DISCUSSION AND CONCLUSION

Introduction

Knowledge has been recognized as being fundamentally important in struggle to achieve and maintain competitiveness (Grant, 1995)

This study differs from the previous studies as it has investigated the relation between the organization elements and the performance of knowledge transfer in petroleum sector in Sudan.

1- Recapitulation of Major Findings

The objectives of this study are:

I. To determine the relationship between the organizational elements (organizational culture, human resources, organizational procedures, job satisfaction ,incentive system, communication flow, future plan, document status) and the performance of knowledge transfer(speed, reliability)

II. To assess the possible relationship between the organizational element variables and the performance of knowledge transfer.

The results had indicated that the organizational elements variables (organizational culture, job satisfaction and communication flow) were significantly influenced by the speed of knowledge transfer while, only the communication flow is significantly influenced the reliability of knowledge transfer. With regard to the other variables of the organizational elements (human resources, incentives system, future plan, information sharing, organizational procedures, and document status) all showed insignificant relations with performance of knowledge transfer.

The succeeding sections discuss the findings of the study.

2- Discussion

The discussion of the study begins by addressing the relation between the organizational element variables and the performance of knowledge transfer.

.2.1 Organizational Elements variables and Performance of knowledge Transfer

.2.1.1: Variables that showed significance relationship with performance of knowledge transfer:

A- Organization sharing culture:-

Knowledge transfer may not be effective if the organization does not encourage individuals to share their knowledge and have a mechanism to integrate the knowledge in a way that can benefit for an organization as a whole. Since organizational culture is " the set of values, beliefs and norms, meanings and practices shared by personnel in an organization (Robbin, 2001) that guides and shapes the values, attitudes and behaviors of people, it can either restrict or encourage people to voluntarily share their insights and knowledge. Culture is also defined as "the collection of traditions, values, policies, beliefs, and attitudes that constitute a pervasive context for everything we do and think in an organization (Mullins, 2005).

Professional knowledge is power, so people in an organization are often reluctant to share it. Hence, it is necessary to have a strong culture which values trust, openness, collaboration (high sociability) that stimulate people interactions and knowledge sharing (Park et al., 2004).

The results indicated that there is a significant positive relationship between organizational sharing culture, speed, and reliability of knowledge transfer performance This shows that sharing culture is fundamental for any organization seeking to promote their performance and should give priority to it , this result

is consistent with previous studies (syed omer & Fytton Rowland 2004 , Pham Thi Bich Ngoc 2006 , Kamala Ali Al-Busaidi, 2005)

B- Job satisfaction:-

Job satisfaction and the motivation to perform well at work are important in today's business climate , not only because of their links with high levels of work effectiveness , but also for their importance because the competitive advantage requires a 'knowledge edge' and this cannot be achieved unless employees are willing to engage in behaviors that will result in generative learning. These include the willingness to share corporate knowledge and the willingness to voice new ideas and engage in dialogue about new and innovative ways of working .This study has showed a significant positive relationship between job satisfaction and performance of knowledge transfer, this result differs in a study done by (Syed Omer &Fytton 2004)on Malaysian public organization. This difference may be according to the nature of the petroleum sector in Sudan, but a study .done by (Celina Pascoe, Irena M Ali,2002) supported the correlation or the significant relationship between job satisfaction and performance of knowledge. They reported that Job Satisfaction & Morale will impact on Motivation to Work Well, and this directly influence employees' Willingness to Share Knowledge and their Willingness to voice new ideas

C- Organizational communication flow:-

Communication plays a crucial role in the process of knowledge transfer due to the following reasons:-

i. Communication leads to socialization which nurtures social relationships importance for cooperation and consensus (Gupta et al, 2000).
ii. Frequent communication facilitates interaction among individuals and between individuals and organizational databases which help in the

creation of a shared meaning and context crucial for effective knowledge transfer (Szulanski,1996).

This study showed a significant relationship between communication flow and the performance of knowledge transfer, this result consisted with a study done by Pham Thi Bich Ngoc (ist2005) in Vietnams company .

.2.1.2: Variables that showed insignificance relationship with performance of knowledge transfer:-

A- Information sharing:-

Although the results show that there is no significant relationship between information sharing and the performance of knowledge transfer, management should always consider the tendency of individuals to use knowledge as their source of power .This finding consistent with previous studies (Syed Omar & Fytton Rowland 2004) and .Rubensten-Montano et, al, 2001).

B- Organizational procedures and documents status:-

. Scholars note that effective knowledge management requires flexibility and less emphasis on work rules (Holsapple and Joshi 2001; Rapert and Wren 1998). In particular, Damanpour (1991) found that low formalization permits openness and variation, which encourage new ideas and behaviours. Jarvenpaa and Staples (2000) also note that a lack of formal structure tends to enable organizational members to communicate and interact with one another to create knowledge. Organizational structure that emphasizes centralization, rules and regulations, and control systems may serve as a barrier to the creation of knowledge-sharing communities in organizations.

Neither the status of document confidentiality nor the organizational procedures (routine polices), demonstrated a significant relationship with either speed of knowledge transfer or reliability of knowledge transfer. These result may

be due to either the survey setting or the selection of the respondents involved in the survey, since more than 67 % of the respondents were from senior staff (grade 1 to grade 8) i.e. most of them have access to certain confidential documents in the organization. The results might differ if the research was done in other sector, but this result is consistent with the previous studies (e.g. Syed Omar & Fytton 2004).

C- Incentives or rewards system:-

Performance-based rewards serve as another variable, and according to Leonard (1995), organizational reward systems determine knowledge flow and access. Several researchers have noted the utility of incentive systems for motivating employees to generate new knowledge, share existing knowledge, and help employees in other divisions or departments (e.g., Argote and Epple 1990; O'Dell and Grayson 1998). Szulanski (1996) and Davenport (1997) also identify lack of motivation as an important impediment to transferring best practices within an organization. Kogut and Zander (1992) researched the association between knowledge sharing and human resource management practices and found that knowledge sharing increases when employees understand that it helps them do their jobs more effectively, retain their jobs, develop personally and professionally, earn performance rewards, and earn personal recognition .Despite of all these arguments, the variable of reward policy in this study does not show significant relationship with the performance of knowledge transfer. This result is consistent with a study conducted in Oman by (Kamla Ali- BUsaidi,) also study conducted in Korea showed an insignificant relationship between the expected rewards and knowledge sharing (Bock & Kim, 2002), also a study by Irit Alony and Greg Whymark (2oo7) in Australian Film Industry, observe that knowledge workers in the AFI are not motivated by financial reward to share their knowledge, to collaborate or to communicate. They are motivated by many other factors identified under the headings of Individual, Network, Relationships, Organizational and Trust. They concluded that financial reward is not a factor that

enables knowledge sharing, whereas a study conducted in Malaysia found a significant relationship between rewards and knowledge transfer (Yahya & Goh, 2001). Inability to detect the significance of rewards factor on the performance of knowledge transfer in the petroleum sector in Sudan could be due to cultural aspects or to the nature of this sector, or the lack of rewards policy in these organizations.

D - Human Resources (training):-

The Zakarias et al (2001) and Smith (2001) claim that adequate training may enable employees to transfer their knowledge into the organization's tacit and explicit knowledge, whereas those who lack training will have to struggle to keep up. However this study does not find significant relationship between human resource (training) and performance of knowledge transfer. This finding is consistent with (Syed Omar &Fytton Rowland 2004) study.

3- Theoretical Implication:-

The research finds that the variables (job satisfaction, sharing culture, and communication flow) are important and strongly influence the speed and reliability of knowledge transfer performance.

The research provides an interesting insight for understanding the culture of knowledge sharing and the encouraging of communication of ideas and experience among employees and its impact on the performance of knowledge transfer. The study also revealed and support the variable of job satisfaction which is suitable to their interests, qualification and experience and enable the employees to create and share knowledge, and its significant relation with performance of knowledge transfer.

4- Managerial Implications

The result of this study should stimulate managers to concentrate on knowledge sharing culture among employees especially to benefit from the foreign experience in the organization. Studies cited from developing countries emphasized that promoting a knowledge-culture is a major issue in KMS deployment, thus knowledge oriented Culture is needed in organizations in the developing countries to promote the sharing and usage of knowledge, which subsequently develop the performance of knowledge transfer.

Knowledge transfer models and programs come in many styles and sizes; it may be customized to meet the needs of a local work group or larger organization. Ideally, multiple knowledge transfer strategies will be leveraged to maximize the knowledge in an organization. Individual, one-on-one, strategies may target the direct transfer of knowledge, while system-wide or campus-wide initiatives may support the development of comprehensive tools and systems.

A successful knowledge transfer program requires a shift in organizational culture from one of competition, where knowledge is hoarded to one of collaboration where knowledge is shared. This shift will require the support of the leadership in theory and practice, tying knowledge transfer to the mission and communicating the vision to all employees. Values must nurture and support continual learning, sharing and collaboration.

The concept and value of knowledge transfer may then be integrated at all levels of the organization from recruitment through retirement. The knowledge transfer process (defined in chapter 1) may be summarized by the following five key steps:-

- Identify the critical knowledge for a position or location.
- Identify key personnel and engage them in the process.
- Identify and implement knowledge transfer method.
- Provide recognition in support of knowledge transfer and integrate learning.
- Assess knowledge transfer and refine methodology as needed.

The practice of a circular knowledge transfer process, from identification through refinement, will create a cultural shift that actively develops talent, and in turn, strengthens the organization for the long term.

The researcher recommended for two models for knowledge transfer process in the appendix.

5- Limitations of the Study and Suggestions for Future Research.

There are several limitations for this study:-

- First the low sample size may affect the power of the result.
- The sample was from one city.
- The research focused on the internal factors, some external factors such as the directives from politician may influence the process of decision making.
- The present study does not analyze specific organizational processes for putting knowledge transfer into action in the organizations surveyed.

Technology is another important area for research since it is still considered as the most effective means of capturing, storing, transforming and disseminating information. In this study 81.1% of respondents think that technology is the most important element to develop and gain knowledge.

6- Conclusion

Knowledge is a valuable asset and is crucial for enhancing capability and competitiveness of firms and performance

Without any mechanism to deploy that knowledge, firms may not cope with changes and challenges in the dynamic business environment today. The study has made an attempt to identify several important factors and examine its relationships with performance of knowledge transfer.

In terms of the organizational variables, the study found that organizational sharing culture, job satisfaction and the communication flow strongly influence the performance of knowledge transfer the other variables such as human resources (training),incentives system. Organizational procedure, that did not show any relationship should not be isolated or ignored, as they are still very important for some organizations .

The findings provided empirical support for the theoretical framework, demonstrating the fact that the study had sufficiently addressed the research questions.

The study has provided empirical models for the process of the knowledge transfer.

The study also highlighted the limitations and suggestions for future research.