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Investigate the Effect of Information Systems on Supply Chains with Mediation of Knowledge Management in Iran Khodro Company

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Abstract: Purpose of this study is to investigate the effect of information systemson supply chains with mediation of knowledge management in Iran Khodro Company in Isfahan. The said population for this study included all administrative staff in the dealerships of Iran Khodro in Isfahan who are serving during the year 2015. Totally, they are 460 persons. The sample size is 210 persons based on Morgan table. Questionnaires were distributed amongst administrative staff in the dealerships of Iran Khodro in Isfahan by random cluster sampling method, of which 210 questionnaires were analyzed. The research method was descriptive and correlational. In this study, three questionnaires were used including information systems in 19 items, supply chain in 18 items and knowledge management in 33 items based on the five-item Likert range. Validity of the questionnaire was confirmed by experts in management and its construct validity was confirmed by factor analysis and reliability was calculated using Cronbach's alpha and for the supply chain is equal to 0.92, for the variable of information system is equal to 0.934 and for the variable of knowledge management is equal to 0.902.

Key words: Information systems, supply chain management knowledge, Iran Khodro Company, questionnaires, reliability

INTRODUCTION

Dynamic and uncertain nature of today's environment requires that organizations pay attention to many aspects of their business. For this reason, there have been new patterns of organizational interaction, organizations and companies have turned their structures into more flexible structures with the use of information technology. Strategic information systems planning refers to computer-based program management activities that organization takes advantage of them in order to execute business plans. Strategic information systems planning include elements of strategic thinking, because it can identify and plan the most suitable information systems for the organization in order to align long-term activities in the field of information technology and macro policies (Hosseini *et al*., 2013).

Information systems made considerable progress in recent years and all of which have been in line with the expansion of information technology. Formation of management information systems, decision support systems and artificial intelligence systems accelerate and optimize many business processes in the organization. Knowledge management uses information technology as a powerful tool to improve its processes. In the following, we will introduce a series of information systems which play a crucial role in the implementation of knowledge management. Although, these systems are usually expensive but their effectiveness and organizational knowledge assets as a result of its implementation, made them affordable and comprehensive (Iranban and Adibi, 2007).

In the new era, information and knowledge are the most valuable assets of the organization, so that information and knowledge is a critical requirement in today's competitive environment. This valuable resource can be achieved in different way and can be transmitted by various methods. Researchers and experts are trying to understand how knowledge resources effectively collected and managed; they are trying to objectify tacit knowledge. Knowledge management is the process of converting tacit knowledge into objective knowledge. Valuable benefits can be gained by reducing the gap between "tacit knowledge" and "objective knowledge". However, before designing and implementing management plans, we should have a correct understanding of this issue in order to provide a basis for the establishment of the system and benefit from maximum effectiveness (Seyyedi, 2013).

Organizations have found that in order to survive in a diverse and competitive environment, they must be able to comply with future changes. Customer needs are constantly evolving and product life cycles are also shortened. Therefore, the supply chain must be able to

respond to market. So, successful organizations will be moving over time towards more cash flow. In today's business world, supply chain management is a tool to achieve short-term economic benefits and long-term competitive advantages. Supply chain management is a set of approaches and endeavors which supports manufacturers, suppliers and distributors and coordinate the value chain in such a way, so that products be manufactured and distributed in appropriate amounts, right time and convenient place in order to gain customer satisfaction. In today's competitive world and given the expectations of customers, organizations are faced with customers who want to see an increase in product variety, lower cost, better quality and faster access to the product. In order to achieve success, organizations employ supply chain management because it focuses on activities within a value chain. The main point in the supply chain argues that supply chains must compete, rather than organizations and companies and supply chain management is an approach to design, organize and implement these activities. Supply chain management integrates suppliers, distributors and customers by using information technology to meet customer expectations more effectively. As a result, companies can respond quickly and with high quality to various demands of customers. Because supply chains are competing rather than organizations, the supply chain management must be considered as one of the important strategies for success (Brown, 2002).

At the present time, the capital is not labor force, raw materials and assets and the most important capital is knowledge. Intellectual and physical capitals create value in organizations and should be considered as wealth. Intellectual consists of human capital and knowledge capital. Interactive and effective integration of these two types of intellectual capitals is essential in maximizing productivity. Therefore, considering the unawareness of management, the establishment of different systems in organizations leads to inefficiency of the obtained results. The combination of supply chain management and information systems with the mediation of knowledge management guides them to improve the deficiencies in the system and this can be achieved by proper understanding of knowledge management and its place in organizations. And, given that Iran Khodro car manufacturing company is one of the major companies in the industry. The use of strong information systems in Iran Khodro Company led to planning and budgeting, performance/finance reporting, cost control and integrated control in a purposeful manner and having supply chain management implements organizational infrastructure, information technology, decision support systems and organizational relations in a standard manner and having knowledge management leads to knowledge acquisition, knowledge registration, knowledge transfer, knowledge creation and application of knowledge in Iran Khodro Company.company needs a regular supply chain and strong information system for qualitative and quantitative growth in the automotive field. Iran Khodro have to update sales systems and customer acquisition in order to compete with competitors. If this knowledge combined with strong information systems and supply chain management, this company will achieve its goals. This study aims to investigate the impact of information systems on supply chain with the mediation of knowledge management in Iran Khodro Company and wants to answer this question: whether the impact of informatin systems on supply chain with the mediation of knowledge management in Iran Khodro Company is significant or not?

Theoretical foundations

Information systems management: Information system is a system that receives data from various units and produce information and information be delivered to managers in order to adopt optimal decision. Vocabulary, information and data presented in the introduction of knowledge management (Iranban and Adibi, 2007).

The role of information systems as a means of collecting, storing and sharing information is important;the intersection of information systems and knowledge management is the same. Appropriate information systems and consistent with the organization needs can facilitate the process of knowledge management (Seyyedi, 2013). Development of information systems as necessity of the information age has meant that organizations face with many challenges. Essentially, purpose of the development of information systems is to increase the efficiency in achieving business states that "management information system is a kind of computer-based information systems which can collect and process information from different sources in order to make decisions on management and a portion of which be produced by transaction processing systems". Backup management control systems process data generated by the transaction processing systems and provide them to managers in a new significant form. Such information systems are called management information systems.Management Information System is an integrated system that consists of user and machine for providing information in order to support operations, management and decision-making in organizations. This system takes advantage of software and computer hardware, manuals and instructions, models for analysis, planning, control

and decision-making and a database. Management Information System is an integrated, computerized and mechanical system which can provide information needed to support operations and decision-making. The main components of this system are:

- An integrated system to serve a large number of users
- A computerized system by which a number of software connected together through a database
- User-machine relationship which responded to immediate and temporary searches
- Provide information to all levels of management
- Support operations and decisions

Supply chain: Supply chain design generally has a grid configuration which includes market profile, choose the manufacturer and distribution and allocation of product families to different markets. Extensive research has been done in this regard. According to Fein, supply chain design is related to prioritizing the features by which the relationships between elements in a supply chain can be strengthened. These capabilities can be connected using dynamic processes. On the other hand as the supply chain design be completed, the supply chain management should be focused on the coordination related to material flow, inventory, information and financial flows. Effective supply chain strategies combined a variety of approaches with each other. These strategies can include items such as operational flexibility (assembling, build to order and reducing latency), contracts, inventory management and effective response to customers.

In the global competition in the modern era, products must be coordinated with customer requests. Customer demand for the high quality and fast service and this increases the pressures that previously did not exist as a result, organization and companies can no longer afford all the tasks by themselves. In the current competitive market, businesses and organizations trying to gain a competitive advantage in order to obtain a greater market share. Therefore, activities such as supply and demand planning, materials procurement, production and product planning, product maintenance services, inventory control, distribution, supply and customer service that all of them been done at the corporate level, now moved to the level of supply chain. The key point in a supply chain is management and coordination of all these activities (Alvani and Mirshafiee, 1999). Today, supply chain management is considered as one of the bases of infrastructure for implementation of electronic business in the world. Supply chain management is a phenomenon which emerged in the 90s and do it in a way that customers can receive fast and reliable service and quality products at minimum cost. Generally, the supply chain is composed of two or more organizations that are officially separated and become related with each other by the flow of materials, information and financial matters. These organizations are firms that can produce raw materials, parts, finished product or services such as distribution, storage, wholesale and retail trade. Even consumers can also be considered as one of these organizations (Daft, 1998).

Knowledge management: Knowledge management is a range of activities that can be used to manage, exchange, create or improve intellectual capital at the macro level. Knowledge management is the clever design of processes, tools, structures and the like with the intention of increasing, modernization, sharing and improving the use of knowledge in each of the three elements of intellectual capital which are structural, social and human. This enables the management of organizations to carry out problem solving methods, strategic planning and decision-making in an efficient and effective manner (Shaemi *et al*., 2013). Knowledge management is a process that helps organizations to identify, select, organize and publish important information and skills that are not organized believes that "knowledge management is the management of wisdom or management of scientific assets in order to make access to scientific information and resources in a systematic way so that they can be given to people who require such information to be able to improve efficiency in their activities".

The most fundamental characteristic of intelligent organizations in twenty-first century is their emphasis on knowledge and information. Unlike the past organizations,modern organizations possess advanced technology and they require earning, management and exploitation of knowledge and information to improve efficiency, manage and track these inexhaustible changes. Knowledge is a powerful tool that can change the world and create innovations.

In today's complex global environment, knowledge is extremely important. Organizations that know how to earn and manage information effectively, will become the leaders in their industry. Today, business is moving in a direction where competitive advantage is achieved through the creation of knowledge, not only through access to information.

Knowledge management is an interdisciplinary business model and deals with all aspects of knowledge including creating, encoding, sharing and using knowledge to promote learning and innovation in the context of the company. Knowledge management deals

with technological tools and also with the current organizational methods and includes the production of new knowledge, gain valuable knowledge from external sources, the use of this knowledge in decision making, importing knowledge in processes,products and services, encryption of documents, applications and databases, facilitating knowledge growth, knowledge transfer to other parts of the organization, measuring knowledge assets and impact of knowledge management. To provide better service to customers and survive in an industry, companies need to reduce production time, operate with a minimum fixed assets, shorten product development time, empower employees, improve adaptability and flexibility, they should dominate the information and create and publish knowledge. These measures would fail without continued focus on the creation, updating, the quality of knowledge and its use by all employees and teams (Vaezi and Moslemi, 2009).

Literature review: Seyyedi (2013) in an article entitled "tacit knowledge, information systems and knowledge management" presented in Bank and Economy Monthly Magazine, stated: Today, organizations are paying special attention to areas of added value, including knowledge management. These organizations are trying to convert tacit knowledge into objective knowledge in order to stabilize their success. Knowledge management is not a new concept, man traditionally sought to recording, storage and transfer of knowledge. Information systems is one of the components of organizational internal control; and while providing useful information for decision-makers, attempts to integrate and publish information. In fact, common point of knowledge management and information systems is the same. These systems are concerned with knowledge and information and both of them attempt to promote, apply and maintain it. In this context, integrated systems play a more prominent role. Given that knowledge is a widespread organization; therefore, these systems also provide a platform for knowledge and facilitating knowledge management, providing groundwork for the creation and promotion of competitive advantage.

Nickabadi (2012) conducted a study entitled "Framework for knowledge management processes in the supply chain" which was introduced within the framework of knowledge management in the supply chain, four main processes and a complementary processes. Then through factor analysis, processes and indicators contained in the framework were analyzed. The results showed that all of these processes are necessary for supply chain and in order of importance are:

- Transfer, sharing, distribution
- Use, application and operation
- Acquisition, creation and knowledge production) organization, storage and maintenance
- Evaluation and feedback

Tabatabaei *et al.* (2011) in a study entitled "Optimization of Application of Information Technology in Supply Chain Management and Marketing of Air Products by AHP" came to the conclusion that All the main criteria in the supply chain and information technology are effective on each other and the support of senior executives model confirms the existence of hard infrastructure and conceptual IT. The trained human resources in the field of hardware and software, electronic commerce and electronic data interchange with business partners have to arrange and optimize the use of information technology in supply chain management.

Nazemi (2011) in a study entitled "Efficient Model of Knowledge Management in the Supply Chain" came to the conclusion that there are no efficient models in combination of all components of the knowledge management process and patterns of a particular combination of factors has led to the development of efficient indicators of knowledge management in organizations. Given the existing assets from the knowledge management process, organizations can be use suitable combinations and choose a macro management strategies and provide enhances the functionality of organizational activities.

Iranban and Adibi (2007) in an article entitled "Relationship of Supply Chain Management and Information Systems with Knowledge Management" stated thatmaintaining knowledge within an organization is very important and plays a special role to improve organizational processes and achieve goals. So, if a system wants to play an effective role in the organization and help achieving the goals, must be aware of the status of knowledge management in organizations and its objectives should be established with regard to this status.

Abdulbaqi (2006) in a study entitled "Supply Chain: the Use of Electronic Information Systems and Instruments" examined the underlying concepts of supply chain management traditionally and the use of information technology in the field of Internet and e-Commerce and the impact of the Internet and e-Commerce on the development of the supply chain management concept has been studied.

Sofian and Monideepa conducted a research entitled "Relationship Between Supply Chain Strategy,

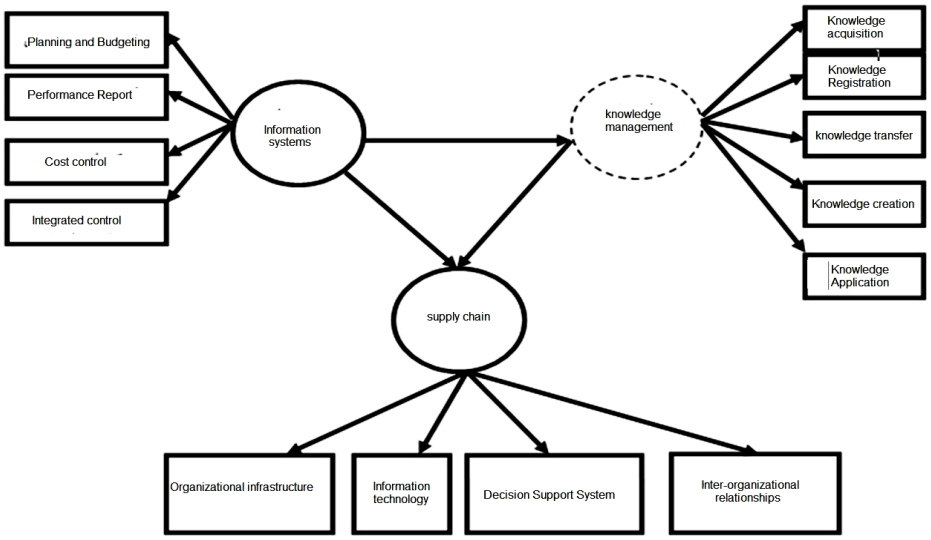

Fig. 1: Conceptual model of the research

Information Systems and Corporate Performance" based on the analysis and structural equation modeling of survey data confirmed members of senior management and executive works Order/materials management/ logistic/supply chain of 205 companies, these assumptions were confirmed the validity and shows that the is strategy enhances the relationship between the lean strategy (fast) SC and supply chain performance and showed there is a positive relationship between supply chain performance and corporate performance and there is a significant effect between supply chain performance and the lean strategy (fast) and corporate performance and finally concluded that information systems and supply chain have a significant impact on firm erformance. Agarwal *et al*. (2006) conducted a study entitled "Effectiveness of Information Systems in Supply Chain Performance: Study the Dynamics of the System", revealed significant influence of two variables of information system and supply chain.

Given the importance of management information systems, supply chain and use of knowledge management in organizations, however, it can be seen that these three variables are off the mark in our countryand so we did focus on these three variables in this study. As noted, the literature review was conducted to investigate the effect of information systems on supply chains with mediation of knowledge management. So the research hypotheses are as follows.

Information systems have a significant positive impact on supply chains with mediation of knowledge management in Iran Khodro Company. Information Systems have a significant positive impact on the supply chain in Iran Khodro Company. Information systems have a significant positive impact on knowledge management in Iran Khodro Company. Knowledge management has a significant positive impact on the supply chain in Iran Khodro Company. According to the definitions provided and mentioned previous research, the following conceptual model can be offered to investigate the effect of information systems on supply chains with mediation of knowledge management (Fig.1).

MATERIALS AND METHODS

Since the purpose of study is to investigate the relationships between the variables of management information systems, supply chain and knowledge management. In terms of objective, this is an applied research. In terms of data collection, this is a correlational study and specifically, this is based on structural equation model.This study was descriptive because it describes the variables and relations between them.This is a correlational study, because the relationships between variables are tested using correlation analysis, regression analysis and structural equation model.

Data collection tool is a questionnaire. Supply Chain questionnaire has 20 items and four dimensions and organizational infrastructure, information technology, decision support systems and organizational relations can be measured on the basis of the 5-item Likert and information systems questionnaire which has 30 items and includes four aspects of planning and budgeting, performance/finance reporting, cost control and integrated control and is based 15-item Likert. Knowledge management questionnaire which has 33 items and includes 5 dimensions of knowledge acquisition, knowledge registration, knowledge transfer, knowledge

Table 1: Results of confirmatory factor analysis

Variables/Model fitting index	Supply chain	Information systems	Knowledge management
Chi square test on degree of freedom	0/842	2/421	2/564
Mean square error of approximation	0/760	0/076	0/074
Goodness of fit	0/92	0/84	0/80
Modified goodness of fit	0/88	0/80	0/77
Normalized fit	0/960	0/88	0/88
The expected Average Variance	0/68	0/66	0/57

creation and knowledge application and is based on the 5-item Likert. Cronbach's alpha was used to determine the reliability of the instruments used and for the supply chain is equal to 0.92, for the variable of information system is equal to 0.934 and for the variable of knowledge management is equal to 0.902. These figures indicate that the questionnaire has good reliability. The content validity and the construct validity was intended to assess the validity of the research questions. The content validity was determined by qualified personnel and the validity was carried out using confirmatory factor analysis. Using factor analysis, it can be determined whether or not the questionnaire can measure the desired indicators?

Sampling Adequacy Test (KMO) was conducted to ensure proper sample size and confirmatory factor analysis. KMO test value for each of the variables in the supply chain, information systems and knowledge management is equal to 0.872, 0.893 and 0.824 (KMO >0/05), respectively. And, it showed the adequacy of samples and other variables for factor analysis. Factor analysis is presented in Table 1.

Results of factor analysis of the supply chain demonstrated that question 15 and 16 have a factor loading <0.5, so these questions were deleted from the model. The results of factor analysis after removing these questions showed thatfactor loadings and significant numbers related to the model parameters in the ideal situation. The model fitting parameters are in the Table 2. The results of factor analysis of information system showed thatquestions 4, 6, 7, 8, 10, 11, 20, 21, 22, 23 and 27 have a factor loading <0.5, so these questions were deleted from the model. Factor analysis after removing these questions showed that all factor loadings and significant numbers of model parameters are in desirable state and the model fitting parameters demonstrated in Table 1. Finally, the model fitting indices in the first order factorial analysis of Knowledge Management variables showed thatthe amount is acceptable and indicates that the index can measure the components.

The said population for this study included all administrative staff in the dealerships of Iran Khodro in Isfahan who are serving during the year 2015. The number of administrative staff in 60 dealerships of Iran Khodro in Isfahan is equal to 460 people. The sample included 210 people according to Morgan table. Questionnaires were distributed to 230 persons, 216 questionnaires were delivered and 210 questionnaires were analyzed. In this study, the random cluster sampling method was used.

RESULTS AND DISCUSSION

Table 2 shows the demographic characteristics of the study. As can be seen in the table, 64/29% are men among the 210 persons.The difference can be seen from this that men make up a greater volume of staff of Iran Khodro Company. In terms of age, the highest age group (46/67%) is between 40 and 50 years and in other words, half of Iran Khodro workers are middle-aged group. In terms of education, 54.76% of employees have a bachelor's degree and finally, in terms of work experience (47.62%) of employees have between 10 and 15 years' experience and services. And, we can say that a high percentage of staff in Iran Khodro are well experienced.

In this study, research hypotheses will be examined. Structural equation modeling by statistical software 8/8LISREL is used to test the hypothesis. Thus, relationships based on structural equation modeling was used to verify the main hypotheses. The significant number (t-value) is the criteria for confirming or denying a hypothesis. If a significant number be larger than 1.96 or smaller than-1.96 that hypothesis is confirmed. Bu,t if the significant number be higher than this interval, the hypothesis be rejected. Figure 2 and 3 show, the model is in good condition in terms of fitness indices.

- H_1: Information systems have a significant positive impact on supply chain with the mediation of knowledge management In Iran Khodro Company
- H_2: Information systems have a significant positive impact on supply chain in Iran Khodro Company
- H_3: Information systems have a significant positive effect on knowledge management in Iran Khodro Company
- H_4: Knowledge management has a significant positive impact on the supply chain in Iran Khodro Company

These results have been achieved in relations between model components. As the following models show, impact of information system on the supply chain in standard mode is equal to (0.01), in significant mode

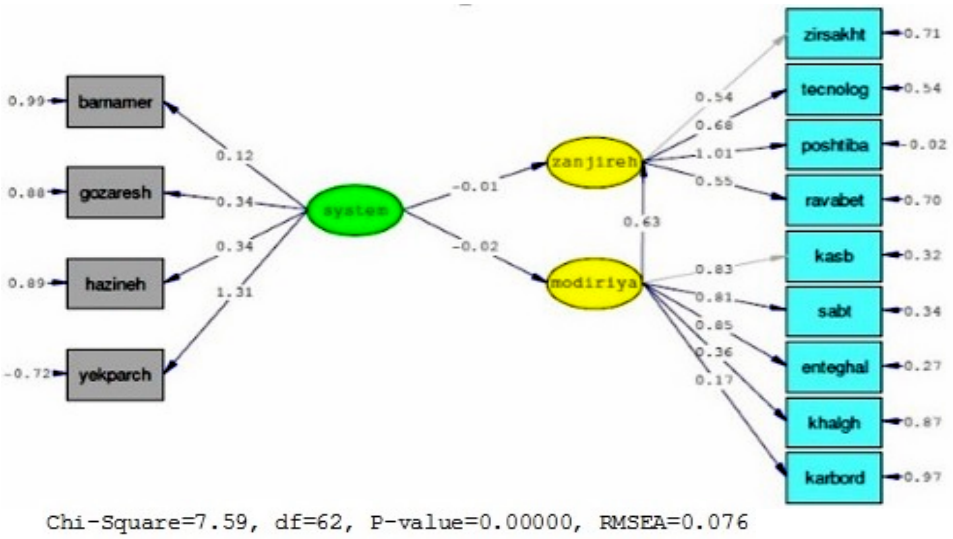

Fig. 2: Standardized coefficients of research conceptual model

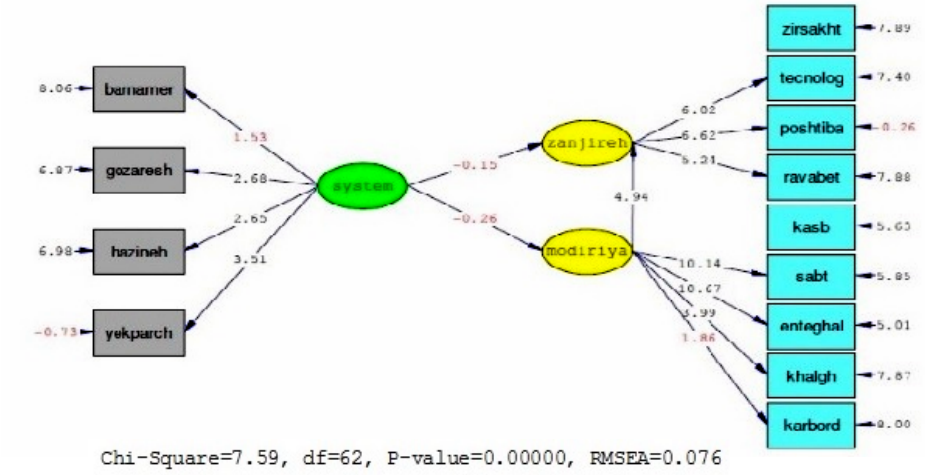

Fig. 3: The t-standardized coefficients of the research conceptual model

Table 2: Demographic characteristics of the sample

The investigated features (Choices)	Number	Percentage
Gender		
Female	135	64/29
Male	75	35/71
Age (years)		
20-30	16	7/62
30-40	66	31/43
40-50	98	46/67
>50	30	14/29
Work experience (years)		
Under 5	14	6/67
5-10	84	40
10-15	100	47/62
15-20	12	5/71
Educational level		
Diploma and lower	5	2/38
Associate	44	20/95
Undergraduate	115	54/76
MA	46	90/21

(t-value) is equal to (-0.15) which is less than the allowable amount of ±1.96. Therefore, the second research hypothesis be rejected and we conclude that the information system has no role in the supply chain (second hypothesis). Impact of information system on the knowledge management in path coefficient is equal to (-0.02), in significant mode (t-value) is equal to (-0.26) which is less than the allowable amount of ±1.96. Therefore, the third hypothesis be rejected.And the supply chain has a positive effect on knowledge management (0.63), the significance factor is equal to (4.94) and this number is more than the allowable amount ±1.96 which reflects the significant impact of knowledge management on supply chain. In other words, supply chain increases through increasing knowledge management (14 hypothesis). The first hypothesis which

Table 3: Fitness indexes in the conceptual model

Model fitting indices	Index value
X^2/DF	0/122
RMSEA	0/07
CFI	0/95
GFI	0/89
AGFI	0/84
NFI	0/80
P-value	0/000

is the mediator of the relationship between information systems and knowledge management in the supply chain will be rejected. Because the coefficient correlation test, the significant variables in knowledge management, information systems and supply chain were confirmed at 0.01 level. And because the structural equation model (t-value) of information system is accompanied with the mediator variable (-0.02) which is less than the allowable limit ±1.96 so the main research hypothesis which states that the information systems have an impact on the supply chains should be rejected. Considering rejecting the mediating role of knowledge management on information system and the significance level (4.94) in the supply chain, we conclude that although information systems in the dealership of Iran Khodro in Isfahan have no significant effect on the supply chain and knowledge management but knowledge management has a significant impact on the supply chain (Fig. 2 and 3).

Indicators of goodness of fit model includes 2, GFI (goodness of fit index), AGFI (Adjusted Goodness of Fit Index), CFI (Comparative Fit Index) and RMR (Root Mean of Residual Square). This model has an appropriate fitting in which the relation between χ^2 and the degrees of freedom (df) is <3,CFI is >90%, AGFI and GFI is >80% and RMSEA is <0.08 (Kalantari, 2009). The goodness of fit indices in Table 3 shows the goodness of fit in structural model.

CONCLUSION

Dynamic and uncertain nature of today's environment requires that organizations pay attention to many aspects of their business.For this reason, there have been new patterns of organizational interaction, organizations and companies have turned their structures into more flexible structures with the use of information technology.

The findings of the main research hypothesis showed that the information systems have no significant impact on the supply chain with the mediation of knowledge management. These findings demonstrate that the information systems have no significant effect on the supply chain and knowledge management. These findings are inconsistent with the project of Iranban and Adibi (2007) and the reason for such inconsistencies is that the information system of Iran Khodro Company probably does not support the supply chain process and cannot be held accountable for the activities of the company. As a result, the system must be updated or replaced. On the other hand, it is possible that the staff of Iran Khodro Company do not have the knowledge to use this system and for this reason, it cannot be effective on knowledge management and supply chain. The results of the second research hypothesis in which Structural equation modeling was used, showed that information systems have no significant impact on the supply chain of Iran Khodro Company in Isfahan. These findings suggest that the information system available in Iran Khodro Company have no significant impact on the supply chain and processes and this result contrasts with the findings of Soufian and Monideepa and Agarwal *et al.* (2006). This lack of consistency may be due to the fact that research in this field has not been done in Iran Khodro Company and the research that has been done in European countries, may led to the fact that the information system have no significant on the supply chain in Iran Khodro Company and other Iranian organizations.It is also possible that existing information systems in the company do not comply with supply chain management and failed to cover.If information systems properly used and the supply chain be effective in the company, so we can say that the information system has a significant impact on supply chain.

The results of the third research hypothesis in which Structural equation modeling was used, showed that information systems have no significant impact on the knowledge management of Iran Khodro Company in Isfahan. These findings suggest that the information system of Iran Khodro Company has no role in knowledge management.Unfortunately, any study has not been done in this area and these variables have not been well described. In this regard, Seyyedi (2013), Iranban and Adibi (2007) can be mentioned which examined relevance and role of the information systems on the knowledge management in companies. This incompatibility is due to a lack of research in this field. It is also possible that the information systems of Iran Khodro Company, in general is not involved in knowledge management or knowledge management in Iran Khodro Company is not done correctly If the staff of Iran Khodro Company learn modern science and provide the necessary conditions for the development of knowledge, it is likely that information system be effective on knowledge management in companies.

The results of the forth research hypothesis in which Structural equation modeling was used, showed

that the knowledge management have significant impact on the supply chain. In other words, we can say that knowledge management play a role in the supply chain management in Iran Khodro Company.These findings are consistent with findings of Iranban and Adibi (2007) and Nazemi *et al*. (2011) and this means that if the knowledge be managed correctly can be effective on supply chain performance in the company.

Finally, with regard to the new research topic, since a similar study on the impact of the supply chain information systems and knowledge management has taken place. More research on the theoretical study and scientific research like this study has not been implemented.

We can mentioned to Iranban and Adibi (2007) who examined the relationship between supply chain management, information systems and knowledge management and stated thatmaintaining knowledge within an organization is very important and plays a special role to improve organizational processes and achieve goals. So, if a system wants to play an effective role in the organization and help achieving the goals must be aware of the status of knowledge management in organizations and its objectives should be established with regard to this status. For this reason, the study also examines the impact of information system on the supply chain with the mediation of knowledge management.

LIMITATIONS

All research have a number of limitations and they are mentioned:

- Data collection tools is limited to questionnaire (We cannot obtain accurate information)
- Given that the standard questionnaires were used in this study however,these questionnaires have not been able to assess information systems in the knowledge management and the supply chain
- As the model for this research comes from foreign research. Therefore, this model may not be compatible with Iranian culture, otherwise the information systems would have a significant effect on knowledge management just like foreign investigations
- Limitations on the backgrounds and literature regarding the subject matter
- This study investigated the effect of information system on supply chains with mediation of knowledge management in Iran Khodro Company in Isfahan. Given that other dealerships in Isfahan and other cities in the country are not considered, it is not possible to generalize results

SUGGESTIONS

According to several analysis, the following suggestions are offered. Senior officials of Iran Khodro Company be suggested that they should be more supportive in order to coordinate between information system, supply chain and knowledge management.

Senior officials of Iran Khodro Company be suggested thatthe staff in the managerial section should be trained to coordinate between information systems, supply chain and Knowledge Management.

Information system designers be suggested that the system should be designed such that it can be flexible in times of change in the company.

The system is designed in such way that essential interaction with other systems of the organization can be developed.

The authorities be recommended that its members should continually informs about the planning of new knowledge inside and outside the organization. Planning should be in such a way that the operations be done in the shortest time and the least cost and with high quality.

The authorities be recommended that the staff should be encouraged to use new processes and methods. The authorities be recommended that organization and its members promote external knowledge in the industry (about processes and new services).

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