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Investigating the Impact of ERP System and SC Operations on Competitive Advantage and Corporate Performance (Case Study: MAMMUT Group)

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ABSTRACT

The main purpose of this study is to investigate the impact of the system of ERP (Enterprise Resource Planning) and SCM (Supply Chain Management) on the competitive advantage and performance of MAMMUT Group. The methods for collecting information in this study are library studies and field research. A questionnaire was used to collect the data needed to determine the relationship between the variables of the research. This questionnaire contains 38 questions. The direction of the current research is applied. The statistical population of this study consists of managers and experts who are familiar with the SCM system and ERP. Number of statistical society is 210. The sampling method is simple in this research. The sample size is 136 people. Also, among the distributed questionnaires, reliability of Cronbach's alpha is evaluated and its value is more than 70%. Therefore, it confirms reliability. And formal validity has been used to determine the validity of the questionnaire, which is confirmed by the fact that the score of the impact is greater than 1.5. In the present study, one variable analysis was used for central indicators, dispersion and deviation from symmetry, and a general picture of the society was obtained. Also, two variables were analyzed to test the hypotheses; to measure the correlation coefficient between variables using structural equations, SPSS software was used. Finally, multivariate analysis was used with statistical techniques related to the SPLS structural equations to determine the effects of independent variables on the dependent variables of the research to determine the structural relationships between the variables. The results of the test of research hypotheses indicate that: 1. SCM practices have a positive impact on the competitive advantage of the MAMMUT Group. 2. SCM practices have a positive impact on the performance of the MAMMUT Group. 3. ERP system has a positive impact on the performance of the MAMMUT Group. 4. The ERP system has a positive impact on MAMMUT's competitive advantage. 5. The competitive advantage has a positive impact on the performance of the MAMMUT Group. 6. The ERP system has a positive impact on SCM of MAMMUT Group. The above results indicate that the system of ERP and SCM has an impact on the competitive advantage and corporate performance of MAMMUT Group.

KEWWORDS: Enterprise Resource Planning, Supply Chain Management, Competitive Advantage, MAMMUT Group Performance.

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1. Introduction

Today's world especially, the organizations have been undergone significant shifts and all organizational dimensions ranging from internal to external environments, human factors and nonhuman factors are changing (Gorelick, 2005; Jiang and Li, 2008). Utilization of information systems that could cover all current duties and activities in an organization and offer required on time information are considered as vital devices for modern organizations. Without

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these systems, it is impossible to increase the organization capabilities, improve its function and make better decisions and achieve competitive advantage. In this regard, ERP, as the newest managerial tool, is able to collect information using information technology in all aspects in an integrated and unified way and offer information to the users in different levels of the organizations. ERP is an information system that supports many aspects of a business (Parthasarathy and Sharma, 2014). This system has been considered as a new information system. However, achieving the proper level of success in planning depends on various factors that affect the organizations and projects (Rouhani and Ravasan, 2013). Also, in many firms, digital technologies as a combination of information, calculation, communications and technology have affected the business strategies, process and capability, products and services and relations (Dalmolen et al., 2015). Firms and organizations are making efforts to find flexible ways for improving responsiveness and staying in competitive scope by chain operation strategies, methods and technology in which selecting and implementing SCM and ERP deserve contemplation.

Nowadays, using SCM in business has been expanded. SCM is a continuous activity that is defined regarding the planning, coordination and controlling of items and products from source to consumer. A supply chain consists of geographical distribution, transportation and connections (Shao and Dong, 2010). ERP systems are not pure accountancy systems; however, they are limited and built by planning and control processes. In this method, the management control and information technology are not separable (Teittinen et al., 2013). Other ERP features include the integration among modules for time saving, reduction of tasks, optimization of resources, possessing pleasant environments including beautiful menus, and proper graphic relations, flexibility in adherence on the financial, tax, sale, expert and import laws, security and access of the people to system and also, transferring and exchanging information and unlimited registration of information (Dalveren, 2014). In the modern competitive world, firms must concentrate on capabilities and key resources for obtaining competitive advantage and promotion of their position in the market. SCM plays a vital role in managing decision making and has a significant effect on the profitability and success of firms. For this reason, managers emphasize supply chain promotion, and in most cases, they implement projects for improving SCM using information technology devices and optimization techniques such as inventory management and control, market demand response and customers need satisfaction (Hosseini and Sheikhi, 2012). In the modern era, various organizations require collaboration with other sectors of a supply chain for meeting demands. However, the performance of a firm is affected by activities of other members. Competition among firms has been changed to competition among supply chains. Nowadays, firms should consider integration with suppliers and customers in addition to the internal resources (Vahabpour and Safarzadeh, 2008). On the other hand, ERP requires coordination and complex infrastructures in order to establish the organization relations. These systems are designed as computer information systems for facilitating and integrate in real time. Organizations implement these systems for enhancing of operational efficacy and business effectiveness. Therefore, in some organizations, the implementation of these systems has failed. Since there is no research MAMMUT Group on examining the impact of ERP and SCM on competitive advantages and performance, this research has tried to investigate this issue. Accordingly, this question is arisen: Do ERP and SCM have a positive impact on the competitive advantage and performance of this company?

2. Theoretical foundation and research background

ERP has been defined in various forms that approximately all of them state the same concept for resource management.

- ERP is a technology for resource management.
- It is a software solution that defines and creates activities of different units of an organization in integrated way in unified software system.
- It is a commercial package that aims to investigate the information and establish information flow among organization sectors including financial, accountancy, human resource, and supply chain and customer management. In a comprehensive definition, according to ERP features, it can be said that the following definitions can be stated for ERP:
- ERP is intra-organization, comprehensive, modular, standard practical software package that includes a set of integrated modules ready for installation, predefined and pre-engineered but regulated based on the organization dynamic needs. This solution is completely flexible based on information covering all actives, main and effective factors in creation of value added. Predefined processes have been extracted based on the experiences.

- According to the mentioned definitions, it can be said that obtaining the most important features of ERP and one of the necessities of shaping these systems is attention to organization processes among practical scopes (Laudon and Laudon, 2004).

2.1. System quality and information

The quality of information can be measured as the level of real involvement of a defined information system in achieving the organizational goals. In literature on the information systems, the quality of information systems can be measured by level of customer satisfaction. Also, the customer satisfaction is used for the following cases: needs, system acceptance, perceived usefulness, information system perception (Mahdavi, 2021).

2.2. System utilization

Utilization of the current integrated information systems in the market requires progresses such as affording high costs of purchasing software and existence of organizational maturity for implementation of purchased systems. The organizations should use the solutions in the market for implementing integrated systems (Mahdavi, 2021).

2.3. Operational impact

Ever-increasing complexity of organizational operation and management process has caused that the managers pay attention to the issue of ERP and effective environment. An effective manager should identify the right from wrong and establish a positive relationship among ERP effective management and organizational development. Increasing and decreasing the level of effectiveness, the organizational development and empowerment is increased or reduced (Toloui and Negahi, 2015).

2.4. Organizational impact

All organization resources should be used for achieving the main goal. Organizational efficacy is obtained by human resources. Organizations need flexibility for success and in dealing with competitors. For doing so, productivity is important in this case since it leads to competitive advantage (Mahdavi, 2021).

2.5. SCM performance

SCM is a universal strategy of the 21st century for achieving organizational completion. Nowadays, the main concerns are rapid delivery of products with high quality and low cost. Thus, organizations encounter with problems in finding ways for improving and merging, flexibility, responsiveness, customer satisfaction and as a result competition with strategy change and operation technology that SCM is a response for these problems (Zahraee, 2016).

2.6. Strategic relationships with supplier

Strategic relationship is an analysis of important issues that is adopted by the chief managers of the organization as the representatives of the owners in order to control of resources outside of the organization. This process consists of identifying the mission, perspectives and assets and development of plans and policies and all activities required for obtaining goals. In another definition, strategic management is a set of managerial actions and decisions that specify long-term function of the organization. It includes environmental observation, setting strategy, implementing, evaluation and control of strategy. Thus, investigating the strategic management emphasizes the assessment of external opportunities and threats in the light of the internal strong and weak points. It was called business policy at first. The related issues are strategic planning, environmental observation and industry analysis (Nag et al., 2007).

2.7. Customer relation management

Customer relation management consists of all processes and technologies used for identification, persuasion, expansion, preservation and providing services with management of all methods used for customer relations. Principles of customer relations management expresses creation of a system for customer relations from beginning to end in different times (Shaw, 1991).

2.8. Quality of sharing information

One of the main aspects in coordination is sharing information that can be defined as an array to negotiate diverse information with supply chain partners (Monczka et al., 1998).

2.9. Competitive advantage

Competitive advantage includes factors that enable the firm to outperform in competition. It is established when a firm progresses and gains capabilities relative to competitors such as access to natural resources, skilled human force, industrial and information technologies. Competitive advantage is the level of attractiveness of the firm propositions from a customs perspective. It is distinguished by dimensions that enable the firm to provide better services. In general, it is a value offered to the customers by the firm so that this value is not provided by potential and active competitors (Attaran et al., 2012).

2.10. Organizational performance

Performance is a state or quality of function. Thus, organizational performance is a general term that refers to the organizational operations. Performance is divided into two sections: 1) efficacy that describes the manner of utilization of resources in production or services; it means the relationship between the real and desired combination of inputs for defined outputs, and 2) efficiency that describes the grade of obtaining the organizational goals (Khorami and Mahmoudzadeh, 2017).

3. Research background and conceptual model

Palandeng et al. (2018) conducted a research entitled ”Influence Analysis of Supply Chain Management and Supply Chain Flexibility to Competitive Advantage and Impact on Company Performance of Fish Processing in Bitung City’’. The goal was to determine the impact of SCM and supply chain flexibility on the corporate performance by competitive advantage. The samples were obtained by with the participation of all experts of 21 companies. The data were collected by interview and questionnaire and were analyzed by PLS. This research determines SCM, including customer relations management, internal SCM, suppliers' relations management and supply chain flexibility for testing the relationship between competitive advantage and corporate performance. The results showed that SCM had a positive effect on the firm competitive advantage. SCM had a positive impact on competitive advantage and firm efficiency. It can be concluded that improving the organizational performance depends on SCM, supply chain flexibility and competitive advantage. Supply chain flexibility was necessary for this firm. New advancement in providing diverse products causes to effective organization and the advantages of SCM and supply chain flexibility and competitiveness improve this corporate performance. Srinivasan and Dey (2014) in a research on supply chain analysis conducted organizational information processing and found that the companies are trying to develop analytical capabilities. Using organizational information processing theory (OIPT), the demand and supply perspective was studied as a main resource for analysis of organizational flexibility as a complementary capability. The relationship in these factors was investigated under different conditions of the market fluctuations as an environmental uncertainty. The results of studying 191 world companies showed that both demand and supply perspectives are related to expansion of analysis capabilities and operational performance. The experiential results indicated that the power of organizational flexibility and analysis is considered as complementary capability of the firms located in the volatile market. This finding expands OIPT for better perception of information processing technologies, while provides theoretical directions to managers in developing analytical capabilities.

Handoko et al. (2015) investigated the ERP and SCM impact on competitive advantage and organizational performance in Indonesia. According to this research, ERP is one of the most important factors in business (finance, human resources, marketing, and operations). SCM is looking for a private company, and given that companies are largely focused on their core competencies and capabilities, they are unaware of other suppliers' capabilities. The ERP system helps companies achieve these competitive advantages by increasing the flow of process information, an increase in all connected and continuous operating systems between suppliers, manufacturers, distributors, and even end-users. The study was conducted on 148 Indonesian companies' managers. The hypotheses were tested using multiple regression pathway analysis. All of the concepts or questions in this study were quantitatively analyzed using SERVQUAL structural equation modeling (SEM) modeling. The results showed that SCM performance has a positive effect on competitive advantage and corporate performance. ERP systems have a positive relationship with competitive advantage. The ERP system has a positive effect on corporate performance. Finally, competitive advantage positively affects corporate performance. Huo et al. (2014) in a study entitled "The impact of a competitive environment on the

dividing and performance of supply chain information", stated that data sharing in supply chains over the past decade has become an important issue. The Chinese manufacturing company uses supply chain information sharing (SCIS) and supply chain performance to examine the relationship between competitive environments. The results of structural equation modeling analysis showed that, 1) International competition in general with each three types of SCIS are positively correlated, while local competition is not directly related to any of the three types, 2) Sharing internal information directly by external information with suppliers and customers, and 3) Sharing internal information with customers is positively related to the performance of the top supply chain, while sharing supplier information is not significantly related to performance. The findings showed that understanding the relationship between competitive environment, SCIS and supply chain performance promotes Chinese production. Jenatabadi et al. (2013) conducted a study on the impact of SCM on the relationship between the organizational resource planning system and organizational efficiency. Two essential IT investment options managed by managers are SCM and investment. The aim of this study is to investigate the planning of organizational resources, its approval and its impact on organizational performance through SCM. This article presents a new model that optimizes organizational resource planning by SCM and organizational performance. Structural equation modeling was used to test the model connection level and four models. The proposed hypotheses for the data needed for this study were obtained from 174 companies in Malaysia through prepared surveys. The results of the empirical evidence showed that organizational resource planning in the supply chain ultimately leads to an overall improvement in the performance of the organizations.

Ince et al. (2013) examined the impact of ERP systems and SCM strategies on the corporate performance in Turkish companies. This study examined the dimensions of SCM method and ERP systems and the relationship test between competitive advantage and corporate performance in 138 Turkish companies. Path analysis has been used to test the hypotheses. The results showed that SCM and ERP systems have a positive effect on corporate performance. It also creates a competitive advantage for the companies that use it. Su and Yang (2010) conducted a study entitled "Why organizational resource planning systems are necessary for SCM". The supply chain design is becoming a core competency and organizational resource planning system (ERP). Installing an ERP system is expected to be an integral part of SCM; however, it is expensive and dangerous. IT managers must decide how to use their limited resources and investment in the right product. Can an ERP system directly improve SCM competence? More than 80% percent of respondents in this study think it is necessary.

Kim (2009) examined the causal relationship between SCM operations, competitiveness, supply chain integration level, and corporate performance in an article entitled "Study of the direct and indirect impact of supply chain integration on corporate performance". He focused his research on Japanese and Korean manufacturing companies and found that in Korean companies, the integration of supply chain performance could play a more vital role in the sustainable competitiveness of SCM. In Japanese companies, however, closer internal relationships between the level of focus on SCM operations and competitiveness can have a more significant effect on the competitiveness of SCM. He believes such findings could help the company create a framework for linking its integration strategy to its competitive strategy, as well as identifying how to relate such relationships to improving organizational performance. In this way, the company is able to set useful strategies for supply chain operations for supply chain integration.

Considering the extensive review of the literature, this research model uses the conceptual research model derived from the research of Handoko et al. (2015) to investigate the effect of organizational resource planning system and chain operation on the competitive advantage and performance of MAMMUT Group as shown in Fig. 1. According to Fig. 1, the following questions and hypotheses were suggested:

Main question: What effect does the organizational resource planning system and SCM operations have on the competitive advantage and performance of the MAMMUT Group?

Secondary questions

1- What effect does SCM operation have on the competitive advantage of MAMMUT Group?

2- What effect does SCM operations have on the performance MAMMUT Group?

3- What effect does the organizational resource planning system have on the competitive advantage of the MAMMUT Group?

4- What effect does the organizational resource planning system have on the performance of MAMMUT Group?

5- What effect does competitive advantage have on the positive performance of MAMMUT Group?

6- What effect does the organizational resource planning system have on the SCM of MAMMUT Group?

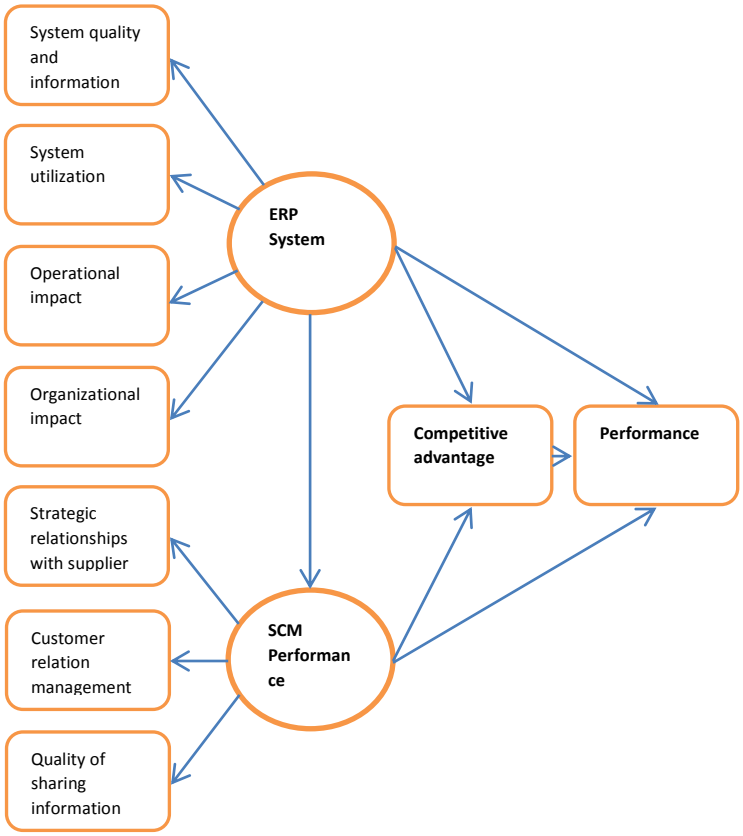


Fig. 1: The conceptual research model (Handoko et al., 2015)

Main hypothesis: The organizational resource planning system and SCM operations have a positive effect on the competitive advantage and performance of MAMMUT Group.

Secondary hypotheses

1- SCM operations have a positive effect on the competitive advantage of MAMMUT Group.

2- SCM operations have a positive effect on the performance of MAMMUT Group.

3- The organizational resource planning system has a positive effect on the competitive advantage of MAMMUT Group.

4- The organizational resource planning system has a positive effect on the performance of MAMMUT Group.

5- Competitive advantage has a positive effect on the performance of MAMMUT Group.

6- The organizational resource planning system has a positive effect on the SCM of MAMMUT Group.

4. Research methodology

The main methods of data collection in the present study are as follows: library and field study. A questionnaire is used to collect the required data to determine the relationship between the research variables. This research is applied. In this research, a researcher-made questionnaire is used to collect field data using theoretical foundations, research background and standard questionnaires in this field. Theoretical foundations of this research have been collected by referring to books, journals, internal and external articles and reputable internet databases for conducting research. In order to measure the validity of the questionnaire as much as possible, the opinions of supervisors and consultants and the opinions of experts are used as much as possible. Cronbach's alpha reliability coefficient is also used to evaluate the reliability of the questionnaire. The SPLS statistical software is used for statistical analysis. Structural equation modeling is employed to explain the relationship between research structures. Thematic scope of research is the study

of the effect of ERP system and SCM operations on ensuring the competitive advantage and performance of the company, the spatial domain of MAMMUT Group in HASHTGERD and the time domain of the research is 2018. The research measurement unit includes organizational resource planning, supply chain operations, competitive advantage and performance of the research observation unit, experts and specialists and analysis unit of MAMMUT Group. Specialists and experts were familiar with the ERP and SCM systems in the MAMMUT Group. The statistical population consisted of 210 individuals. Sampling was done by simple random method using Cochran's formula for limited communities. The sample size of the research was 136.

5. Research findings

In Fig. 2, the structural equation model is presented with respect to the T coefficients:

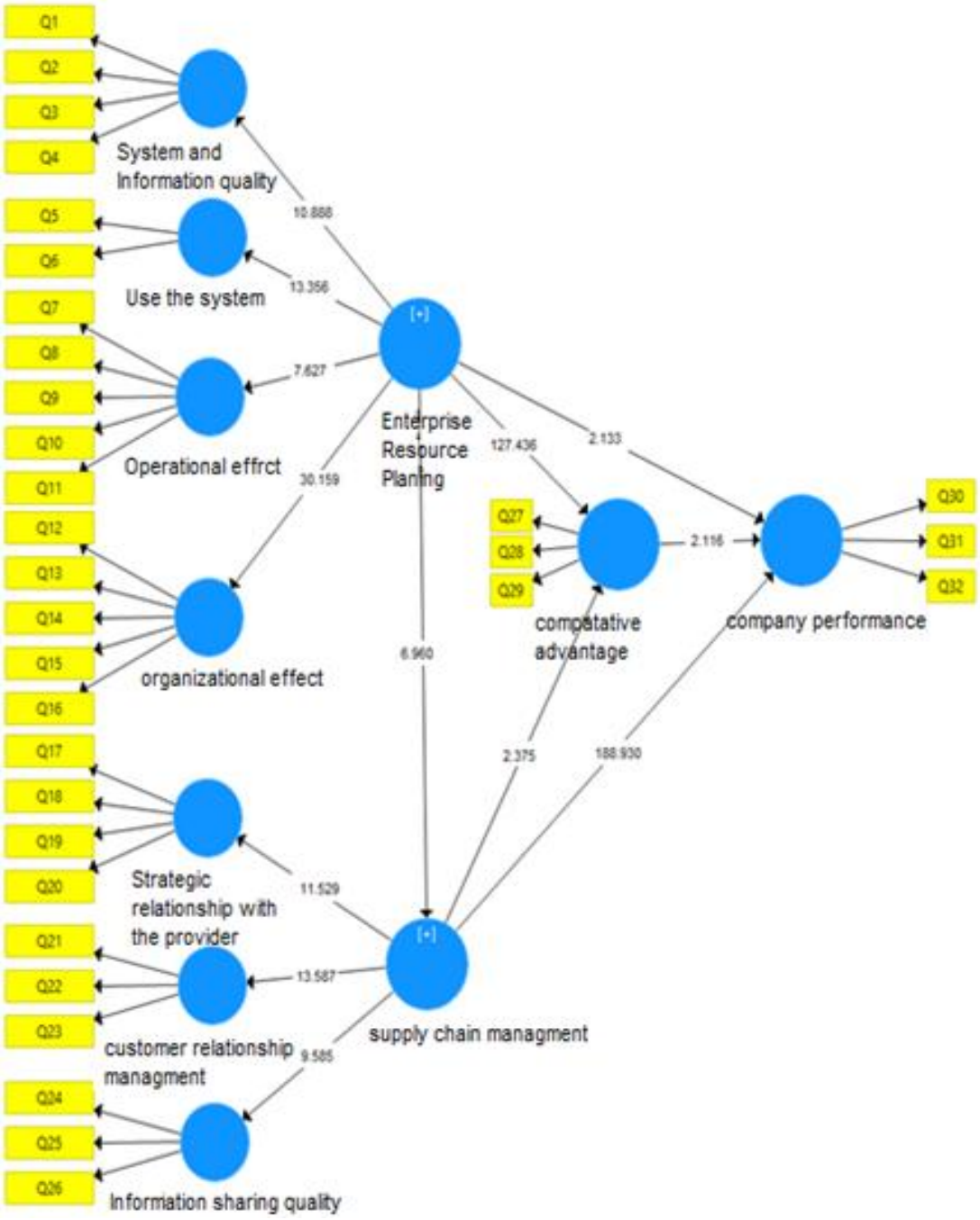


Fig. 2: The structural equation model with respect to the T coefficients

According to the results obtained in Fig. 2, it is first necessary to understand that the coefficients greater than the numerical value of 1.96 confirm the existence of the relationship and the effect of each component. According to Fig. 2,

it is seen that the customer relationship management component with a coefficient of 13.587 has the greatest impact on the performance of SCM, and also the organizational impact with a factor of 30.159 has the greatest impact on organizational resources planning system. Also, regarding the performance of SCM and organizational resource planning system, it can be seen that SCM with a factor of 188,930 has the greatest impact on corporate performance. Also, organizational resource planning system with a coefficient of 127.436 has a positive and significant effect on competitive advantage. Competitive advantage with a factor of 2.116 has an effect on corporate performance. Also, the performance of SCM and competitive advantage with a coefficient of 2.375 is one of the weakest relationships observed in Fig. 2. Finally, it is seen that all the coefficients are greater than the numerical value of 1.96 and the existence of the relationship and the effect of each of the observed components on the target component is confirmed.

Fig. 3 depicts the structural equation model according to the standardized coefficients:

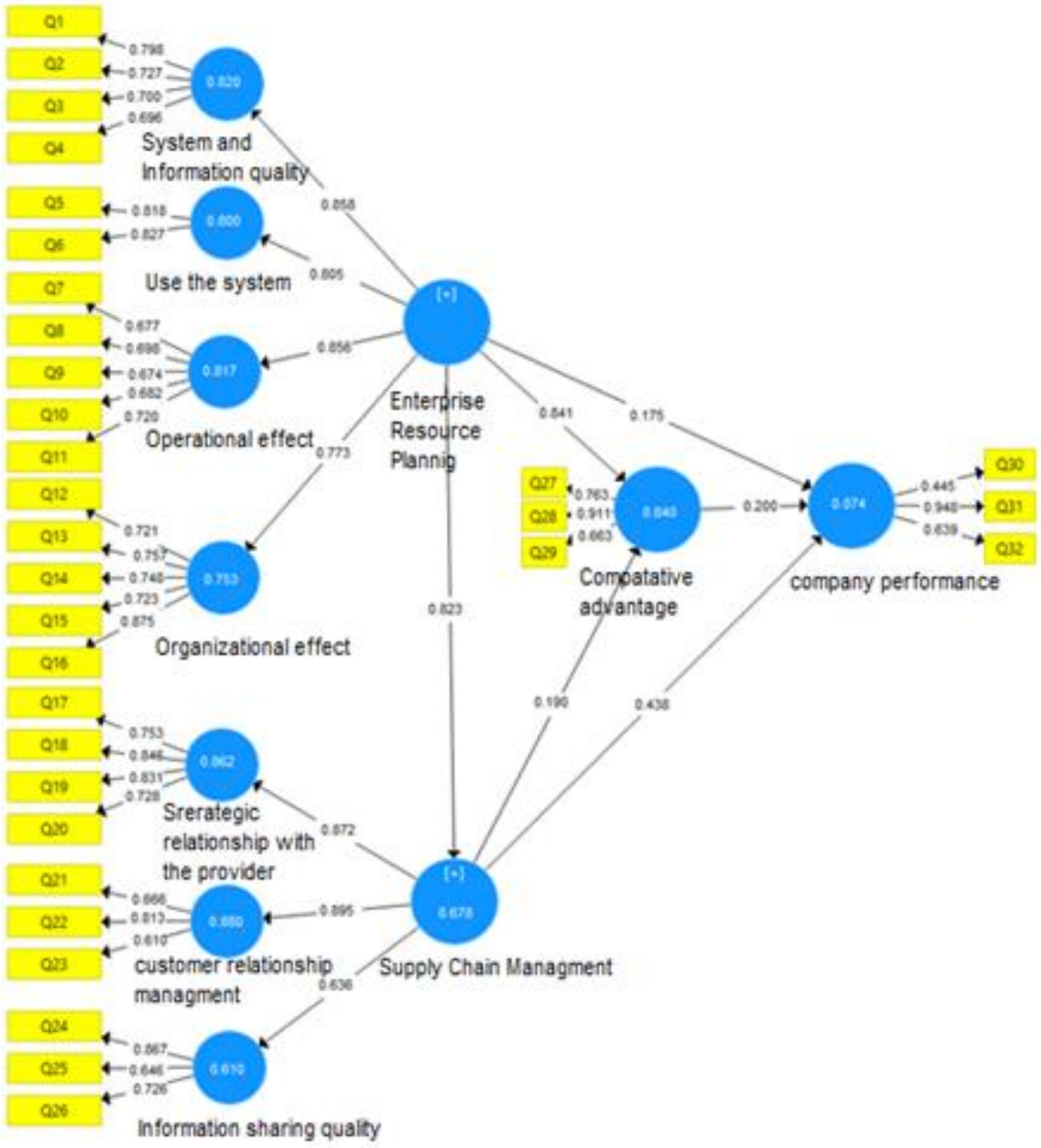


Fig. 3: The structural equation model according to the standardized coefficients

According to the results obtained in Fig. 3, it is observed that customer relationship management with beta coefficient of 0.895 has the greatest impact on supply chain management performance, and also the component of system quality and information with 0.858 has the greatest impact on the organizational resources planning system. Regarding the effect of supply chain management performance components and organizational resource planning system, it is seen that supply chain management performance with beta coefficient of 0.438 has an effect on the corporate performance.

Also, organizational resource planning system with beta coefficient of 0.841 has an impact on competitive advantage, and supply chain management performance with a beta coefficient of 0.190 has the weakest impact and relationship with competitive advantage. Organizational resource planning system with a coefficient of 0.175 affects the corporate performance. Finally, competitive advantage with a factor of 0.200 affects company performance.

6. Discussion

6.1. Main hypothesis

The organizational resource planning system and chain management operations have a positive effect on the competitive advantage and performance of MAMMUT Group. According to the results of the previous chapter, the components of organizational resource planning systems with significant levels less than 5%, as well as relatively good beta coefficients and T coefficients greater than 1.96 have a positive effect on competitive advantage and MAMMUT Group performance. Also, SCM operations with significant levels of less than 5% and good beta coefficient and T coefficient greater than 1.96 have a positive effect on the performance of MAMMUT Group. SCM affects the competitive advantage of the MAMMUT Group. Finally, the present hypothesis is confirmed. The results of this hypothesis are consistent with the results obtained in the study of Khorami and Mahmoudzadeh (2017), which aimed to investigate the effect of organizational resource planning and SCM on corporate performance. In both studies, it was found that the role of organizational resource planning system and chain management operations is significant on competitive advantage and organizational performance. Also, the results obtained in this hypothesis are consistent to the results obtained in the study of Handoko et al. (2015) with the aim of investigating the impact of organizational resource planning system and SCM functions on competitive advantage and corporate performance in a sample of Indonesian companies. The results of the two studies suggest that the organizational resource planning system and SCM operations have a positive impact on competitive advantage and corporate performance.

6.2. Secondary hypothesis

H1: SCM operation has a positive effect on the competitive advantage of MAMMUT Group. According to the results obtained in the previous chapter, it is observed that SCM operations with a significant level of less than 5%, the level of beta coefficient equal to 0.105 and the level of T-statistics equal to 2.375 have an impact on the competitive advantage of this company. Finally, this hypothesis is confirmed. Handoko et al. (2015) investigated the role of SCM and gaining a competitive advantage in service organizations. The results indicated a significant causal relationship between green supply chain on organizational agility and competitive advantage in service environments. The results of the present study are inconsistent with the results obtained in the study of Handoko et al. (2015) in terms of the impact of supply chain on competitive advantage. The reasons can be lack of familiarity of the individuals in this with the concepts of competitive advantage and supply chain performance, its roles and functions, because the results obtained in the present hypothesis are consistent to the results obtained in another study by Zahraee (2016).

H2: SCM operations have a positive effect on the performance of MAMMUT Group. According to the results obtained in this section, it can be seen that the performance of SCM with a significant level of less than 5%, the level of beta coefficient equal to 1.003 and the level of statistic T is equal to 188.930 has a positive effect on MAMMUT Group. Finally, the present hypothesis is confirmed. The results obtained in this study and especially the results obtained in the present hypothesis are consistent with the results of this hypothesis are consistent to the results of a study conducted by Handoko et al. (2015). This study aimed to investigate the impact of organizational resource planning system and supply chain management functions based on competitive advantage and corporate performance in a sample of Indonesian companies. The results indicated a positive impact of SCM operations on the corporate performance. Therefore, the results of this study are fully consistent to the result of the present study.

H3: Organizational resource planning system has a positive effect on the performance of MAMMUT Group. According to the results, it can be seen that the organizational resource planning system with a significant level less than 5%, the level of beta coefficient equal to 0.209 and the T-statistic equal to 2.133 has a positive effect on the performance of MAMMUT Group. Finally, the present hypothesis is confirmed. The results of the present hypothesis are consistent with the results obtained in the study of Handoko et al. (2015). By the aim of investigating the effect of organizational resource planning systems and SCM methods on corporate performance, and it was observed that supply chain management practices affect competitive performance and advantage, as well as organizational resource planning systems affect suppliers' performance. Therefore, the results obtained in this study can be considered consistent to the results obtained in the present study. Also, the results obtained in the present hypothesis are consistent to the results obtained by Ince et al. (2013). The aim of this study was to investigate the impact of organizational resource planning systems and supply chain management strategies on corporate performance in Turkish companies and the results

indicated that supply chain management methods and organizational resources planning system have a positive effect on company performance. Therefore, the results of this study can be considered consistent to the results obtained in the present study.

H4: Organizational resource planning system has a positive effect on the competitive advantage of MAMMUT Group. According to the results, it can be seen that the organizational resource planning system with a significant level of less than 5%, the level of beta coefficient equal to 0.998 and the level of statistical statistics equal to 127.436 have a positive effect on the competitive advantage of MAMMUT Group. Finally, the present hypothesis is confirmed. The results of this hypothesis are consistent to the results of a study conducted by Handoko et al. (2015). The results indicated a positive impact of the organizational resource planning system on the competitive advantage of the company in Indonesia consistent to the results of the present study.

H5: Competitive advantage has a positive effect on the performance of MAMMUT Group. It is observed that the competitive advantage with a significant level of less than 5%, the level of beta coefficient equal to 0.204 and the T statistical level of 2.116 has a positive effect on the performance of MAMMUT Group. Finally, the present hypothesis is confirmed. The results of this hypothesis are consistent to the results of a study conducted by Handoko et al. (2015). The results showed a positive effect of competitive advantage on corporate performance in Indonesia, which is therefore consistent to the results of the present study.

H6: Organizational resource planning system has a positive effect on SCM of MAMMUT Group. According to the results, it is seen that the organizational resource planning system with a significant level of less than 5% and beta coefficient equal to 0.577 and the T statistical level of 6.960 has a positive effect on the SCM of MAMMUT Group. Finally, the present hypothesis is confirmed. The results of this hypothesis are consistent to the results of a study conducted by Handoko et al. (2015). The results depicted a positive effect of organizational resource planning system on SCM; therefore, the result is consistent to the result of the present study. The final model of the research is shown in Fig. 4.

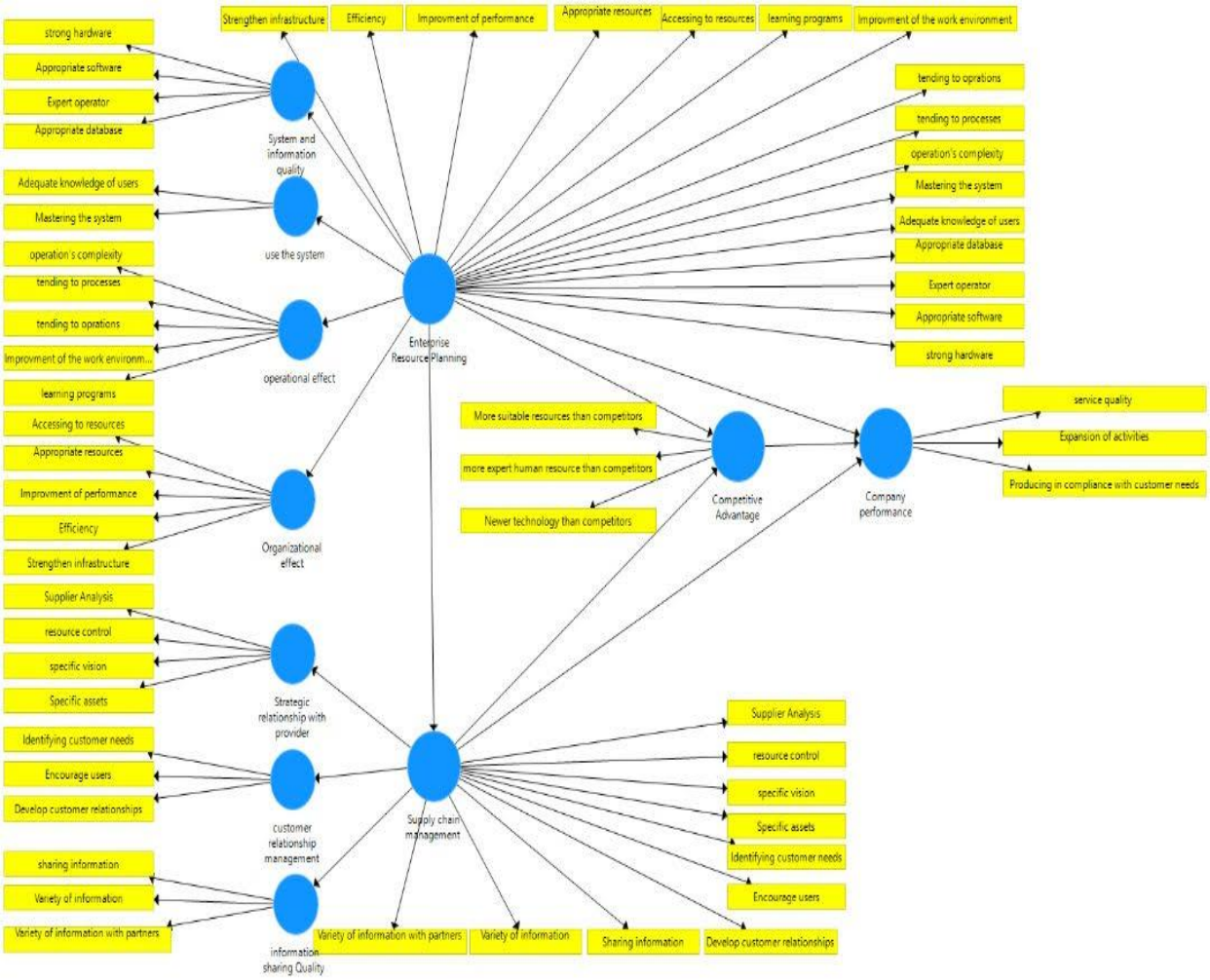


Fig. 4: The final model of the research

7. Conclusions and propositions

Intensifying global competition in a constantly changing environment doubles the need for appropriate responses from organizations and manufacturing companies and insists on their flexibility with the unsafe foreign environment, and today's organizations in order to gain and maintain a good position in the national and global arena. The companies should take advantage of appropriate models such as SCM in order to achieve competitive advantage and customer expectations. Customers in today's organizations are involved in the production of goods and services, procedures and processes, development of knowledge and competitiveness along with the members of the organization. Effective SCM is a key factor in survival of an organization. At the same time, utilization of information technology in supply chain activities has increased the potential for value creation in the supply chain. In general, SCM emphasizes increasing adaptability and flexibility of companies and has the ability to react and respond quickly and effectively to market changes. A set of methods used for effective and efficient integration of suppliers, manufacturers, warehouses and sellers in such a way that in order to minimize system costs and meet the needs of services, goods are produced in the right number in the right place and at the right time. The SCM is the coordination of production, inventory, location, and transportation between participants in a supply chain. To achieve the best combination of accountability and efficiency for success in the SCM market, there are three main processes:

- **Information management:** Today, the role and position of information is obvious to everyone. Proper circulation and accurate transfer of information make processes more efficient and effective and easier to manage. In the supply chain, the issue of coordination in activities is very important. Coordinated and appropriate information management between partners will have an increasing impact on decisions and speed, accuracy, quality and other aspects.

- **Logistics management:** This section includes all physical activities from the stage of preparing raw materials to the final product, including transportation activities, warehousing, production schedule, and etc.

- **Relationship management:** This section is one of the most important topics in the supply chain and has a tremendous impact on all areas in the supply chain and its level of performance. It occurs between the parties involved in the chain. In the expansion of any integrated supply chain, the development of trust and confidence among partners and establishment of reliability are critical and important elements for success.

However, companies are realizing that their purchasing department can be increasingly effective in enhancing their efficiency and effectiveness, so they have changed the way they shop and try to choose the right way so that they can achieve their goals. In order to achieve goals, it is necessary to communicate with them in search of worthy and strategic. For doing so, implementing SCM is a basic necessity. Industries such as automotive industry, the aerospace industry, and the oil industry, which have many suppliers, use this solution to improve communication with suppliers. The results of the study on the effect and role of organizational resource planning system and SCM operations on the competitive advantage and performance of MAMMUT Group indicated that organizational resource planning systems can be evaluated by supply chain. This assessment can be used to examine corporate resources, inputs and outputs, and to develop the right strategies, and ultimately increase a corporate efficiency and improve its performance. Also, in the study of chain management practices to ensure the competitive advantage of the company, it was observed that the performance of SCM can lead to increasing the corporate competitive advantage with other companies active in the field of activity. In examining the management practices of supply chain performance, it is also important to note that the better the supply chain performance, the better the corporate performance, because according to the definitions of a supply chain, proper use of resources and facilities, identification and true market are the hidden factors in the supply chain and affect the performance of the company. It was also seen that organizational resource planning systems affect the performance of the company, and that development of the right programs and policies can lead to increased utility in performing tasks in the organization and ultimately improve its performance. Finally, in examining the organizational resource planning system of the corporate competitive advantage, it was observed that planning systems are effective in formulating the corporate general policies. A clear picture of the vision in an organization can lead to the formation of principled competition and ultimately improvement of the organization.

The results of any research are presented to the community of researchers and the competent authorities in the hope that the path of research on that subject will continue and that its results will be exploited. Therefore, presenting any kind of proposal in these reports can pave the way for further studies as well as executive decisions in this regard.

In this research, suggestions in the form of research proposals for subsequent study work as well as practical suggestions for executive decisions and the attention of relevant officials to that area are presented:

1- It is suggested that the organization identify the supply chain and its dimensions and the role of supply chain in improving the activities and performance of the company and hold training classes with a focus on the supply chain and its functions.

2- In order to increase the level public participation in future plans, it is suggested that the organizations hold various meetings and conferences.

3- It is suggested that in order to increase the efficiency and performance of the company, MAMMUT Group should formulate its strategic policies with a tool called supply chain.

4- In order to develop knowledge in the company, it is suggested to hold conferences focusing on the green supply chain and its role on competitive advantage.

5- According to the results of path analysis, which the organization of enterprise resource planning with the coefficient of 0.998 has the greatest impact on competitive advantage, it is recommended that MAMMUT Group use the component of system quality and information as a sub-indicator of organizational resource planning in order to gain a competitive advantage and consider the highest quality of the system and information taking into account all dimensions.

6- It is suggested that according to the results of path analysis, which component of customer relationship management as a sub-index of SCM with a coefficient of 0.742 has the greatest impact on SCM, on the other hand SCM with a coefficient of 1.003 has effects on the corporate performance. MAMMUT Group should focus more on its customers in order to achieve high performance, and constantly communicate with customers to receive and use their opinions.

7- It is suggested that according to the results of path analysis, the quality component of information sharing as a sub-index of SCM with a coefficient of 0.698 affects the SCM and on the other hand SCM with a coefficient of 1.003 has an effect on the performance of MAMMUT Group, and the company should increase the quality of the information that is shared by promoting the sense of commitment and loyalty, as well as by adopting motivational processes, and subsequently increasing its performance.

8- It is suggested that according to the results of path analysis, which component of organizational resource planning with a factor of 0.577 affects the performance of SCM, MAMMUT Group should focus on developing policies to successfully implement the program system whose successful implementation will enhance SCM performance and subsequently improve corporate performance. Ultimately, the successful implementation of this system will lead to the coordination and integration of all activities in different sectors, and MAMMUT Group can rely on coordination and integration to plan to create a competitive advantage.

9- It is suggested that MAMMUT Group consider sustainable competitive advantage as its main goal and policies in this regard, according to the results of path analysis, which has a competitive advantage on the performance of the company with a factor of 0.204, understanding this issue can ultimately lead to higher performance by achieving sustainable competitive advantage.

Regarding the subject matter, some of the following suggestions will be beneficial for future studies.

- In future studies, it is suggested to investigate the role of green SCM in increasing the corporate environmental efficiency.
- It is suggested to compare the role of SCM in competition between different companies.
- It is suggested that successful samples be tested in line with the green supply chain and increase the corporate performance, and that the results be extended to unsuccessful samples in the supply chain.

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