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The Implementation of Enterprise Resource Planning System within Jordanian Industrial Sector

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ABSTRACT

This study aims to contribute to a better understanding of the implementation of enterprise resource planning (ERP) system as management accounting innovations (MAIs) in Jordan. Using in-depth interviews this paper emphasizes the main factors that influenced the process of ERP implementation were introduced and the related obstacles associated with the implementation of ERP were also highlighted. The interviewees in the Tobacco and Cigarette Company approved that both top management support is the most crucial factor to influence ERP implementation. Moreover, the interviewees claimed that training and education were the most important factor to simplify their decision to implement ERP. During the process of implementing ERP, the company could be faced with difficulties related to the implementation in practice. Thus, barriers to change could make the change process slower, hinder it, and even prevent change. The high cost of ERP implementation, high cost of consultants, and are indicated by the majority of interviewees as the most common barriers encountered during the implementation of MAIs systems.

Keywords: Enterprise Resource Planning System, Management Accounting, Industrial Sector
JEL Classifications: M41, O15

1. INTRODUCTION

Over the last two decades a number of new management accounting innovations (MAIs) systems have been introduced including enterprise resource planning (ERPs) system activity based costing, activity based budgeting, strategic cost management, target costing, and balanced scorecards are now in theory (e.g. Kannaiah, 2015) as well as in practice (Elhamma, 2015; Patrick et al., 2015; Bjornenak and Ax, 2005; Batool and Younos, 2013; Askarany and Yazdifar, 2007; Bhimani et al., 2007; Smith et al., 2008; Hopper et al., 2008; Abdel-Kader and Luther, 2008; Cohen et al., 2005).

Previous research argued that many changes in companies all over the world are direct consequences of the diffusion of innovation (Abdel-Kader and Luther, 2008). The recent spread of MAIs provides an interesting opportunity to study the mechanisms of such diffusion (Elhamma and Yi Fei, 2013; Garrison and Noreen, 2003; Ryan, 2005; Zimmerman, 2000; Weetman, 2006; Hutaibat, 2005; Drury, 2008; Scott, 1995; Covaleski et al., 2003; Burns and Scapens, 2000; DiMaggio and Powell, 1983; Dillard et al., 2004; Scapens, 1994; Alam, 1997; Hoque and Hopper, 1994; Özyürek and Ulutürk, 2015). It has been argued that studies tackle the spread of MAIs among companies should enrich our understanding of the motivation for change.

The majority of MAIs research still was done in developed countries and very little research has been done in developing country, especially in Jordan context. Thus it is necessary to identify whether the Jordan culture and way of doing business may have a different impact on the implementation MAIs. The results of this study make a contribution to existing knowledge in the area of the implementation of ERPs as MAIs, especially in eastern developing countries such as Jordan. In addition, this research adds further evidence to the value of studying MA, and more specifically changes in ERP practice. It describes the developments undertaken in the implementation of a new system and how a new system becomes accepted in practice. Therefore this research focuses on the following research questions:

1. What are the main factors influenced the process of (ERP) as MAIs implementation in the Tobacco and Cigarette Company in Jordan?
2. What are the main factors obstacles the process of (ERP) as MAIs implementation in the Tobacco and Cigarette Company in Jordan?

The next section presents a review of the literature relating to ERP as MAIs empirical studies. The third section is dedicated to the research methodology and data collection methods employed in the study. The descriptive analysis and interviews results are then presented. The final section contains a discussion of the research findings and conclusions.

2. LITERATURE

A lot of researchers studied the ERP and what are the factors that made the ERP system succeed, in addition to that many researches examined the implementation of ERP and its effect on the firms. Sumner (2000) explained and clarified the risk factors associated with the implementation of the ERP system. The study contained a set of questions that were tailored to tackle the features of the ERP system (objectives, scope, length of the project, rationale), project management aspects (project sponsorship, project management team, allocating of resources internally and externally), technical challenges, and key success factors (implementation factors, human resources factors, technological factors). The research methodology concentrated on qualitative interviews, which were deep, comprehensive, and organized for executives on the planning, implementation, and use of the ERP system, on the level of projects in their organizations. A customized interview script was designed for every interview keeping in mind the factors, the skills, the hierarchy, design of applications, user's participation, training the users, technological design, and the project management team. The study has resulted in the challenge of the business process reengineering to cope with the functions of the ERP system.

Kraemmergaard and Rose (2002) had a different approach than Sumner (2000), and have considered that managerial competences are highly needed in the ERP system implementation and have labeled the project as the ERP Journey. The objective of this study was to correlate the success of the implementation of the ERP system with the managerial competencies needed for this success. The primary sample of this research was a Danish production firm that used SAP R/3. The study used the theory as part of the repetition process to collect data and analyze it. The assumptions and conclusions of the study clarified that the stages of the ERP journey requires different competencies in the managerial level, a manager may supervise the project with a different skill set and multiple competencies, and may reach to quick wins and success in the ERP journey, except that other skill set and competencies was required to manage other parts of the ERP journey. The study concludes that a wider scope is needed from competencies: Personal, business, and technical competencies were needed. It is alright to expect that the blend of competencies may find variance and differences while implementing the ERP system project, and in most the expectations are very high from each and every one, so such competencies if are to be excluded from the ERP journey the journey is doomed to need extensive troubleshooting and to solve expensive problems. This study confirmed that IT technical competencies were vital, especially in the central parts were high integration is needed across the organization. In addition, the study summarized that the business competencies were as important as their technical rivalries. These business competencies were the key factor of understanding the reason of choosing to go forward with the ERP system, and how such ERP system relates to the organization, and how the policies and procedures may be reengineered to accommodate and reach the optimal status of the ERP system. These factors hold the greatest value in terms of time and resources in the overall ERP journey.

Harrison (2004) came in with a new study, which shed light on the need of motivators when ERP is implemented and differentiated between the types of motivators depending on the sector were the ERP is implemented. The study named "motivations for ERP system implementations in public versus private sector organizations" had the objective of finding the use of the ERP system in the public and private sectors. The populations of this study were individuals whom were part of a project team in each sector in North America continent, whom have used or will use the ERP system. The participants in setting the methodology of the study were selected randomly. The sample of the study was 100 from the public sector, and 100 from the private sector. Data were gathered by a survey tailored by the author. The tools used in the survey were periodically tested and enhanced by specialized personnel in the ERP systems, and additions, amendments and enhancements were done based on their recommendations. The results of this study contained recommendations for both sectors on the anticipated benefits from using the ERP systems, which have showed a positive correlation between both sectors. The benefits were: Increase of standardization, better reporting systems, less operational cost. The key success factors of reaching these benefits were: The support of top management, aware project managers and team members. The result of analysis and the gaps between the two groups in regards to some of the desired benefits and the degree of satisfaction with some of the programming units.

Ellis (2005) found that the employees are one of the major factors of the system, especially when they are the users of the ERP system. "Employees' reaction to the introduction of ERP system" study focused on finding the problems that may occur when the ERP system is used, and also the effect of the top management support of the organizational endeavor, and how the ERP system is lead, and that the policies and procedures accurately describe how the system is used with a user manual that has the contribution and involvement of the main users which are the employees, and the user manual must strict the compliance of the users. The methodology of the study was to use quantitative analysis, and a survey was conducted and took into consideration, that the compliance and involvement enhances the policies and procedures of the ERP system, and would be more fund in using it. From the conclusion of the results of the study, if the ERP had the involvement of the employees, their efforts and contributions will double. The results show that the employees that are fully aware of the ERP system and its policies and procedures can

reduce the costs and enhance the performance of the ERP system and *vise-versa*.

The study concluded that it is a must to find a clear model for all aspects of the ERP system and how they integrate together, and for all business operation's needs. The study has also mentioned in its results that the model of the study that was submitted can be implemented and used on any ERP system there is, as the study is named ("a conceptual model for ERP"). The study also uncovers that this model can assist in setting the ranges of the project of the ERP system.

Singla (2005-2008) had discussed the impact of the ERP on small and mid- sized firms. Singla (2005-2008) addressed ERP systems are the most integrated information systems that cut across various organizations as well as various functional areas. In some cases the implementation of the ERP has resulted in failure due to either the design or the planning of its implementation. A number of reasons contribute in the success or failure of an ERP systems. Success or failure of ERP system can be estimated on the basis of impact of ERP on that organization. In the study an attempt has been made to study the impact of ERP systems in mid-sized Indian public sector organizations.

In Singla (2005-2008) study, two public sector companies namely PUNCOM and PTL located in northern India have been selected. Based on the model used to study ERP impact and thus the findings, various recommendations have been put forward to suggest a strategy so as to mitigate and manage such successful implementation.

In addition to what was stated earlier by Ellis (2005). Ahmed etal. (2006) in his study "resistance to change and ERP implantation success: The moderating role of change management initiatives." Has went deep in the measurement to study the effect of the resistance to change and the success of the ERP system in modern management, and it effect on the satisfaction of the users of the ERP system. The research methodology contained the use of data from the population of 69 industrial organizations, which was gathered through mail, and had been statistically analyzed. This study has showed by its results, that the resistance to change has a negative effect on the employees, thus, the success of the ERP system. The initiative on tackling the effects by the top management has a positive effect on the satisfaction of the users, whom are the employees thus, the success of the ERP system as stated above.

Wu and Wang (2007) in his study "improving ERP fit to organizational process through knowledge transfer." has tackled the correlation between the ERP system, and the business processes in the organization. This study was conducted on a sample of department head of management information systems in Taiwan. The results have indicated that ERP systems increase the knowledge of the users of the system, and who have been set responsible of the operations and production. The results of the study have indicated that the ability of absorption and the efficiency of understanding the system work on the effective and efficient knowledge transfer. The result assures that knowledge transfer and the increase of knowledge is positively correlated with higher performance, ability, quality, effectiveness and efficiency. The study concludes that the information transfer enhances the knowledge and thus, more concord between the ERP systems and the policies and procedures of the firm. The study advises that the management should work on reinforcing the knowledge curve of the organization to motivate the knowledge transfer across the organization and develop its internal product.

Later on Ifinedo (2008) has also researched the success of ERP systems along with top management duties and has published a study called "impacts of business vision, top management support, and external expertise on ERP success." This study has the objective of finding the effect of factors affecting the ERP system such as: Support of top management, the vision of the project, and external expertise to result in the success of the ERP system in firms. The study has designed a graphic model and the relative theories to this subject. This study was conducted as a group of surveys and polls in two countries in northern Europe, and structural equations were used as the tool and technique to analyze data. The study results showed that three factors were positively affecting the ERP system. The study result confirms that the comparative importance of qualitative consulting experience on other employees that has to do with the initiative of the ERP system.

To be industry specific and to collect more information of researches done in Jordan, Al-Lozi (2008) has added important information to the research by approaching the telecommunication industry in Jordan in the study "an empirical investigation of the factors affecting the success of ERP systems" implementation in Jordan: The case of cellular network and telecommunication operators." The study had the objective of finding the critical paths that assists in the success of telecommunication networks and the service providers in Jordan, whom is using the ERP systems. In addition to that, challenging factors that may sabotage the adoption of ERP system projects successfully. A survey was conducted how what users may think in telecommunication organizations in Jordan in regards to the strategies, goals, and objectives. In addition to infrastructure, P&L's, technological aspects, change management, and many more factors that were statistically analyzed.

The statistical data shows that it is vital and important to have the strategy of the firm aligned with the ERP system. The importance of the support and containment of the final users of the ERP system by the top management, and the social context of the firm is considered the engine behind the success of any of the projects initiated by the firm and in this study the ERP system project. To conclude the study, the author mentioned that no information system can stand alone and sustain without the support of institutional, social, cultural, and technological factors.

From another perspective Jarrar et al. (2000) in his study "ERP implementation success factors - the role and impact of business process management" focused on that the ERP system implementation should be part of an overall change management

project. The study's objective is to study the role and the effect of the business process management in organizing the ERP system properly. This study shined in how the methodology was in approaching the subject of studying the effect of the business process management on the implementation of the ERP system, and which the evaluation was in reading the expertise in different organizations (Microsoft, HP, The Barden Corp.). The study summarizes that the ERP system shouldn't be considered as an IT project, but should be considered as a change management initiative and should lead to the overall business process reengineering.

Rabaa'i (2009) has done the study in Jordan, and has focused on the impact of organizational culture on ERP systems implementation: "Lessons from Jordan." The research has gone back to past literature to study the culture of Arab Business in general and focused on Jordan as one of the countries of the Arab world. The author used the quantitative methodology to get to his finding, and has designed a survey that took into consideration the Private and Public sectors in Jordan, and the survey was distributed on the firms whom have implemented the ERP system. The study resulted in that there are no significant differences in the use of ERP system in both sectors. The data shows, that the cultural reconciliation and the needs of this technology relatively lacks past historical data in institutions in Jordan, and the business culture showed that the process of the firm has reconciled with the ERP system, as the system has been customized for the firm.

The need of change management and business process reengineering has been also approached by Subramoniam et al. (2009) in his study "a study on the recursive relationship" has focused on the need of having business process reengineering in the implementation of the ERP system. Several methods have been used for business process reengineering. The methodology of the study has considered a sample of small and large firms whom have implemented the ERP system. The study resulted in consideration to past literature, that all firms whom have implemented the ERP have chosen their own customized approach in conducting the BPR based on their needs and policies.

In addition to the impact of the ERP implementation on the firm's performance Lin et al., (2011) study discussed the impact of ERP system implementation on the role of accountants, to provide job qualifications for their reference. This report used the case study method, as well as a questionnaire for quantitative methodology, and using the qualitative methodology by interviewing high executives and managers to find the effects the ERP system had on the role of accountants. The study has resulted in that the role of accountants is mainly to be transaction data handlers and financial report providers, but supervisors and seniors indicated that accountants even when only left with the duties indicated above should have the knowledge in traditional financial accounting and indeed their role has changed when ERP has been implemented. ERP systems are not Accounting information systems, so once it is implemented the accountants will need to be informed and trained of IT, management, and will need to possess the financial accounting knowledge.

According to Emad Abu-Shanab et al., (2013) the ERP systems are very complex; companies implementing the systems usually are faced with a very high uncertainty of success. The implementation of the ERP requires planning, business process mapping, and extensive investment in human resources, this will guard the firm from factors of failure. The study explored the major success factors that will make the implementation successful. The study examined 60 responses from managers and executives of the local Jordanian firms. Results are reported with conclusions and future work at the end of the paper, as indicated in the research that was written by.

The selected sample was from Nuqul group, Rubicon Holding, and LG - Jordan. After an analysis of the study data and assumptions, the study concluded that the IT section was very competent and ERP supplier/vendor support had a significant impact on the quality of the information. The competency of the IT section, alone, had a statistically significant effect on system quality, moreover, the independent variables, which are in relation to the competency of the IT section and supplier/vendor support of ERP systems, have a significant impact on the quality of service. The study recommended the continuation of devolving an efficient IT section, because of the significant impact on system quality, quality of information and quality of service. Moreover, to upgrade suppliers/vendors support of ERP systems for it has a positive impact on the quality of the information and service quality.

ERP systems also affect the audit, many researches discussed that. Such as, Nader (2013) sees that auditors and their clients are using ERP systems nowadays to process their financial and accounting transaction. These systems are changing the work environment and the way business are done and thus the role of auditors. ERP systems developed a new audit landscape requiring auditors to adjust audit processes, controls, and tests. The study examines how implementation of ERP changes audit process and quality using empirical evidence gathered from auditors experienced auditing in organizations that implemented ERP systems. Results indicate improved audit quality for the reason of reduced substantive tests in auditing organizations with ERP systems. However, findings show increased control risk with auditing ERP implemented organizations that decrease perceived audit quality.

3. RESEARCH METHODOLOGY

To research the objective of this study, the researchers identified one of the Jordanian tobacco and cigarette companies (thereafter will be addressed as company A) to form the case of the study. The study was conducted to cover the month of May up to September 2015. To explore the implementation of the MAI's using the "How" and "Why" questions (Yin, 2003), the subject study was structured to provide a detailed description with regard to the implementation of MAI's in company "A" (Sekaran, 2003; Yin, 2002). The main reason that lies behind choosing company "A" circles around being one of the first companies in Jordan that launched the transference from using TMA's to MAI's in 2001 and that was approximately accomplished somewhere during march 2004.

Previous literature indicated that conducting interviews can provide a more fruitful result for those researches based on case studies; since it allows the researchers to capture more information that enjoys a depth insight about the addressed issues in a very short time span, in fact the interview allows the interviewer to double cross his experience and knowledge with the specific topics under consideration which in turn can enrich the debate and direct it towards revealing any issues that are not understood (Moll, 2003). To approach to the objective of the subject case study, a semi-structured interview was conducted to obtain clear insights about the respondents' perception with regard to the factors that facilitate, motivate, and create barriers to the implementation of MAI's.

The key persons related to MAIs were targeted with 24 interviews in total. The interviewees of company A were experienced in decision making, cost controlling and budget preparation. They became members of the MAIs team and provided valued information for this paper. The manager of the accounting department, who has been working for company A for more than 12 years, was assigned from the top management to implement MAIs in practice. A costing manager and a senior costing accountant, who has been working in company A for nearly 7 years, are responsible for preparing cost information and costing reports. A software engineer, who has been working for company A for nearly 8 years, is responsible for preparing and gathering data related to budgeting and controlling costs and documenting the details of his department. Table 1 shows the list of participants who attended each interview.

The researchers were geared to choose key persons of company "A" to form the sampling unit of the subject case study; in which it consisted of 5 employees holding different administrative position whom they were interviewed separately and at least once (Table 1); all of which were identified in accordance to his/her work span relevancy to MAI's (Table 2). The involvement of the sampling unit in decision making, cost controlling, budget preparation armed them with the knowledge and experience needed to become members of the MAI's team for company "A," through which the researchers managed to obtain valuable information to accomplish this case study.

Table 1: The participants job title and nunmber of interviews conducted with them

Title of interviewees job title	No of interview
Manager of the accounting department	1
Assistant Director of the Accounting Department	3
Assistant Accounting and Finance Manager	
Manager of costing department/Head of Cost Department	1
Senior Cost Accountant	11
Senior Software engineer	8
Total	24

Table 2 highlights the sampling unit experience and tasks related to MAI's.

All interviews were made face to face with the interviewees during May up to September 2015 using the native language of the researchers and the interviewees (Arabic). The preparation of the interview began by calling all the interviewees more than once to set forth a suitable time for conducting the interview. Prior to the initiation of the entire interviews permission from the interviewee was obtained record the conversation, therefore the interviewees were informed about the anonymity and confidentiality policy followed by the researchers. The minimum time length for each interview was 30 minutes, conveying that some interviews lasted for more than 30 minutes. The recorded conversations were used by the researchers to prepare an Arabic transcript for each interview, thereafter an each transcript was subjected to content analysis (Yin, 2003; Sekaran, 2003).

4. DESCRIPTIVE ANALYSIS AND INTERVIEWS RESULTS

4.1. First Part: Factors that Influenced the Process of ERP Implementation

Top management support is the most crucial factor influencing the success of ERP implementation. Top management should commit resources and develop goals to enable the implementation of ERP (Jebreel, 2015; Brown et al., 2004). Successful implementation of ERP should be paved by top management, which in turn casts an additional responsibilities on top management to provide the required recourses and develop the relevant strategies to achieve the goals that govern the successful implementation of MAI's (Jebreel, 2015;Brown et al., 2004).

The interviewee No 1 said that:

"The role of my Top managers was in supporting us during the implementation of ERPs. They encouraged the use of ERPs. The managers in this company have been involved with the ERPs since its implementation, so they are very comfortable with it and what happens with it, and they have rigorous confidence about the results that can be gained from ERP."

Table 2: The participants experience and tasks related to MAI's

Job Title	Experience with Co. "A" in years	Tasks related to MAI's
Accounting and Finance Manager	12	Assigned from top management to implement MAI's
Head of Cost Department	7	Responsible for preparing cost information and costing reports
Senior Cost Accountant	7	
Senior Software Engineer	8	Responsible for preparing and gathering data related to budgeting and controlling costs and documenting the details of his department

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Similarly, Interviewee No 19 said that:

"Top management dedicated significant time and resources in order to support their staff in implementing ERP. Although they were not directly involved they encouraged us to learn how to use the system, they helped to run many training courses."

The training factor is considered to play a key role in the implementation of ERP system. In training, employees will be told how ERP works, how to interpret and how to use ERP information for product design, product pricing and process improvement, as well as how the compensation system will be accommodated to incorporate the performance measurement (Shields, 1995). According to the interview data from the interviewee No 8 said that:

"Both training and education facilitated the implementation of ERPs. Firstly, the American expert provided information about the concept and the benefits of ERPs for managers and our employees. Then he explained the term of activity and cost driver. Secondly, our managers provided training and a workshop about the process of ERPs implementation for the ERPs project team."

Similarly, Interviewee No 15 said that:

Probably training is the most important factor that facilitates the implementation of it. We have central training units in our company for our employees, the aim here is to educate them about the concept of ERP and encourage them to use it. I remember, "Before implementing ERP, an American expert had provided a seminar to educate our top managers and our employees about the concept and benefits of ERP and to plan what the company wanted from ERP."

Similarly, Interviewee No 2 point out that:

"The company often provides workshops about the processes of ERPs implementation for middle managers and heads of departments. On the other hand, all accountants have been provided with training about the implementation of ERPs and the benefits we expect to gain from it."

Also, Interviewee No 22 point out that:

"The consultant firm was invited to our factory to discuss its methodology and approach of ERPs implementation. The consultants, after a general ERPs introduction, proposed something called cost object approach. They said our cost of activities should be assigned to the cost objects demand for consumption of each activity."

Similarly, Interviewee No 14 point out that:

"The process of ERPs implementation started when the consultants launched the project by conducting a two-day training seminar about ERPs concepts. Training is very important. If people don't know what they are doing, what they are supposed to be doing, they can't cope with the system."

The developments in computerised information technology have considerably reduced information-processing costs. The advanced information technology has also facilitated the flexibility of extracting information as and when needed. For most companies these developments have reduced the costs and barriers of operating ERP (Krumwiede, 1998). Interviewee No 4 said that:

"The higher information technology is the key to change; absolutely, the key to change. The technology here is to facilitate producing information and the information is the knowledge that will create change. ERPs as a system need really good information to create change. Everybody knows the implementation of ERPs requires a lot of data and without a higher information system, we can't deal with all these requirements of the ERPs."

It was found that people must first have an awareness of the ERP concept, and then get a deep understanding of the ERP implementation process and how the system impacts on the organisation performance. According to the interview data from the Interviewee No 4 said that:

"ERPs create massive change, I think everyone has to be ready to deal with change, or at least know what their responsibilities are and what they need to do. So things need to be well-planned and well-documented, if the company is just suddenly moves to using ERPs and there hasn't been enough thought about what procedures need to change, it will cause serious problems."

Shields (1995) considered competition as the most important external factor for stimulating managers to choose implementing ERP. Cooper and Kaplan (1988b) has also identified that companies facing fierce competition should implement MAIs as it is argued that companies operating in a more competitive environment have a greater need for advanced costing systems such as MAIs that more accurately assign costs to cost products. This is because competitors are more likely to take advantage of any errors by managers having relied on inaccurate cost information to make decisions. The interviewee No 21 said that:

"We work in a highly competitive environment. Using ERPs is a key to our success and to being competitive in the market. ERPs play an important role in the company daily tasks such as decision-making especially in uncertain situations."

Bjornenak (1997) claimed that competition was the most important external factor for stimulating managers to consider implementing MAIs. According to him, organisations operating in a more competitive environment have a greater need for MAIs that reports more accurate product costs because competitors are more likely to take advantage of any errors arising from managers having to rely on distorted product costs to make decisions. Interviewee No 24 points out that:

"We work in a highly competitive environment; implementing ERPs is a key to our success and being competitive in the industry sector. ERPs information plays an important role in achieving that."

Bjornenak (1997) claimed that competition was the most important external factor for stimulating managers to consider implementing MAIs. According to the interview data from the Interviewee No 15:

"Our old system was good for steady state market with few products and limited number of customers. But with all the changes and new markets we suffered a lot, because it became a totally inadequate system."

4.2. Second Part: Factors Obstacles the Process of ERP Implementation

According to the Friedman and Lyne (1999) the consultants' play the key role of during the adoption, implementation and usage process of MAIs as the key factor impacting on the success of implementing MAIs. The main barrier to MAIs implementation encountered in company A in Jordan is the lack of local consultant companies, especially in the capital oh Jordan Amman, Interviewee No 18 said that:

"There are not enough Jordanian consultants that provide education about accounting innovations. Each company wanting to adopt such innovations should have guides to check and give advice."

Similarly, Interviewee No 3 said that:

"In general, in country such Jordan there is a lack of local consultants, which makes the business completely dependent on expensive external expertise from outside Jordan."

Interviewee No 7 points out that:

"Most staff, at every level, does not understand exactly what ERP is and how to do it. The lack of knowledge and insufficient documentation make it more complicated to work on ERP. There is a need to educate all staff about MAI especially those who work on it and those who gather the information about cost drivers and cost centres."

The implementation of ERP demands an adequate amount of internal resources as it builds ownership, knowledge and action within the company. These resources give employees the opportunity to learn about the ERP and the ERP benefits, and make them less resistant to change (Shields, 1995). According to the interview data from the Interviewee No 11 he said that:

"We need a huge amount of money to spend on training programmes, hardware and network after ERP is really implemented ...."

Haddadi and Seyednezhad (2015) and Innes and Mitchell (1991) point out that the most common problems perceived by companies implementing MAIs related to the amount of work involved in MAIs implementation. The Interviewee No 11 he said that:

"There is a shortage of staff in many major areas of ERP implementation process. Most of them require a high salary. It takes time and hard effort to find them."

5. CONCLUSIONS

This study aims to contribute to a better understanding of the implementation of ERP system as MAIs in Jordan. Using in-depth interviews this paper emphasizes the main factors that influenced the process of ERP implementation were introduced and the related obstacles associated with the implementation of ERP were also highlighted. Top management support is the most crucial factor to influence ERP implementation.

The interviewees in the Tobacco and Cigarette Company approved that both training and education were the most important factor to simplify their decision to implement ERP. In training, employees will be told how ERP works, how to interpret and how to use ERP information for product design, product pricing and process improvement.

During the process of implementing ERP, the company could be faced with difficulties related to the implementation in practice. Thus, barriers to change could make the change process slower, hinder it, and even prevent change. The high cost of ERP implementation, high cost of consultants, and are indicated by the majority of interviewees as the most common barriers encountered during the implementation of MAIs.

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