Knowledge Management: Workshop APO Framework (Case Study: Ministry of Religious Affairs of Republic Indonesia)

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Abstract

Knowledge Management (KM) is the key for success to the organizations to compete in the knowledge economy era. The Efforts of implementation requires a structured methodology within a framework (framework). KM experts who are members of the Asian Productivity Organization (APO) developed a framework of KM and introduced it through the guide of KM implementation through workshops. In the workshop of APO KM Framework consists of five (5) stages, Session of Introduction, Module 1 Recognizing of KM, Module 2 Understanding of KM, Module 3 Introducing of APO KM Framework, and Module 4 conducting the Approach of KM implementation. Stage by the stage in this guidance is done with the aim of KM implementation approaches for government institutions. The results of the activity and a brief description of the workshop process are described in this paper.

Keywords: *Knowledge Management, APO KM Framework, Knowledge Strategy, Knowledge Gap.*

1. Introduction

Knowledge Management (KM) is rapidly growing disciplines in some countries, especially in the developing countries. Indonesia has launched a program of KM implementation as outlined in the Minister of Administrative and Bureaucratic Reform No. 14 of 2011 the Guidelines for Knowledge Management Program [1]. Therefore, it is necessary for the socialization process of how the implementation of KM can be done easily and as expected.

Several methods of implementation of KM models are offered with a variety of comprehensive and stages, usually through the services of a trainer who promoted through the internet. However, the question that arises is how the KM framework models that are easily used for government institutions in Indonesia? Searching through the internet and finally found a KM framework known as APO KM Framework. KM Framework has been implemented in several organizations of small and medium-scale enterprise

(SME's) in APO member countries. It is claimed that the APO KM Framework method is very easy to implement.

After studying the APO KM Framework, each stage to be delivered fairly easy to learn and do. Fairly comprehensive discussion with a description of the systematic structure are given, at least it is easy to understand clearly, even for those who are new to KM. Convenience provide including the provision of facilities for delivery of material, material slides, each slide presented topics, keywords, and examples of cases for comparison.

Next will be presented on the APO KM Framework, the workshop activities and outcomes of the workshop is expected to be a reference to the method of application of KM in government institutions in Indonesia. Several approaches offered but none of them declared correctly, it can be chosen based on the circumstances that will be implemented.

2. KM: APO Framework

As presented by Shigeo Takenaka (2009) in the implementation of practical guidelines APO Framework [2, 3], submitted that: 1) Considered knowledge as a key to growth and innovation, particularly in the Asian Productivity Organization member states (APO). Knowledge is widely agreed to be dependent for growth and productivity, it is a reason why knowledge should be managed well; 2) The success of KM in institutions and practitioners in the countries of Europe and America in 2007, triggering the commissioners (experts) in Asian countries to draw up a complete APO KM Framework to the definition and implementation methodology that is easy to implement, especially in Asian countries. These experts included representatives from the countries of India, Japan, Malaysia, Philippines, China, Singapore, Thailand, Vietnam and APO Secretariat. But KM was originally intended for organizations of small and medium scale

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enterprises (SME's), and 3) the community of practice (experts) build framework based on the practical experience of several countries such as America, Australia, and Europe. The purpose of the APO KM Framework is to provide a general understanding among member countries and emphasized the value of KM for the success of the organization. The framework is simple and comprehensive, leading all elements of KM solutions that are relevant, and serves all reference types of organization that aims to improve performance through the KM. Along with the preparation of the APO KM Framework, other experts who develop guidelines and implementation approach based training framework earlier. The purpose of this guide is to help trainers and consultants to understand KM and provides guidance on the implementation. The guidelines provide comprehensive key messages, trainer's notes, and delivery of transitions between slides presented. Framework and methodology make sure that nothing will be missed, by reducing the variety and complexity of KM to manageable tasks. In addition, these guidelines are summarized the cases of KM implementation in the organizations both small and medium enterprise facilitator in better understanding to the context of SME's as an opposition to large organizations.
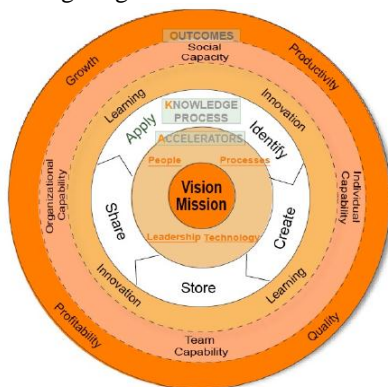

Fig. 1 KM: APO Framework (Source APO).

In Figure 1, the primary key is the vision and mission of the organization as the primary layer. In the vision and mission of the organization is available strategic that can help to identify core competencies needed to achieve business goals. It helps to design KM program deeply, roadmap and action plan for the organization. KM did not work if it does not achieve the business goals, and KM must be aligned with the organizational goals. Next is a layer: Accelerators, Knowledge Process and Outcomes.

Accelerator Layer also consists of a collection of triggers and enabling KM: *Leadership (the driver that propels the KM initiative in the organization), Processes, People, and Technology.*

3. The Research Methods

Stages of the study begins with the study of related literature of an appropriate KM framework and easy to implement in the government institutions. One of the organizations is incorporated in APO, offers a facilitator to guide the implementation of KM easily in The ASEAN countries. The results of operations have been documented in the year 2009 with the administration of the process steps of the workshop are easy to follow and understand by the participants. The workshop conducted for one full day, starting at 8.00 am to 17.00 pm and attended by 30 participants from several representatives of education and training unit of the Ministry of Religious Affairs, which spread in Indonesia.

APO KM framework is divided into five (5) main modules as described previously, namely Workshop Overview, Module 1: Why Knowledge Management?, Module 2: What is Knowledge Management?, Module 3: APO KM Framework, and Module 4: APO KM Implementation Approach. The stages module followed according to the instructions with the duration of the acceleration to avoid the impression of boredom, but the implementation is given time widely to process the paper work in line with the expectations. Workshop facilitated by the LCD projector, laptop, white board, easel sheets, markers, Facilitators 'Guide, Knowledge Management Workshop: Participants' Guide. And teaching methodology is done with Lecture, discussion, and workshops. Each slide thorough finish were guided and given clear instructions to the key message, trainer's notes, and the transition to next slide.

Fig. 2 APO Process Implementation Approach (Source: APO).

In the diversity of approaches applying KM, KM APO module provides a convenient framework known as "4DS" i.e.: Discover, Design, Develop, and Deploy (Figure 2). Discover: conducted to identify the needs and knowledge gaps. In this step identified knowledge needed to build organizational competencies, by matching the needs with available knowledge in the organization then identified gaps. Design: KM is used to design a pilot project was the result of the identification. The design is intended for the solution of the gaps identified. Develop: the process of

implementing KM pilot project indeed, and Deploy: the process of wider application based KM initiatives in organizations.

4. Results and Discussion

The workshop begins with a presentation of understanding of KM, and comprehensively outlines the importance of KM for government institutions (in accordance with the policy of the Minister of Administrative Reforms in order), then the translation is widely associated APO KM Framework, and the last is the workshop by filling some job work instructor guided by stages. The stages are Introduction Session, Module 1 Understanding of KM, KM Understanding Module 2, Module 3 Introduces APO KM Framework and Application Module 4 conducting the Approach of KM implementation.

4.1 APO Framework Module

In this session, It is introduced the purpose of the application of KM in the organization. Nowadays, the world of economy emphasizes strongly through the knowledge and information. Therefore, knowledge transfer, knowledge sharing, and application of knowledge is increased very important. Knowledge becomes the value of intangible assets, and is believed to be a major factor for the product, capital and labor (as a component). Rapid changes cause the organization to be more flexible in the face of challenges. Therefore, the construction of knowledge generation capability within the organization to help the organization find new challenges and can retain the relevant market

Since information and knowledge are now the key trigger for competitive advantage, the question is how they can be used as tools to increase operational performance through the effective and innovative. KM Benefits for individuals, teams, organizations, and communities are expected to provide the initiative to improve the capabilities of individual, team, and finally the social capacity [4]. And in the end will give an output that can increase productivity, improve product quality and service, as well as contribute to the growth and profitability.

Module 1 Understanding KM: In this module presented principle "ever green" is a principle known in the business world as a concept to constantly grow and expand through productivity initiatives and quality that can be realized through effective KM. From some of the KM concept and process, introduced by the APO KM definition of "KM is an integrated approach to create, share and apply knowledge to improve the productivity, profitability, and

growth." Also in this session presented understanding the difference between information and knowledge, type of knowledge, knowledge assets, Knowledge Process, KM Tools and Technology, KM Taxonomy and organization characteristics enabled-Knowledge (Knowledge-Enabled). KM is emphasized as the basic processes that need to be done in five steps identify, create, store, share, and apply.

Module 2 Understanding KM Tools: In understanding KM tools, it is described the use of technology that is widely used for the development of the KM process. Some KM technology applications are continuous rapidly evolving (Figure 3), which is unnoticed always being used by the participants. Here is described by some assistive technologies KM through web based and role (Table 3).

Fig. 3 KM Technologies (Source: APO).

Module 3 Knowing the APO Framework: From several countries Republic of China, India, Japan, Malaysia, the Philippines, Singapore, Thailand, and Vietnam, and is managed by the APO Secretariat. Framework has been tested with several platforms (The APQC framework, the European framework, and framework Australian) and corrected before being introduced gradually. The main purposes of the current developed framework: First, it should be easily understood by the APO member countries, the framework can independently explain (self-explanatory); and Second, it should be applied to organizations in the countries of Asia, especially in small and medium-scale organizations.

This framework is specifically written for SME's organization as a KM initiative for the organization with an emphasis on an integrated approach, multi-disciplinary; recognize the importance of *leadership, people, process, and technology* in the application of KM, with the aim of improving the productivity, profitability, and growth. The term "growth" aimed at socio-economic development for non-profit organization.

Module 4 Doing KM Implementation Approach: The fifth session of workshop practice by doing several activities including charging papers were individually distributed and then group (Figure 4), to identify the needs and knowledge gaps in the organization.

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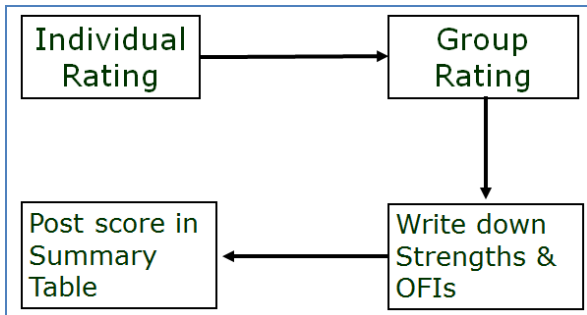www.IJCSI.org

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Fig. 4 Stages in the process of filling the paper work in a workshop

Every individual and group is given a question sheet with 7 categories: audit (Table 1):

Table 1: Seven Audit Category.

1 Cat 1.0: KM Leadership
1.1 Evaluate the leadership organization's ability to respond to the challenge of economic and society basis knowledge by:
1.1.1 place the right policies and KM strategy in place, and,
1.1.2 guide and sustain after the starting / improving KM practices
1.2 Knowledge Leadership
1.2.1 knowledge sharing and collaboration
1.2.2 succession planning, training of knowledge workers
1.2.3 review and improvement of organizational performance
1.3. Knowledge Strategy
1.3.1 Knowledge vision and strategy
1.3.2 KM policy
1.3.3 Knowledge objectives
1.3.4 organizational arrangements
1.3.5 budget allocation
1.3.6 awards and recognition
2. Cat 2.0: Processes
2.1 Description of how knowledge is used to manage, implemented, and enhanced the organization's key work process.
3. Cat 3.0: People
3.1 Test the ability of the organization to create and maintain:
3.1.1 knowledge-based organizational culture
3.1.2 collaborative environment organization-wide knowledge sharing
3.1.3 learning organization
3.1.4 people is a key factor of KM initiatives
3.2. Development of knowledge workers
3.2.1 employee education, training and development
3.2.2 motivation and career development
3.3 Sharing of knowledge
3.3.1 knowledge networks
3.3.2 knowledge exchange
4. Cat 4.0: Technology
4.1. Review the organization's ability to:
4.1.1 develop and provide knowledge-based solutions
4.1.2 create and maintain a collaborative environment
to widely share knowledge organization
4.2. Quality of hardware and software systems
4.2.1 Internet, intranet, website, portal
4.2.2 accessibility, availability, reliability, user-friendly
4.2.3 Content management
4.3. Information data and knowledge quality
4.3.1 Accuracy, integrity, reliability, timeliness, security, confidentiality
5. Cat 5.0: Knowledge Processes
5.1 Assessment organization's ability to:
5.1.1 manage and maximize the value of the intellectual capital of the organization
5.1.2 develop and provide knowledge-based programs and services
5.1.3 managing customer / stakeholder knowledge to create value and intellectual capital of the organization
5.2. Identifying, creating, and storing knowledge
5.2.1 identification and documentation
5.2.2 stock and flow
5.2.3 the codification of tacit knowledge
5.2.4 benchmarking
5.3. Sharing and applying knowledge
5.3.1 Transfer of workers' knowledge
5.3.2 transfer of relevant knowledge from and to clients, suppliers, partners, and other stakeholders
5.3.3 Identify and share best practices
6. Cat 6.0: Learning and Innovation
6.1 Determine the ability of the organization to encourage, support, and reinforce learning and innovation through a systematic process of knowledge
6.2. Apply the values of learning and innovation
6.2.1 The management is open to receive new tools and techniques
6.2.2 Management is open to new ideas
6.2.3 The error is seen as an opportunity to learn
6.2.4 cross-functional teams to handle the attention and cross-cutting issues
6.2.5 Incentives for knowledge sharing
7. Cat 7.0: Result of KM
7.1 Measure the ability of the organization to:
7.1.1 enhance value for customers through improving products and services
7.1.2 increasing the productivity and effectiveness in the use of resources
7.1.3 improve the bottom-line and sustain growth, as a result of learning and innovation

From Table 1, each category has a different question, but refers to the content according to the table. Each question is given a score on a scale of 1 to 5, which is 1 = very poor, 2 = poor, 3 = moderate, 4 = good, and 5 = very well. Total number of questions as much as 42, with a total score of 210. Each category has a maximum value of 30, with the number of questions per category is 6 items. Furthermore, the individual values are incorporated in the value of the group by finding the average. Each record included the highest value in the column *Strength*, and given the information in the column *opportunities for*

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improvement. The end result in the form of a matrix is added up into a total of matrix categories, each group, the total score, and the average score, then the value of the matrix is illustrated in the radar graph (Figure 5).
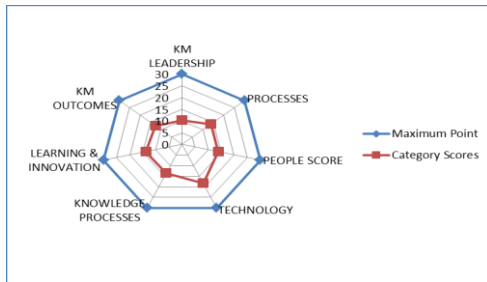

Fig. 5 Final results based on 7 audit criteria matrix workshops

As shown in Figure 5, it can be obtained the highest value reached by category *Technology* (18.27), while the lowest value by *KM Leadership* (10.36), others are respectively *KM Process* (13.93), *People* (14. 00), *Knowledge Process* (13.57), *Learning & Innovation* (13.80), and *KM Outcomes* (12.70). Of the total *mean* score (96.63) which is obtained by **KM Readiness** in the range of **84-125** equals to **KM Initiation.** It means just beginning to recognize the need for KM. The other range is 42-83--*KM Reaction*, 126-146--*KM Introduction (Expansion),* range 147-188--*KM Refinement*, and 189-210--*KM Maturity* (Table 2).

Table 2: Interval Point KM Readiness (source: APO).

Interval Point	*KM Readiness*	*Remark*
42-83	KM Reaction	Did not realize what KM was and its importance in improving the productivity and competitiveness
84-125	**KM Initiation**	**Just beginning to recognize the need for KM**
126-146	KM Introduction (Expansion)	KM practices in some areas
147-188	KM Refinement	Implementation of KM is continuously evaluated and improved
189-210	KM Maturity	KM is the mainstream (mainstream) in institutions

Next Group Significant Finding Matrix (matrix to determine the strengths and opportunities for improvement of knowledge) by category are presented in Table 3.

Table 3: *Group Significant Finding Matrix* results of the workshop.

KNOWLEDGE STRENGTHS AND OPPORTUNITIES FOR IMPROVEMENT MATRIX		
Category	*Strengths*	*Opportunities for Improvement*
Cat 1. KM Leadership	•The organization has a policy that supports the development of knowledge	•Organizational support for employees creates new works •Realization of policy
	•A knowledge sharing activities •The process of communicative •The organization has a visionary	support •Development of curriculum & syllabus in leadership training with content ESQ (Emotional, Social, Quality)
Cat 2. Processes	•Technology as the main factor in the process •the organization has designed a working system •evaluation is conducted continuously •designing organizational systems for stakeholder satisfaction	•disclosure of the information age the opportunity of MI •the need for follow-up evaluation (commitment) •creation of applications / new technology to support performance
Cat 3. People	•evaluation to improve performance and service, improving training and human resources to achieve performance •the organization has the staff competency database •the help for a learning task	•optimum empowerment knowledge transfer to knowledge sharing •updating curriculum course that supports the achievement of effective training
Cat 4. Technology	•organizations consider risk taking as a learning opportunity •Management has built adequate infrastructure	•change to be better, learning by practice, by doing •increase optimal and develop facilities and infrastructure technology for information access for employees
Cat 5. Knowledge Processes	•organizations to do best practice and learning •benchmarking activities conducted within and outside the organization •Training journal •benchmarking activities conducted within and outside the organization well	•provide an opportunity to continue learning •media diversification •devise strategies to solve a problem (e.g., the establishment of a unit for specific problems)
Cat 6. Learning & Innovation	•each person already has access to a computer •articulate the organization and continue to	•good access leads to increased knowledge and HR •needs to be a policy of reward and punishment

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	strengthen the values of learning • The new training method • continue to strengthen the organization's values and innovative learning	• create innovations in their respective work units to support organizational performance
Cat 7. KM Outcomes	• organizations can achieve high productivity with effective, efficient resource • the organization has improved the quality of services	• allows saving time and costs, by optimizing HR

Here in after related exposure KM implementation approaches described several methods that can be done. The problem then arises when the participants of the workshop asked some quite critical questions; such as why we have to learn KM? Are there any advantages to us, how can we (workshop participants) to implement KM, because we are only conditionally executing level, not the strategic level. The answer to that question rationally convinces participants to know and understand the role of KM within the institution based on its importance to the individual, team, and organization both internally and externally.

Critical questions from workshop participants were related to the implementation of KM approach is relevant to the conditions of the participants, who are generally at the operational level. However, these conditions did not dampen the purpose of implementation of KM, that the application can be done with one of the Bottom Up approaches. Here is the illustration taken from the original of document APO Framework, of the best understanding of the alternative approaches that can be undertaken by organizations to implement KM (Table 4).

Table 4: An alternative approach of KM in organizations (Source: APO).

Reference [5]:
Thomas H. Davenport and Laurence Prusak, "How Organizations Manage What They Know," Harvard Business School Press, Boston, Massachusetts; 1998.

Reference[6,7]:
Melissie Clemmons Rumizen, Ph.D, "The Complete Idiot's Guide to Knowledge Management," John A. Woods, CWL Publishing Enterprises; 2002.
Wenger, McDermott & Snyder, "Cultivating Communities of Practice," HBS Press; 2002.

Reference [8,9]:
Murray E. Jennex, "Case Studies in Knowledge Management," Idea Group Publishing; 2005.
www.adb.org/Knowledge-Management (Asian Development Bank's web site).

Reference[10]:
European KM Forum IST Project No. 2000-26393, D3.1 Standardized KM Implementation Approach; 2001.

Reference[11]:
Kathleen Foley Curley and Barbara Kivowitz, "The Manager's Pocket Guide to Knowledge Management," HRD Press, Inc.; 2001.

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Reference[11]:
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In the guidance document given time during the 5 (five days) for the workshop, while the implementation is done in a day, therefore the possibility of understanding the achievements and results of a representative is constraint in the optimal information acquisition. But this can't be used as a benchmark inaccuracies of research data and facts obtained, because the participants were quite representative and responsive, and critical in understanding the purpose of the workshop. Although the level of the participants is in operational positions, but a challenge in the process of the workshop, so that the method of approach is bottom-up. Furthermore, a general description of knowledge gaps related to KM strategy, KM vision, KM Objectives (Table 5), as well as KM Strategy, Strategy Outcome Measure, and KM programs/initiatives & Practice (Table 6).

Table 5: Strategic knowledge related to KM vision and objectives.

Key Strategy knowledge gap	KM Vision	KM Objectives
• Team work has not been effective	• effectiveness of team work through a quality control group	• team work is able to improve education and training services training to effectively provide to effectively serve the training participants
• tacit knowledge of the members of the organization on systems, processes, and procedures are clear, effective, efficient and scalable undocumented	• facilitate the fusion of knowledge about the system, processes, work procedures clearly	• performance indicators, how to measure and evaluate outcomes and processes
• officials tend to have the mindset of the authorities and not as a public servant	• facilitate change mindset apparatus	• possible to change the mindset apparatus, effectively from the mindset of the ruling mindset of public servants
• unavailability of	• facilitate medical	• medical assistant/

the knowledge of health care workers (clinic), so participants do not receive training in optimal health | personnel and health care facilities such as clinics | personnel who are competent in serving the training participants

• mechanism / technical supervision, planning, monitoring the consistency of supervision, follow-up, analysis of surveillance, monitoring team	• realize the quality of implementation of activities	• Identification of the position and role of the supervisory organization, formula control strategies, strategy implementation supervision, and supervisory control strategy.

Table 6: Strategic knowledge related to outcome measure, programs/initiatives and practice.

KM strategy	Strategy Outcome measure	KM Program/ Initiatives & Practice
• establish team work in a quality control group to evaluate the constraints in the implementation of organizational performance	• make an assessment of the performance	
• systematically build a system, processes and procedures are clear, effective, efficient, scalable and in line with good governance principle	• practice percentage measure on systems, processes, and clear procedures, effective, efficient and scalable	• individual: training, team: knowledge sharing, collaboration, intra organization: R & D, internal BM, inter organization: BM.
• improve recruitment patterns, organizing training on public services, improving the pattern of supervision, improve the system of reward / remuneration	• realization apparatus oriented public service, discipline, integrity and empathy etc.	• workshop service delivery, excellent service training, psychological tests/ psycho test/scholastic (individual), internal benchmarking the recruitment process through the assessment center team
• create a collaboration with referral clinic involving health insurance (medical personnel), allowing the sharing of medical knowledge to the organizers of the	• accommodate healthcare training participants	• provide training on basic medical knowledge for education and training providers (individual and team level), budgeted post fatherly provision of health care facilities, cooperate with

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training (the committee) on the basis of medical knowledge		referral clinic (international organization)
• oversight internal and external audit	• report monitoring in accordance with standard operating procedures (SOP)	• unit work monitoring, socialization, preparation of monitoring reports

Based on Table 5 and Table 6, its can be grouped KM strategy gap analysis, into groups: 1) team work who can work effectively in solving problems through work units to improve the ability of workers, 2) Standard operating procedures are carried out effectively and efficient for documenting tacit employees, 3) the policy makers as an institution that is expected to change the mindset of the public servant, 4) the existence of optimal medical care with a system that can be managed through the use of technology, and 5) monitoring the quality control of the planning group and implementation of the organization.

5. Conclusions

From the results, it can be concluded that exposure to APO KM Framework method can be applied to the organization of government institutions, with significant results and an increased understanding of the importance of implementing KM in institution [12]. Based on the assessment matrix acquired sufficient technology components, but the drawback is the leadership component. The total range of scores at the level of KM initiatives, with the conclusion KM was already identified and ready to be applied. It's just an alternative methodology that can be done through a bottom up approach, because the participants of the workshop are at the operational level.

Some activities that reflect the KM process has been going on such as in many forums, discussion, and collaboration with some scattered units to share knowledge and experiences. It is supported by an understanding of some of KM technologies outlined in Module 2 Understanding KM. However, the organizational knowledge, at a higher level KM has not been managed properly. This is due to the unequal distribution of technology infrastructure available in each unit, as well as a lack of understanding of KM in depth to be a part of improving the performance, productivity, and growth.

Constraints faced mainly because he did not understand the comprehensive vision and mission of the organization due to lack of socialization of the top level, but it is not a competition with other organizations because the organization is a government institution. Thus, achievement of the workshop cannot represent the organization as a whole, but in the process of implementation of KM, KM Framework APO method is very easy to apply and do. Further research is expected to represent the application of APO KM Framework on several levels of the organization.

References

[1] The Ministry of State for Administrative Reform and Bureaucratic Reform of Republic of Indonesia. Minister of State for Administrative Reform and Bureaucratic Reform No. 14, 2011 on Guidelines for Knowledge Management Program, 2011.

[2] Asian Productivity Organization. ISBN: 92-833-7087-2. 2009.

[3] Karl-Erik Sveiby, "Knowledge Management–Lessons from the Pioneers", 2001. http://www.providersedge.com/docs/km_articles/km_-_lessons_from_the_pioneers.pdf, accessed February 28th 2013.

[4] D. I. Sensuse, and Lukman, "Knowledge Management Model and Strategy of Genetic Resources and Traditional Knowledge in Indonesia", IJCSI International Journal of Computer Science Issues, Vol. 9, Issue 2, No 2, March, 2012.

[5] T.H. Davenport and L. Prusak, How Organizations Manage What They Know, Harvard Business School Press, Boston, Massachusetts, 1998.

[6] M. C. Rumizen, The Complete Idiot's Guide to Knowledge Management, John A. Woods, CWL Publishing Enterprises, 2002.

[7] Wenger, McDermott and Snyder, Cultivating Communities of Practice, HBS Press; 2002.

[8] Murray E. Jennex, Case Studies in Knowledge Management, Idea Group Publishing; 2005.

[9] www.adb.org/Knowledge-Management(Asian Development Bank's web site), accessed February 28th 2013.

[10] European KM Forum IST Project No. 2000-26393, D3.1 Standardized KM Implementation Approach, 2001.

[11] K. F. Curley and B. Kivowitz, The Manager's Pocket Guide to Knowledge Management, HRD Press, Inc., 2001.

[12] M.E. Jennex, Case Studies in Knowledge Management, Idea Group Publishing, 2005.

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