it will be produced, it will be appropriate to meet the material and service needs of all factories, how the machinery, materials, workforce, energy, information and other production and distribution resources of the factories can be used in coordination and jointly.

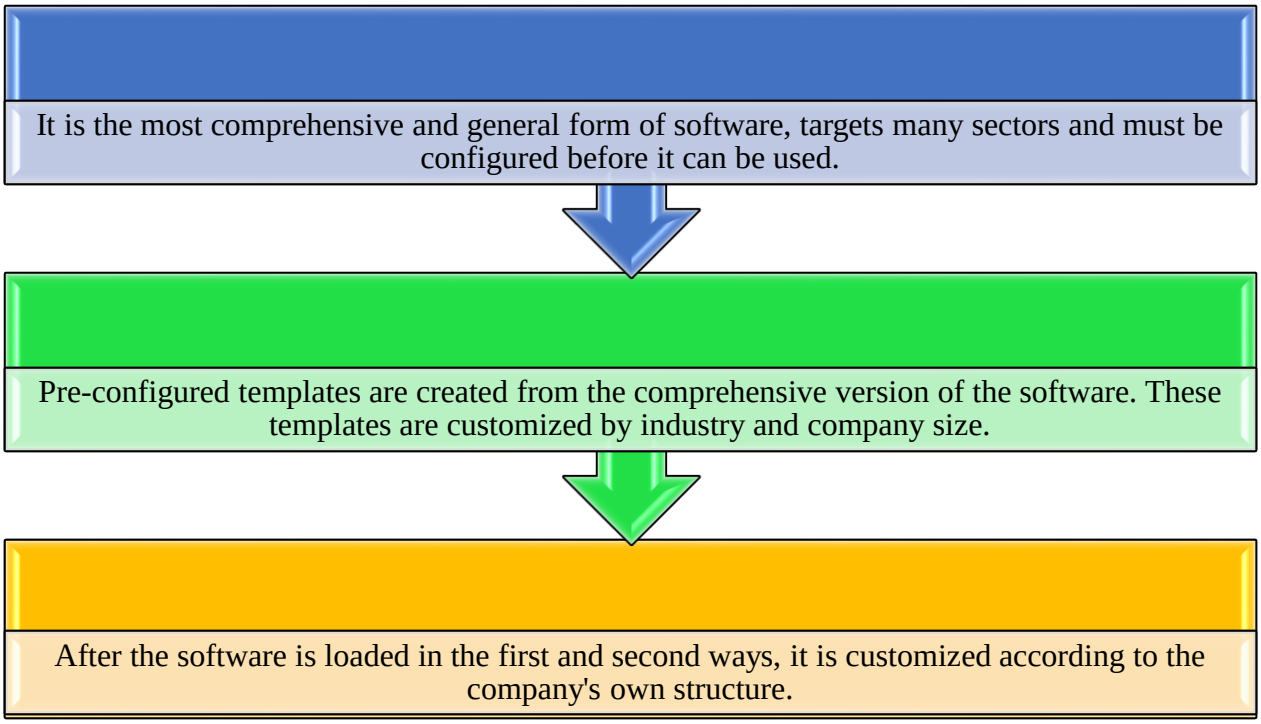
ERP systems consider functions that were previously considered separately in institutions as parts that work to fulfill the objectives of the institution in an interconnected way and aim to maximize the efficiency of all kinds of resources, labor, materials, money, machinery, etc. From another point of view, ERP systems ensure that the information obtained from the company's data stored in a common location is transmitted accurately and to the right authorities (Razmi J., Sangari M.S., Ghodsi R. 2012: p.314).

In the first stage, the software, which only had the function of material supply, now aims to integrate all parts of the enterprises with each other. When the scope expands this much, ERP systems are no longer defined as software. In successful ERP installations, businesses restructure all their business processes on the system. The most important reason why ERP is popular is that it enables an organization to operate effectively, has analysis and reporting available for long-term planning, and makes the best use of application and system resources.

As a result, ERP is a software system that includes the most effective and efficient planning, coordination and control functions of supply, production and distribution resources in different geographical regions in order to meet customer demands in the most appropriate way in line with the strategic goals and objectives of the enterprise. The basic principle in planning, coordination and control and systematic Production Resources Planning (MRP II) is the same (Klaus M. & Rosemann G.G. 2010: p.300).

Key Features of ERP Systems. ERP software can be customized to the different needs of different sectors. For this reason, ERP software comes in three different forms:

Figure 2: Key Features of ERP Systems. ERP reporting.



Source: Klaus M. & Rosemann G.G. 2010: p.300

Since it would not be meaningful to talk about the general features of ERP systems customized according to the sector, the size of the company or the company itself, but the most comprehensive and general features of these systems can be mentioned. Based on this, the general views about the defining features of ERP systems can be summarized as follows:

a) It is a standard software package that targets all sectors and can be customized during installation;

b) It has the flexibility to meet the evolving needs of the day;

c) It is comprehensive enough to support different types of organizations and broad organizational structures;

d) It provides realistic simulation;

e) It is much more suitable for customization compared to other packages (Özkan M. 2010: s.295).

Because, these standard packages, whose target sector is not defined, must be customized according to the specific needs of the institution during installation.

Rather than a database management software, middleware or an operating system, ERP is an application software:

a) It is an integrated database that holds both master data and data of business processes;

b) Offers solution suggestions about basic business processes;

c) It has a highly functional structure as it aims to support many institutional functions;

d) ERP product packages are designed to provide solutions around the world, independent of countries and regions. ERP packages fulfill functions such as accounting procedures that differ from country to country, creating special format documents and human resources management in accordance with national requirements;

e) The basic ERP product package targets all sectors, not some sectors, thanks to its functionality to enable worldwide use;

Another feature that distinguishes ERP software from others is that ERP packages support repetitive and continuous business processes such as supply management, order management and payment transactions. These packages do not concentrate only on low-level structured and disorganized functions such as marketing, product development and project management (Allen D., Kern T. 2012).

The main technical features of ERP are as follows:

a) Consistent graphical interfaces in all application areas;

b) A client-server architecture consisting of three layers: application, database and presentation;

c) Independent of operating system and hardware, ERP packages can be installed on different systems such as Solaris, Windows NT or Linux;

d) Although the complexity of the management is not only characteristic of ERP, there are few systems that are as critical as these systems.

1.2. The main trends in the implementation of the ERP

The Emergence of ERP. Personnel had to be empowered to provide the necessary speed to be competitive in the market. However, without good knowledge staff would not be able to make good decisions. Companies needed a single management system to pool data and provide valuable information when needed. It was no longer acceptable to make a request to the Information Technology (IT) department and wait to schedule it for nine months to receive this critical information. Information should be available quickly at the fingertips of decision makers. Only then could this information be used to make good business decisions (Demir V. & Bahadır O. 2012: s.80).

The cost of technology continued to decrease. With the introduction of the personal computer, another revolution occurred in business management systems. Inflexible large hosts have been replaced by new client-server technology. The power of these small personal computers exceeded the strength of the large mainframes that had been the standard just a few years ago. It was now possible to run a fully integrated MRP II system from a small personal computer. The cost of the systems now made it possible to find this integrated solution in even the smallest companies. Small companies weren't the only ones using this new approach in their calculations. Large companies are also rapidly moving from centralized mainframe to these practical client-server systems. A new breed has come to the fore in computer companies to handle this next stage of evolution and ERP. Enterprise resource management was now on the scene.

We can summarize the reasons for the development of the ERP concept as follows:

- Intense competition in international platforms, changing market conditions and globalization have required fast and easy access to data;
- Integration of manufacturing functions in companies in different regions can only be achieved with ERP systems;
- As multinational companies began to reprogram their supply chains as multiple workplaces, the need for ERP systems started to increase at the same rate.

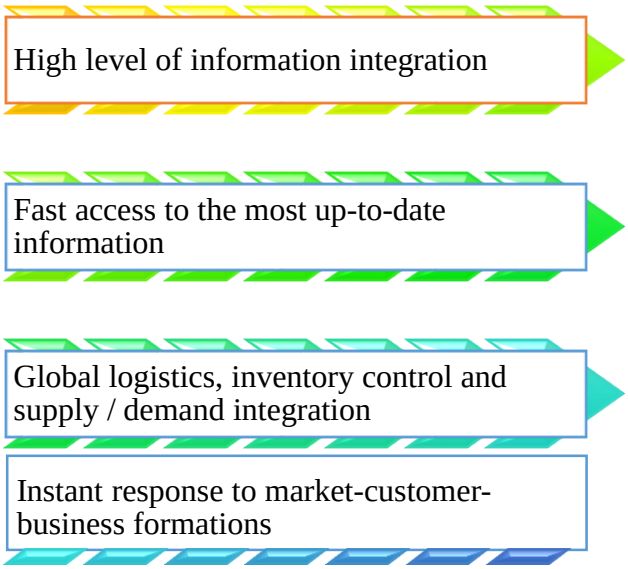
ERP systems optimally plan distribution resources;

- The rapid development of new information technologies has been effective in the development of ERP systems;
- The need to open up to international markets brought ERP with it;
- Just in time (JIT-Just in Time) supply system;
- Demolishing economic walls;
- Being able to respond quickly to changes in today's world markets where there is developing and destructive competition has been an indispensable element for success.

With hierarchical organizations, it is not possible to react quickly to this change and it is necessary for companies to transition to organizations, lean organizations, where horizontal communication is easier. Multinational companies, which are reconsidering their organizational structure, will have to change towards a structure where the balance between local activities and general business objectives will be achieved (Özkan M. 2010: s.295).

Thus, the following functions are provided:

Figure 3: Functions of ERP.



Source: Klaus M. & Rosemann G.G. 2010: p.300

It is a well-known fact that customer demand is constantly changing in terms of quality and quantity, and how difficult it is to predict this change. The way to

make our activities suitable for this change is through the ERP approach. Making our activities sensitive to change can only be achieved with the ERP approach by paying attention to the objectives and targets determined by strategic planning studies, as well as the capacity and characteristics of our production and distribution resources.

ERP is a system that performs the integration between factories in accordance with the flexibility principle on the basis of factories. While the aim is to benefit from the advantages of decentralized management on a factory basis, the coordination and integration between factories is provided in line with the basic strategies of the enterprise.

Benefits of the ERP system. Many industry reports reveal the benefits of ERP. One of the biggest goals in establishing ERP is to integrate business business processes. The use of ERP has also become critical in achieving customer satisfaction. ERP also reduces inventory costs; It is considered as an effective tool with its features that increase efficiency and profitability. It has been reported that it has an accelerating effect on production. Other benefits of ERP include the opportunity to work with less stock and working capital; It can be considered as providing the opportunity to evaluate customer requests and needs and to see suppliers and customers as a whole picture.

Top management information integration is provided with ERP. In addition, fast access to up-to-date information, control in the supply chain, supply and demand integration, integration of logistics processes and financial processes, and generally accepted control over business activities are other benefits.

As businesses grow, they become multi-facility, enter international markets and even own factories in different countries. Entering into intense competition in this way, businesses aim to provide competitive advantage to their competitors by making use of the opportunities they encounter, protecting their strengths, improving their weaknesses and seeing possible dangers (Demir V. & Bahadır O. 2012: s.80).

The tactical and operational level implementation tools of strategies are the utilization plans of business resources. ERP system is a software system that

provides effective and efficient use of these resources in line with the strategies of the enterprise. With the use of this system in accordance with its purpose;

• It provides a business management in line with the strategies. Because ERP is a system that aims to meet customer demands in the most reasonable way in line with strategic goals and objectives. It also provides the opportunity to evaluate the results of the strategies with the accurate and timely information it provides.

• Efficient and efficient use of business resources is ensured.

• It provides a close cooperation and information communication environment between the customer, distribution center, production and supplier.

• It becomes possible to reach the necessary information from a single point. This contributes to the improvement of the communication process, the improvement of interdepartmental communication and a high level of information integration.

• It provides shortening of delivery times, reduction of logistic errors and low stock levels.

• It fulfills the reduction of time loss in business processes, reduction of total operational and administrative costs, and ensuring effective information communication;

• It creates an increase in customer satisfaction;

• Through the ERP in enterprises; High level information integration, fast access to the most up-to-date information, and the ability to react to changes instantly are provided.

• ERP enables the company to plan the resources of its factories located in different geographically different regions, their suppliers and distribution centers in a coordinated manner.

• Provides faster response to competitive pressures and market opportunities.

• Terminology unity is ensured that prevents the same term from being attributed to different meanings in different units of the institution.

• One of the benefits of ERP is the existence of a single system that facilitates the management of information technology infrastructure.

• Increase in the quality of the information used and better timing.

• Improved supply chain management.

The benefits of ERP can be collected in five groups:

• Operational: Cost reduction, cycle time reduction, productivity increase and improvement in customer service.

• Managerial: Better resource management, improved decision making, and improved planning performance.

• Strategic: Providing competitive advantage to the organization by responding to the changing business environment.

• Information infrastructure: Business flexibility, decrease in information costs, increase in information capability.

• Organizational: Organizational change, supporting business learning and creating a shared vision.

Reasons for companies using ERP. There are many factors that oblige ERP applications. Factors such as obtaining a single institutional resource to meet the information needs of companies, accessing the same data at a single time, and integrating business systems for a single platform as much as possible are just a few of the main factors.

Companies that do not use ERP try to execute their business practices by combining paper-based systems with scattered, disconnected software. As a result, they never have general information, and they suffer from great management difficulties. They have to spend great effort and time to obtain necessary and important information (Demir, V., & Bahadır, O., 2012: s.80).

A global company must have accurate real-time information to coordinate and control its resources in many different locations.

Decision making involves different time zones and different geographic regions. Sometimes decisions have to be made simultaneously with different possibilities from different geographical locations. For example, in order to meet customer demands in an Asian country, production capacity in a branch in Australia may have to be increased, depending on the purchase of materials supplied from

European countries and Canada. Sometimes there are machine breakdowns or other significant events that can reduce or stop production capacity in one place, and production capacity in another location can be changed to meet customer demand. Such changes in plans may require rapid changes in decisions regarding material flow, logistics, and production schedule that will affect a firm's global production network.

Companies tend to use ERP for many reasons. For example, they use ERP to integrate the distributed system and gather it under one roof. By using ERP, the quality and visibility of information is increased. In addition, the integration of commercial transactions and systems, and the integration of acquired business information for existing technology infrastructure is provided by ERP. It is very necessary to replace old and outdated systems and to obtain expandable systems that will enable business growth (Razmi J., Sangari M. S., Ghodsi R. 2012: p.314).

In addition to all these, ERP is also important in order to increase business performance, increase customer satisfaction, simplify all inactive and complex jobs, and have the opportunity to develop new business strategies and adapt to a global business life.

Selection, implementation and management decision of ERP

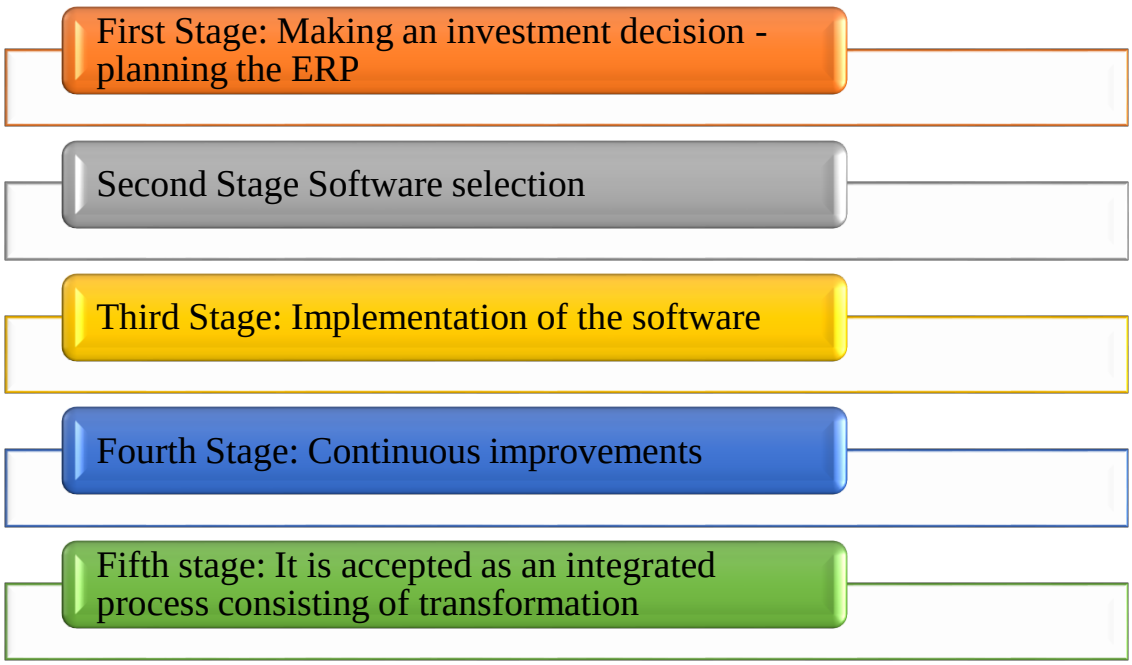
The first step in realizing the benefits that ERP solutions will provide to organizations at the highest level is to choose the right solution. The most important feature of companies that have achieved success in ERP projects carried out so far is that they choose and implement the most suitable solution for their own structures, technological systems and corporate goals. A mistake in the selection of a solution will not only cause a significant loss of time and cost, but also cause problems in the effective use of the system after it is installed. The difficulties experienced at every stage in such projects pave the way for a decrease in operational efficiency and an increase in costs, and even a complete halt of the operation. For this reason, a systematic path should be followed during the selection and implementation of the ERP solution, and the most appropriate solution should be determined within the framework of the needs (Sumner M. 2010: p.30).

Whether it is an ERP or another corporate solution, it is of great importance to decide within a specific methodology and systematic. A comprehensive methodology includes a process starting with the determination of corporate goals and extending to the different parameters of the solution (Monk F.E. & Wagner, B.J., 2015: p.260).

Critical factors that must be met in order for ERP to be implemented successfully; ERP teamwork and the quality of the team, senior management support, business plan and vision, review of business processes with minimum adaptation, change of management program and culture, project management, monitoring the development of performance, effective communication, software development, testing and detection of malfunctions, determining the project champion, implementing the business and information technology system (Karadere A. ve Baykoç Ö. 2010: s.118).

The project management model below focuses on various components in the integrated process. ERP implementation in the proposed methodology:

Figure 4: Stages of ERP implementation.



Source: Klaus M. & Rosemann G.G. 2010: p.300

Planning of ERP. Today, many institutions find it difficult to see the whole of their work. Especially in medium-sized organizations, the intensity of daily work

and the effort to keep up with constant change cause an increase in operational work and a narrowing of the strategic perspective. At this point, before evaluating the corporate solution, institutions should hold the mirror to themselves and clearly reveal their processes. After this point, the answer why the institution needs a solution can be given clearly. Some institutions need new solutions due to the insufficiency of business functions, the increasing work force and number of transactions after growth and development, and the inadequate performance of their existing systems.

Therefore, initial requirements are determined first. It is decided whether a new information system is required in the institution. This decision is made as a result of the strategic evaluation of the business. The first thing to do is to prove the need for the ERP system. Proving the need offers the opportunity to discover and define the opportunity.

The next step is to review other available solutions and determine which system is best for the company. Because some solutions are too flexible and compatible with other practical models, some systems have less flexibility.

Another important point to consider is finding the best versus integrated solutions. ERP solutions have pioneering applications today. Some ERPs are best at financing, some may be the best in human resources. The first choice can be a package that combines the best for us from different vendors. Another option is to purchase an integrated package from a single company. An integrated solution may not provide the best available solutions in all situations, but this has many advantages. Integrated solutions often take advantage of having an integrated data warehouse (Monk F. E., & Wagner, B.J., 2015: p.260).

Planning is very important in order to successfully implement ERP. The critical points required for planning ERP are:

1. Determination of Needs. The planning of the ERP emerges when it is realized that the processes and processes that exist today or in the future are insufficient. The first step in planning is determining in-house needs. There are valid reasons to implement a new ERP system. The input can be used at many points in

the system, the inadequacy of the existing system to support the needs of the enterprise, the need for large resources for maintenance and support, the enterprise taking into account the entire enterprise to redesign business processes, the growth of the enterprise and the incompatibility of many subsequent information systems, customers or The inadequacy of the staff who can easily answer the questions or requested information from the suppliers are valid reasons for implementing the ERP system. The main motive in implementing ERP is that the company has the potential to increase its competitiveness (Karadere, A. ve Baykoç Ö. 2010: s.118).

As different companies have different competitive objectives, expectations from ERP also change. Therefore, senior management should review the company's current competitive position with the desired competitive strategy before deciding on the ERP system or the various modules within the system (Allen D., Kern T., 2012: p.314).

At this stage, the business itself has to ask whether a redesign is necessary afterwards. Here, there is a strategic assessment of the current situation against the business model desired to be established in the future. If global perspectives are adopted instead of individual local solutions, the answer to the question of whether it is possible and necessary to achieve significant structural improvements can be given according to an evaluation to be made by considering the strengths and weaknesses of the company in terms of competition. As a result, it may be decided to develop a number of strategically important activities or to stop some activities that are not sufficient to sustain the firm in the long term.

Compliance of Business Processes with ERP System. In order to adapt the business processes to the system, they should be revised and changed. Due to the modularity of the system, while businesses try to adapt the ERP system, these changes made in the system can be quite complex, inconvenient and expensive. The changes can jeopardize the important benefits of integration. As a result, many companies are successful in implementing ERP systems by reviewing their business processes in order to meet the needs of the system. At the end of the review process, various activities that do not create added value can be eliminated and a reduction in

stocks can be achieved.

ERP is a very powerful software system and provides a great competitive advantage to businesses using this system. However, most ERP projects failed and hence the desired results could not be achieved. One of the reasons for failure is that the ERP software implementation strategy was not chosen correctly.

ERP packages have different choices for various business processes. ERP vendors' selection of good practices from business processes is derived from organizational work and hundreds of years of experience in all industries worldwide.

Process selection is much more complex than it seems or said and requires experience and skill. A company that wants to automate its processes; It will place its current processes on the package. This will be quite different for a company aiming to improve its processes. Such a company has two options. The company improves its processes or firstly restructures the business processes and then continues the application with ERP. Another thing is to use the capabilities of the package to achieve process improvement.

Understanding Business Needs. Many businesses make a mistake as they will get full benefit from their ERP systems. Because, with new information systems, business cannot benefit immediately. Business organizations may not be ready to integrate with information systems. Each department works for its own purposes. Information is spread across many fragmented systems, and there are very few people who can handle this information.

Senior management should be at the forefront of these needed changes. Top management's commitment is important. This commitment should not be limited to the project idea, but should continue throughout the project's completion. This commitment should cover the needs of the organization, beyond the technical appearance of the project for successful implementation. In addition to the supply of capital, senior management should identify some of the best and brightest personnel from the business needed to implement ERP in a certain time period. It should release these people from their job responsibilities, organize them in an interdisciplinary team and empower them to run the project. It should not be

forgotten that the implementation of ERP means that some jobs in the enterprise will change.

Economic and Strategic Relevance. For a firm, efforts to establish an ERP system require a major investment. Implementing an ERP system requires a cost-benefit analysis first. Some companies provide a cost advantage over their competitors with the ERP system. The cost of implementing the ERP system can often be measured. Contrary to cost, many benefits to the firm cannot be measured financially. The main strategic benefits of the system; improvement in responding to customers' demands, making universal communication easy and convenient, timely access to business and financial data, strong relationships with suppliers by sharing information. All of these benefits are essential for many companies to survive and grow. Therefore, the validity of the ERP system is not only economical but also strategic.

Choice of Software. The choice of software is the least risky among other factors, contrary to what is expected. Enterprises that come to the software review stage will quickly reach the names of the best three or four companies in the world market. If the local support element of the software to be selected is carefully evaluated, this step can be passed in a healthy way. At this stage, attention should be paid to the selection process to be completed within a maximum of six months. The prolonged election phase may prolong the life cycle of the system and cause morale in the business. The project manager is responsible for guiding the selection process.

At the selection stage, the management staff of the enterprise should be included in the work.

The factors that should be considered in the selection of ERP software packages are as follows:

- The needs of the business should be determined in accordance with the operating structure and production style, taking into account the integration of the basic operations of the company in line with the strategic objectives of the company, with a team representing the whole of the business, not a certain unit. There is no single truth for all production / distribution companies;

- Attention should be paid to the depth of the product's functions. In line with the determined needs, the ERP software should be measured by its compliance with the basic criteria of the enterprise and the depth of its functions in this field;
- The company that provides high transparency and the best information flow, has a reliable software system, and provides the best support should be selected;
- With the financial and human resources power of the software company, the ability to sign 3-5 year contracts should be sought;
- - The software should be flexible and adaptable, as well as bringing in basic disciplines. The application period should be between 6-14 months and it should be easy to use. The fact that it has been tried and used in the market for many years helps in this regard;
- Domestic and international references and evaluations of independent organizations should be examined. These organizations should be chosen not among those who provide management consultancy, but from those who evaluate production and logistics;
- The implementation plan and maintenance contract should reflect the long term.

Software Application. There are three methods used in practice:

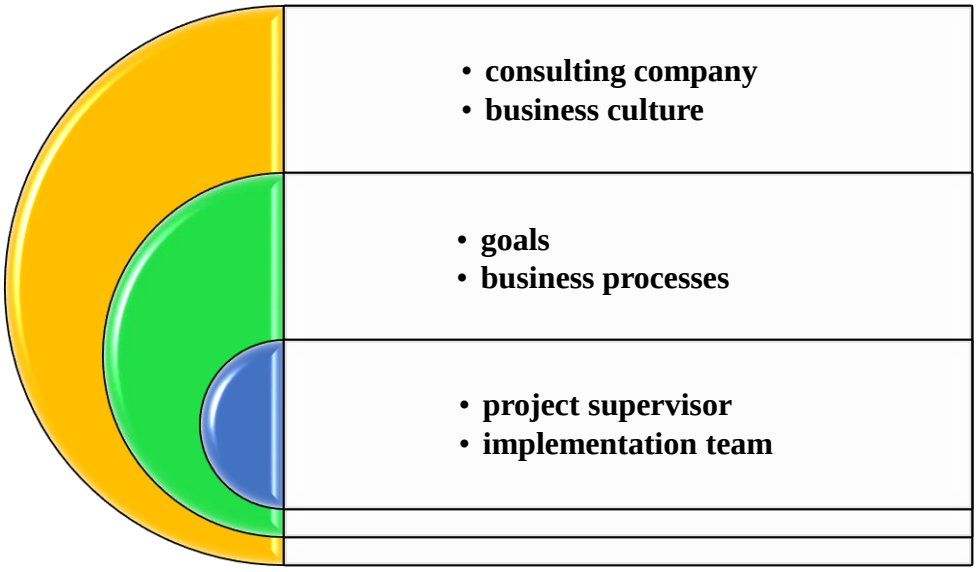
- **Big Bang** - In this approach, after the preparation required, the system is changed in an instant. The risk of this approach is that everyone is suddenly faced with a brand new software and way of doing business. It is not recommended if the company has a large scale or the targeted integration is too wide.
- **Gradual Transition** - This approach should be considered as starting from a single unit of a group with a large number of businesses or a limited area of application. A group with many facilities or businesses can start working with the most willing and ready unit. There is not much risk of any setback as it will not affect the central system too much. However, the total transition process can be very long. Another application of this method is to start from a certain point of a company. In this method, the aim is to quickly activate the software. After the application has

started, development and improvement can continue. The problem with this method is to start working before the whole picture is seen.

- **New System** - If the installed computer system does not cover all areas of the company or is already very insufficient, the "new system" approach can be easily applied. In principle, the application starts without straining the limits of the purchased software and continues for a long time. As the company increases its application experience, it details its application.

There are six components that are important in the ERP implementation phase: six components that are importxnt in the ERP implementation.

Figure 5. Components that are important in the ERP implementation.



Source: Klaus M. & Rosemann G.G. 2010: p.300

All of these elements should be integrated under project management.

II CHAPTER. ANALYSIS OF CURRENT CONDITION OF ERP IMPLEMENTATION IN THE NATIONAL AND WORLD ECONOMIES

2.1. The problems in application of ERP in the economy

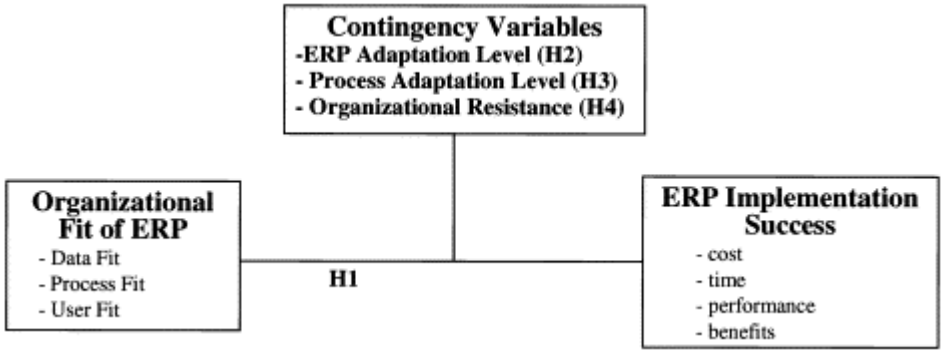
ERP systems aim to manage all activities of businesses in integration with each other. The system covers all levels of employee, from the highest level decision maker to a staff member who only performs daily activities. The business is changing by moving to an institutional system with all its staff. Therefore, ERP applications are made depending on the culture of the relevant enterprise. Because all business processes of the enterprise are reinstalled on the software in line with the determined goals. The social side of change is the most important determinant of success or failure. If the business does not adopt the new system, failure is inevitable. Only 20% of the ERP applications are fully successful, and in 20% the project cannot be implemented at all. Successful operation of ERP requires more than the establishment of this system in the enterprise. In order to achieve optimal results in the economy where the ERP system will be used. Here are 5 important success factors. These are as follows:

- Establishing business practices: simplifying, coding and clarifying business processes,
- To establish a system that will enable consistent and correct transactions,
- Considering formal costs and checking their accuracy,
- Developing and using criteria and standards covering the whole business,
- Testing ERP on a small scale first and then expanding it to the whole business.
- ERP enables businesses to combine information from different sub-departments and enables the storage, protection and use of all kinds of information from orders to consumer services (Buchok J. 2001: p.380).

It is impossible to separate ERP systems from complex computing technologies. ERP has three basic elements. These three elements that make it possible to manage the production process are: client-server, real time planning and

work flow. In the client-server framework, the system stores and protects data, prevents it from being lost, and provides easy access to those who want to access information.

Graph 1: ERP system's key lements for implementation



Source: Delsandro J., Christopher R. 2007.

In order to identify that they made an ERP implementation project profile that consisted of critical success factors organized in strategic and tactical framework. The critical success factors were divided under the strategic and the tactical factors of the implementation project.

Table 1: Critical success factors in ERP Implementation

Critical success factors in ERP Implementation	
Strategic	**Tactical**
Legacy systems	Personnel
Business vision	Monitoring and feedback
ERP Strategy	Business process change and software c onfiguration
TOP Management support	Client Consultation
Project schedule/plans	Client acceptance

Source: Shanks G., Seddon P.B., and Willcocks L. 2004.

The implementation process covers from project initiation until it's going span. Project initiation starts with the decision to fulfilling of the ERP system project. What can be done in this process is initiation of idea to adopt ERP, in order to improve business cases, search for project leader, selection of software and implementation partner, project planning and scheduling.

Tactical factors focus on communication with all effected shares, recruitment of necessary personnels for the project team, and obtaining the required technology and expertise for the technical action steps. In this case, the user acceptance,

monitoring, and feedback at each stage are also classified as tactical factors.

The ERP system is based on the fact that there are many control, transaction and information access points. Therefore, the work flow that makes data or information communication possible is provided by different technological programs such as electronic data exchange, data storage and internet (Glenn G. 2008: p.127).

Performance is one of the main issues in ERP applications. Old systems can interfere with ERP applications. The ERP system is a much faster system and by providing accurate and timely access to information, it increases the speed, quality and performance of the decision-making and production processes of the enterprise. Businesses with ERP have a more competitive position than others (Muscatello J., and Chen I. 2009: p.290).

Considering the technological characters, there are three different features in the structure of most ERP systems. These complementary features harmoniously facilitate service and technology in the ERP system. First one, it is a data word that associates thousands of specific fields with supporting files and organizes many tables. This data word can be used in all functional areas within an organization. Once data enters the ERP system, it is shared across the entire economy in the enterprise (Dysart J.W. 2002: p.426).

Latter, it is special software (middleware) that is allowed to install databases and application modules in different regions and spread as much as possible by users. If the application of information exchange between systems is allowed, data can be moved from the central system to the remote system. In special software (middleware), it is known not only routine data but also what information is needed in a particular situation. Thirdly, this is infrastructure in the business structure. Because memory includes all meanings in business processes, business objects and organizational models. Comprehensive definition of ERP implementation, it includes all information models, technical program objects, business objects. ERP memory can change information through application program interfaces. These three features are used in the marketing, production, distribution and human

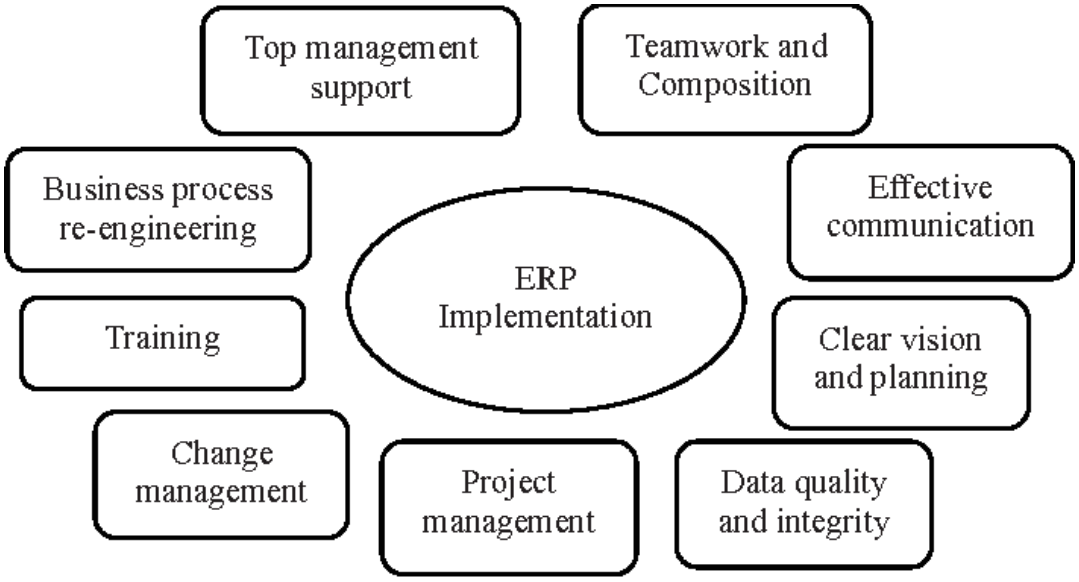
resources of the enterprise. With the completion of ERP in its location, the business is established at the top level in all business applications (Glenn G. 2008: p.127).

These applications provide timely response to customer demands and changes in production capacity as possible. The ERP system reports the list of defects due to tight integration of application module and data. Typically adopting ERP is based on the assumption that the business is building all. By accepting, it takes years for the business to make big changes. Although most ERP systems can improve the memory of the enterprise practically, the application part for private enterprises is not good enough. Since ERP software is installed on databases, it provides the opportunity to work with other applications easily. However, it is also possible to add applications that can be developed on the database to the files. In this way, very rich applications can be developed provided that the same database is used for business needs. ERP software is on-line real-time compatible with all programs prepared under Windows (Bucho, J. 2001: p.380).

In addition, Access, Excel, Lotus, Visual, Basic, Delphi and other common office applications and development tools allow access to and update ERP data and reporting at the desired level.

Importance to business. Implementing the Enterprise Resource Planning system is a long and difficult process. On the other hand, the ERP system provides a lot of benefits with a good setup, good strategy and a little patience.

Graph 2: ERP System Implementation



Source: Ferrando T. 2004.

Since the ERP system is software that integrates and centrally manages business functions, there must be an improvement in the cooperation and interaction between all separate business units in the enterprise, such as production planning, purchasing, production, sales, and customer service. Organizational departments of businesses such as finance, marketing, production, human resources need to work with a higher level of integration without losing their flexibility. These requirements across the organization can be met with the ERP system.

The ERP system brings with it elements that require restructuring. ERP not only connects the whole organization from one end to another, but also provides information to relevant functions that want to work more effectively. Production-oriented decisions are linked to sales-oriented decisions more effectively in a shorter time, and the various complex processes in the factory become transparent for others in the organization. Thus, decision-making time is significantly reduced and the organization is stronger in meeting customer demands (Glen G. 2008: p.127).

Enterprise resource planning is defined as a form of management managed by computer programs. ERP generally covers each unit of the enterprises functionally. It takes a long time to implement this system in businesses, and there are also costly systems. The fact that the plans and preparatory works of these programs are accurate before starting their activities and that they are carried out in accordance

with the business prevent the system from failing in the implementation period. In this way, businesses do not suffer. So much so that businesses strive to compete in tough competition conditions with the economic globalization in the constantly changing and developing world. Thus, enterprises consider the use of information and technology as a precondition and endeavor to produce quality products and services. With ERP, which is efficiently integrated into the business, businesses do not lose money, thus increasing the quality level with developing technology. ERP systems, which have the potential to provide comprehensive integration and effective communication in the value ring, can gain a significant advantage in the competitive environment in globalizing economic conditions.

However, the decision process is of great importance for managers, since the system has entered the stage of significant change in the business, its cost is high and it is a long-term implementation. When evaluating the ERP system on the basis of managers, first of all, a good planning study should be done, the needs of the enterprises should be analyzed and the decision process should be entered in line with the results. After this process, success factors should be evaluated effectively in order to achieve success in practice. The success expected from the ERP system should be achieved and this success should be reflected in the performance of the enterprise. For this, the factors that will pave the way to success must be analyzed very well (Comerford J. 2001: p.478).

When it comes to the problem that ERP faces, in order to adapt to the competitive environment, businesses need to anticipate changing economic, social and political conditions and take measures accordingly. The ability of businesses to do this depends on their use of powerful technological software and systems. There is a need for software systems that are both flexible and adaptable to any environment and do not cause problems easily (Glenn G. 2008).

Even if a business has different factories and different production processes, it may be necessary or economical to have some functions such as design, central purchasing, storage, shipping. In this case, the ERP system will create an effective and efficient working order by ensuring coordination between the factory and

production processes.

Developments in the economy and consumption trends resulted in the market being more predominantly determined by the customer. After that, there was a shift from inventory-oriented production to order-oriented production in manufacturing companies. This meant a wider variety of products, and issues such as the requirement of effective capacity utilization, the ability to produce small quantities of economic production and effective financing management, which were the main problem until those years, were of great importance. In the production management discipline that has become complex in this way, the new ERP has been useful.

The ERP system is continuous and it takes 4-5 years to achieve the desired result. In this process, the system is grasped and implemented by all departments of the company, the rate of meeting the company's expectations from the ERP system and its own business processes will be positively affected. Since it will take time for the ERP system to be fully operational from the start of its establishment, it should not be expected that the business will change its profits too much in a short time. An important point that should not be forgotten when purchasing an ERP system is that businesses should not have high expectations from the ERP system. ERP is a solution method that enables businesses to survive in the face of developing economic and technological situations and is used today. If the purpose of the user company is to convert data to information quickly, to increase efficiency and to minimize the loss of time, we can say that the method that can best respond to the purpose today is ERP.

Targets of ERP applications

Businesses have turned to low cost models in the 1970s, quality management systems in the 1980s, and process-oriented integrated information systems that include customers and suppliers outside the business in the 1990s.

In the rapidly developing global market, technology is changing rapidly and continuously, product life cycles are decreasing, product development periods are shortened, and competition is increasing. Under these conditions, businesses being open to change increase the need for flexible systems in order to renew themselves

and manage this change. ERP software has reached a certain level to meet these requirements. However, for success in practice, business cultures should also be brought or brought to this level. ERP is not a software that can perform certain operations alone, it is a whole consisting of various software aimed at ensuring the business compliance of all departments and units of the enterprises. Through ERP, not only the coordination of the relations of different business departments with each other, but also the realization of some business processes completely automatically (Delsandro J., Christopher R. 2007: p.443).

ERP is a software that realizes all kinds of e-business applications based on a digital system. Those who provide ERP systems will be able to emerge as they meet the needs of the world's businesses. It is recommended for the enterprises that only remotely monitor the developments to be a part of the group that accepts ERP. The philosophy of the ERP system is that the entire enterprise is based on the sum of the individual sub-units. This means that every transaction that takes place in the enterprise is not seen as a separate operation in itself, but as a part of the processes that are interconnected and that form the core of the business.

The main difference between classical data storage and processing methods and ERP is that the data stored and used by ERP can be used by all business units for many purposes at different locations and times, not by individual units of the enterprise. Information technology is advancing rapidly all over the world. With this progress, expectations from management packages such as ERP and trends in the market are changing.

The four main trends in this issue today are:

1. Recently, ERP systems have shifted from back office applications to front office applications and have come to support economy and Customer Relationship Management (CRM) systems. It is discussed whether the source of this development is customer demand or the efforts of ERP sellers to keep the growth in the market constant. Although the second of these propositions remains speculation, the first is thought to be closer to the truth, given the rapid growth of sales of SCM and CRM applications independent of ERP vendors. Regardless of the source, users are

expanding by adding CRM and SCM applications to their ERP systems, whether they are from their own ERP vendors or from other vendors. This formation is referred to as "Extended ERP" or "ERP II".

2. With the satisfaction of large enterprises in the market, ERP vendors have increasingly started to target SMEs. Vendors achieve this by simplifying their original systems or by offering them through Application Service Providers (ASP). This second method is by renting the ERP service from third party companies and this is usually done over the internet. Although there are several reasons for choosing this method for sellers, it is a very new method, so it is early to think about its potential consequences. In recent years, the concept of digital market has emerged, although it has not yet become active in terms of showing real market activities and generating income. These markets were generally established by Information Technology (IT) companies. But later industrial consortiums created these markets and acted as technology providers to IT businesses.

Although the future of these digital markets and the position of ERP in this new formation are not yet clear, these markets are in a serious trend. It has two major benefits, more serious SCM capabilities than could be achieved by linking several companies, and a reduction in technological integration costs. SAP and Oracle, which are important ERP vendors, have revealed that they want to take part in this formation with their SAPMarkets and Oracle Exchange products (Glenn G. 2008).

3. Due to very expensive implementation costs, ERP projects are pushing users to seek value after ERP vendors. After completing the installation and implementing it, criticisms from users that ERP could not provide the desired business benefits began to emerge. Due to this search for value regarding ERP projects, studies are carried out to measure the returns and performance of ERP (Buchok J. 2001: p.380).

2.2. The impact of ERP on accounting and audit processes

The emergence of ERP systems has impacted the role of accountants and is a role that accountants should be prepared for. ERP systems are absolutely changing the working environment of accountants today. Implementing an ERP system

requires restructuring of the previous business structure and changes in general operating methods. A CPA mentality is required to understand and communicate the value that ERP systems add, and it requires significant technological knowledge to implement them. Accountants have a solid business sense, but today they also need to adopt the efficient technology found in ERP systems. If accountants learn about ERP software and how it works, they can greatly assist companies in improving the management of their operations. For example, in many cases, old styles of internal control are no longer relevant, and the accountant can greatly assist a company in developing new controls to work with an ERP system.

Audit standards require the auditor to evaluate each of the five components of internal control in the context of how the client collects, transfers, processes, maintains, and accesses information. The auditor can only adequately perform this assessment by understanding the details of the customer's ERP system.

The auditor should be particularly aware of how the client uses each module of the ERP system to collect, process, and communicate information to appropriate employees within the company, as well as controls over access and access to data, and controls over changes in data files. and specific features of the ERP software.

This is because most of the client's information is held electronically, so the auditor will likely not be able to rely solely on substantive testing to gather enough competent evidence needed to issue an audit opinion on a client with an ERP system. The auditor's assessment of the reliability of internal controls, for a customer with an ERP system, it is for a customer who maintains the traditional information system is much more critical. This also means that the auditor must rely heavily on computer-assisted audit techniques to collect and evaluate evidence for substantive testing.

In order for businesses to achieve the continuity of change in the intense competitive environment and to find solutions that approach their goals and policies, the right software technologies must be selected at the beginning. It should not be overlooked that the selected ERP software is compatible with the company's existing accounting, auditing and information resources. For ERP selection, first of all, the

company should determine the selection committee consisting of department managers who know what they want, and if the enterprise cannot allocate enough time to form the selection committee, it should apply to the consulting organizations. Choosing the most suitable ERP package for the business structure and culture should be provided as soon as possible. Lack of sufficient knowledge of the members of the selection committee leads to prolongation of the election and wrong decisions. Analyzing the needs of the business by taking accounting and auditing into consideration during the selection process and knowing what the business wants provide significant time savings in the adaptation phase. When choosing an ERP software package, firstly the software is examined and then the technological platform it will work on is determined (Dysart J.W. 2002: p.426).

First of all, after choosing the hardware platform, procuring the software causes many problems. Although today's software works on many platforms, its performance in the customer server environment is preferred. The reliability and support power of the vendor should be another criterion to be considered. Inquiries such as the institutionality of the vendor, references, staff, capital and so on reveal the reliability of the business (Delsandro J., Christopher R. 2007: p.443).

On the other hand, inquiries such as whether it is a world brand, its international offices and references determine the brand reliability. Apart from these, many technical details such as compliance of accounting modules with world accounting legislation, ease of use, communication with other software, flexibility should be questioned. Its functionality shows the software's ability to do business. It measures how much it can meet the specified requirements while making a selection. The success of ERP software increases with the effective modeling of business processes and flows before implementation. Creating the company's own model based on reference models and giving the necessary importance to it is the second step of success. In order for the hardware and software investments to turn into maximum benefit, necessary investments should be made in training for the right managers and users by starting from the right place and analyzing the system very well. Requirements for the ERP implementation to be successful:

Graph 3: Requirements for the ERP Implementation

Source: Delsandro J., Christopher R. 2007.

Worldwide, in 80 percent of countries, they apply ERP to increase consumer satisfaction, reduce the rate of goods in the inventory and shorten the production time of the product in economy. The most important problem encountered is the resistance of employees in enterprises to the change required by ERP. Employees or departments using old technology are the most opposed to change. The support of the senior management, the use of trained, experienced and willing staff in the implementation of the ERP and the participation of the large-scale employees in the process of placing the system are the most important elements in breaking the resistance against ERP. It is seen that cost and time are among the most important problems in ERP applications. In addition to these, the insufficient training of those who will use ERP in enterprises causes problems during the implementation of ERP (Delsandro J., Christopher R. 2007: p.443) .

In order to ensure the success of ERP projects in auditing and accounting, deployment steps must be constantly evaluated and measured in terms of time, cost and created value. The degree of complexity of the project has a significant impact on these measurements. When these measurements end, ERP system performance and user problems should be constantly monitored. By using external and independent consultants who do not have institutional prejudices at regular intervals,

ERP performance should be checked at every level after the project is completed and the identified problems should be resolved. The points to be considered while creating an ERP system within the organization are as follows:

- Infrastructure Resource Planning: Before the ERP system is established, the infrastructure must be prepared. Before installing the ERP system, a reliable LAN (Local Area Network) is required (Dysart J.W. 2002: p.426).

- Local Network (Network): When establishing a network, it is recommended that fiber optic cables can be converted to ethernet category 5.

- Survers: Survers (Main-Central Machine) should be ordered after the ERP system is selected. Which surver is chosen depends on which ERP package is selected. Recommended is lower end (low-entry server). Because it is more suitable for education and use.

- PC: the latest PCs are more suitable for using the ERP package.

- Training Opportunities: A suitable place should be arranged for ERP training.

- Training About ERP: ERP training is required within the enterprise. This training should be in the form of visual and exemplary applications, the examples should show why the applications were successful and why.

- Choosing the Right People: It is necessary to create the right team to operate the ERP system.

- Accountants and auditors using ERP must comply with usage standards. 80% of success depends on this. Being able to fully use the facilities provided by the system brings 80% of the success.

- Manual documentation should be very good. Auditors and accountants are required to do their jobs completely and without error.

- Decentralized Application (management): Each business can have more than one production location or branches. The important thing is to gather information technology resources of every enterprise in one center.

- The main reasons for centralization are cost reduction. Three years after the implementation of the ERP system, it reduces costs with the effect of use and facilitates decision-making by providing complete and timely information within the

enterprise.

These effects contribute to improving the performance of the business. With the implementation of the ERP system, an increase in income and sales is observed as a result of the decrease in general and administrative expenses. 3 years after applying ERP, the results, from the decrease in the costs of the products to the increase in sales revenues, show that the business performance has improved. Additionally, 3 years after the implementation of the ERP system, there is a decrease in the rate of working workers. In the first years of implementation of the ERP system, positive developments such as decrease in costs and increase in income may not be seen. However, once the corporate information system infrastructure is established with the ERP system, it will never lose its currency (Dysart J.W. 2002: p.426).

Issues Affecting the Implementation of ERP Systems. ERP systems are complex and extensive. Its implementation takes a long time and a lot of capital. Therefore, ERP is more of an organizational revolution than a technological research. A very detailed and intensive preparation phase is of great importance for the success of the ERP implementation. Important factors to be considered in ERP system applications can be listed as follows:

Support of Senior Management. Top management's support is crucial to the success of information technology or ERP applications. Transition to ERP implementation is not a simple software program change. Beyond that, it requires the restructuring of the business and the transformation of the business practices process. Therefore, business managements that choose to implement ERP have to carefully evaluate how ERP will affect the position of the company in the economy and its competition chance, how it will affect the structure of thecompany, the breadth of the ERP application, whether there are cheaper alternatives to ERP and similar issues. ERP applications are more related to the employees of the enterprise than to their working processes and technology. Senior management should play a leading role in ensuring organizational change, beyond just transferring funds.

Change Engineering. ERP application includes a restructuring that aims to

bring existing business processes to the highest working standard and change engineering for this purpose. One of the important benefits of ERP is the restructuring of the existing processes of the enterprise. However, even the best implemented ERP systems can meet only 70% of the needs of organizations (Comerford J. 2001: p.478).

Integration. There is a very strong trend towards implementing a single ERP solution for an entire business. Working with a single ERP system builder is more beneficial in terms of serving customers more effectively and facilitating future maintenance of the ERP system. In addition to the ERP system, businesses can use different software programs to better meet their needs. ERP continues to be the basic system and other software programs connect to this system. However, in parallel with the developments in these software programs, problems may be experienced in updating the system, and this can lead to incompatibility problems.

Businesses also allocate significant resources for the harmonization of the ERP system and other additionally used software programs. The size of the software program market that enables the integration of ERP and additional software programs is close to the size of the ERP market. Therefore, when establishing an ERP system, businesses should consider the issues related to additional software programs to be used.

One of the main benefits of ERP solutions is the integration it brings into organizations. Organizations must understand the nature of integration and how it will affect the whole business. Before integration, it was rather slow for functional units to see the results of each other's mistakes. In other words, organizational units that made mistakes when the flow of information was slow did not have the time to correct their errors without affecting other units, and with integration, the errors made by one unit can affect other units very quickly and at increasing rates.

In fact, a small mistake made by one unit can have very negative consequences for the whole business. Therefore, businesses should clearly define the procedure to be followed in case of error. It is necessary to monitor the transactions and intervene urgently in case of an error. In the event of an error, an appropriate method and

communication tool should be determined to inform those who may be affected by the error.

The main challenge is the impact automation will have on the business process. Automation changes the way businesses communicate with each other about planning, purchasing and payment. Information sharing and control of information stand out as fundamental problems. Businesses also face problems about how much information to share with other businesses and consumers and how to control this process. It is worried that the sharing of information too much may disrupt the business of the business, especially as it may be useful for competing businesses. However, businesses have to develop a relationship of trust and coordinate work within the economy with other businesses with which they work or establish a business relationship. However, the management must pay attention to the pressure that the economy will create on the organization. For example, the sales unit may be disturbed by the reduction in the functionality of the automation and its position in the operating cycle weakened. (Comerford J. 2001: p.478).

Application time. ERP systems can be implemented piece by piece or step by step. The requirements of the business to be implemented determine which aspect of the ERP system will be implemented first. The sub-units of ERP systems are units such as sales and distribution, material management, production and planning, finance and control. Average ERP implementation time is 14 months, and it may require employing up to 150 consultants. The length of the ERP implementation time may vary according to the number of sub-units of the ERP system to be implemented, the width of the application and the number of business or business units it covers, the number and qualities of the services to be provided by the system, and the harmonization with other auxiliary applications that may be required.

One of the most important problems of ERP packages is that they are prepared very generic and must be adapted for every business. This process can take a very long time depending on the specific situation of the business. (Comerford J. 2001: p.478).

The fact that the situation of the business requires too much adaptation can

extend the time and make it more difficult and expensive to update the system to be installed later. However, some businesses save time by recommending specific ERP applications for certain sectors.

2.3. Advantages of the ERP application in improvement of production processes

Businesses that do not use ERP try to execute their business practices by combining paper-based systems with scattered, non-interconnected software. As a result, they never have general information and they suffer from great management difficulties. They have to spend a lot of effort and time to obtain the necessary and important information. ERP systems are designed to bring these different applications and processes together. ERP solutions revolutionize the way businesses do business, production and service delivery units (Dysart J.W. 2002: p.426).

ERP has greatly improved the integration of different parts of an enterprise and the regular and timely information flow between them. Potential benefits of ERP; Enhanced integration between functional departments, emphasis on core business process, proven and reliable software, and overall strengthened competitiveness. In creating an ERP solution, the business can quickly bring its business process to industry standards (Glenn G. 2008: p.127).

ERP increases efficiency in the field of production and marketing, which is increasingly competitive. In addition to the ERP production sector, it has become widely used in areas such as education, small entrepreneurship and electricity and water services. ERP provides real-time information to management, allowing better decisions to be made.

In addition, it was observed that the value of small and medium-sized companies' stocks increased after they announced that they would implement ERP. Because at the end of the ERP application, since the enterprises provide customer satisfaction to a wider audience by saving costs, they will have the information that will reflect the real financial situation and the operating results of the enterprise, so the value of the stocks will increase due to the profitability of the enterprise

(Comerford J. 2001: p.478).

The modules of the ERP systems enable integrated data management by providing access to the central data used in common to prevent data duplication and ensure data integrity. Even if the transactions are made locally, they should be able to be integrated with other processes.

Thus, data can be instantly transferred to the point where it is required. In ERP systems, The Production Module has been developed for all kinds of program creation, revision and monitoring the production needed to produce on time, in the desired quality and quantity.

Additionally, standard product production, the production module can be used in integration with the sales / marketing module for optional product production shaped by customer requests. In addition, the production module performs the tasks of identifying and programming new product identification and production flows and material requirements, which have to be repeated constantly due to the diversified and decreasing product lifetimes (Dysart J.W. 2002: p.426).

Production module in ERP systems.

- Detailed monitoring of inputs (raw materials, auxiliary materials etc.) and outputs in the production process

- Determining and using the most suitable production management methods,

- Defining production lines, determining line / product production capacity on product basis,

- Defining and using the main production schedule data and creating and revising the main production program,

- Creating business programs,

- Identification and use of product and semi-finished product information,

- Identification and use of finished product trees and production operations,

- Determining the quantity and production dates of the product and semi-finished product to be produced,

- Determining the capacities of existing machinery, labor and other resources,

- Making production with work orders created by order transfer or planning,

- Being able to produce to order or to stock,

- Defining product information shaped in line with customer requests on an order basis,

- Tracking the extraction and fulfillment of material requirements,

- Creating date-based program tables for products and all kinds of raw materials and materials used in the production of these products,

- To be able to compare the production and purchasing quantities and the requirement quantities that have been scheduled, along with the date-based stock holdings in these tables,

- Determination and meeting of machinery, labor and other requirements,

- Monitoring the current production status, tracking realizations,

- It provides the most effective and efficient way to calculate and monitor the costs of the manufactured products and semi-finished products in the desired detail (Glenn G. 2008: p.127).

The selection, determination, design and implementation of ERP systems in accordance with the business and its strategies have very important effects on the mission and strategy determination of the enterprise. In ERP systems, having all production, customer and supplier information on the same system allows various comments to be made. First of all, it helps the establishment of a business identity by evaluating the current position, as well as guiding the managers in making future predictions by enabling detailed analyzes and creating strategies of the enterprise in line with these predictions (Muscatello J., and Chen I. 2009: p.290).

III CHAPTER. THIRD CHAPTER PERSPECTIVE DEVELOPMENT OF THE ERP IN THE MANUFACTURING İNDUSTRY

3.1. The impact of ERP on organization of effective management in the production industry

One of the most basic conditions of working effectively and productively in terms of enterprises is the necessity to be aware of and fulfill the responsibilities, and the correct coordination and information sharing between functional units is of great importance in this regard. In this context, relational databases, which allow reliable and easy access through the system, facilitate information sharing between functional units, minimize communication costs, and enable the system to work efficiently as a whole.

Considering the quality of the information to be accessed from the accounting information system, the function of ERP systems within the enterprise has gained a special importance. In addition, although the XBRL reporting language used in ERP systems and accounting information systems has compatible qualities and can be integrated, the determinants of the quality of the information to be presented are generally not emphasized.

With the integration of accounting information systems into ERP systems, it has become possible to access all information in real time through the central database. By restructuring the way and direction of communication between functional units, the scope of the data to be used in decision-making has been expanded and its quality has been strengthened, and at the same time, access to any desired information becomes easier, enabling real-time access to the information needed by accounting information users.

In addition, the system's comprehensive or narrow, hourly, daily, periodic analyzes and reports have strengthened the provision of more realistic, consistent and accurate data to both internal information users and external information users, and can make significant contributions to making financial decisions accurately.

ERP systems, which allow the exchange of information between business

functions and enable them to be analyzed by collecting them in a common pool, will be able to obtain real efficient results by incorporating the determinants of the quality of the accounting information presented in order to present more consistent and realistic information. In particular, sharing of accounting information should be based on the quality of the information rather than being abundant, and the shared information should have the qualifications to meet the needs. In this sense, it is important to increase the quality of accounting information in order for information users to make accurate decisions, and the elements that determine the quality of accounting information are explained below under headings, and within the scope of the theme of this study, ERP systems and XBRL reporting technology are considered:

- ***Compliance with the needs:*** It can be expressed as the ability of the accounting information obtained to influence the decisions made by the users or to obtain information suitable for the decision. The information in question can be easily accessed with XBRL technology, but at this point, it should not be forgotten that it will be activated by the correct integration of business processes into ERP systems.

- ***Presentation in a Truthful Form:*** It is the presentation of economic events in a complete, impartial and error-free manner. Accounting information can accurately and comprehensively reflect the actual situation of the enterprise, and with the implementation of ERP systems, it has become possible to obtain more realistic results due to the recording of the data.

- ***Comparability:*** It means that the information about the reporting company is comparable with the information of another period of the enterprise or with similar information about other businesses. On the other hand, consistency of accounting policies applied in terms of periods is the ability to establish an adequate link with accounting practices in different periods. In this context, standardizing data in ERP systems; It enabled the comparison of not only certain financial account items between the relevant period and previous periods, but also more specifically non-financial issues that could affect the decisions to be taken.

➢ ***Verifiability:*** It can be expressed as the ability of observers with different levels of knowledge and independent observers to reach a consensus that a particular explanation is presented truthfully. What date, who, which transaction on the information recorded in ERP systems; It can be seen when, on which computer and with which user name, and it has made verifiability more efficient since there is no such thing as deleting the processed data.

➢ ***Understandability:*** It can be expressed as that the accounting information presented in the financial statements has a quality that information users can easily understand. The analysis of information has become complicated due to the ERP systems establishing an integrated system by bridging the functions, but how the information is obtained from which departments through the modules used and the processes and events that contribute to the formation of that information can be clearly seen.

➢ ***Timely Presentation:*** It means that information is available when it can influence decisions for decision makers. In other words, information can be obtained when needed. With the use of XBRL technology and especially ERP systems used today, instant access to the desired information has been provided, and significant time savings have been provided for information users, potential investors, creditors and analysts.

➢ ***Relevance:*** It is the situation where accounting information makes a difference in the decisions made by users of accounting information and has a significant effect on the decision to be made.

By collecting all data pertaining to the functions of the enterprise in a central database of ERP systems, it can be determined more transparently which data creates value for accounting information, how it works and the reasons behind it, or access to detailed data on the subject can be provided in a decision to be taken on any issue.

➢ ***Reliability:*** It can be expressed as the accounting information is purified from errors and frauds and reflects the truth and truth in a reasonable explanation of a particular issue. The fact that the data recorded in ERP systems cannot be deleted in any way and that all of them are clearly seen on the system even if revised on the

relevant data make the information presented more objective.

➢ ***Accessibility:*** It is the state of easily accessing the required information at any time. Through ERP systems, the desired information can be accessed at any time with the user access system, and detailed and summary reports can be obtained.

➢ ***Effective Cost:*** The benefit to be obtained from the information obtained is more than the cost incurred in accessing the information. Providing fast and effective access to more data and information in a shorter time without using manual methods through ERP systems and XBRL reporting technology creates significant savings in both the cost of time, access to information and the cost of analyzing and presenting the information reached to information users. Considering the factors that determine the quality of the information to be accessed from the accounting information system, the function of ERP systems in the business has gained a special importance.

In this sense, the storage, processing, evaluation and analysis and reporting of the information produced in the accounting information systems through ERP systems have been systematized, and a significant breakthrough has been achieved in providing quality information to those who need it. In addition, due to the fact that businesses have the opportunity to control more data, creating strategies and targets for future activities based on more realistic data allows restructuring of cash flows and taking sound measures by creating predictable cost tables. ERP systems, which allow businesses to collect data from the accounting information systems when it is generated, facilitates the access of financial information users to the desired data. In addition, a healthy reporting opportunity has emerged in the light of quality information at any time, and coordination between processes can also become effective. Document management systems have also taken their share from the updates and improvements made in ERP systems, and the preparation, presentation and accessibility of documents in an electronic environment have strengthened the accounting information systems to work more effectively.

In this sense, enabling access to financial information presented through the XBRL reporting language used in accounting information systems, enables the information in question to be easily read, evaluated and shared. Therefore, with

XBRL technology, providing more accurate and reliable information to information users, potential investors and financial analysts has been accelerated, and significant advantages can be achieved at the point of saving time and resources.

It is clear that information users can make more accurate decisions with the increase in the reliability and quality of the information reflected in the financial statements prepared as a result of the effective performance of internal control activities and recording more data through the integration of business processes related to business activities with sub-modules into ERP systems through rules.

At this point, it is a fact that the correct integration of the operations of the accounting information systems into the ERP systems will increase the functionality of the financial statements and will create a separate assurance for those who are interested and the decisions they make in the future.

3.2. The role of ERP system on accounting and audit

ERP software provides the simplest access to high-performance, error-free and current data. Accounting is at the center of the business, and the ERP system enables financial data to be interpreted and used more efficiently than before, enabling it to calculate profit and loss more effectively. One of the most important features of ERP systems is that they have a modular structure and they can assemble the modules that suit the needs of the enterprises. Although the modules can be installed independently from each other, they all fulfill their functions in an integrated structure. Data in one module can be used as input for the other module.

ERP systems, which include functions that facilitate processes related to Material Management Application, Requirement Planning, Purchasing, Inventory Management, Warehouse Management and Invoice Control, also provide automation in standard procedures to a great extent. All functions are integrated with each other and other functions within the ERP system. The most up-to-date information is always available. The system performs routine functions instead of managers and employees, and both managers and employees can devote their time to more important tasks (Vathanophas V., Stuart L. 2010).

Material management, which is one of the most important functions of an enterprise; It is necessary for the continuation and optimization of production activities, planning and control of materials and raw materials in the warehouse. Material management process consists of inventory control, warehouse management, costing, warehouse entry and exit operations, sending goods between warehouses, and reporting. The system groups the stocks as desired. It shows the real-time quantity status of a stock for product, part, semi product, warehouse availability, quality control status, defective status. It is a new management tool that minimizes purchasing costs as a result of more efficient use of resources and time specific to SME's in ERP systems.

Purchasing information system in ERP systems:

- Existing and potential suppliers of goods, services and fixed assets;
- To be able to be grouped on sectoral / regional basis and to define supplier contract conditions;
- Creating purchase requests for goods, services and fixed assets requested by different units;
- Follow-up and approval of in-house demands for goods, services and fixed assets, individually or collectively, in accordance with the specified criteria;
- Automatic preparation of proposal requests from alternative suppliers in order to meet the demands and evaluation of the received offers;
- Ensuring the most effective resource management by determining the minimum-maximum and optimum order quantities;
- Automatically converting the approved offers into orders;
- Making reservations for orders placed;
- Orders can be placed according to the authorization levels determined in accordance with the work flows, and the amount and payment information is automatically generated during the receipt of orders.

By making detailed inquiries of orders given and fulfilled, it ensures that the processes of obtaining management reports in the desired detail are carried out in the most effective and efficient way. The system sends the requests of the

departments directly to the purchasing department, where the requests are converted into purchase orders. A wide variety of options are available, from current percentage demand to price reporting and agreements.

The materials required by the production orders are either automatically or manually taken from the warehouse and then used for the production of semi-finished products or used for expenses such as scrap, scrap, consumption instead of expense. In the accounting of SMEs, the relevant accounting account codes are re-entered and preliminary calculations for the product cost are made by the system. The product waiting in the product warehouse and in its own location is put up for sale with a shipment instruction to the customer. In the new case, production, planning, finished product warehouse, sales and accounting personnel are now working on the system. Invoices received by the company are automatically controlled by the system and when an invoice is entered for a purchase order, the system automatically generates the invoice that will come. If there are changes in the delivery date, the amount sent or the agreed price and these are not accepted, the payment for the invoice is stopped (Poston R.S. & Grabski S. 2011: p.35).

The system periodically generates invoices based on receipts entered as purchase orders. Invoice control offers a special method for entering vendor business invoices, and this method is faster than the standard transaction. Managing the entire financial structure of the business, the finance module of the system is used for tracking all financial transactions such as cash, check-promissory notes, credit, risk management, cash flow planning, and foreign currency transactions for tracking customers, sellers and banks. With this module, management of accounts belonging to all customers, vendors, business employees, bank accounts, checks-bills and valuable papers is provided. With cash management, both cash collection and cash payment transactions are streamlined. It is shown whether the collection will be made from accounts, bank or check or bill in the portfolio and cash payments will be made from bank, check-promissory note or accounts. Recording all transactions in the purchasing-production-sales process that constitute short-term cash flows simultaneously and completely integrated with each other is of great importance in

terms of the healthy preparation of cash budgets, which are short-term financial planning tools (Klaus M. & Rosemann G.G. 2010: p.290).

In addition, the capacity and technological competence of the fixed asset elements that actually enable the production to take place allow them to be evaluated depending on the size of the current and future demand in the market, allowing for long-term financial planning transactions.

As a result of the integration of accounting information systems with information technology, significant changes have occurred in the collection, processing, storage and transmission of accounting data. In parallel, the audit procedures followed by the auditor in an audit study and the internal controls regarding the evaluation of the accounting information system were affected by the electronic data processing environment.

In the computerization era, the audit task becomes very complex. As in many other areas in businesses, it will be necessary to benefit from the computer in the field of inspection. Internal and external auditors must have sufficient knowledge of computer use in order to effectively and effectively audit the internal control system of the enterprise. In terms of the effectiveness of decisions related to financial management, the financial decision support system is required to produce the necessary audit information. By eliminating the problems related to information technologies, manpower and time, it relieves the accounting system from many routine records and account burdens and can provide detailed information and reports required by the enterprises in a short time and accurately.

The fact that the books and accounts can be printed at any time in case of interim transactions and intermediate results cannot be seen in accounting audits can be considered sufficient in terms of auditing (Güroğlu N. 2010: p.66).

The important point of the computer in accounting controls is that the auditor examines and evaluates the structure of internal control in terms of the existence and reliability of the control points in the computer. As a result of the processing of accounting data in electronic media, storing and transmitting them in magnetic media, the auditor faced with new types of errors and frauds caused by technological

developments, unlike traditional methods. These errors and tricks that arise due to information technology have caused the concepts of computer errors and computer tricks to enter the audit literature. A computer fraud can usually be done by wrong data or software manipulation to accounting information systems, or by changing or destroying accounting data and information stored on magnetic media (Vathanophas V., Stuart L. 2010).

The effects of developments in computer technology on accounting auditing can be grouped into two groups:

- As a result of the integration of accounting information systems with information technology, especially computers, new methods and techniques that are not used in traditional accounting auditing have emerged.
- Information technology is used as a tool in accounting auditing.

3.3. Perspectives of the ERP in preparing development models based on collected data and summarizing these informations

For a good system design, it is a prerequisite for the accounting management to establish a joint working program with the IT management. During this work process, a consistent combination of these controls should be achieved by taking into account the controls in the structure of the information processing system and the controls in the structure of the accounting system in detail. Rapid developments in computers and data processing systems and their widespread use in the field of accounting have brought the necessity for auditors to understand the functioning of electronic data processing systems as well as accounting practices. There are different opinions among the auditors regarding the approach to the computerized accounting system.

These are the following:

- ***Auditing Around the System:*** The operation and internal structure of the computer system is not dealt with, documents and records related to transactions are examined through sampling. In the control of complex and highly integrated systems, this method is insufficient and system control is required.

➢ ***System Audit:*** The auditor audits the appropriateness of the software system and program flow. For this reason, the auditor should have an overview of the basic subjects of informatics.

➢ ***Computer Aided Control:*** The auditor makes use of the utilities provided by the computer companies at the disposal of the user. In order for the auditor to analyze and interpret the accumulated data in terms of audit, it also uses the client's operating programs. In addition to the operating programs, audit programs are also used in auditing.

In today's information age, as in every field, intensive technology is used in auditing issues. However, the use of this technology emerges as information creation, not as information transfer. However, in order to have an effective inspection, the transfer of information between the inspector and the inspected must be of the desired quality. The basic condition for the success of businesses is the establishment of a system that converts the data obtained from accounting into fast, accurate, timely, effective and usable information (Vathanophas V., Stuart L. 2010).

The internal control system in an enterprise directly affects the audit activities carried out in that enterprise. Internal control includes the protection of business assets, the control of the accuracy and reliability of accounting data, the improvement of the efficiency of transactions, and the organizational plan and accepted criteria within the framework of adherence to management policies. Internal control allows a business to go in the direction it wishes to go and prevents it from entering dangerous and surprising paths. Internal control helps an undertaking achieve performance and profitability goals and prevent resource losses, provide reliable financial reporting, comply with laws and other regulations, and avoid notoriety and other negativity.

The accounting information system will make sense as long as it produces reliable, timely, complete, clear, short and at the same time cost-effective information. Establishing such an accounting information system will take place together with the accounting control system. Advances in computer technology have made new methods available to the internal auditor. The main ones of these

methodologies are computer assisted control techniques and analytical control. Computer-assisted audit techniques are one of the most dynamic areas of the audit process. This methodology also includes ongoing developments, accounts receivable, stocks, accounts payable and fixed accounts, stocks, accounts payable and fixed assets. The methodology consists of uploading and testing subject files independently of the computer system of the auditee. As a result of computer-aided inspection techniques (CAAT), working papers are eliminated, thus eliminating the loss of time in testing.

The main purpose of analytical analysis is to guide the audit studies with the results obtained by comparing the data provided by the company to the auditor and the related data obtained from inside and outside the company in various ways.

Today, the intensive use of information technologies in SMEs has deeply affected the functioning logic of accounting information systems in the public sector, and in our country, instead of manual methods, applications such as e-invoices, e-dispatch notes and e-bills, which emerged with the regulations made in the legal legislation system, are used in keeping accounting records in the public sector. clearly reveals the importance of using ERP systems in the future in terms of ensuring unity in practice and recording more information. The innovations implemented by the authorities competent in accounting issues in our country are possible with the integration of the existing information systems used by the enterprises or the modules in the ERP systems to the system put into practice by the state.

Especially at the point of preparation of financial statements, by collecting data from the functional units of the enterprises and integrating them into a central database, it minimizes erroneous and fraudulent transactions in transactions related to accounting events, and significantly reduces manipulations due to the non-deletion of the data entered into the system.

On the other hand, by standardizing the data of the items related to the financial statements in the system through codes, it allows the business to compare periodically within the context of the relevant accounts and to compare the

communication, agreement and purchasing process with which external supplier (Güroğlu N. 2010: p.34).

However, due to technical problems arising from automation and integration systems in the information and documents that especially large-scale enterprises operating in the private sector will submit to the regulatory and supervisory authorities, different integrators can be connected. For example, ddue to the limited access to the automation system of regulatory and supervisory institutions in terms of sending an e-invoice to the relevant institutions by an enterprise using SAP application, a connection is established through integrator companies that will provide a connection between the existing enterprise and the regulatory and supervisory institutions in order to ensure the continuity of the connection in the application. Since the transaction cost will increase if the company establishes the connection itself, it is necessary to develop ERP sub-modules in this sense (Poston, R.S. & Grabski S. 2011: p.35).

In the following years, it is clear that the development and implementation of modules that will enable the application of ERP systems to spread to a wider area both in the public and private sectors, will bring a new discipline to the national economic structure, and more transparent practices can be implemented.

CONCLUSION AND RECOMMENDATIONS

As a result of developments in information and communication technologies in the globalizing world, the most important problem of businesses is to survive. This is because of the necessity to have competitive power. In this period, which is called the information age, the competitiveness of enterprises is measured by the knowledge they can produce and have. In this direction, the necessity of good management of information becomes important. The need for a management tool that will ensure efficient use of resources with the right information at the right time has led to the emergence of ERP systems.

ERP is a management system that plans the financial and accounting business of SMEs with the help of information technologies and meets all their information needs. It ensures that the information, which is the most important value today, is gathered in a common system, that this information is processed and produced within the framework of the rules determined by the enterprise, that the produced information is used in line with the needs of the whole enterprise and is transmitted to the relevant authorities. Integrating many functions of businesses in a single system, accessing information from a single source, improving communication and interaction with customers and suppliers, globalization trends, adaptation to competitors and competitive pressures and their desire to gain strategic advantage have contributed to the development of ERP systems.

Businesses can determine strategies for the future, make the right decisions, and gain competitive advantage with ERP systems, which are an integrated system.

Accounting information systems; ERP systems have a significant contribution in functions such as collecting, recording, classifying, summarizing and reporting and analyzing data, and provide positive feedback and facilities in practice. By ensuring the coordination of functional business processes in the relational database within the ERP systems, ERP systems have changed the way transactions are carried out and restructured the recording and document order. Standardization of the transactions performed in this sense has created an increasing trend in the performance values of the enterprises and this situation has also affected potential

information users.

Therefore, the fact that it makes it possible to analyze consistently the processes that are filtered by the data of a relevant account item, based on the operating logic of ERP systems in prepared reports and especially in financial statements, provides significant functionality in the application. In addition, by connecting the business activities in the context of departments in a horizontal and vertical manner, it enables the multi-faceted query of information and documents created through the user access system. Based on this, the information contained in the financial statements is obtained from elements such as production, order, purchasing, procurement, accounting and finance, human resources, customer relations, which are the subsystems of the accounting information systems on the basis of ERP systems, and how and to what extent these factors affect which data The ERP systems, which help to determine the risk, provide a high level of assurance to the businesses in terms of potential investors and creditors.

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