THE ROLE OF MIDDLE MANAGERS IN KNOWLEDGE MANAGEMENT IMPLEMENTATION TO IMPROVE ORGANIZATIONAL PERFORMANCE IN THE IRAQI MOBILE TELECOMMUNICATION SECTOR

Laith Ali Yousif AL-Hakim
Shahizan Hassan
Othman Yeop Abdullah Graduate School of Business,
University Utara Malaysia,
06010 UUM Sintok,
Kedah, Malaysia

Abstract

In the era of knowledge-based economy, there is only one way to achieve survival, stability and growth of the organizations. This is through knowledge management implementation. But in order to ensure the successful knowledge management implementation, role of middle managers is critical. In other words, the role of middle managers will enable sustainability of successful knowledge management implementation, which in turn may improve organizational performance. The interrelationships among these variables, coupled with the fact that studies are limited in this area, have led this study to look at the role of middle managers in knowledge management implementation toward improving organizational performance of the Iraqi mobile telecommunication sector.

Keywords Middle managers role, knowledge management implementation, critical success factors of knowledge management, knowledge management strategies, knowledge management processes and organizational performance.

1. Introduction

In the rapidly growing of Mobile telecommunication sector (MTS), many companies seek to survive in an ever-changing sector due to technological development, increasing mobile subscribers and increasing fierce competition (Cegarra-Navarro & Martínez-Conesa, 2007; Chong et al., 2007; Wei et al., 2006, 2009). They are now facing the need to improve their Organizational Performance (OP) to gain more benefits and cope with the changes (Marqués & Simón, 2006; Wei et al., 2009). As a consequence, the OP measurement and the factors that affect it, has become ever more important in the MTS (Liao et al., 2009; Visser & Sluiter, 2007). In the knowledge-based economy era, superior organizations depend more on their knowledge-based resources to survive (Choi et al., 2008; Ho, 2008; Kim & Gong; 2009; Yang et al., 2009a) and to improve OP (Haas & Hansn, 2005; Liao & Wu, 2009; Safa et al., 2006). Therefore, the Knowledge Management (KM) implementation has become increasingly as a main power to improve Organizational Performance (OP) for various organizations (Haas & Hansn, 2005; Liao & Wu, 2009; Safa et al., 2006). However, Anderson (2009) revealed that although contemporary organizations have spent billions of dollars to implement KM, its implementation has yielded only marginal results and the percentage of failure in the implementation ranges from 50 to 70%. Because there are risks of failure in KM implementation (Razi & Abdul Karim, 2010; Zack et al., 2009), many researchers seek to understand why this is so.
Although there are a large number of KM implementation frameworks, organizations still face difficulty with KM implementation due to a lack of an integrated framework of KM implementation (Daud & Hassan, 2008; Kim, 2009; Shahrokhi, 2010; Wong & Aspinwall, 2005). Current KM frameworks have neglected identifying the nature of the relationship between workers and successful KM implementation, which is reflected in the limited studies that have investigated the relationship between middle managers role and successful KM implementation (Gunther-McGrath, 2001; Huy, 2001; Janczak, 1999, 2004; Lee, 1999; Richards, 2004; Theriou & Chatzoglou, 2008; Yang et al., 2009b). Indeed, studies that look at the core requirements of successful KM implementation holistically in a single empirical endeavour are rather limited particularly in MTS. As such, it has been recommended that more studies need to be carried out that consider the core requirements of successful KM implementation, which include Critical Success Factors (CSFs) of KM, KM processes and KM strategies (Abdullah et al., 2009; Darroch, 2005; Garavelli et al., 2004; Hwang, 2003; Maier & Remus, 2003; Razi & Abdul Karim, 2010; Tasmin & S., 2010; Wei et al., 2009). Examining the core requirements of successful KM implementation is important because success in KM implementation may lead to subsequently OP (Darroch, 2005; Rhodes et al., 2008; Sáenz et al., 2009; Yang et al., 2009a). Furthermore, empirical investigations that examine the influence of KM implementation on OP (consisting of performance financial perspective metrics, customer perspective metrics, internal process perspective metrics and learning and growth perspective metrics) are also limited. Even though KM is argued to be able to improve OP (Bierly & Daly, 2007; Chen & Mohamed, 2008; Choi et al., 2008; Shahrokhi, 2010) especially in the MTS context (Marqués & Simón, 2006; Wei et al., 2009). Therefore, there is an existing gap in the literature on KM and its influence on OP (Yang et al., 2009; Zack et al., 2009). That is consistent with Kalling's (2003) remark that “there are relatively few knowledge management texts that make an explicit connection between knowledge and performance” (Kalling, 2003, p. 67).

In the case of Iraq, it has encountered many crises and hard conditions, such as the first and second Gulf War, economic embargo and lastly the U.S. occupation since 2003. These conditions have considerably contributed to the collapse of the infrastructure in various sectors, such as oil, electricity (Hafedh et al., 2007), and particularly telecommunications (Report of United Nations Economic and Social Commission for Western Asia, 2005). Traditionally, the Iraqi Ministry of Communications was responsible for providing the telecommunication services through fixed lines. But it faced many challenges to rebuild and expand the Iraqi telecommunication infrastructure from 1991 to 2002. In early 2000, the ministry tried to acquire a mobile phone network in all of Iraq, but was unsuccessful due to lack of enthusiasm of international company to break the international sanctions imposed on Iraq. For that reason, by the end of 2002 the Iraqi telecommunications sector was regarded as the weakest sector in the Middle East (Report of United Nations Economic and Social Commission for Western Asia, 2005; Report of U.S. Agency for International Development, 2009). This reveals a serious gap in the improvement of the telecommunication sector.

The U.S. occupation in 2003 was the beginning of MTS in all of Iraq. The Coalition Provisional Authority supervised the affairs of the Iraqi MTS for more than a year prior to delivering responsibility to Iraqi Communications and Media Commission. The Commission administers this sector through performance audit and granting of licenses for mobile telecommunications companies (Al-Enzi, 2008; Mahdi, 2008). According to the latest reports issued by the Iraqi National Communications and Media Commission (2011), Iraq has five private companies that are able to provide mobile phone services. They are Asia-Cell, Korek and Sanatel, Zain Iraq, Omneea, and Itisaluna, which accumulatively in 2011 have about 22 million subscribers for a population of approximately 29 million. Furthermore, the development of MTS in Iraq is
essential to develop the economy because it increasingly contributes to the country’s GDP. It was reported that the Iraqi MTS contribute 5% of the country’s GDP (Report of U.S. Agency for International Development, 2009). In addition, it is essential to create job opportunities, encourages foreign and local investment, alleviates poverty, and contributes to the development of the technology sector (Report of U.S. Agency for International Development, 2009; Report of Tariff Consultancy Ltd, 2008).

It is worthy of note that the spread of MTS in Iraq is not due to the good services but the result of weak infrastructure of the fixed line systems in all of Iraq (Report of BuddeComm's Annual Publication, 2010). As such, recently, Iraqis began to complain about poor mobile services as there was a decrease in the mobile phone penetration in Iraq (Report of National Communications and Media Commission of Iraq, 2010). Subsequently, in mid-2009 the Iraqi government approved all recommendations made by the ministerial committee that oversees the licensing of mobile phone companies to impose a USD20 million-dollar fine, which can be increased, on the MTS if the companies do not improve their services (Decisions of the Ministerial Council of the Iraqi Republic, 2009). In this regard, by the end of 2010 Business Monitor International (BMI) estimate Iraq’s mobile penetration rate hit almost 75%. Indeed, this places the country at the bottom position of BMI regional rankings (see Table 1).

<table>
<thead>
<tr>
<th>Country</th>
<th>Mobile penetration 2010e (%)</th>
<th>Regional rank 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>United Arab Emirates</td>
<td>231.4</td>
<td>1</td>
</tr>
<tr>
<td>Bahrain</td>
<td>212.3</td>
<td>2</td>
</tr>
<tr>
<td>Saudi Arabia</td>
<td>193.9</td>
<td>3</td>
</tr>
<tr>
<td>Qatar</td>
<td>188.7</td>
<td>4</td>
</tr>
<tr>
<td>Oman</td>
<td>158.7</td>
<td>5</td>
</tr>
<tr>
<td>Kuwait</td>
<td>157.7</td>
<td>6</td>
</tr>
<tr>
<td>Libya</td>
<td>154</td>
<td>7</td>
</tr>
<tr>
<td>Tunisia</td>
<td>139</td>
<td>8</td>
</tr>
<tr>
<td>Israel</td>
<td>127.2</td>
<td>9</td>
</tr>
<tr>
<td>Jordan</td>
<td>113.8</td>
<td>10</td>
</tr>
<tr>
<td>Algeria</td>
<td>101.7</td>
<td>11</td>
</tr>
<tr>
<td>Iran</td>
<td>92.2</td>
<td>12</td>
</tr>
<tr>
<td>Morocco</td>
<td>86.8</td>
<td>13</td>
</tr>
<tr>
<td>Egypt</td>
<td>77.8</td>
<td>14</td>
</tr>
<tr>
<td>Iraq</td>
<td>74.1</td>
<td>15</td>
</tr>
</tbody>
</table>


According to the Report of the United Nations Economic and Social Commission for Western Asia (2005), mobile phone penetration in Iraq is much less than it should be, especially in rural areas. As a result, many obstacles adversely affect the development of MTS. The most important is the security issue. Other factors include the existing bad infrastructure and the lack of training of professionals that hinder the KM implementation. In this regard, Mahdi (2008) noted that KM in Iraqi MTS is still in its infancy stage, but its possibility of acceptance is high because KM is strongly related to technological organizations.

From the gaps listed above, the issue of the relationships among middle managers role, successful KM implementation and OP is still unclear, and there are very limited studies in this area. Therefore, this study contributes to the previous studies by investigating these relationships in two aspects (i) the direct relationship between middle managers role and successful KM implementation, and (ii) the indirect effect of KM implementation on the relationship between middle managers role and OP.
2. Literature review

2.1 The role of middle managers in knowledge management implementation

In order to achieve successful KM implementation, organizations need to determine the crew members responsible for it. Therefore, this section discusses the responsible crew members for KM implementation and how they are identified. In this regard, Nonaka and Takeuchi (1995) are among the first to coin the term “Knowledge Crew”. This concept refers to the crew members responsible for the identification, promotion and creation of knowledge within the organization. The knowledge crew consists of three key people in the organization: the knowledge officers (top management), the knowledge engineers (middle managers), and the knowledge practitioners (front-line employees). Table 2 briefly describes the roles of the knowledge crew.

Table 2: Comparison of the Three Management Models Regarding Knowledge Creation

<table>
<thead>
<tr>
<th>Who</th>
<th>Top-down</th>
<th>Bottom-up</th>
<th>Middle-up-down</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agent of knowledge creation</td>
<td>Top manager</td>
<td>Entrepreneur</td>
<td>Team (with middle managers)</td>
</tr>
<tr>
<td>Commander Information processor</td>
<td>Commander</td>
<td>Sponsor/mentor</td>
<td>Knowledge engineer</td>
</tr>
<tr>
<td>Commander Information processor</td>
<td>Commander</td>
<td>Sponsor/mentor</td>
<td>Knowledge engineer</td>
</tr>
<tr>
<td>Top management role</td>
<td>Commander</td>
<td>Sponsor/mentor</td>
<td>Catalyst</td>
</tr>
<tr>
<td>Middle management role</td>
<td>Commander</td>
<td>Sponsor/mentor</td>
<td>Team leader</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>What</th>
<th>Top-down</th>
<th>Bottom-up</th>
<th>Middle-up-down</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accumulated Knowledge</td>
<td>Explicit</td>
<td>Tacit</td>
<td>Explicit and tacit</td>
</tr>
<tr>
<td>Conversion</td>
<td>Partial conversion</td>
<td>Partial conversion</td>
<td>Spiral conversion of Internalization</td>
</tr>
<tr>
<td>Focus on Combination/Internalization</td>
<td>Focus on Socialization/Internalization</td>
<td>Focus on Socialization/Internalization</td>
<td></td>
</tr>
<tr>
<td>Where</td>
<td>Computerized database/manuals</td>
<td>Incarnated in Individuals</td>
<td>Organizational Knowledge base</td>
</tr>
<tr>
<td>Storage</td>
<td>Computerized database/manuals</td>
<td>Incarnated in Individuals</td>
<td>Organizational Knowledge base</td>
</tr>
<tr>
<td>How</td>
<td>Organization</td>
<td>Hierarchy</td>
<td>Hierarchy and task Force(hypertext)</td>
</tr>
<tr>
<td>Communication</td>
<td>Orders/instructions</td>
<td>Self organizing Principles</td>
<td>Dialogue and use of Metaphor/analogy</td>
</tr>
<tr>
<td>Tolerance for Ambiguity Weakness</td>
<td>Chaos/fluctuation</td>
<td>Premised</td>
<td>Create and amplify</td>
</tr>
</tbody>
</table>


According to Nonaka and Takeuchi (1995), knowledge creation generally starts from middle managers who are considered the true “knowledge engineers” of creating new knowledge in the organization. They are responsible for synthesizing tacit knowledge of top management and front-line employees, and transfer it into explicit knowledge. They are also able to create a spiral of knowledge across different functional areas in the organization structure. Accordingly, middle managers play a central role in KM implementation. The middle managers are defined as...
“managers occupying positions that fall within a range of two levels below the head of the organization and one level above supervisory staff or professional employees” (Richards, 2004, p. 67).

In recent years, several studies have been conducted to measure the effective role of middle managers in creating new various knowledge perspectives. All of these studies have agreed that the role of middle managers has shifted from just being a link between top management and operational supervisors to a new role that seeks to create knowledge and utilize knowledge through the provision of innovative work, which is reflected in the OP (Gunther-McGrath, 2001; Huy, 2001; Janczak, 1999, 2004; Lee, 1999; Richards, 2004). Meanwhile, Janczak (2004) explored the dynamics and new roles of middle managers in the creation and integration of knowledge. The author noted that the middle managers used three behavioral roles i.e. analytic, intuitive and pragmatic, which are integrated with knowledge modes to create new knowledge. Table 3 below summarizes the relationship between middle managers roles and knowledge modes.

Table 3 The Relationship between Middle Managers Roles and Knowledge Modes

<table>
<thead>
<tr>
<th></th>
<th>Analyst</th>
<th>Intuitive</th>
<th>Pragmatic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development time</td>
<td>Short term</td>
<td>Medium/long term</td>
<td>Long term</td>
</tr>
<tr>
<td>How people are influenced</td>
<td>Authoritarian logic</td>
<td>Emotional logic</td>
<td>Conciliatory logic</td>
</tr>
<tr>
<td>Result</td>
<td>Delivering a solution</td>
<td>New work method</td>
<td>Repositioning</td>
</tr>
<tr>
<td>Change orientation</td>
<td>Stability/planned</td>
<td>Renewal</td>
<td>Adaptation/incremental</td>
</tr>
<tr>
<td>Action process</td>
<td>Reactive</td>
<td>Proactive</td>
<td>Interactive</td>
</tr>
<tr>
<td>Nature of knowledge</td>
<td>Explicit</td>
<td>Tacit and explicit</td>
<td>Tacit and explicit</td>
</tr>
<tr>
<td>Knowledge initiative</td>
<td>Implementing imported solution</td>
<td>Experimenting new options</td>
<td>Adaptation</td>
</tr>
<tr>
<td>Knowledge approach</td>
<td>Collecting external knowledge</td>
<td>Creating and pursuing new opportunities; supporting employees’ initiatives</td>
<td>Linking dispersed knowledge, skills, and best practices internal to or across departments.</td>
</tr>
<tr>
<td>Nature of results</td>
<td>Technical conformity/ standardization</td>
<td>Satisfaction and professional creativity</td>
<td>Satisfying</td>
</tr>
<tr>
<td>Feedback/evaluation</td>
<td>No feedback</td>
<td>At the end</td>
<td>Continuous</td>
</tr>
<tr>
<td>Knowledge goal</td>
<td>Truth</td>
<td>Pleasure</td>
<td>Utility</td>
</tr>
<tr>
<td>Preferred knowledge roles</td>
<td>Problematic searcher, passive filter</td>
<td>Radar, catalyst, active filter</td>
<td>Opportunistic searcher, connector, missionary</td>
</tr>
</tbody>
</table>

Source: Janczak (2004: pp. 221)

Table 3 shows that middle managers have become a source of knowledge and leaders of knowledge employee (Nonaka & Takeuchi, 1995; Richards, 2004). Hence, the aim of middle managers is not merely creating new knowledge and transferring it between top management and the front line employees, but to achieve successful KM implementation.

2.2 The core requirements of KM implementation

Numerous studies have shown that KM implementation is able to help achieve or maintain success of contemporary organizations. KM implementation is said to be the best way to improve OP (Asoh et al., 2007; Bierly & Daly, 2007; Choi et al., 2008; Ho, 2008; Kim & Gong, 2009; Liao & Wu, 2009; Yang et al., 2009b; Zack et al., 2009). Therefore, researchers have resorted to the development of several frameworks to achieve successful KM implementation.
But these frameworks differ in their orientation depending on the different viewpoints of the researchers (Shahrokhi, 2010). The KM framework is defined as a guide to implement knowledge management in an organized way (Elashaheb, 2005; Kim, 2009).

There are a many KM implementation frameworks in the literature. Despite this, many organizations are still not able to implement KM successfully. This may be due to the limited comprehensive framework in this area (Daud & Hassan, 2008; Kim, 2009; Mehta, 2008; Shahrokhi, 2010; Wong & Aspinwall, 2005). Review of literatures identifies 23 frameworks of KM implementation that involves three main elements i.e. Critical Success Factors (CSFs), strategies, processes of KM. These three elements have been widely acknowledged in the literature as core requirements of successful KM implementation (Ajmal et al., 2008; Anantatmula & Kanungo, 2010; Jafari et al., 2010; Kucza, 2001; McElroy, 2002; McLaughlin & Paton, 2008). Table 4 provides a summary of the core requirements of KM implementation frameworks.

Table 4: Core requirements of KM implementation frameworks

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Framework</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSFs of KM</td>
<td>A basic discipline underlying knowledge management and its enabling factors (Stankosky &amp; Baldanza, 2001)</td>
</tr>
<tr>
<td></td>
<td>A factor model of knowledge management system implementation (Butler et al., 2007).</td>
</tr>
<tr>
<td></td>
<td>A framework of factors influencing KM initiatives in a project-based context (Ajmal et al., 2008).</td>
</tr>
<tr>
<td></td>
<td>A success model of KM implementation (Gai &amp; Xu, 2009).</td>
</tr>
<tr>
<td></td>
<td>A generic knowledge management framework (Abdullah et al., 2009).</td>
</tr>
<tr>
<td></td>
<td>A framework of KM enablers (Anantatmula &amp; Kanungo, 2010).</td>
</tr>
<tr>
<td>KM strategies</td>
<td>A strategic framework for mapping knowledge (Zack, 1999).</td>
</tr>
<tr>
<td></td>
<td>A process oriented KM approach (Maier &amp; Remus, 2002).</td>
</tr>
<tr>
<td></td>
<td>A knowledge management system dependency model (KMSDM) with defined relationships (McLaughlin &amp; Paton, 2008).</td>
</tr>
<tr>
<td></td>
<td>A practical framework for knowledge (Casselman &amp; Samson, 2007).</td>
</tr>
<tr>
<td></td>
<td>A strategic knowledge management framework (Jafari et al., 2010).</td>
</tr>
<tr>
<td></td>
<td>The knowledge value proposition strategy (KVSP) framework (Helmi, 2010).</td>
</tr>
<tr>
<td>KM processes</td>
<td>A knowledge creating company (Nonaka &amp; Takeuchi, 1995).</td>
</tr>
<tr>
<td></td>
<td>Building blocks of knowledge management (Probst et al., 1997).</td>
</tr>
<tr>
<td></td>
<td>A KPMG knowledge management framework (Alavi, 1997).</td>
</tr>
<tr>
<td></td>
<td>The tasks of knowledge management (Allweyer, 1998).</td>
</tr>
<tr>
<td></td>
<td>A knowledge management event chain (Despres &amp; Chauvel, 1999).</td>
</tr>
<tr>
<td></td>
<td>A knowledge management process framework (Bukowitz &amp; William, 2000).</td>
</tr>
<tr>
<td></td>
<td>A process model (Rastogi, 2000).</td>
</tr>
<tr>
<td></td>
<td>A process model (Tannenbaum &amp; Alliger, 2000).</td>
</tr>
<tr>
<td></td>
<td>A knowledge chain model (Holsapple &amp; Singh, 2001).</td>
</tr>
<tr>
<td></td>
<td>A knowledge management process model (Kucza, 2001).</td>
</tr>
<tr>
<td></td>
<td>A knowledge life cycle (McElroy, 2002).</td>
</tr>
</tbody>
</table>

Accordingly, Table 5 provides a summary of definitions and dimensions of the core requirements of KM implementation.

Table 5 Definitions and dimensions of the core requirements of KM implementation

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSFs of KM</td>
<td>Are managerial and organizational factors that need to be effectively addressed in order to further the likelihood of successful knowledge management</td>
</tr>
<tr>
<td></td>
<td>Human resource management</td>
</tr>
</tbody>
</table>

| Resource         | Akhavan et al., 2009; Al-Mabrouk, 2006; Choi, 2000; Chong, 2006; Chourides et al., 2003; Chuang, 2004; Hung, 2005; Lin & Kuo, 2007; Ling & Shan, 2010; Wong & Aspinwall, 2005. |
|                  | Information                                                                |
|                  | Al- Mabrouk, 2006; Asoh et al., 2007;                                     |
**Implementation** (Carneiro, 2000).

**Technology**

Chong, 2006; Choi, 2000; Chourides et al., 2003; Chuang, 2004; Gold et al., 2001; Grover & Davenport, 2001; Hung, 2005; Lee & Choi, 2003; Ling & Shan, 2010; Nemati, 2002; Rhodes et al., 2008; Skyrme, 2000; Stankosky & Baldanza, 2001; Wong & Aspinwall, 2005; Yeh et al., 2006.

**Leadership**

Asoh et al., 2007; Baldanza, 2001; Choi, 2000; Hung, 2005; Nemati, 2002; Skyrme, 2000; Slagter, 2007; Stankosky & Baldanza, 2001; Wong & Aspinwall, 2005; Yeh et al., 2006.

**Organizational Learning**

Lee & Choi, 2003; Lin & Kuo, 2007; Rhodes et al., 2008; Skyrme, 2000; Slagter, 2007; Stankosky & Baldanza, 2001.

**Organizational Strategy**

Al-Mabrouk, 2006; Chourides et al., 2003; Grover & Davenport, 2001; Skyrme, 2000; Wei et al., 2006, 2009; Wong & Aspinwall, 2005; Yeh et al., 2006; Zheng et al., 2010.

**Organizational Structure**

Akhavan et al., 2009; Baldanza, 2001; Chong, 2006; Chuang, 2004; Hung, 2005; Gold et al., 2001; Grover & Davenport, 2001; Nemati, 2002; Slagter, 2007; Stankosky & Baldanza, 2001; Wei et al., 2006, 2009; Zheng et al., 2010.

**Organizational Culture**

Al-Mabrouk, 2006; Asoh et al., 2007; Chait, 2000; Chong, 2006; Chuang, 2004; Hung, 2005; Hung et al., 2003; Grover & Davenport, 2001; Gold et al., 2001; Nemati, 2002; Skyrme, 2000; Slagter, 2007; Rhodes et al., 2008; Wong & Aspinwall, 2005; Yeh et al., 2006; Zheng et al., 2010; Ling & Shan, 2010.

**KM Strategies**

Are many processes of collecting, codifying and dissemination of knowledge to get the right information in the right place and at the right time. (Xie, 2009).

**Codification**

Edvardsson, 2008; Ewing & West, 2000; Hansen et al., 1999; Greiner et al., 2007; Maier & Remus, 2003; Schulz & Jobe, 2001; Sobahle, 2005; Rhodes et al., 2008; Xie, 2009.

**Personalization**

Edvardsson, 2008; Ewing & West, 2000; Hansen et al., 1999; Greiner et al., 2007; Maier & Remus, 2003; Schulz & Jobe, 2001; Sobahle, 2005; Rhodes et al., 2008; Xie, 2009.

**KM Processes**

Are systematic stages that providing the knowledge needed for an organization to succeed through knowledge creation, organizing, storage, sharing and utilization (Ramachandran, 2010; Yang et al., 2010).

**Knowledge Creating**

Asare, 2008; Alavi & Leidner, 2001; Bhatt et al., 2005; Ling & Shan, 2010; Singh, 2008; Snis, 2000; Supyuenyong & Islam, 2009.

**Knowledge Organizing**


**Knowledge Storage**


**Knowledge Sharing**


**Knowledge Utilization**

2.3 Organizational Performance Measurement in MTS

The OP indicators have become an important issue in evaluating organizational success (Moullin, 2007). It is defined as "comparing the expected results with the actual ones, investigating deviations from plans, assessing individual performance and examining progress made towards meeting the targeted objectives" (Ngah & Ibrahim, 2010, p. 503). Based on this definition, OP indicators can provide assistance for managers to evaluate the organizational activities and maintain the competitive position or superiority over competitors (Liao et al., 2009; Visser & Sluiter, 2007). But scholars differ in how they measure OP.

Indeed, Visser and Sluiter (2007) pointed out to significant of measure OP through used Balanced Scorecard (BSC) in the MTS. These indicators are financial perspective metrics, customer perspective metrics, internal process perspective metrics and learning and growth perspective metrics. The financial perspective metrics indicate strategic financial objectives that seek to achieve an increase in subscriber growth, average revenue per user, capital efficiency, network operating expenditure, inventory turnover ratio, and administration overhead. The customer perspective metrics indicate completion to customer requirements that includes availability of start-up packs and recharge vouchers, call retention, call set-up success, network coverage, and roaming partner growth. The internal process perspective metrics indicate high effectiveness of company processes flow through finding solutions to the problems related to distribution efficiency, churn level, average time to call answer, number of outstanding customer complaints, and average time for contract approval. Lastly, the learning and growth perspective metrics indicate improvement of the skills of employees through decreased absenteeism level and increased development level of skills, motivation, education and knowledge.

2.4 Knowledge management implementation and organizational performance

The main objective in this section is to highlight studies that investigated the relationship between KM and OP. These studies can be classified into three categories depending on core requirements of KM implementation: (1) the relationship between CSFs of KM and OP; (2) the relationship between KM strategies and OP; and (3) the relationship between KM processes and OP.

2.4.1 CSFs and OP

The studies in the first category focus on the relationship between CSFs and OP. The literature identifies seven CSFs of KM which are human resource management, information technology, leadership, organizational learning, organizational strategy, organizational structure, and organizational culture. These factors are important for successful KM implementation in order to improve OP.

In this regard, Lee and Choi (2003) proposed that the CSFs of KM are an appropriate instrument for OP improvement. There are four main elements of the CSFs of KM. They are: structure, culture, people and information technology. They found that these elements of CSFs of KM have a positive effect on OP, measured as general success, market share, growth rate, and innovativeness. The researchers further pointed out about the need for more studies in this area. Besides those, Asoh et al. (2007) found a strong and positive relationship between CSFs of KM and OP. The CSFs of KM were technology, leadership, culture, and measurement. They also pointed out the need for more studies on the relationship between CSFs of KM and OP with a bigger sample size. Increasingly, Lin and Kuo (2007) argued that the existence of an
organization depends on increased KM capabilities during HRM and organizational learning which can contribute towards achieving high OP. Therefore, the results show the HRM and organizational learning have indirect positive effects on OP through KM capabilities. In a similar vein, Ho (2008) found that existence of an organization depends on increased KM capabilities during self-directed learning and organizational learning which affects OP. Therefore, the results show that the self-directed learning and organizational learning have indirect positive effects on OP through KM capabilities. Afterwards, Zack et al. (2009) stressed that KM has emerged as an increased attention to the direction of OP improvement. Nevertheless, the researchers found that there is a serious gap in the literature in term of the relationship between KM and OP due to lack of empirical evidence. The results of the study show that KM practices indeed (i.e. processes, culture, learning, and strategies) have positive relation with OP (i.e. customer intimacy, operational excellence, and product leadership). In addition, the organizations need to realign their “KM mindset” and perceptions about how KM practices can enable the organization to improve OP. Without these, many KM practices might fail. The researchers suggested that further studies with different sample and culture. Similar recommendations were also made by Wei et al. (2009), who found a positive relationship between business strategy, organizational structure, KM Team, K-Map, and K-Audit, as CSFs of KM, and OP improvement. The researchers suggested more future studies in this field in different countries and samples, particularly in MTS, should be carried. Meantime, Anderson (2009) identified three CSFs of KM i.e. culture, structure, and technology that can help increase the capabilities of organizations. He showed that CSFs of KM have a positive relationship to capabilities of organizations. Zheng et al. (2009) proposed that structure, culture, and strategy are significant success factors for KM to achieve high OP. They recommended that further exploration is needed by integrating RBV and KBV so that understanding about how knowledge resources in an organization could be utilized to achieve high OP can be enhanced. As a consequence, Yang et al. (2009b) regarded CSFs of KM as the heart of OP improvement. The results highlighted the positive effect of culture, structure and information technology of CSFs of KM on the OP, which include innovation, financing and service. However, the researchers also noted that there exists a gap in the literature with regards to the effects of CSFs of KM on OP. Thus they recommended that further studies are undertaken to investigate the relationship between CSFs of KM with OP, in addition to more studies to investigate the relationship between KM resources and process, and OP. Given the recommendations put forth by the above researchers, the present study seeks to investigate the relationships among CSFs of KM as part of KM implementation, on OP.

2.4.2 KM Strategies and OP

The second category of research involves the relationship between knowledge strategies and OP. Two strategies of KM have been identified in the literature i.e. codification and personalization.

In this regard, Schulz and Jobe (2001) mentioned that achieving high results in OP improvement depends on KM strategies. The results show that the codification, implicitness, focused and unfocused, which considered that KM strategies have a positive effect on OP improvement. Moreover, the results indicate that codification strategy is an important recourse of superior OP. Thereby, the researchers suggested further studies on the relation between codification strategy and OP. This is in line with the situation of the researchers for selecting the codification as the KM strategy in this study. Similarly, Bierly and Daly (2007) emphasized that KM strategies play an important role in improving OP, but there are limited studies that sought to examine their effects. They revealed that both exploration strategy and exploitation strategy have a positive relationship to OP. They suggested that organizations should give more attention in applying KM strategies, and recommended more studies to confirm their results. Likewise, Choi et al. (2008) noted the lack of the empirical studies that examined the relationship between KM
strategies and OP. As such, the researchers examined the interrelationships among KM strategies, and their effects on OP. KM strategies were measured in two dimensions: (i) KM focus: explicit-oriented, tacit-oriented; and (ii) KM source: external-oriented, internal-oriented. Overall, the results indicated that the KM strategies have a positive effect on OP. They further suggested for more studies in this area. Besides those, Wei et al. (2009) proposed four types of strategies in the KM literature of KM: culture, leadership, measurement, and technology. They are described as the core blocks of KM implementation as they were found to have a positive relationship to the overall OP. They recommended further research to be carried out in different countries and using different samples, particularly in the MTS. Based on the recommendations made above, the present study seeks to investigate the effects of KM strategies, as part of KM implementation, on OP.

2.4.3 Knowledge Processes and OP

The third category aims to show the studies that examined the relationship between knowledge processes and OP. Based on previous studies, five KM processes can be identified: knowledge creation, knowledge org, knowledge storage, knowledge sharing, and knowledge utilization.

In this regard, Lee and Choi (2003) argued that KM processes are important to improve OP. In this regard, they used Nonaka's knowledge creation processes model to create knowledge, which consists of four stages: socialization, externalization, combination, and internalization. The results showed a positive relationship between KM processes and OP. They also recommended further research to be undertaken. Apart from that, Darroch (2005) hypothesized that three KM processes i.e. knowledge acquisition, knowledge responsiveness and knowledge dissemination could improve OP. But she found that both acquisition and dissemination did not positively affect OP and knowledge responsiveness positively affects OP. More studies are needed to confirm the results found. Besides that, Haas and Hansen (2005) revealed that knowledge utilization is considered a critical part of the KM processes. It has an ability to achieve OP improvement. Therefore, the organizations must find ways to utilize knowledge through the activation of both, codified knowledge and personal knowledge. The study shows that there is a positive relationship between knowledge utilization and OP. Increasingly, Tsai and Li (2007) indicate that the OP can be viewed as an outcome of knowledge creation processes that depended on the effectiveness of the organizational strategy. The organizational strategy has positive effects on socialization, externalization, combination, and internalization, which lead to create new knowledge. Researchers have called for further studies to investigate the effects of other organizational factors on the knowledge creation process towards improving OP. Meanwhile, Anderson (2009) found that KM processes, measured in terms of conversion, application, and protection, have a positive relationship to organizational capabilities. He suggested conducting future studies to examine the role of KM processes on the team level in the successful KM implementation. Similarly, Fugate et al. (2009) noted that improvement in the overall OP comes from effective KM processes. They found that knowledge interpretation, knowledge responsiveness, and knowledge dissemination are positively related to OP. Meantime, Liao and Wu (2009) found that OP, measured in terms of financial, market and partnership, depends on effective implementation of KM processes, which consist of four processes i.e. acquisition, conversion, sharing and applications. In this regard, the results indicate that KM processes have a positive effect on OP. In a similar vein, Wei et al. (2009) asserted that successful achievement of overall OP is based on actual application of KM processes. They showed a positive relationship between construction, embodiment and deployment as KM processes and OP. They also suggested that further research in different countries and samples, particularly in MTS, be conducted. From the literature, there is an agreement
between the previous studies and the opinion of the researchers in selecting the KM processes to investigate the relationship between KM implementation and OP.

Despite the main aim of KM implementation is the improvement of OP, studies that looked at the relationship are still unintelligible (Bierly & Daly, 2007; Choi et al., 2008). There are also limited studies that investigated the relation between successful KM implementation and improvement of OP (Shahrokhi, 2010), particularly, in the MTS (Marqués & Simón, 2006; Wei et al., 2009). Therefore, a large gap still exists in the literature between KM and OP (Yang et al., 2009b; Zack et al., 2009). Hence, this motivates the researchers to realize the nature of the relationship between these two variables in Iraqi MTS.

3. Conceptual framework

From the previous arguments, the middle managers role that consists of analyst, intuitive and pragmatic is regarded as the best way to implement KM (Janczak, 2004, 1999). On the other hand, the successful KM implementation is reflected on improvement of OP (Asoh et al., 2007; Bierly & Daly, 2007; Choi et al., 2008; Ho, 2008; Kim & Gong, 2009; Liao & Wu, 2009; Yang et al., 2009b; Zack et al., 2009). Besides those, this study seeks to measure OP through financial perspective metrics, customer perspective metrics, internal process perspective metrics and learning and growth perspective metrics (Visser & Sluiter, 2007).

Based on the above, the conceptual framework is developed based on holistic theory of knowledge, which explains the individual behavior has direct effect on successful KM implementation (Yang et al., 2009b). Furthermore, it is developed based on resource based view and knowledge based view theories, which explain that organizational knowledge leads to improve OP (Asare, 2008; Kiessling et al., 2009; Kim and Gong, 2009; Liao and Wu, 2009; Pathirage et al., 2007). Figure 1 shows the conceptual framework of the relationships among study's variables; middle managers role, core requirements of KM implementation and OP.
4. Conclusion
This is the first study that first proposed a complete framework that captures the impact of middle managers role in KM implementation, which reflected on improvement of OP. Indeed, this study contributed to the previous studies through the conceptual framework, which is based on holistic of knowledge, resource based view and knowledge based view theories. The conceptual framework explains the direct relationship between middle managers role (consist of analyst, intuitive and pragmatic) and core requirements of KM implementation (CSFs of KM, KM strategies and KM processes). In addition, it shows the direct relationship between core requirements of KM implementation and OP (consisting of performance financial perspective metrics, customer perspective metrics, internal process perspective metrics and learning and growth perspective metrics). Furthermore, the future is wide open for further research empirical in this area.
References:
Abdullah, Dte, H. & Sinha, R. R. (2009), Knowledge management and intellectual capital emerging perspectives (Eds.), “Critical factors for KM implementation: An L&T, E&C division case study” (pp. 53-71), In Institute of management technology, Ghaziabad.


