



# ANALYSIS OF TWO TECHNOLOGY TOOLS THAT CAN BE USED TO SUPPORT THE IMPLEMENTATION OF A KNOWLEDGE STRATEGY IN AN ORGANIZATION USING SWOT ANALYSIS TOOLS

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## Abstract

**A**s the technologies are becoming more increasingly important in the modern economy and present a powerful combination for the future of Knowledge Management, Interdependence between the technology and the KM leads to development of many frameworks that are used to support the implementation of a KM strategy in an Organization. KM technology tools such as Collaborative tools, with ability to provide Electronic Meeting systems, Video-conferencing, Groupware, Executive Information system, Internet, intranet, and extranet were discussed in this research. KM emanated as a result of the increase in the organizational changes experienced recently. Today, most organizations realized there is an exigent need to implement KM strategy. SWOT Analysis today's play significant role in generating strategic internal strength, weakness of the organization, and the external threat and opportunity as well. It is been considered as the simple framework to strategically analyze the organizational situation. In this research work, two technology tools where choose and analyzed using SWOT analysis tool.

**Keywords:** Knowledge Strategy, Knowledge Management, SWOT Analysis and Information Technology (IT).

## Introduction

According to Mark (2007), Today, many organization, industries have pegged the failure rate of information technology implementation for their business process reengineering, this make the implementation becoming more prevalent in every organization that are willing to manage what they know and share it with partners and client. World banks to cited example are part of those large organizations that deserve the implementation of knowledge management strategy to benefit from the vulnerable advantage given by the information technology tools such as Groupware, internet, intranet and extranet to mention but a few among the technological tools.

Due to necessitation of the environmental need and our persistence to move into knowledge era, the capability of the organization to gather, codify, and transfer knowledge be come of most important Amrit (2002). Therefore, technologies where been in used for the past few years in order to manage knowledge, and the impact of the technology where seen almost by every one. It seems like there is challenge between the role of information technology in most KM application area, and the measurement of the organizational internal strength and weakness, external threat and opportunity.

### **SWOT ANALYSIS**

SWOT Analysis stand for the Strength, Weakness, Opportunity and Thread. The origin of the SWOT was from Philip Selznick (1957) who pioneers the initiative of how to march the organization's internal factors with external environmental circumstances. This focal point initiative was develop into what is now call SWOT analysis. Alberts Humphrey team later started to used the concept of the SWOT analysis in 1970. (NetMBA 2010)

SWOT Analysis today's play important role in generating strategic internal strength and weakness of the organization, and the external thread and opportunity as well. It is been considered as the simple framework to strategically analyze the organizational situation. SWOT analysis deeply focus on the issues that potentially have most impact in the development of the organization like World Bank. It's become more useful to address the issues that are in complex strategic situation. SWOT analysis can provide a useful view of the organization resources and capabilities internally within their competitive environment. (NetMBA 2010) SWOT analysis is a simple framework for generating strategic alternatives from situation analysis. It is applicable to either the corporate level or the business unit level and frequently appears in marketing plan.

**Strength:** Strength are the capabilities, ability, and or the competence that enable the organization, or companies to perform well capability that need to be leverage in order to achieve the objectives of the organization. Any resources that can be putt together and effectively used to achieve the objectives of the organizations are considered as the strength of that organization. Example one of the strength of informatics academy is their ability to conduct both physical and online studies with option of different recognized university and available courses to choose from.

**Weakness:** Weakness are any circumstances that can prohibited the organization from perform well and need to be address, it simple the opposite of the strength any incapacitated situation that can illicit the organization from achieving their objectives are consider as the weakness of that organization.

**Opportunity:** Opportunities are any tangible or intangible possible trends, forces, event and the ideas that your company or organization can capitalized on are consider as the opportunities. Opportunities may as well consider as any new strategy that when implemented in the organization can bring strength and eliminate weaknesses. (NetMBA 2010) An opportunity is the chance to introduce a new product or services that can generate superior return

**Threat:** Threats are any possible event or forces outside the control of the organization and are need to plan how to mitigate them. Threats are mostly coming from the competitors side are regarded as threat.

### **Identification of Knowledge Management Technologies tool**

Recently it is identify that different KM technology tools and technologies where available to support the implementation of knowledge strategy in an organization. (Amrit 2002) The implementation and selection of the appropriate technology is dependent to the organizational need and the province in which the organization have lots of weakness or bump into numerous threats from their competitors. (Amy 2008) said, today's central managerial challenge is to inspire and enable knowledge workers to solve, day in and day out, problems that cannot be anticipated. How? Of course they need a knowledge technological tools that can help to solve the problem faster, that are not even seen so far.

As we persist to move into knowledge era, the capability of the organization to gather, codify, and transfer knowledge will be of most important (Amrit 2002). Technology where been in used for many years in order to manage knowledge, and the impact of the technology where seen almost by every one. It seems like there is contradiction between the roles of information technology in most KM application areas. Today, many organization, industries have pegged the failure rate of information technology implementation for their business process reengineering this make the implementation becoming more prevalent in every organization that are willing to manage what they know and share with other partners and client. World banks to cited example are part of those large organizations that deserve the implementation of knowledge management strategy to benefit from the vulnerable advantage given by the information technology tools.

Recently it is identify that different KM technological tool where available to support the implementation of KM strategy in any organization, the implementation and selection of the appropriate technology is dependent to the organizational need and the province in which the organization have many weakness or faced many threat from their competitors.

**Relational and object Databases and Mining:** this technological tools where been widely used for many decade. This technology is considered more appropriate for unstructured content and they are more useful in representing and managing knowledge resources. Most of the times, this databases where design to hold a large amount of information from a wide variety of sources and stored in a physical database. Relational and object databases and mining comprised of many technology component that can be seen as a complimentary technology working hand-in-hand with data warehouse. To ease the implementation of this technological tool for knowledge discovery in databases, many vendors design different component that can suite the organizational need. Refer to the table 1 for the full identification of component of databases and data mining.

**Collaboration tools:** another up-to-date useful technological tools that are used in managing the knowledge are collections of several tools called collaboration tools. It can simply understand by the name given to this technology collaboration, which means working together or group effort. This collaboration tools, add tremendous value to KM function, it comprised of many components system that if connected and improved together become collaborative tools. This KM tools considered more appropriate for a wide organization that may have many branches in different geographical area. World Bank, to mention as an example of wide organization in the World, with headquarters in Washington D.C, having about 10,000 employees, with many in field offices in 80 different members countries deserve the use of such KM tools. Other component of this technological tool can be found in table 1.

**Intelligent Tools:** this technology is design to imitate the physical human brain. It is an unarguable fact that intelligent tools and its component provide a very scientific mechanism for KM representing through the used of decision support tools using Neural networks. Intelligent tools are considered a very complex technological tool for managing the knowledge.

**Table 1: Summary of Knowledge Management Technology Tools and their Components**

No	Knowledge Management Technology tools	Component
1	Relational and Object Databases and Mining.	-Knowledge Based Systems (KBS). -Data warehouses. -Databases for classification, codification and categorization in information. -Storage of e-mail threads to create a repository of best practices. -Corporate memory databases. - Employee home page on an intranet
2	Collaboration Tools	-Electronic Meeting systems. -Video-conferencing. -Group Ware -Electronic Bulletin boards
3	Intelligent Tools	-Decision Support tools using neural network. -Virtual reality. -Genetic algorithms -Intelligent Agents. -Internet search engines -Knowledge mapping.
4	Internet, Intranet and Extranet	LAN, WAN

Groupware Tools: According to (Ashok 2002), groupware system provide the process of creating, sharing, and applying knowledge inherently that involve collaboration a key determinant of innovation and responsiveness. Groupware technology is one of the newest technologies that are used to collaborate with organization staffs, partners, and the client. (Amrit 2002) also describe Groupware as a technology tools that allow group to come together and help with communication, force people to cooperate together, coordinate activities in the meeting, solve problems as it is been describe early in this Assignment, collaborative tools are collection of different tools that are used to enhances the Knowledge management of in a organization which include the process of acquiring the knowledge, storing the Knowledge dissemination of knowledge, and the sharing of the knowledge.

**Internet/intranet And extranet:** due to the rapid grow of the internet, it is been considered as one of the faster growing means of communication, with ability to provide more function, such as the ability of the user to upload and download email, browsing the web, acquired knowledge, share knowledge and many more. Internet consists of thousand of networks worldwide, which are interconnected using a router and a wide area networks (WAN) links. At present, internet growth in faster and higher speed access method are offering a range of new services such as real-time video and voice communication, database for information storage and retrieval, file transfer protocol (FTP), News Groups, access to web pages and environment.

**Intranet:** the intranet is just a private network (within an organization), which incorporated the processes, protocols and standard found on the World Wide Web. These technologies where been apply to information system within the company or organization by many of the today’s organization in order to share, and manage their organizational knowledge. The intranet used a Local Area Network, (LAN) which can be used to access the networks within the organizational premises, typically is limited to its employee. Intranet provides an important technique of sharing information between the employees of the organization.

**Extranet:** from the name Extranet, mean out side the organizational jurisdiction, an extranet is a collaborative network that uses internet technology to link the organizational external partners to internal resources by allowing them to collaborate with staffs and other stake holders via a networks called extranet. With their supplier using the above technology tools.

**Table 2: Summary of the groupware Analysis using SWOT Analysis Tools**

Strength	Weaknesses
<ul style="list-style-type: none"> <li>➤ Work with real-time, allow the multiple participants to collaborate and share knowledge, by using white boarding, Video-conferencing etc.</li> <li>➤ Groupware can give a clear room for conference from where other non-skill personal gain knowledge.</li> <li>➤ Capable to allow the starting of communication, groupware establish communication with all parties and to relay information to them in the best possible way.</li> <li>➤ Reduction of the cost of travel, by make the knowledge more readable, accessible to the staff, client and partners, and strengthen the knowledge dissemination and capacity building effort.</li> <li>➤ Improving group problem solving capabilities, by allowing many staffs, client and the World Bank partners to write a message in real time.</li> <li>➤ Support real-time and non-real-time supportive to semi-structured and Unstructured situation.</li> <li>➤ Accessibility of the past knowledge with strong innovation capabilities.</li> <li>➤ Groupware, allow the routing of information through organization,</li> </ul>	<ul style="list-style-type: none"> <li>➤ One of the major weaknesses of the groupware and the Internet technology is the Environment.</li> <li>➤ Lacks of face-face interactions among the users affect the Groupware technology.</li> <li>➤ Reliant on network and computers, which can fail.</li> <li>➤ Cost, implementation cost, i.e setting up the server and networking hardware, training programs, technical support cost are what makes groupware more expensive.</li> <li>➤ The Groupware did not support the facial Expressions, this lead to the loss of individual ideas.</li> <li>➤ Due to Several capabilities of groupware technology, the interface are more cumbersome for the user to access, therefore User need training on how to Use the groupware interface.</li> <li>➤ Inability to acquire knowledge on its own.</li> </ul>
Opportunity	Threat
<ul style="list-style-type: none"> <li>➤ The groupware enhanced and stimulates the creativity in an organization.</li> <li>➤ Groupware opportune organization by providing a structure, and enhance the performance mission of the organization.</li> <li>➤ Increases the efficiency of the work, by allowing multiple participations of the client, staffs in an organizational conference.</li> <li>➤ Groupware opportune the organization to diagnose and solve problem faster, reduce the management cost and increase the productivity.</li> <li>➤ Provide one central point of access to critical information.</li> <li>➤ Expandability, groupware can opportune the organization to expand their services, by using video conferencing, group meeting and many more services.</li> <li>➤ Enable client, staffs and partners to extract information from the legacy system, and other online related sources.</li> </ul>	<ul style="list-style-type: none"> <li>➤ The major threat identify that is associated with groupware is that Threat of New technology entrances.</li> <li>➤ Lack of compatibility between two different systems.</li> <li>➤ Reliant that all users need to be computer literate.</li> <li>➤ Virus penetration and other unwanted access to private and confidential organizational information.</li> <li>➤ Reliance on the knowledge of the expert people.</li> </ul>

**Table 3: Summary of the Internet, Intranet and Extranet Analysis using SWOT Analysis Tools**

Strength	Weaknesses
<ul style="list-style-type: none"> <li>➤ Internet intranet, and Extranet are capable of providing services such as database for information storage and retrieval, which include search engines.</li> <li>➤ Ability to provide more function, such as the ability of the user to upload and download email, browsing the web, acquired knowledge, share knowledge and many more.</li> <li>➤ Faster means of communication and up-to-date information retrieval by the staffs, client and the Partners of the World Bank.</li> <li>➤ Internet strengthening the coordination and exchange of information between the client, staffs, and partners of the World Bank.</li> <li>➤ Extranet create a ways to ensure greater participation of all stakeholders, client, staffs of the World Bank and allow access to relevant information 24/7.</li> <li>➤ User friendly with strong capabilities of Visually attractive graphics.</li> <li>➤ Intranet protects the information from unauthorized access, but allow internal staffs of the World Bank to gain access to Internet.</li> <li>➤ Internet make new ways of relationship building feasible, self services, intelligent personalization, knowledge-based adaptation.</li> <li>➤ Block unauthorized access through the use of software called "Firewall".</li> </ul>	<ul style="list-style-type: none"> <li>➤ Privacy. Electronic messages sent via Internet can easy snooped and tracked by unwanted people.</li> <li>➤ Security is another major weakness of the Internet.</li> <li>➤ Inconsistency of the Information.</li> <li>➤ Manipulation of the information by many users.</li> <li>➤ Irrelevant information and time consuming.</li> <li>➤ Failure of the Network and speed limitation.</li> </ul>
Opportunity	Threat
<ol style="list-style-type: none"> <li>1) Faster sources of Acquiring Knowledge, Dissemination, storing and sharing of the knowledge. Within and out site the World Bank.</li> <li>2) Adaptive and flexible over the time,</li> <li>3) Allow the knowledge worker to find the right information to solve problem faster.</li> <li>4) Provide access to all relevant data needed by the user to get jobs done, improve accuracy, timeliness and quality of the decision-making</li> <li>5) Faster integration of new staffs and protect against in-house knowledge loss.</li> <li>6) Internet can opportune the World Bank to Improve efficiency, Low the cost of transportation, and accelerate affective decision-making processes.</li> </ol>	<ol style="list-style-type: none"> <li>1) Security: one of the major threats identifies in the Internet, Intranet and Extranet is the high-level of security lapses. These technologies need maximum security to secure the content of their information against the intruders,</li> <li>2) Virus a program that design to disrupts the content of the organization data, virus are gating from the internet, intruders use virus to theft personal information and spamming your organizational e-mail and send a pornography message to the staffs and client if care is not taking.</li> </ol>

### **Conclusion**

Today's society is in the middle of a technological boom. Organization can either choose to take the hug advantages of this era, or simple let it pass them by. The fact where been seen at the end of this research where technology understand as one area where business partners, staffs, client, and other members will experiences constant changes, resulting in the need to regularly update skill and capabilities, particularly in the client and staffs prospective.

Some years Ago, many people may argue that you do not need technology to implement knowledge management strategy. To some extend they are right; knowledge management is fundamentally about people not technology. At the end of this research, It is realized that there is absolute no way that you can acquire, Disseminate, apply and share knowledge effectively within and out side organization no matter how small the organizations is with out using technology. Two Knowledge technologies tools where analyzed using one of the powerful analysis tools that is "SWOT" Analysis. Groupware, and Internet, intranet and Extranet as Knowledge technologies tools to be use and support the implementation of knowledge management strategy in an organization where discuss in details.

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