A Survey on Approaches in Knowledge Audit in Organizations

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Abstract—Knowledge Audit (KA) is one of the important issues in Information Systems and specifically Knowledge Management (KM). It is used in the examination and evaluation process for knowledge resources in the organization. KA is a useful technique for monitoring knowledge management on quality issues such as completeness, effectiveness and accuracy. Numerous studies have been conducted and many tools have been developed to assist Knowledge Audit process, each viewing the issues from different aspects. This study investigates KA framework, models, methodologies, processes, techniques and other issues based on a systematic literature review approach. This provides an obvious circumstance of the KA and its issues that need to be catered in the future. The result indicates that KA requires critical consideration to look for on several limitations and issues.

Index Terms—Knowledge Audit, Knowledge Management, Knowledge Audit in organization.

I. INTRODUCTION

Knowledge is defined as value-added and actionable information[1] which allows forecasting and decision making. To name some specifications, it is somewhat: unstructured, intuitive, difficult to communicate with and express in words[2], it lies in conversations, connections and experiences and it highly depends on the owner[3]. Some studies have tried to classify it into different types[4]:
- Tacit vs. explicit
- Formal vs. informal
- Codified vs. personalized
- Internal vs. external
- Short life cycle vs. permanent

Knowledge is becoming an important asset of organizations by emergence of knowledge economy[5]. Therefore, each organization needs to manage its owning knowledge effectively. This results in an accurate image of tacit and explicit knowledge, better understanding of knowledge creation process and also knowledge sharing. All benefits of KM leads organizations to gain competitive advantages [6]. A KM process consists of planning, technique, resources, process of knowledge transformation and environmental factors[6]. Chong stated five preliminary success factors for effective KM implementation: business strategy, organizational structure, Knowledge Management Team, Knowledge Map and Knowledge Audit (KA). KA is assumed as one of the most important and preliminary steps of KM implementation [7][8][9][10]. KA is considered as a tool for monitoring knowledge management effectiveness[11]. On the other hand there is another view which says knowledge map as well as taxonomy as the outcome of KM life-cycle and the role of KA is to determine whether and to what extend that objective is achieved[4]. KA must identify important information regarding what knowledge does the organization already have, what knowledge the organization lacks, who needs this knowledge and how they can use the knowledge[6]. KA is used in various areas including organizations, industry, and education. There are various definitions on KA. Mostly, process elements of KA are assumed as the beginning steps for KM implementations, which provide a continuous feedback for implementation, a circular and dynamic process and a scientific evaluation and analysis of organization (e.g. knowledge assets, knowledge strategies and policies, knowledge structure, and knowledge category). It also determines the organizational knowledge (e.g. lacks, needs, and how to use this knowledge) and outcomes while considering the opportunities and threats [7].

KA involves in the discovering, analyzing, measuring and evaluating an organization’s knowledge asset[12]. Its process consists of analyzing the current conditions and mechanisms of organizational knowledge, and reporting if any knowledge gap is identified. The gap will represent the differences of current knowledge needs in comparison to future ones [13]. A lot of researchers state that KA is important and has become one of success factors for effective KM implementation. This study intends to discuss different practices, issues and challenges of KA based on the previous work done by researchers.

Though, all studies agree on the importance of KA but there is no consensus on the model, methodology and processes involved in their implementation. For this reason this paper aims to do research of KA from 2005 until 2012 including their models, methods, processes, tools, techniques, advantages, challenges and limitations.

The paper is organized as follows: the second section presents the systematic literature review research methodology.
and discusses the results of the study regarding the current approaches (e.g. model, methodologies, process, and tools) and issues related to challenges of KA. Third section presents the discussion part. Finally, the study is concluded and implications of the review are identified in the last section.

II. SYSTEMATIC LITERATURE REVIEW

This study is investigating the approaches of KA in organizations. The importance of applying KA in organizations has been highlighted by most researchers[14][15][16][17][11][6]. There are various steps that need to be followed to identify, address and document KA issues in the studies:

1. Identifying the information about processes, models, methods, tools, techniques and frameworks.
2. Identifying the people involved in KA and their roles.
3. Discussing the challenges of KA and its impact on the organization.
4. Reporting the findings.

These steps are taken based on a systematic review of previous studies, conducted in order to arrange a summary and to report the relevance of information. The systematic review involves three main phases namely planning, conducting and reporting[18]. These main phases are illustrated in Figure 1.

![Figure 1: SLR phases](image)

A. Planning the Review

The most common activities in the planning phase are clarifying research questions, developing and validating review protocols. The process of validating review protocol involves setting the conditions and primary studies. For validating the protocols there are several ways such as executing a pilot test, informal reviewing and conducting formal review[19].

While our study is generally about the practices of KA, we have declared some research questions:
RQ1. What are the main practices of KA (processes, models, methods, frameworks, tools and techniques)?
RQ2. In what fields Knowledge Audit has been conducted and used?
RQ3. Who are involved in KA?
RQ4. What are the advantages and benefits of KA for an organization?
RQ5. What are the current challenges and limitations of KA in organizations?

This study involves researches and practices on KA discussed by researchers from 2005 to 2011 in journals, conference proceedings and online databases of KM. Our validation approach considers some informal review and factors such as citation metrics and popularity.

B. Conducting the Review

During the conducting phase several activities are involved such as relevant research identification, primary studies selection, quality assessment of previous studies, required data extraction and data synthesis[18].

The first step was to find relevant articles of journals that involves ACM Digital Library, IEEE Xplore, Science Direct Elsevier, and Springer link (refer Table 1).

<table>
<thead>
<tr>
<th>Types</th>
<th>Title</th>
</tr>
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<tbody>
<tr>
<td>Journal</td>
<td>Knowledge Management Research &amp; Practice</td>
</tr>
<tr>
<td></td>
<td>Journal of Knowledge, Culture and Communication</td>
</tr>
<tr>
<td></td>
<td>Journal of Knowledge Management</td>
</tr>
<tr>
<td></td>
<td>Journal of Management Information System</td>
</tr>
<tr>
<td></td>
<td>Journal of Universal computer Science</td>
</tr>
<tr>
<td></td>
<td>International Journal of Technology Management</td>
</tr>
<tr>
<td></td>
<td>Journal of Knowledge Management Research &amp; Practice</td>
</tr>
<tr>
<td></td>
<td>Journal of knowledge management practice</td>
</tr>
<tr>
<td></td>
<td>Knowledge and Process Management</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Conference Proceeding</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009 International Conference on Management and Service Science</td>
<td></td>
</tr>
<tr>
<td>2008 4th International Conference on Wireless Communications, Networking and Mobile Computing</td>
<td></td>
</tr>
<tr>
<td>2011 International Conference on Research and Innovation in Information Systems (ICRIIS),</td>
<td></td>
</tr>
<tr>
<td>2006 European and Mediterranean Conference on Information Systems (EMCIS)</td>
<td></td>
</tr>
<tr>
<td>Proceeding of the 28th international conference on Software engineering - ICSE '06</td>
<td></td>
</tr>
</tbody>
</table>

In the second step, we search the related articles from list of considered issues namely primary studies based on keywords. By primary studies we meant the papers that have been referred. An example of the keywords used was: “Knowledge Management AND Audit”. Table 2 shows the list keywords for searching articles.

<table>
<thead>
<tr>
<th>Online Databases</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="http://www.interscience.wiley.com">www.interscience.wiley.com</a> (Wiley online library)</td>
<td></td>
</tr>
<tr>
<td><a href="http://dl.acm.org/">http://dl.acm.org/</a> (ACM digital library)</td>
<td></td>
</tr>
<tr>
<td><a href="http://scholar.google.com/">http://scholar.google.com/</a> (Google Scholar)</td>
<td></td>
</tr>
<tr>
<td><a href="http://www.sciencedirect.com">http://www.sciencedirect.com</a> (Science Direct)</td>
<td></td>
</tr>
</tbody>
</table>
These searched keywords were looked up in the title, abstract and keywords. The next step was to assess the quality of each study. Although there is no known universal definition and implication to measure the quality of study, but in different cases, different ways could be used such as establishing quality criteria based on data completeness or appropriateness and authenticity [19]. This study selects the suitable and related articles for assuring the quality of the paper. The process of data extraction involves identifying various issues such as models, framework, methodologies and etc. Based on our extraction, different issues in Knowledge Audit are shown in Table 3.

**Table 2: SEARCHED KEYWORDS**

<table>
<thead>
<tr>
<th>No.</th>
<th>Keywords</th>
<th>Audit method [25]</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.</td>
<td>Knowledge AND Audit</td>
<td>Investigated the importance of tacit perception in Knowledge Management. Audit [15]</td>
</tr>
<tr>
<td>3.</td>
<td>Knowledge Audit</td>
<td>Applied Knowledge Audit on special children (SC) communities [28]</td>
</tr>
<tr>
<td>4.</td>
<td>Knowledge Audit processes</td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>Knowledge Audit models, methodologies</td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>Knowledge Audit tools and techniques</td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>Knowledge Audit results and benefits</td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>Challenges of Knowledge Audit</td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>Organizational Knowledge AND Audit</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Knowledge sharing</td>
<td></td>
</tr>
</tbody>
</table>

**Table 3: TOPICS STUDIED IN KNOWLEDGE AUDIT**

<table>
<thead>
<tr>
<th>Types</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>proposed a holistic view of KM and implement a KM audit model to help organizations portraying knowledge assets and assessing their use toward an organization’s goal [20]</td>
</tr>
<tr>
<td></td>
<td>proposed a model based on introduced concept of knowledge capital [6]</td>
</tr>
<tr>
<td></td>
<td>compared and analyzed existing models through their life cycle and propose a flexible model adaptable to different business environment [21]</td>
</tr>
<tr>
<td>Framework</td>
<td>discussed a framework based on processes and mentioned core processes and support processes [7]</td>
</tr>
<tr>
<td></td>
<td>considered Knowledge Audit as a means of knowledge management capability evaluation [12]</td>
</tr>
<tr>
<td></td>
<td>proposed a Knowledge Audit framework based on taxonomy [4]</td>
</tr>
<tr>
<td>Methodology</td>
<td>implemented a comparative study between two different methodologies [9]</td>
</tr>
<tr>
<td></td>
<td>Implemented a systematic approach (not too general) [16]</td>
</tr>
<tr>
<td></td>
<td>proposed a cyclic methodology focusing on core processes [22]</td>
</tr>
<tr>
<td></td>
<td>used a mixed-method including qualitative and quantitative techniques of data collection for Knowledge Audit in library [23]</td>
</tr>
<tr>
<td></td>
<td>described methods, processes and results of Knowledge Audit, map and finally provided an action plan [24]</td>
</tr>
<tr>
<td></td>
<td>proposed action-oriented and contextual methodology [14]</td>
</tr>
<tr>
<td></td>
<td>Compared and integrated 13 Knowledge Audit methods and presenting a reference Knowledge</td>
</tr>
</tbody>
</table>

Figure 2 shows the frequency of topics in KA. The result shows that most common topics discussed are methodology and tools, and techniques.

**Figure 2: Bar chart; frequency of K.A. topics**

C. Reporting the Review

When the review was completed, we documented the results based on the research questions answered. Next, we validated the report via an external validation. There are two general methods for validation; one of which is to use an external validator and the other is to submit to a peer-reviewed journal[19]. Each of the papers we studied belongs to an accredited journal which also satisfies the second validator.

**Frameworks Methods and Models for Knowledge Audit**

The main components of KA are defined in[17] as the following: Knowledge need analysis, Knowledge inventory analysis, Knowledge flow analysis and Knowledge mapping. They performed KA by utilizing the above four steps in
sequence. Some shortcomings were discovered in previous KA methodologies in [22]. The shortcomings are as listed below:

- Lack of clear strategy to find the exact place of initiating KA.
- Lack of measurement criteria.
- Lack of applying those methodologies in order to detect the problems as well as opportunities.

In [22] the researcher proposed a framework consisting of ten stages. The stages are identifying organization objectives and process, identifying organization’s core processes, prioritize and select organization’s core processes, identify key people, meeting key people, knowledge inventory, knowledge flow, knowledge mapping, auditing reporting and knowledge re-auditing. This framework highlights the importance to determine the core processes, and re-auditing process. Besides that, it concerns on key people involved and cultural issues of the organization during the KA process. Furthermore, a support tool was introduced for each stage in assisting the implementation.

In [16] the researcher proposed a framework composed of eight steps which are: orientation and background studies, cultural assessment, in-depth investigation, building knowledge inventory and knowledge mapping, knowledge network analysis, recommendation of KM strategy, deploying KM tools and building collaborative culture, and the last phase is re-audit for measuring success of the KM implementation. This framework tries to address the shortcomings of some existing KA approaches, which practical value are limited for real-life implementation of KM initiative. The beneficial of this framework includes consideration on KM needs, strengths, weaknesses, opportunities, threats and risks.

In [12] the researcher proposed a framework in order to describe the KM capability in their re-established triplet KM system. This framework consists of knowledge environment, knowledge process and knowledge capability and shows that KA is an effective and practical mean for continuously improving KM capability. This framework concentrates on the important role of KA in KM capability and does not provide detailed explanation of KA processes and activities.

The framework proposed in [4] consists of four main steps such as knowledge map creation; knowledge taxonomy; knowledge SWOT analysis (Strengths, Weaknesses, Opportunities, Threats) and knowledge mobilization. This framework pays a considerable amount of attentions to knowledge map and taxonomy.

In [7] the researcher proposed a process-based framework for KM audit based on processes which consists of three main parts: enterprise’s knowledge and its practices or basic activities, core processes of KM audit, and support processes of KM audit. Core processes of KM audit are Knowledge Management Environment Audit (KM.EA), Knowledge Asset Audit (KAA), Knowledge Management Capacity Audit (KM.CA), and Knowledge Management Performance Audit (KM.PA). Support processes of knowledge management audit are defined as Knowledge Management System Standards, Enterprise culture leads, and Knowledge Management Tool Support. The advantage of this framework is the fine classification of the processes and clear definition. The aim of each process is declared in details; however there is not enough explanation on KA implementation based on this model.

Lee et al. [14] introduced an audit methodology which tries to make it action-oriented and contextual[14], namely STOCKS (Strategic Tools to Capture Critical Knowledge and Skills). This methodology also has various useful stages including recommendations, but it is not cyclic and continuous which could be considered as a disadvantage of the methodology. Nevertheless, the most significant characteristic of this methodology is that it considers practical stages that should be done in the implementation.

In [20] a KM Audit model was proposed for providing an accurate illustration of organization’s knowledge strategies and assets. This model considers socio-technical enablers, knowledge processes and knowledge stocks as core of KM while pays attention to KM drivers (environmental factors) and outcomes. The model also indicates that KM is driven by its environment. It points towards an important issue in KA, which discusses the concept of contingency that states there is no single solution in all situations. The researcher also mentioned the dynamic nature of knowledge processes. Although he developed KA in real-life practice, the model appears lacking of details of KA implementation.

Wu and Li [6] proposed a rocket-shaped model for KA implementation which is composed of three main audits based: knowledge capitals (asset, human), structure (organizational structure) and external(organizations). Their model is data pivotal as the processes in their model is mostly about data collection, processing and analysis. This rocket-shaped model is said to be a complete model but there are some limitations such as less consideration over the organizational culture, no real-life practical implementation and model development limitation due to a variety of methodologies. The significant of this model however is the introduction of the capital concept.

Ganasan and Dominic [9] derived a hybrid model based on a comparison, which is scoped to core processes and also approaches that involve KM development and recommendation. The six stages are listed below:

1. Information and culture assessment
2. Core process prioritization
3. Knowledge health measurement
4. Knowledge Audit reporting
5. Knowledge management strategies recommendation
6. Continuous re-auditing

Processes and Activities of Knowledge Audit

Different authors mentioned various processes in order to develop KA as shown in Table 4.
Herman Schimmel simply stated that questionnaires is the first step of KA. In order to picture the current status of knowledge, behavior, and attitude of knowledge workers, this step is needed which is followed by interviews and then analysis[27]. It can be assumed that data gathering is actually considered as the first step of KA processes.

WU and LI have gone through more details and suggested six processes in their rocket-shaped model which are: planning; data collection; data processing; data analysis; reporting and summary[6]. On the other hand, Jiuling et. al considered knowledge as the main factor in KA processes and introduced knowledge acquisition, knowledge storage, knowledge sharing, knowledge transfer and knowledge application as processes involved in KA [7].

A. Rahman et. al. [8] introduced four steps in KA: implementing KA; data acquisition techniques; analysis methods and tools. They studied two Malaysian organization’s KA processes and recognized two different set of processes in each organization; one of them followed these steps: knowledge analysis, knowledge inventory analysis, knowledge mapping and competency analysis. They listed mapping core business activities, key knowledge gap identification, knowledge sharing activity control, knowledge issues identification and at last drafting suitable initiatives for the other organization [8].

In some cases such as developing KA on special children, KA is implemented in four phases including: knowledge need analysis; knowledge inventory analysis; knowledge flow analysis and knowledge mapping [28].

Each phase consists of several activities such as background study, draft initial knowledge need/inventory/flow matrices and knowledge map, verifying knowledge need/inventory/flow matrices and knowledge map and reporting. KA was implemented in governmental environment and recognized the following local knowledge processes such as transfer lessons, gather intelligence, share tacit knowledge and look for ideas[20].

**Techniques and Tools for Knowledge Audit**

Several existing techniques and tools can be utilized during the KA process and implementation. Concerning this, it is a vital issue to select and determine the right tool and that will effect on the end-results [11]. Common techniques of KA represented by most researchers are questionnaires, interviews, surveys, workshops, focus groups, site observation, document studies and narration techniques, Social network analysis (SNA), meta-matrix and Software agents[1],[30],[17],[13],[28].

**Advantages of Knowledge Audit**

The importance of KA as the first step of knowledge management process and activity is its ability to picture accurate identification, qualification, measurement and assessment of both tacit and explicit knowledge of the organization, and knowledge networks inside the organization. Other advantages of KA are knowledge prioritization, and gap identification. The output of KA can also be used as a measurement tool for knowledge asset and also training need analysis [8]. Available, required and missing knowledge identification as well as knowledge management strategy recommendations are also mentioned as benefits of KA [28].

Besides the above benefits two more can be mentioned based on the findings in [29]:

1. KA provides a better understanding of knowledge creation process and
2. KA is a tool for Knowledge transfer evaluation.

Furthermore, KA helps to recognize the organizations readiness for knowledge management implementation and will identify the challenges and problems of KM implementation before falling into them without preparation[25]. KA is a success factor and an important tool for KM effectiveness monitoring[11] and demonstrating its ability to shareholders [6].

**Challenges and Limitations of Knowledge Audit**

Various challenges have been recognized by different researchers in KA. Most of the problems are regarding the lack of the following:

- Culture assessment; in order to evaluate the readiness of organization.
- A clear strategy for starting KA.
- the degree of significance of the things being audited.
- Measurement criteria; to find out the impact of

<table>
<thead>
<tr>
<th>No.</th>
<th>Researchers</th>
<th>Processes</th>
</tr>
</thead>
</table>
2. Data collection  
3. Data processing  
4. Data analysis  
5. Reporting  
6. Summary |
2. Knowledge storage  
3. Knowledge sharing  
4. Knowledge transfer  
5. Knowledge application |
2. Knowledge Audit Techniques  
3. Knowledge Audit Methods  
4. Knowledge Audit Tools |
| 4. | | 1. Knowledge analysis  
2. Knowledge inventory analysis  
3. Knowledge mapping  
4. Competency analysis |
| 5. | | 1. Mapping core business activities  
2. Key knowledge gap identification  
3. Knowledge sharing activity control  
4. Knowledge issues identification  
5. Drafting suitable initiatives |
2. Knowledge inventory analysis  
3. Knowledge flow analysis  
4. Knowledge mapping |
2. Intelligence gathering  
3. Tacit knowledge sharing  
4. Idea lookup |
knowledge management processes.
- Knowledge network analysis; to determine knowledge acquisition methods.
- Recommendations based on KA report.
- Test for finding problems or opportunities[9].

Ganasan and Dominic proposed a model in order to solve the above issues. KA activities are also challenged in terms of return rate and superficial answers considering data gathering techniques, missed or overlooked issues and time-consuming nature of the activity especially when it does not involve automatic tools. Return rate shows the participation of staff and affects knowledge health, while superficial answers may lead to bias in results[8]. The KA was implemented in various organization such as government agencies, telecommunication industries and IT services (refer Table 5). Some other challenges during KA implementation are organizational culture, teamwork, trust among employees and motivation[13]. It is clear that most researchers claim cultural barriers as the challenge to their work on KA. The problem of the organization culture is that knowledge consumption is preferred by employees rather than knowledge construction, which leads to natural bias[30].

On the other hand, selection methods, processes and involvement of team members in KA contribute to be successful factors and guarantee for the KA performance [5]. Besides that, justifying the reasons and benefits of KA in an organization for employees can be considered as an important success factor, in order to improve the organizational culture and increase the cooperation of employees. Leadership, measurement and technology also play a considerable role in KA success [20].

<table>
<thead>
<tr>
<th>Organization</th>
<th>Goals (Usage of KA)</th>
<th>Actor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government sector</td>
<td>- to address and solve the problem on lacking double-loop learning</td>
<td>Executive officers</td>
</tr>
<tr>
<td></td>
<td>- for investigating on knowledge maintenance and as a KM tool</td>
<td>General Manager, Owner</td>
</tr>
<tr>
<td>Telecommunication</td>
<td>- to measure performance and effectiveness of KM</td>
<td>Managers</td>
</tr>
<tr>
<td>Industry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufacturing</td>
<td>- to cater the issues on culture assessment, the degree of significance, measurement criteria, K-network analysis in KM</td>
<td>Employees and managers</td>
</tr>
<tr>
<td>industries</td>
<td>- to recognize how Malaysian organizations put in practices.</td>
<td>Staff, group of focus group</td>
</tr>
<tr>
<td>Transportation</td>
<td>- to propose a systematic approach on an overall framework and customized tool</td>
<td>Knowledge workers (senior train controller (STC), train controllers (TC), communication coordinator (CC), main control system controller (MCSC) and engineering coordinators (EC)</td>
</tr>
<tr>
<td>sector</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IT services</td>
<td>- to use as a diagnostic tool for material of KA</td>
<td>Clients</td>
</tr>
<tr>
<td></td>
<td>- for studying the relation between KA and KM capability</td>
<td>Advanced managers, personnel (IT and Human Resource Management)</td>
</tr>
<tr>
<td></td>
<td>- as taxonomy and knowledge map of KM life-cycle.</td>
<td>Managers</td>
</tr>
<tr>
<td></td>
<td>- to check KM capability factors and comprehensive evaluation (fuzzy and AHP)</td>
<td>Manager (General, IT and Human Resource Management (HRM))</td>
</tr>
<tr>
<td>Education</td>
<td>- to checks for appropriateness of a mixed-method for data collection (quantitative-qualitative techniques)</td>
<td>Librarians</td>
</tr>
<tr>
<td></td>
<td>- for investigating the relation of virtual and face to face networking with knowledge creating and sharing</td>
<td>Staff, ICT coaches and teachers</td>
</tr>
<tr>
<td></td>
<td>- for specifying knowledge requirements of special children (SC) communities</td>
<td>Parents, Educators, Medical Experts and Researchers</td>
</tr>
</tbody>
</table>
III. DISCUSSION

Different approaches have been introduced to implement KA practically. In recent years, some of the researchers have proposed various specific steps in their complex and advanced models and frameworks but have limitations during KA implementation. During the implementation of KA, there are three steps should be considered[10]:

1. Identifying currently existing knowledge in the targeted area
2. Identifying missed knowledge in the targeted area
3. Preparing recommendations to managers for possible improvements

Comparing different researchers’ attitude, most of the KA models focus on a specific orientation including: data, process, core process, knowledge types or categories, knowledge management culture[31] and some expert integrate a number of the above issues into a mixed view to propose their model or approaches. For example, in [8] expressed different KA models and methodologies in various fields such as processes of data gathering, analysis, tools and people involvement.

Generally, a KA framework consists of processes used to guide the planning, and executing the audit of knowledge resources. Most of the authors have introduced a model and framework or simply introduced a tool or some processes for KA but very general and have limited practical value for real-life [21]. For example, a systematic approach of KA has been proposed by [31] which involved a KA culture assessment in the model but not practically involved.

IV. CONCLUSION

Due to the increasing importance of knowledge in recent years and in knowledge based economics, considerable amount of attentions have been drawn to knowledge management. KA is agreed by most of researchers to be one of the most important and even considered as the first step of KM. Most of the researchers agree that KM successful implementation is closely related to a comprehensive KA. KA can enhance KM capability by using evaluating index system. Besides understanding and picturing the current state of organizational knowledge, KA can be used as an indicator to identify the readiness of an organization to implement KM. Referring to the studies, KA could result in knowledge map in some cases, and most importantly, could be helpful in creating recommendations for organizational improvements. In future will be conducting a survey to identify the measurement criteria to discover the impact of knowledge management process.

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REFERENCES


