

Theme

Information resources and research & Integration of Islamic digital resources for e-learning

Presenter

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Topic

Encompassing Islamic information resources to generate a valuable knowledge for purposeful decision making

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Encompassing Islamic information resources to generate a valuable knowledge for purposeful decision making

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ABSTRACT

The paper highlights how vast Islamic information resources could be re-established into a strong repository knowledge base. Effort of encompassing will enrich the knowledge horizon whereby information resources are added with value. Although Islamic information resources have already been developed in many organizations or communities, however, retrieval of these resources is difficult and decentralized. The cataloging and indexes mechanisms are limited in use which resulted with resources could not easily be accessed when needed. With a knowledge management (KM) application, Islamic information resources can be gathered systematically via the KM synergy which blends expertise of people, technology and process. People or knowledge workers of relevant organizations or communities become the main component to initiate effort supporting with technology and process which produce an excellent output. A reliable and competent KM system will ensure that all Islamic information resources be created for fair use right from its creation, storage, retrieval, disseminate and sharing with proper metadata integration. Thus will render help to any interested parties regardless Muslims or non-Muslims scholars or researchers to gain valuable information for purposeful decision making in obtaining research findings. Without proper knowledge base creation capacity, research effort in the Islamic field might be distorted as information are scattered in pieces.

Implication of research would affect slowness in retrieval and access capacity as non-timely information may depreciate in value. The ultimate aim is to enable Islamic information resources spectrum be reached by all mankind in a knowledge corpus as to enhance Islamic epistemology competitiveness among other available resources.

Introduction



"Alif Laam Raa. A book which we have revealed to you (Muhammad) so that you may lead the people from out of the darkness into the light by their Lord's leave to the path of the All-Mighty, the Praiseworthy."

Surah Ibrahim: 1

The above excerpt reflects how Qur'an, which is the book of knowledge have been encompassed by Allah Al-Mighty via the Prophet Muhammad (PBUH) since many decades ago. Knowledge which transpires nowadays is the result of previous establishment of Muslim scholars in various multi-disciplinary fields. Dignity of knowledge in Islam has much been upheld since the past. Nevertheless, due to lack of 'competencies' resulted from

misbehaviors of the ummah, knowledge has been scattered apart where disbelievers have gained those knowledge regrettably.

The Muslim scholars used to capture mountains of useful knowledge. Their studies in any subject matter were very thorough in addition to a strong capacity building of knowledge storage. In the past there was no information technology or computer system to take care of the storing, retrieving and sharing of all branches of knowledge. Knowledge was mostly captured in a physical format such as manuscripts, monographs or artifacts. With the existing modern technology advancement, much information is made possible to be stored just in memory chips which occupy a tiny space but strong in power and value capacity. The transition speed of these information and knowledge is much affected by the moderator factor mainly by people. Notwithstanding the main fact that knowledge is important remains unchanged and is hardly debated.

In Islam, knowledge classification is referred to the hierarchic structure of the Qur'an where numerous references to the idea of degrees of intellectual and spiritual realization or the subjective experience of reality (Bakar, 1998). Bakar (1998) also mentioned that the hierarchy of believers and knowers is testified by the following verse;

يَرْفِعِ ٱللَّهُ ٱلَّذِينَ ءَامَنُواْ مِنكُمْ وَٱلَّذِينَ أُوتُواْ ٱلْعِلْرَدَرَجَنِّ

"God raises in degrees those of you who believe and those to whom knowledge is given"

Surah Al-Mujadalah:11

It is further said with regards to the hierarchy of witnesses of divine unity as Qur'an says;



"God bears witness that there is no God but Him, and so do His angels and those endowed with knowledge standing firm on justice."

Surah Al-Imran:18

Islamic resources are vast and the study of Islam has much been explored through decades. Many Islamic scholars had spearheaded multi disciplinary subjects of research among them are Hadith compilers, Sufism, historians, philosophers, jurists, mathematicians, scientists and astronomers to name a few.

The ultimate value of understanding the flow of knowledge hierarchy perhaps may explain the relationship between the secularism and Islamic view. It is stated in the Holy Qur'an that knowledge is only granted to fellow believers upon the Al-Mighty Allah's bestowal as in

Surah Al-Israk:85.

"....the knowledge of which is only with my Lord. And of knowledge, you (mankind) have been given only a little."

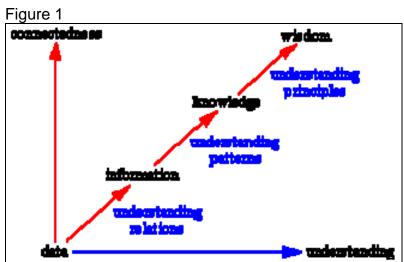
Another excerpt which can be referred to is Surah An-Nahl:78

"And Allah has brought you out from the wombs of your mother while you know nothing. And He gave your hearing, sight and hearts that you might give thanks (to Allah)"

And similar to the other saying in Surah Ta-Ha:114

"The High above all be Allah, the True King. And be not in haste (O Muhammad (PBUH)) with the Qur'an before its revelation is completed to you, and say: 'My Lord! Increase me in knowledge.'

Figure 1 below illustrates the transition flow of data to wisdom again the connectedness and understanding level. Various understanding levels are needed firstly in its proportional relation before comprehending patterns and principles. This relationship is very much synonym with the Al-Qur'an extracts which emphasized is given to the degree of proportional flow of understanding relations, patterns and principles before data reach and transmits to be a wisdom.



Source: http://www.systems-thinking.org/kmgmt/kmgmt.htm retrieved on 18 July 2008.

Notwithstanding some reasoning, knowledge has a unique value embedded in individual who captures it. The next question raised here is how valuable knowledge ought to be created, captured and stored before it could be disseminated and shared? Is there any compatible mechanism to comprehend the whole process configuration? Or will any information system suffice the purpose of generating and depositing it into a strong repository? A

recommended solution is adapting and adopting a not-newly-kind of modern practice introduced within this decade known as knowledge management or KM.

Why knowledge management (KM)?

According to Awad & Ghaziri (2004, p. 2) KM is a newly emerging, interdisciplinary business model that has knowledge within the framework of an organization as its focus. There are three main components of KM which includes of people, process and technology. People dominate 70% of the total KM component in comparison with a process and technology which takes place the remaining of 20% and 10% respectively. KM is also said by Awad and Ghaziri among a competitive agenda in most knowledge organizations nowadays.

The significant presence of human element in KM as one of its main component is very much parallel with why men are created as vicegerent on earth as stated in *Surah Al-Bagarah:30*;

وَإِذْ قَالَ رَبُّكَ لِلْمَلَتِ كَةِ إِنِّ جَاعِلُ فِي الْمَلْتِ كَةِ إِنِّ جَاعِلُ فِي الْمَلْتِ كَةِ إِنِّ جَاعِلُ فِي الْمَلْتُ فَالُوا أَنَّحَ عَلَى فِيهَا مَن يُفْسِدُ فِيهَا وَيَسْفِكُ الدِمَاءَ وَنَحْنُ نُسَبِّحُ بِحَمْدِكَ فِيهَا وَيُسْفِكُ الدِمَاءَ وَنَحْنُ نُسَبِّحُ بِحَمْدِكَ وَنُقَدِّسُ لَكُ قَالَ إِنِّ أَعْلَمُ مَا لَانْعَلَمُونَ ﴿ يَكُولُ اللَّهُ الْعَلَى الْمُعْتَمُ الْمُ الْعُلْمُ الْعُلُكُ اللَّهُ اللَّهُ الْعُلْمُ الْعُلْمُ اللَّهُ اللَّهُ اللَّهُ اللَّهُ الْعُلْمُ الْمُلْعُلُمُ اللَّهُ اللَّهُ اللَّهُ الْعُلْمُ الْعُلْمُ الْعُلْمُ الْعُلْمُ الْعُلْمُ الْعُلْمُ اللَّهُ الْعُلْمُ اللَّهُ الْعُلْمُ الْعُلُمُ الْعُلْمُ الْعُلْمُ الْعُلْمُ الْعُلْمُ الْعُلْمُ الْعُلْمُ الْعُلْمُ الْعُلْمُ الْعُلِمُ الْعُلْمُ الْعُلُمُ الْعُلْمُ الْعُلْمُ الْعُل

"Behold, Your Lord said to the angels: "I will create a Khalifah (Vicegerent) on earth." They said: "Will You place therein one who will make mischief and shed blood?" – Whilst we do celebrate Your praises and glorify Your Holy (name)?" He said: "I know what you know not."

Thatchenkery & Chowdhry (2007) said currently many organizations were beginning to understand the power of unleashing knowledge among individuals. The task to overcome the knowledge hoarding climate creation is getting difficult especially in the primarily hyper-competitive culture organizations. Human element is therefore prominently takes lead through the whole activity although technology and process will compliment the complete cycle. Failure vicegerents will dampen the whole spirit of process even if it is supported by high technology based system.

The goal of KM is to capture the tacit knowledge required by a business process and encourage knowledge workers (vicegerents) to share and communicate knowledge with peers (Awad & Ghaziri, 2004, p. 10). However, the main constraint is how to capture it and disperse before endless benefit could be gained.

The intangible return on knowledge sharing rather than knowledge hoarding offers another benefit of KM. Botkin (1999) in his study of Smart Business quoted by Awad & Ghaziri (2004, p. 11) suggested six top attributes of knowledge products and services as follows:

Learn. The more you use them, the smarter they get and the smarter you get, too.

Improve with use. Products and services are enhanced rather than depleted when used; they grow up instead of being used up.

Anticipate. Knowing what you want, they recommend what you might want next.

Interactive. There is two-way communication between you and them.

Remember. The record and recall past actions to develop a profile.

Customize. They offer unique configuration to your individual specifications in real time at no extra cost.

The six attributes highlighted is much parallel to Islamic concerned on quality products and services offered to fellow customers as outlined in the three excerpts below:

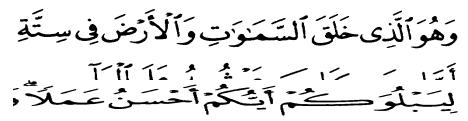


"Who has created Death and life that He may test you which of you is best in deed. And He is the All-Mighty, the Oft-Forgiving"



"Verily! We have made whatever is on earth as an adornment for it, in order that We may test them (mankind), whom among them are of the best conduct" [i.e. those who do good deeds in the most perfect manner, that means to do them (deeds) totally for Allah's sake and in accordance to the legal ways of the Prophet (PBUH)]

Surah Al-Kahf:7



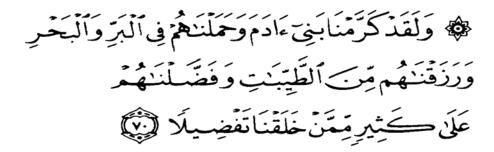
"And He it is Who has created the heavens and the earth in six days and His Throne was on the water, that He might try you, which of you is the best in deeds"

Surah Hud:7

KM is also vital in a learning organization as it gathers and uses new knowledge with appropriate consideration for the tools, behaviors and values at all levels (Lehaney et. al., 2004, p. 23). Apart from the learning organizations can mean different things to different people, Senge (1992) as quoted by Lenaney (2004, p. 24) introduces the concept of the learning organization as a collective capacity to learn at all levels of the organization rather than a top-down directive for individuals to act on specific orders. Therefore, trust and interdependency among teams are required where individual strengths are compensated for individual weaknesses. This shows how people are important and responsible in acting and making the process blends with the technology in attaining the organizational goals.

People versus technology in KM

The aim of the organization is to deal with organizational knowledge and its organizational value. People are the most hard core element in realizing business activity. It is much synonym with the two Qur'an excerpts saying:



"And indeed We have honored the Children of Adam, and We have carried them in land and sea, and have provided them with At-Tayyibat (lawful good things), and have preferred them above many of those whom We have created with a marked preferment".

and also;

Surah Al-Israk:70



"Verily, We created man in the best stature (mould)". Surah At-Tin:4

Based on the two Quranic verses, people are positioned in an excellent manner to demystify various applications and methods to be undertaken in any organizations. People are born with excellent

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personality which is missing in God's other creation and has been

embedded with brain operability.

In the case of KM organization, people are known as knowledge

workers. Who are they? Knowledge workers are person who

transform business and personel experience into knowledge

through capturing, assessing, applying, sharing, and disseminating

it within the organization to solve specific problems or to create

value (Awad & Ghaziri, 2004, p. 415). The two authors had also

outlined the personality and professional attributes of knowledge

workers as follows:

Hold unique values and understand and adopt the culture of the

organization

Align personel and profesional growth with corporate vision and the

achievement of strategic goals

Adopt an attitude of collaboration and sharing

Have innovative capacity and a creative mind

Are willing to learn, unlearn, and adopt new ways that result in

better ways of doing things

Have a clear understanding of the business in which they are a part

Are in command of self-control and self-learning

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Are willing to tolerate uncertainties and grow with the company

The technology which is also part of KM component cannot make organizations more 'knowledgeable' (Davenport & Prusak, 1998) as quoted by Ng & Li (2003). The rationale was based on Blackler (1995) which was quoted by Ng & Li (2003) too that technology only drives KM in codification of explicit aspects of knowledge while ignoring the tacit aspects. However, KM acknowledges technology very much in spurring the whole process even if IS (Information System) and IT (Information Technology) are not quite synonymous.

As much as KM is concerned, technology is certainly not the single point of focus (Natarajan & Shekhar, 2001, p. 45). Other multiple disciplines are involved such as Cognitive Science and Learning, Communication and Human Resources, Behavioral Sciences and Motivation, Business Strategy and Business Process Analysis are among them. In Islam, such vast disciplines are already made known in the Qur'an. Even Dr. Prusak whom the author recently met in Kuala Lumpur during the Workshop on Knowledge Capture and Transfer on 2 July 2008, has indicated that knowledge does not need to be transmitted strictly via technology (personal communication, Kuala Lumpur, 2 July 2008).

For example Dr. Prusak was communicating throughout a one-day workshop using only one introductory slide where technology is less embedded. The rest of the workshop hours, has been fulfilled with sharing his experience via storytelling which contains the main

gist of the said workshop. Thus represented how skilled and competent person; who is rich in a tacit knowledge could codify his knowledge in a narration format without having to depend on highly technology slide display.

The implementation of KM therefore really needs to ensure knowledge workers are firstly available in order to run the task. Technology and process (the second and third component of KM) only act as compliment factors in expediting the whole activity. Without talented and skilled people KM effort might jeopardize although high technology is invented. The existence of people to be vicegerents on earth can now be recalled of how human is highly positioned to be responsible for any work composition.

Creating and capturing knowledge

Islamic resources are scattered everywhere especially if searching is done through the Internet. Although specific keywords could be used with some Boolean operators help as part of the searching strategy per say, however, it is not always easy and accurate to gain access to certain information online. It is quite disappointed when information obtained is not scholarly or peer reviewed as reliability and validity are obviously ambiguous.

Although the Internet has enabled the creation of virtual communities (Alhashmi, 2006) however there are still some constraints. Alhashmi (2006) has highlighted the leveraging of knowledge is important as to how successful knowledge strategies

can be linked to their business strategy which also link to the knowledge requirements. Competitiveness can be retained by competitive value of knowledge must be assessed to locate areas of weaknesses. Alhashmi also stated the importance of organization should address social aspects affecting knowledge initiatives.

Alhashmi idea's is much supported by Heck (2002) who mentioned that socio-epistemological diversity of knowledge hierarchy need to be understood based upon the correct usage of language, including the rules of grammar and recognized norms of rhetoric and composition. As such, to create and capture knowledge in organization, the KM components discussed earlier are the main requirements to be incorporated vis-a-vis the activity.

The question of how knowledge should be created and captured is much depending on the people again who work in the organization i.e. knowledge workers. KM does give an impact not only on the people but also on the process, the products and organizational performance (Becerra-Fernandez, Gonzalez & Sabherwal, 2004). Even a strategy could be considered as another vital component of KM as without it, people component may not be able to stand alone in the absent of technology and process with strategy acts as a core link.

Interestingly, KM strategies can be primarily categorized based on two key dimensions i.e. (i) KM focus and (ii) KM source (Choi; Poon & Davis, 2008). KM focus is said to be as explicit and tacit oriented

where explicit oriented attempts to increase organizational efficiencies by codifying and reusing knowledge through advance ITs (Hansen, Nohria & Tierney, 1999) quoted by (Choi; Poon & Davis, 2008). The tacit oriented strategy takes place on the personalization approach where tacit knowledge is communicated through direct person-to-person contact and through socializing process (Zack, 1999) cited by (Choi; Poon & Davis, 2008).

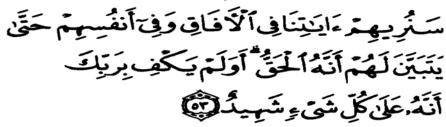
KM source however will be based on the organization's primary source knowledge such as internal and external orientation along the dimension (Bierly & Chajrabarti, 1996) cited by (Chin, Poon & Davis, 2008). External oriented strategy attempts to bring knowledge from outside sources via either acquisition or imitation and then transferring the knowledge through organization. (Lee, Chang & Choi, 1999) as cited by (Choi; Poon & Davis, 2008). In relation, internal oriented strategy focuses on generating and sharing knowledge within the boundary of the organization.

Information value in KM

Information resources are only embedded with value when they managed to be disseminated and shared among the community interest within the time frame needed. Ideally, effective and valued information are said when it can be retrieved at the right time from the right source for the right purpose. A good, stable and dynamic repository knowledge based may offer high attributes in ensuring the information is captured and stored sufficiently testify the needs of retrieval. Technology could take its roles as to speed up the

process of storing and retrieving information. Since manual storing of information is obsolete and time consuming, thus, technology plays an integral role in putting all scattered information into a reliable and manageable hub. Metadata and indexing system should then be in line with the existing technology based which acts as catalyst output to KM implementation.

The information which later transmits into knowledge offers its value in terms of challenging Muslims to think, contemplate, understand, comprehend and examine everything around them (Al-Hayani, 2005); where tasks that bring humankind closer to God as they find methods to apply God's laws of justice and equity to the benefit of all humankind. In relation to why people are made as vicegerents on earth in fact portrayed how faith, reason and knowledge are intertwined in the quest to enhance the human condition on earth. Al-Qur'an says:



"We will show them Our Signs in the universe, and in their own selves, until it becomes manifest to them that this (the Qur'an) is the truth. It is not sufficient in regard to your Lord that He is a Witness over all things?".

Surah Fussilat:53

وَقَالُواْ لَوَكُنَّا نَسْمَعُ أَوْنَعْقِلُ مَاكُنَّا فِي أَصْحَبُ ٱلسَّعِيرِ ﴿ اللَّهُ عَلِي اللَّهُ عَلِي ال

"And they will say; Had we but listened or used our intelligence, we would not have been among the dwellers of the blazing Fire!" Surah Al-Mulk:10

إِنَّا خَلَقْنَا ٱلْإِنسَنَ مِن نُطُفَةٍ أَمْشَاجٍ نَبْتَلِيهِ فَجَعَلْنَهُ سَمِيعًا بَصِيرًا ﴿ اللَّهِ المَعَلِنَا لَهُ سَمِيعًا بَصِيرًا ﴿ اللَّهِ اللَّهِ اللَّهِ اللَّهِ اللَّهِ اللَّهِ اللَّهِ اللَّهُ اللَّاللَّ اللَّهُ اللَّهُ اللَّهُ اللَّهُ اللَّهُ اللَّهُ اللَّهُ اللَّاللَّهُ اللَّهُ اللَّا اللَّهُ اللَّهُ اللَّهُ اللَّا اللَّهُ اللَّهُ اللَّا اللَّهُ اللَّهُ اللَّهُ اللّ

"Verily, We have created man from Nutfah (drops) of mixed semen (sexual discharge of man and woman) in order to try him: so We made him hearer and seer".

Surah Al-Insan:2



"And on the earth are signs for those who have Faith with certainty.

And also in your ownselves. Will you not then see?"

Surah Adh-Dhariyat:20-21

It is very important to contemplate how KM could be seen from the Islamic perspective whereby the religion of Islam is rooted in the theological idea that a one single God, Allah, is the source for existing things, seen and unseen, known and unknown (UI Huda,

2003). Therefore, KM might have certain limitations and flaws as it is created by human.

Lesson learned

In conclusion, the creation of knowledge in Islam is much influenced by its historical event as mainly outlined in the Holy Qur'an. Uncounted information had been tabled by Allah Al-Mighty in this special book which contains undoubtedly invaluable knowledge which always serves as a useful reference regardless of time limit. The whole content of the Holy Qur'an had been reflected as if one wishes to re-write, there will be an endless ink to continue writing as:

قُللَّوْكَانَ ٱلْبَحْرُ مِدَادَالِكَلِمَنتِ رَبِّ لَنَفِدَ ٱلْبَحْرُ قَبْلَ أَن لَنَفَدَكِلمَنتِ رَبِّ لَنَفِدَ الْبَعْرُ قَبْلَ أَن لَنَفَدَكِلِمَنتُ رَبِّ وَلَوْجِ ثَنَا بِمِثْلِهِ عَمَدَدًا النَّ

"Say (O Muhammad (PBUH) to mankind): 'If the sea were ink for writing the Words of my Lord, surely, the sea would be exhausted before the Words of my Lord would be finished, even if We brought another sea like it for its aid.'

Surah Al-Kahf:109

A most pertinent factor is the people who have been given much opportunity to perform good deeds while exist on earth. If one thinks meticulously of why God creates man, nothing than to serve

Allah and be a good performer in establishing God's knowledge, the world will be peaceful. This has been re-narrated throughout the day via the five obligatory prayers as:



"The way of those on whom You have bestowed Your Grace, not the way of those who earned Your Anger (such as the Jews), nor of those who went astray (such as the Christians).

Surah Al-Fatihah:7

However, human kingdom is always been tested with multiple challenges; otherwise the best among the creams may not be outshined. Incorporating KM alone therefore does not guarantee the excellent outcome can be attained singly or in group as anything creates by man are subject to incompleteness. A good decision making is much depending on the responsibility, integrity and fully understanding of why human is created before quality understanding can be achieved for the rest. Information generated in one strong repository based recommended via KM is still unable to compete with knowledge deposited in the Qur'an itself. Human do the best but God do the rest. Only God knows best.

References

Al-Qur'anul Karim.

Alhashmi, Saadat M. (2006) Staying competitive by managing organizational knowledge. *IET*

Engineering Management. April/May 2006.

Al-Hayani, Fatima Agha (2005) Islam and science: contradiction and concordance. *Zygon.*

Vol. 40. no. 3.

al'Mahdi, Muhammad (2004) *Islamic solution to the world's problems*. Khalifah series no. 3.

Ampang: The Khalifah Institute.

Awad, Elias M. & Ghaziri, Hassan M. (2004) *Knowledge management*. Upper Saddle River, New Jersey: Pearson Prentice Hall.

Bakar, Osman (1998) *The Classification of Knowledge in Islam: A Study in Islamic* Philosophies of Science. Kuala Lumpur: Islamic Text Society.

Becerra-Fernandez, Irma, Gonzales, Avelino & Sabherwal, Rajiv (2004) *Knowledge management : challenges, solutions and technologies.* Upple Saddle River, New Jersey: Pearson Prentice Hall.

Choi, Byounggu; Poon, Simon K & Davis, Joseph G. (2008) Effects of knowledge management strategy on organizational performance: a complementarity theory-based approach. *The International Journal of Management Science*. Omega 36, pg 235-251.

Heck, Paul L. (2002) The hierarchy of knowledge in Islamic civilization. Arabica. Tome XLIX, 1.

Lehaney, Brian et. al. (2004) *Beyond knowledge management*. Hershey: Idea Group Publishing.

Natarajan, Ganesh & Shekhar, Sandhya (2001) Knowledge management: enabling business growth. Boston: McGraw Hill.

Ng, Jimmy J.M. & Li, K.X. (2003) Implications of ICT for knowledge management in globalization. *Information Management & Computer Science*. Vol. 11 Issue 4, pg 167-174.

Thatchenkery, Tojo & Chowdhry, Dilpreet (2007) *Appreciative inquiry and knowledge management : a social constructionist perspective.* Cheltenham: Edward Elgar.

Ul Huda, Qamarul- (2003) Knowledge of Allah and the Islamic view of other religions.

Theological Studies. Vol. 64.