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Chapter

How Does Socio-Technical Approach Influence Sustainability? Considering the Roles of Decision Making Environment

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Abstract

Aim/purpose: the current study explains the mediation of ERP in the role of a socio-technical approach and decision-making with firms' sustainable performance. *Background*: despite the existence of existing literature on success and failure factors of ERP, the current work highlights the impact of socio-technical factors and decision-making environment on ERP success. Additionally, the weak research work regarding the mediation of ERP is addressed here in this study and has tried to fill the mentioned gap. *Contribution*: the most important contribution of the study is assessing the mediating role of the ERP system in the linkage of decision-making environment and socio-technical factors. Moreover, the work contributes by examining the moderation of organizational culture while relating the socio-technical environment and ERP system. *Findings*: the study finds that there is a significant role of ERP as a mediator while relating socio-technical elements and the decision-making environment; however, we do not find any significant moderation of organizational culture in the linkage of ERP system and socio-technical elements. *Impact on Society*: the societal implication of the study is that it provides a reference for the firms having the same cultural characteristics while using ERP to overcome the issue of pollution in Iraq.

Keywords: organizational culture, socio-technical approach, decision-making environment, ERP system, sustainable performance

1. Introduction

Many multinational companies came in agreement with Iraq in the mid of 2009 in which they were required to work for sustainable performance and keep the focus on improving environment and standard of living for locals by refraining from what they were previously focusing, i.e., only profit. After this agreement, Iraq agreed to issue licenses for various multinational companies, so they can work for the exploration and production of oil and gas. Now, foreign oil companies in Iraq are seeking for "sustainability." There was very little investment in the Iraq oil industry before this agreement was signed in 2009. Iraq canceled her contracts

with many oil companies which failed to provide value to the environment, and it became the need of the hour for these companies to make internal changes in their processes so greater benefits are brought for the society. A company gets a competitive advantage over others by getting the sustainable performance, and for this purpose, they needed to bring an integration among different components of their organization [1]. To achieve integration in a better way and seek sustained performance, adoption of information technology was needed by these companies [2] in all their processes (both internal and external). Worldwide, a lot of organizations rely on enterprise resource planning (ERP) system to help them integrate their various organizational components [3, 4].

Organizational culture plays a vital role in several organizational processes [5], in which organizational change process is of keen importance. If we discuss organizational culture, then it indicates shared meaning, interpretations, values, norms, and the main thing which directs people [6]. The main thing on which the success or failure of a change process depends is the culture of the organization as to whether it supports or resists when there is some change [7, 6]. For an ERP system to be applied, a complete change process is required in a company for which it needs an organizational culture which supports change. Ref. [8] observed that there should be a supportive environment for decision-making to help in the change process. When an organization is working on change process for the environment, it should focus on creating a culture that supports to have a technological and social change which includes innovation, flexibility, adopting new technology, and opening new ways of entrepreneurship [9]. Then, it will help to evaluate how much success they were in getting the desired results [11].

In the studies up to present date, an ERP system is taken as an IT-based system which tends to replace our old systems and, in this way, help in the change process [12, 13], and organization will get fruitful results when this system is implemented and executed successfully [14]. To increase the chances of success of an ERP, we need to give proper attention to the values of the previous system which include sociocultural elements, decision-making environment, and present organizational culture, and then we will be able to get the desired results.

In the past, researches have been done to discuss the important factors on which success and failure of an ERP system are based and the extent to which it has an impact, but in this study we will consider only two factors, i.e., sociotechnical elements and environment of decision-making, and see that their impact on the success or failure of an ERP system means whether or not they are contributing toward a sustainable performance. You will be amazed to know that when we use ERP for a long time, it impacts not only processes positively but also the performance of the firm and thus enables top management and owners to get benefits from this system [15]. Al Dhaafri and Al Swidi [16] observed that to change traditional procedures and get maximum performance from an ERP system, we require nontraditional, risky, innovative, and visionary decisions. You need to be sure about the main reason for implying an ERP system in your firm, and only then, you will be able to get maximum benefits. In the decision-making environment, the decision-makers must be capable enough, and their temperament is highly tested [17]. ERP system serves as an intervening variable in the abovementioned relationship [16]. So, to get positive results, an organization needs to have a good ERP system [17]. There are many precedents in an organization that plays a vital role in the success of this system [18]. When we see the previous studies, they are focused on taking an ERP system as an independent variable which impacts organizational performance, and none of them have taken it as a mediator, and this is where we face a gap between new knowledge and academic research. So, this study is directed to bridge that gap. Moreover the study

will provide the insides of the organizational culture along with the impact on ERP success or failure. Moreover the internal and external environmental factors will be considered in the model [19].

2. Theoretical background

2.1 Configuration model of organizational culture

It was as late as the 1970s and 1980s when the term "organizational culture" was first used in organizational studies [19]. For the success of organizational processes and specifically change process, the culture plays a vital role [5]. Whether or not the culture is supportive to change determines the success of a change process [20].

If we discuss organizational culture, then it indicates shared meaning, interpretations, values, norms, and the main thing which directs people [21]. Of them, good organization culture is one which is very clear for employees and contributes toward the betterment of behaviors in the workplace [22]. There are several culture models such as the configuration model that can be defined as constant progress, which is a continuous process and depends on how we interact with others and the behavior shown by the leadership [23]. Structures, routines, rules and regulations, and norms all form part of it and the bases for guiding and restricting behaviors. Ref. [19] based his organizational culture new model on Hatch and Cunliffe's (2006) and Schein's (1985) model, in which he stated that there are numerous components responsible, both internally and externally, for organizational culture. Assuming the cultural identity of an organization, this model was developed. Moreover the firms' values, strategy, and artifacts and the synergy of the firms' structural design, operational processes, behavioral aspects, and performance were also taken in consideration.

2.2 Socio-technical approach

Due to the development in technology and innovation, now organizational scholars use the term "organizational context" a lot in their research domains [24]. Kling and Lamb [25] state that now, we know that a fit between social and technological environment is of keen importance and has been named as "socio-technical approach." It suggests that there is consistency between human and technological behaviors. Another proposal made states that any change in technological behavior will have its impact on social relationships, feelings, and attitudes [26]. If there is already a system existing in any organization, then changing it with the developments in technology requires a lot of hard work. This is because the employees stick to the previous system and the change will impact them, while the development needs to be highly customized to align with the social behaviors of the organization [27].

When a technological change is introduced, system components find it very difficult and complex to cope up with it, and this is because of their dynamic relationship with the existing environment [27, 13]. No matter how deep socio-technical systems are, you need to completely restructure them, and to do so, you need to highly engage social components with the new environments to lower the resistance against the change. The better your social system is integrated with the new technological system, the better results you achieve [14]. The basis for sustainable performance, which is the main objective of firms, is when social system is correctly integrated with the new technological system [24], and thus it will enable to rebrand yourself by reengineering the business [12].

2.3 Decision-making environment

Managers are required to take risks and make daring decisions more often than before, and this is because nowadays, there is a rapid increase in technological changes as we are uncertain about these changes [28, 29]. This change has made problems for organizations. This scenario requires wise decisions that have minimal cognitive biases in them, and having a decision-making environment helps it [28].

There are a set of factors (bases) of any decision-making environment which includes the level of education, synergy, the capacity to analyze, and available information and resources, and they tell how efficient and effective the decision a manager will make [29]. Barney [30] argues that you can say that when you are deciding, the sum of internal and external factors needs to be considered. The factors such as people, organizational units, and other factors are classified as internal, while customers, suppliers, competitors, sociopolitical factors, and technological developments all are external factors [8, 31].

To make improved decisions, the physical variables and the socioeconomic ones require a close interaction for a better decision-making environment [29, 32]. Decision-makers must have the idea about all decision-making environment components like its effects, issues related socially, nature of decision made, and information processing [32, 33]. This increases the importance of environmental components for making efficient decisions [31]. The basis of the decision-making environment is the managerial ability of evaluation and implementation of various plans from decision-makers' past experiences [32, 34]. According to Hsu and Chen [35], the success or failure of any decision-making environment is dependent upon opinion's accuracy and divert sources.

2.4 ERP systems

Installing an enterprise system is not an easy job as it is not only complex but also costly and time taking [36, 37]. If the project is not handled correctly in technical terms, it may turn into a horror story for the business and managers know the consequences of a failed system. To avoid any mishap, organizations are spending too much on ERP systems [38]. It helps a lot in coping with problems related to inventory and working capital. It also bridges the gap between what the customer needs and what the company thinks by providing recent information and helps manage widespread suppliers at a single place [39, 37]. If your ERP system is implemented properly, it will provide you all business data in real time and thus also help in cost reduction which is an important factor in developing countries like Iraq [40]. You need to be aware of the evolution of ERP systems and their strengths, weaknesses, and challenges related to its implementation before you can successfully implement it in developing countries like Iraq [41].

2.5 Sustainable performance

Pollution has increased, natural resources are being depleted, and there are a lot of social problems for businesses, so a big question around the world is about "sustainability" [21]. Since organizations are operating in distinctly different environments, customized strategies work better in achieving "sustainability" for them now than general market strategies [42, 43]. Preventing environment to get damaged and investing in processes and products that are environmentally friendly are a big concern for organizations nowadays and require a huge investment [42]. Stakeholders are also pressurizing organizations in devising their processes and

perform their corporate activities in such a way as to achieve sustainability [44, 45]. A big point of discussion is raised on how to continue the social responsibilities of an organization in general, along with achieving corporate sustainability [46, 47].

To get economic, social, and environmental goals for an organization, managers are working on sustainability performance management to effectively and efficiently use organization resources [48, 45]. There are a lot of standards, nowadays, regarding the environment, human rights, and corporate governance imposed by both national and international bodies, and companies are required by law to follow them. However, sustainability is much more than these legalities [42].

Studies have indicated that there is a need to adopt technology for information and communication sectors as it is of primary importance in improving sustainability. Sustainability is significantly impacted by technology quality, management, and information culture [49]. Ziemba [50] also researched on sustainability information society index and found this index an important one. Greenhouse gas emissions are increasing in Iraq from the energy sector, and there is no government effort in regularizing companies in this regard, as assessed by [51].

2.6 Socio-technical approach, decision-making environment, ERP system, and sustainable performance

When you are installing any technological system in an environment which is socio-technical, you need to give more importance to its elements as they are the deciders for success [52, 53]. Social and technological factors held keen importance for an ERP system to succeed as indicated by research [54, 36]. It is very important to bring change; to do so you need to align technological and social systems and thus bring better coordination among business units which is of primary importance [53]. However, this alignment is not an easy task to perform, because it may have a significant relationship with perceptions, attitudes, and willingness to embrace change [36]. This is more important when implementing ERP requires collective efforts [54]. When decision-making is in process, your communication with the stakeholder becomes of keen importance [53]. Stakeholders are much concerned about the success of implementing ERP systems and taking maximum benefits from it through their perception and knowledge [36, 55].

As evident by prior suggestions, there is a slight decline in outcomes in the shape of operational and economic performance of a firm after it implements ERP system, but the decline is for short term; after that decline, firms are going to achieve better targets in the future [37]. The lag and success after ERP implementation are often the cause of new procedures, software, and channels of information [56]. Clemmons and Simon [57] have recognized ERP system as a way for new information channels, new ways of growth, innovation, and entrepreneurship, and thus it is far more than just a cost-cutting tool. Proper market investigation and exploration of external opportunities can be done by having to access data from customers and market which will help attain sustainable performance in the long run [58]. From operation side to strategic benefits, ERP system adds value in a wide range for a company. You will not see sudden fruitful results in terms of cost-cutting, learning, or other factors, and you need a complete analysis of your organization to get more benefits [59, 60]. The decision-making environment also impacts in achieving sustainable performance as indicated by researches [61]. The social environment needs to be harmonized with new methods to implement new systems successfully and achieve sustainable performance [62]. Sustainable organizational performance is increased when social and technological systems are aligned [63].

2.7 Mediating effects of ERP system

There are some important factors for business performance improver, and gains of an ERP system are highly dependent on them [18]. You will be amazed to know that when we use ERP for a long time, it not only impacts our processes positively but also contributes toward the overall performance of the firm and thus enables top management and owners to get benefits from this system [15]. Al Dhaafri and Al Swidi [16] observed that to change traditional procedures and get maximum performance from an ERP system, we require nontraditional, risky, innovative, and visionary decisions. To gain more advantages from your ERP system, you need to know why you have installed this system. Job characteristics and job satisfaction are also impacted by an ERP system [64]. The perception of people who are running an ERP system has a great impact on the success or failure of an ERP system. Whether they are intended toward its success for better performance or not will be decided by their perception. Alignment and human material fit are required for it.

2.8 Moderating effects of organizational culture configuration

If system elements are interacted closely, chances of ERP system success increase. You first need to create a culture in an organization which will accept and support change and helps in implementing your ERP system successfully [53]. It means that if your ERP system and organization culture are not aligned, then the system is more likely to face failure. The complex interactions that occur in social and technological systems are affected by organizational culture [55]. Understanding and grasping the ERP system by individuals and groups within the organization is determined by organization culture [64]. Performance and competitive advantages are impacted by organizational culture, and it is the decisive factor in determining whether your ERP system will succeed or not [65, 66]. It is the organization culture which has an influence on socio-technical elements of an organization, and it also determines the interaction people will have with technology and the way technology will have an impact on job design and structure [67].

3. Main components of change program

The organizational change program is the combination of different contents, contextual and process [68]. It is required for the purpose of attaining the change process in the organization that should be aligned with the organizational objectives, process, features, and other factors as a whole [69]. As far as the process factors are concerns that are associated the action that is being taken by the managers to execute change in the organization. Process factors are used in order to bring change and how is being implemented such as selecting the best approach to bring change. The selected approach should realize and develop understanding about the benefits of the change implication and ensure them that change approach is highly effective and affirmative for them and for the organization as well [70]. Content is the other feature that emphasizes upon the factors that are required to be changed and will bring positive change on the effectiveness and efficiency in the organization. Content factors are used in assessing the relations between strategic objectives of the organization with the organizational culture like substitute strategic orientation, hierarchy of the organization, and performance-based reward system. It is evident that content factors highly impact upon the organizational and lead their mission and focus adequately [71]. As far as the contextual factors are concerned, they are based upon the environmental factors. These factors include the internal

that focuses upon the culture of the organization like professional approach, management behavior regarding change, hierarchy of the organization, cultural values, and others [69]. As far as the external factors are concerned, it is based upon the outside of the organization like competitive rivalry and government rules and regulation [70]. In the organization external contextual factors are the largest fare for the management to face. The reason is that the organization is not having control on the outside factors [72]. From the management perspective, it is highly important that management should focus upon the developing urgency and readiness to undertake the change execution that will reduce the resistance in the organization and will be effective to make it successful. Readiness is being illustrated such as it revokes the tendency and factors of resistance to be reduced by allowing the change to replace the system [73]. It is required that management should communicate that change in the organization will bring stability and create the difference between current and future positions of the organization. It is evident that change program is meant to reduce the gap between the current and future performances of the organization. Those individuals in the organization that perceive change is better and effective for the organization are always keen to contribute in the change process and make it successful adequately [17]. The study that was conducted in Korean and that selected 72 organizations as the sample where 350 employees were working that suggested readiness to change is the biggest success for the organization to break resistance and make the organizational environment effective and conductive to implement change or ERP system [10]. The benefit of the readiness to change brings the dedication and increases personal approach to adopt change, as far as the behavior of the organizational change process is concerned and the readiness to change is relying upon individual characteristics such as knowledge and gender [72]. The behavior of the individual toward the change process of the educational history suggests that individuals that are having less education are more likely to be the part of the bringing of the change in the organization, and they are supportive to it [69]. Gender and age are also factors to support the change program. Young and energetic employees are keener to adopt the change than the old generation. Those individuals are married, having a close relation with their seniors and colleagues in the organization [36]. It is the management's responsibility to undertake the individual issues and concern because it is an important feature for the development of job design, performance appraisal, and development of reward strategies to motivate the best performance [70].

In order to develop the study, the capability to handle and make the ease in the application of change process of BPR is being used as the readiness to change; the BPR is associated with the organizational employee's ability to have the positive behavior toward the requirement of the BPR system of the organization to adopt the change and have the positive behavior accordingly to make it successful.

Bruch et al. (2005) state that only about 50% of all change programs are successful. The achievement of successful change program is still a puzzle. Therefore, the managers should ask how organizations could ensure successful change processes [30]. For instance, the Dutch "D-Check" program aimed to find a good mechanism to insure success in change process. The program consisted of four phases. The first phase was designing the change. In this phase, the managers asked "what is the right change for the company." In order to achieve that goal, the program was built on the Lufthansa's strategic need. The second phase was focusing the change agenda. The Lufthansa's management built a clear agenda based on clear priorities for the change processes in order to keep it manageable. Therefore, the company identified the right change the company needed. The third phase was to do what the company really is ready to commit to. The company recognized the important role of the credibility of the top management. The top management asked itself at the

designing phase the crucial questions: "What can credibility implement?" "What kind of change are we able to commit to?". Finally, in order to succeed in change processes, company designed a change program according to its current culture [31]. Because BPR implies significant organizational changes in terms of organizational structure, organization's cultures, as well as process management, effective change management is considered a tool to manage and achieve these changes [26].

4. Change and social approach

From the perspective of this approach, change in the organization will be due to the organizational factors but also social factors such as human factors particularly. It is being suggested that successful change will only be possible if the individuals are supporting toward the readiness to change and have the positive intention adequately [74]. Readiness of the employees toward change requirement is required to have the belief, behavior, and intention regarding the change program. There is a need that the organization should develop motivation among the employees regarding their behavior about the change, and it will be effective for the organization to achieve the short- and long-term organizational objectives [57].

Organizational development theory focuses on the main feature of the social approach to bring change [12]. The organization focuses upon the development or organization and employees as well [50]. OD is the approach of behavioral science for the development of organizational process to facilitate organizational performance. It focuses upon the behavioral features that are important to be used in the change process such as culture, leadership, operations, and collaboration between employees along with the external change factors to implement change [71]. From the social perception, change requires a thorough difference in the behavior, and it will impact upon the people's ability and urge two-way communications. It is evident change did not have time period to be implemented the process of change adequately. The study discusses or analyzes the humanistic side of BPR [74]. It is also argued that there are different factors that can reduces and human are the most priority feature to be focused in BPR. It is evident that lack of management practices and lack of ability to not able to break the resistance in the change process and lack of approach to deal with the BPR with the individual are important for the purpose of changing human approach which should be considered adequately in the case of BPR. The study analyzes that BPR is the main aspect in the HRM because individuals are the main source of implementing change in the organization; individuals are being treated differently which creates resistance and bad behavior toward change implementation [64]. From the perspective of the technological approach, the BRP is highly effective in reducing resistance, and it complements the effectiveness of BPR with the technology and brings the behavioral change toward the attitude of the individual to adopt technology quickly.

5. Socio-technical perspective of BPR

From the socio-technical perspective, the organization has the combination of technical and social systems. The purpose of having social and technical perspectives is to develop harmony of human and technology with each other. The socio-technical system is based upon combination of human and technology [68]. There are social factors that are included such as motivation, loyalty status, power, and others; technological factors are process and system of technology that should be assimilated [64]. This assimilation encourages the management to collaborate both systems into the process

of change. Technology and social feature combination is beneficial for the organization in the long run and for the change process. The purpose of focusing upon the socioeconomic system is to use the right person and right technology that should support the organizational processes and value of the organization. STS is helpful in coordination with the engineering, social, anthology, and behavioral sciences [75].

In view of the BPR, socio-technical system is the right approach to assimilate the engineering operations. The STS system includes the social and technology features simultaneously. The technical system involves the tool, information, education, and ability to accomplish the objectives that help attaining the required products or services. As far as social system is concerned, it includes norms, attitude, beliefs, and relation with the individual and groups as well. To increase the feasibility of the system, restructuring is needed with the technical and social systems and developing the equation among the people and technology to use technology with the authority [41].

The socio-technical features suggested that there are different rules that should be used to execute the BPR system. These rules are as follows: abilities should be math that can help the organization to achieve objectives; the standards should be at the minimum level that can be able to produce required performance and redesign it adequately; variance control should be done in order to resolve the issues socially and technologically; the system should be developed that includes flexibility which facilitates the efficiency to be as per expectation; responsibilities should be designed accordingly, and coordination and communication with each other should be encouraged; flow of information should be adequate which helps the management to control the employees, and effective results are produced; the comparative system is developed which increases the feature of building infrastructure such as adequate development of the reward system; human value system is developed that suggests development in the organizational objectives and providing the effective and quality workplace adequately to the employees [75].

Argued that the transition according to socio-technical approach must occur in a multilevel perspective. The socio-technical system is involved in three components: socio-technical regime forms the representation of the rules that organize and coordinate the direction of social group activities and marinate the stability of socio-technical system. For instance, the organizational commitment positively contributes to the stability of the organization. However, because the stabilization concept disagrees with the radical innovation change (in this study BPR) within socio-technical system, the second component, niches, is represented as a locus or "incubation rooms" of radical innovation change. The niches might be small market niche form that bases on the specific criteria from the existing regime or technological niche forms that need high resources and investments and are wide changes resulting in social, economic, and technological changes. The final component is the socio-technical landscape that refers to the broader exogenous environment that affects the development of the socio-technical system [70].

6. Methodology

6.1 The sample and data collection

The study focuses on three companies existing in Iraq, i.e., British Petroleum, Lukoil, and Eni. All of them are multinational companies. The data collection instrument was a close-ended survey questionnaire which was distributed to 600 employees working in the abovementioned companies; however, 233 filled questionnaires were received. In the beginning only 238 were received; however, 5 of them were not having sufficient responses or not properly filled, and it was decided

that they were to be discarded; hence 233 questionnaires were left. According to Hair et al. [76] for performing structural equation modeling, a sample of 200 is sufficient in order to get reliable results. The data collection was done during the first quarter of 2017. To collect the data, special consent was taken from the human resource department of the abovementioned companies. Moreover the HR departments in the companies also cooperated to collect the data from the employees. There were 180 male respondents, while the number of female respondents was 53, which constitutes 77.25 and 22.75% for males and females' share in total responses, respectively. As far as the positions of the respondents are concerned, they include managers around 21%, officers around 25.8%, professionals around 32%, and technical support around 21%. The average age of the respondents was around 41% showing that on average the respondents were matured enough to respond on the basis of their experience. The education of the respondents shows that around 25% of the respondents were having secondary education, while those who did diploma were 30%, and around 35% were having the bachelors' degree; however those who had postgraduate level of education were only 10.2**%**. There were 102 items in the question; all of them were developed on 5-point Likert scale from 1 = strongly disagree. The number of items is a bit high; however, researchers like [77] state that for achieving the generalization of the outcomes of data analysis and sufficient level of validity and reliability, detailed instrument is required.

6.2 Measurements of variables

Organizational Culture: This construct has 3 dimensions and 21 items in a scale developed by Schien (1985). Out of the 21 items, there are 5 artifacts, 8 norms, and

Construct	Dimensions	Items	References
Socio-technical elements	Information sharing	4	Safarnia et al.'s (2012)
	Organizational culture	4	
	Process improvement	4	
	Customer satisfaction	3	
Total items		**15**	
Decision-making environment	Types of decisions	5	Duncan's (1972)
	Information needed	5	
Total items		**10**	
ERP system	System quality	11	Ifinedo's (2007)
	Information quality	8	
	Individual impact	6	
	Workgroup impact	7	
	Organizational impact	8	
Total items		**40**	
Sustainable performance	Environmental sustainability	6	Crutzen's (2011)
	Economic sustainability	3	
	Social sustainability	7	
Total items		**16**	

Table 1.
Number of items included in each construct.

8 items related to the basic values. The measurement of different construct along with their dimensions and number of items is present in a summarized form in **Table 1**.

6.3 Data analysis

The study utilized SPSS 22 and AMOS 22 for data analyses which were aimed to understand the demographic profile of the respondents, descriptive characteristics of the data, and testing the measurement and structural model. The model fit was assured along with the reliability and validity statistics found to be with the benchmark values. For testing the hypothesized relationships of the study, path model was tested [20].

7. Discussion

The study was aimed to examine the impact of human and technology relation on the grounds of sustainable performance in the existence of an ERP system. The focus of the study was on the perception of moderating act of the organizational culture design with the relation between the elements such as socio-technical, decision-making environment, and ERP system. In the above section there are different results extracted and suggested that organization has to be effective in considering the technological system might have an impact when it interacting with the employees for sake of attaining the expected results. The organizational purpose is to focus upon the sustainable performance and use the new technology to attain the objectives of it. In this regard, the suggestion and discussion of management along with the experts are valuable in order to use the new technology into the system.

The general perception is that systems are developed to facilitate the attainment of the certain task with the high performance. This system will not be effective if the humans have no understanding about the new system. That is the reason the researcher is suggesting the system should be analyzed thoroughly in order to undertake that system is effective for the attainment of success [54, 36]. Here it is highly important that humans that are using the system should be competent and no resistance should exist if the change is being implemented [36]. As far as the implementation of the new system is concerned, the socio-technical factor in how humans will perceive the new technology in their operations is required to be undertaken. Quality, innovation, and effective decision should be undertaken in the supportive decision-making environment [21]. The analyzing of the advantages and disadvantages regarding the implementation of the ERP system from the organizational and employee perspective is important [19]. Humans should be aware that after implementing the ERP, they will not be affected, and it will increase their effectiveness at the workplace. It can be suggested that human and technological features should be assessed prior to the implementation of the ERP system that will impact upon the success on the sustainable performance in future [18].

It is also confirmed that organizational culture should be flexible and employees should be adopting the change adequately. It is necessary that organizational culture should be bearing the resistance to change at an acceptable level. It is evident if the organization is aiming to bring change, then it is feasible that the implementation of new system will bring success in to the organization [12, 13, 60, 58]. The results of the study endorse the same feature that organizational culture should be flexible enough to accept the new ERP system to ensure success. The culture of the organization describes about the communication style in the organization. As far as the employees are concerned, it also illustrates the internal environment of the

organization and its communication with the employees as well [55]. It will illustrate the relation between organization's culture and decision-making environment of the organization along with the organizational adoption of the culture toward the new system adoption.

8. Conclusion

ERP is being used in different organizations around the world, and this type of system needs some features that contribute to its success. Therefore, there is a need to develop and update the system periodically to ensure that system will produce quality results and success for the organization and meet the sustainable performance adequately with the help of ERP system. The most important aspect is the human and technological interaction which is highly important for the sake of getting success. The planning of the new system should be done adequately before the implementation phase of the ERP system. The organizational culture is the most evident feature to illustrate the organizational success when the ERP system is being implemented in the organization. This research study is having high contribution toward the literature, that is, it analyzes that the ERP system is a moderate construct in the model that has not been considered prior to this study. The research also analyzes the participation of the organizational culture as a moderator. In the previous study, the selected model was not implemented on the oil industry; this study is applying this model into the oil industry, because it is an important sector that contributes heavily in the economy. This will be the first study that is being applied in the context of Iraq along with the developed research model.

Recommendation of the study is being done through the help of extracted findings. Managers are required to undertake different factors prior to the implementation of the ERP system in the organization. The system should be implemented slowly because the change can impact upon the success of the organization, and employees will be given proper training and knowledge about it. The system evaluation should be conducted periodically for the purpose of identifying and exploring the issues that impact the organizational success that should require correction. Management should discuss about the new system internally and externally in order to get the expected results.

As far as Iraq is concerned, it is a developing country which requires ERP system that can achieve the sustainable performance if the ERP system should be incorporating the change management and organizational development features; the purpose of that is to attain the employee's skills, capabilities, and training of the system. This study is based upon the oil sector of Iraq that might impact adversely the organizational success; therefore, the need is to have a slow speed and bring change in the organizational culture as well.

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