

## The Role of Knowledge Management on Individu, the Community and the Organization

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**Abstract:** Adoption of knowledge management (KM) has become the emerging agenda in developing business strategies. The purpose of this paper is to contribute to an emerging debate centred on the ways in which knowledge management (KM) might be give benefits and, in turn, how KM practice might be improved.

Still slightly companies in particular will benefit from the application of KM for enhanced decision support, expanded human performance, and sustained competitive advantage. Using quantitative design, the authors explore the benefits of KM in business systems.

In this study, we attempted to explore the underlying dimensions of benefits of KM using a well-researched survey instrument. Using principal-components factor analysis, we discovered three main factors among the variables, Benefits of KM For the individual; Benefits of KM For the community of practice; Benefits of KM For the organization.

**Keywords:** Knowledge Management, Individual, Community, Organization

### I. Introduction

Knowledge management as an managerial innovation has been with used for further than a decade. As a discipline, it has extended a state of development where we can at the moment recognize the principles, practices, and tools that make it unique. As a discourse, it has bring about new conceptions and categories for us to make sense of the many important ways that organizations use knowledge to create value. The extremely varied roots that gave life to KM and continues to be its basis today. Figure 1 illustrates some of the diverse disciplines that have contributed to KM.

Figure 1. The diverse disciplines that have contributed to KM



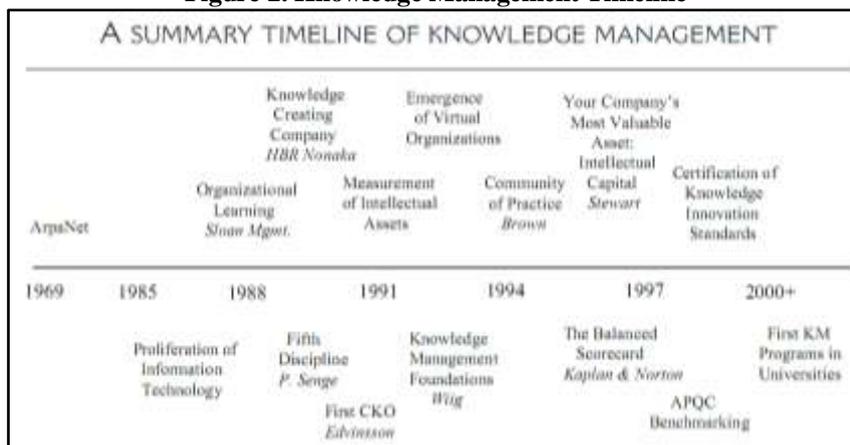
Source: Dalkir, 2005

Assumed the richness of ideas and enhancements that have emerged under the rulebook of knowledge management, and given the magnificent interest in schools and organizations to study about the substance, it is something of a mystery that there are so few textbooks available.

A momentary history of knowledge management thoughts is strained, observing that much of KM existed formerly the certain term came into general practice. The deficiency of arrangement over what establishes a good definition of KM is addressed, and the concept analysis method is designated as a resources of enlightening the theoreticalmisunderstanding that persists over undeniably what KM is. The multidisciplinary

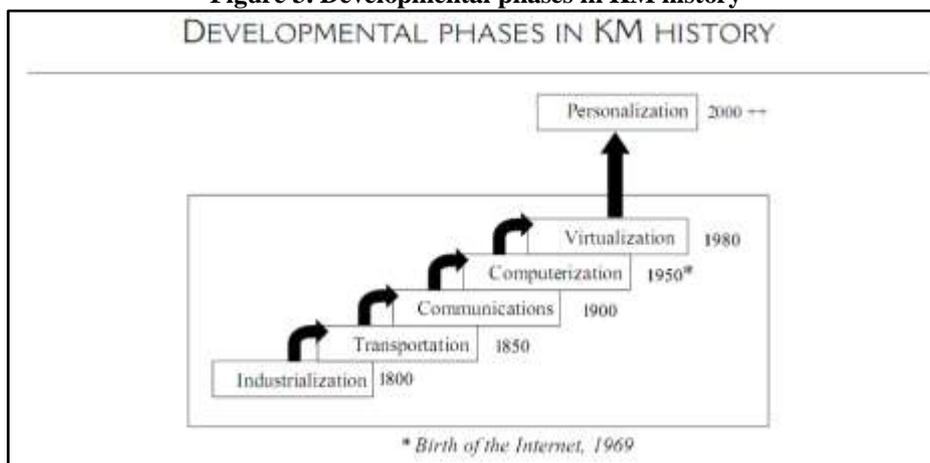
origins of KM are itemized, together with their influences to the discipline. Figure 2. and Figure 3. show an extract of Knowledge management timeline and developmental phases in KM history.

**Figure 2. Knowledge Management Timeline**



Source: Dalkir, 2005

**Figure 3. Developmental phases in KM history**



Source: Dalkir, 2005

The two most imperative forms of knowledge, tacit and explicit, are compared and illustrious as shown in Table 1. The importance of KM at present for individuals, for communities of practice, and for organizations are designated, together with the evolving KM roles and responsibilities necessary to confirm prosperous KM implementations.

COMPARISON OF PROPERTIES OF TACIT VS. EXPLICIT KNOWLEDGE	
Properties of Tacit Knowledge	Properties of Explicit Knowledge
Ability to adapt, to deal with new and exceptional situations	Ability to disseminate, to reproduce, to access, and to reapply throughout the organization
Expertise, know-how, know-why, and care-why	Ability to teach, to train
Ability to collaborate, to share a vision, to transmit a culture	Ability to organize, to systematize; to translate a vision into a mission statement, into operational guidelines
Coaching and mentoring to transfer experiential knowledge on a one-to-one, face-to-face basis	Transfer of knowledge via products, services, and documented processes

**Table1.**

Source: Dalkir, 2005

The capability to manage knowledge is becoming progressively more crucial in today's knowledge economy. The creation and diffusion of knowledge ought to turn into ever more essential elements in competitiveness. More and more, knowledge is being considered as a valuable commodity that is implanted in products (specially high-technology goods) also in the tacit knowledge of extremely mobile organizations. Even though knowledge is gradually being viewed as a commodity or an intellectual asset, it retains some inconsistent characteristics that are totally different from those of other valuable commodities.

Knowledge management (KM) was initially defined as the process of applying a systematic approach to the capture, structure, management, and dissemination of knowledge throughout an organization in order to work faster, reuse best practices, and reduce costly rework from project to project (Nonaka and Takeuchi, 1995).

Many knowledge management (KM) determinations have been mostly concerned with capturing, codifying, and sharing the knowledge thought by individuals in organizations. Although there is still a deficiency of agreement over what organizes a good definition of KM, there is widespread agreement as to the objectives of an organization that commences KM. Nickols (2000) reviews these objectives as follows: "the basic aim of knowledge management is to leverage knowledge to the organization's advantage." Some of management's motives are obvious: the loss of skilled people through turnover, pressures to avoid reinventing the wheel, pressures for organization-wide innovations in processes as well as products, management of risk, and the accelerating rate at which new knowledge is being created. Some typical knowledge management objectives are to:

- Facilitate a smooth changeover from those retiring to their successors who are recruited to fill their positions.
- Minimize harm of corporate memory due to slow destruction and retirement.
- Pinpoint critical resources and critical areas of knowledge so that the corporation "knows what it knows and does it well—and why."
- Backlog a toolkit of methods that can be used with individuals, with groups, and with the organization to stem the potential loss of intellectual capital. (Dalkir, 2005)

The establishment of the Internet and the World Wide Web have made unbounded sources of knowledge available to us all. Gurus are heralding the start of the Knowledge Age supplanting the Industrial Era. Forty years ago, nearly half of all workers in industrialized countries were making or helping to make things; today that proportion is down to 20% (Drucker, 1994; Bart, 2000). Employment-demanding manufacturing with a large pool of comparatively cheap, comparatively homogeneous work and hierarchical management has particular way to knowledge-based organizations. There are smaller quantity people doing more work. Organizational chain of command are being positioned aside as knowledge work calls for more collaboration. The only sustainable advance a firm has comes from what it collectively knows, how efficiently it uses what it knows, and how quickly it acquires and uses new knowledge (Davenport and Prusak, 1998). An organization in the Knowledge Age is one that learns, remembers, and acts based on the best available information, knowledge, and know-how (Dalkir, 2005).

An unceremonious assessment conducted by Dalkir identified over 100 published definitions of knowledge management, and of these, at least 72 could be considered very good! Clearly, KM is a multidisciplinary field of study that shields a lot of ground. This finding ought to not be astounding, for spread on knowledge to work is essential to most commercial actions. Conversely, the field of KM sort out suffer from the "Three Blind Men and an Elephant" syndrome. In fact, there are likely more than three distinct perspectives on KM, and each hints to a different extrapolation and a dissimilar definition (Dalkir, 2005).

From the business perspective, Knowledge management is a business activity with two principal characteristics:

- Handling the knowledge component of business activities as an explicit concern of business reflected in strategy, policy, and practice at all levels of the organization; and, constructing a direct connection between an organization's intellectual assets—both explicit (recorded) and tacit (personal know-how)—and positive business results. (Barclay and Murray, 1997)
- Knowledge management is a collaborative and integrated methodology to the creation, capture, organization, access and use of an enterprise's intellectual assets. (Grey, 1996)

From the cognitive science or knowledge science perception:

- Knowledge—the awareness, identifications, and applied know-how that we all possess—is the essential resource that allows us to gathering intelligently. Over time, considerable knowledge is also transformed to other manifestations—such as books, technology, practices, and traditions—within organizations of all kinds and in society in general. These changes end result in cumulated capability and, when used appropriately, greater than before effectiveness. Knowledge is one, if not THE, principal element that styles personal, organizational, and societal intelligent behavior possible. (Wiig, 1993)

And, from the process/technology perspective:

- Knowledge management is the idea under which information is turned into actionable knowledge and made available readily in an operational form to the people who can apply it. (Information Week, Sept. 1, 2003)
- Controlling communal wisdom to increase approachability and innovation. (Carl Frappaolo, Delphi Group, Boston, posted at <http://www.destinationkm.com>)
- An organized methodology to manage the use of information appropriate to arrange for an unremitting flow of Knowledge to the right user at the right time supporting efficient and effective decision making in their daily business. (Steve Ward, Northrop Grumman, posted at <http://www.destinationkm.com>)
- A knowledge management system is a virtual depository for appropriate information which is critical to tasks performed day-to-day by organizational knowledge workers. (What Is KM?, posted at <http://www.knowledgeshop.com>)

## **II. Research For Benefits Of Knowledge Management**

Major organizations in Europe, Japan, and the United States have led the way in introducing and implementing knowledge management business processes and repeatable, structured methodologies. But small companies in particular will benefit from the application of KM for enhanced decision support, expanded human performance, and sustained competitive advantage. It is increasingly imperative for small companies to leverage their collective intellect for business development achievement and superlative, long-term client support (Frey, 2002).

In general, after individuals gather information, they interpret it from their experience, skills and competences. So, their interpretations could be different from each other. Possibly, for those who have insufficient competences, information still remains as information. As organizations need to turn information into knowledge, both organizations and individuals would benefit from knowledge exchange (Yang and Wan, 2004).

The benefits of using KM are high because they include the ability of organizations to be flexible and to respond more quickly to changing market conditions, and the capability to be more innovative as well as advance decision making and productivity (Harris, 1996). Measuring the expected benefits of KM is a difficult task because its values will not be effectively assessed without a deep understanding of organizational operations and a continual and long-term monitor of the occurred changes (Wu and Lin, 2009).

Gore and Gore (1999) prescribed a knowledge management framework which can underpin the adoption of KM in an organization. They are three important aspects which organizations should consider in implementing KM, and the first is the exploitation of existing explicit knowledge in which activities such as reviewing the information flow and examining the utilization of current information bases would be beneficial to the organization.

Although KM offers opportunities to provision the change of processes between units, the greatest benefits promised by KM come as innovation. With high levels of knowledge integration empowering people to deeply understand one another's work, people are able to explore the root causes of problems, question assumptions and then develop novel solutions to problems that markedly improve current practices. KM does not emphasize measurement by fact very much. However, the measurement of KM benefits is still necessary for an organization to guarantee that the KM objective is being fulfilled. (Hsu and Shen, 2005).

Alavi and Leidner study put forward that knowledge management benefits will only be realized by organizations that are not only technologically expert, but that make the long term investment to arrange in a line the cultural, managerial and organizational elements for knowledge management (Alavi and Leidner, 1999). The benefits from the KM effort would be high or low depending on whether or not the KM effort is aligned with firm efficiency (Sabherwal and Sabherwal, 2005).

In order to advance utilize KM for continuous business operations and decision making, organizations must recognize the benefit of implementing KM and its current position of KM inclination (Lee and Lan, 2011). While potential benefits of KM have been addressed academically in the literature, less is acknowledged about exactly how these can be realized in practice (Benbya and Belbaly, 2005). The integrated KM system can offer organization the following three most important benefits: (1) help organization to capture, organize, store, transfer, distribute, and use the internal and external knowledge on business line implementation; (2) make valuable knowledge of individual understanding decompose, externalize and accumulate into organization knowledge; (3) make all employees be able to share organizational knowledge in business implementation process (Li et al., 2006).

The benefits claimed by organisations, as derived from applying KM, are many and relate to most areas of organisation performance and employee emancipation (McAdam and McCreedy, 2008). In datum, knowledge management stays wide-ranging in accumulation to includes leveraging the value of the organizational knowledge also know-how that mount up over time. This approach is much more complete and user-centered

and begins not using an examination of present documents but by way of a needs study to enhanced apprehend how improved knowledge sharing may well benefit specific individuals, groups, and the organization as a entire. Successful knowledge-sharing illustrations are gathered and documented in the form of lessons learned and best practices, and these then custom the core of organizational stories (Dalkir, 2005). After all, if knowledge is not positioned to use to benefit the individual, the community of practice, and/or the organization, by that point knowledge management has unsuccessful.

### **III. Methods**

A survey instrument originally adopted from Dalkir (2005) was used in the study. This instrument featured 16 statements geared to measure benefits of KM. Knowledge management provides benefits to individual employees, to communities of practice, and to the organization itself. This three-tiered view of KM helps emphasize why KM is important today.

- Q1: Builds a sense of community bonds within the organization.
- Q2: Builds organizational memory.
- Q3: Facilitates more effective networking and collaboration.
- Q4: Cross-fertilizes ideas and increases opportunities for innovation.
- Q5: Develops professional skills.
- Q6: Develops a common language.
- Q7: Diffuses best practices.
- Q8: Develops a professional code of ethics that members can follow.
- Q9: Enables organizations to stay ahead of the competition better.
- Q10: Helps people do their jobs and save time through better decision making and problem solving.
- Q11: Helps drive strategy.
- Q12: Helps people to keep up to date.
- Q13: Improves knowledge embedded in products and services.
- Q14: Promotes peer-to-peer mentoring.
- Q15: Provides challenges and opportunities to contribute.
- Q16: Solves problems quickly.

The scale comprised of statements offering respondents the option to agree or disagree on a five-point scale. Higher scores point to a higher level of benefits of KM. This instrument was used because it contains many questions that fit the exploratory nature and research purpose of this paper. That is, we want to understand the underlying dimensions of benefits of KM without a priori conception of what would be the revealed dimensions. Factor analytic method is suitable for such investigations.

Data were collected from randomly selected employee in Surabaya. The sample was chosen by supervisors on factory who were asked randomly. The approach used was therefore one of convenient sampling.

### **IV. Data Instrument And Reliability**

The first step in the analysis of the study data was to establish the reliability of the questionnaire. This information sheds light on the internal consistency of the questionnaire and enables a more efficient design of this instrument by eliminating the least reliable items. The benefit is an end product or instrument that is shorter, but has improved reliability (Carmine and Zellner, 1980). There are 16 items on benefits of KM, rated on a five-point Likert scale, arranged from very unlikely to very likely.

Reliability was tested by a Cronbach alpha coefficient, as well as the split half approach. While 200 subjects answered the questionnaire, 33 did not answer some or nearly all of the questions and were initially eliminated from the analysis. Cronbach alpha was 0.807.

#### **Reliability Statistics**

Cronbach's Alpha	N of Items
,807	16

A reliability analysis was also pursued using the split half reliability approach. Kaiser-Meyer-Olkin Measure of Sampling Adequacy 0.834 for an equal length instrument was generated, with significance at the 0.0001 level.

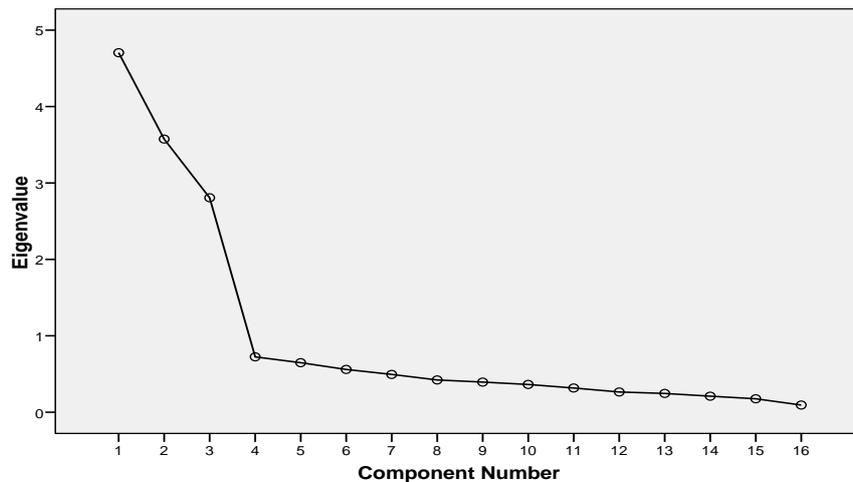
**KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,834
Bartlett's Test of Sphericity	Approx. Chi-Square	1683,931
	df	120
	Sig.	,000

**V. Results**

Using the traditional principal components factor analysis we generated a screeplot from the factor analysis that indicated that the majority of variation could be explained by the first three factors. The scree plot is shown in Figure 1.

**Scree Plot**



As we can clearly see in the scree plot between factors three and four, a contribution to explain variation has diminished significantly. Three factors are, thus, used to maximize the explanatory power. The three factors accounted for 69,28 percent of the cumulative variance. Table II summarizes the explain variation results from the factor analysis of the pool of 16 items.

**Total Variance Explained**

Compt	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4,705	29,405	29,405	4,705	29,405	29,405
2	3,574	22,337	51,742	3,574	22,337	51,742
3	2,806	17,540	69,283	2,806	17,540	69,283
4	,724	4,527	73,809			
5	,648	4,052	77,861			
6	,560	3,500	81,360			
7	,495	3,092	84,452			
16	,094	,586	100,000			

Extraction Method: Principal Component Analysis.

**Component Matrix(a)**

	Component		
	1	2	3
q1			,856
q2	,887		
q3		,811	
q4	,884		

q5		,865	
q6		,862	
q7	,678		
q8		,802	
q9	,811		
q10			,777
q11	,861		
q12			,803
q13	,804		
q14		,783	
q15			,815
q16	,648		

Extraction Method: Principal Component Analysis.

Since we had identified three key factors, it is important to determine which questionnaire items have the highest loadings within each factor. As we were identifying orthogonal items from the set as a way of classifying the factor, we arrived at the three categorizations of the subjects who responded to this benefits of KM questionnaire in accordance with Dalkir, 2005.

*Factor 1: Benefits of KM For the individual:*

- a) Helps people do their jobs and save time through better decision making and problem solving.
- b) Builds a sense of community bonds within the organization.
- c) Helps people to keep up to date.
- d) Provides challenges and opportunities to contribute.

*Factor 2: Benefits of KM For the community of practice:*

- a) Develops professional skills.
- b) Promotes peer-to-peer mentoring.
- c) Facilitates more effective networking and collaboration.
- d) Develops a professional code of ethics that members can follow.
- e) Develops a common language.

*Factor 3: Benefits of KM For the organization:*

- a) Helps drive strategy.
- b) Solves problems quickly.
- c) Diffuses best practices.
- d) Improves knowledge embedded in products and services.
- e) Cross-fertilizes ideas and increases opportunities for innovation.
- f) Enables organizations to stay ahead of the competition better.
- g) Builds organizational memory.

## VI. Conclusions And Discussions

In this study, we attempted to explore the underlying dimensions of benefits of KM using a well-researched survey instrument. Using principal-components factor analysis, we discovered three main factors among the variables:

- (1) *Benefits of KM For the individual;*
- (2) *Benefits of KM For the community of practice;*
- (3) *Benefits of KM For the organization;*

Our results do agree with past studies showing that age is positively related to Knowledge Management benefits for business (Dalkir, 2005). This study, thus, contributed to the literature by suggesting underlying dimensions of Knowledge Management benefits. Future studies may also want to examine if the same underlying dimensions of Knowledge Management benefits in others circumstances.

Inferences from this study may be limited to the sample group from which data were taken, employee in Surabaya city. The fact that many of them are contract workers, different educational backgrounds and socio-culturally diverse. More studies need to be conducted with this instrument or others that examine Knowledge Management benefits across various age groups, professions, regions, income classes, etc. In this way, a better understanding of the complex Knowledge Management benefits can be developed.

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