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Cultural, Technological and Informational Based Knowledge Management

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Abstract: The goal of this research was to compare and contrast each protocols role in knowledge management. These protocols includes: Cultural, Informational and Knowledge management. Cultural information lays out the norms and beliefs of the corporate environment, informational knowledge management looks at how individuals processes information's and solves problems on a daily bases while technology is a tool that presents information to the users. Cultural, informational and technology based knowledge management are so close but so far away in how they use information.

Keywords: knowledge management; cultural management; informational management; technology management; tacit; explicit

1. INTRODUCTION

Knowledge management is an organizational management concept of resource allocation that includes employees. Corporations that focus on knowledge management spend a great deal of time and resources identifying the knowledge they are trying to harness, nurture and preserve for future use. The correlation or comparison of the knowledge management is based on the unique categories of Tacit and Explicit data.

2. PURPOSE OF THE STUDY

This research will analyze knowledge management from perspectives of cultural based knowledge management, technological based knowledge management and information-based knowledge management. The study will look at how the knowledge-based protocols are compared and contrasted with each other, and the role of computer technology in capturing, analyzing and using the knowledge protocols.

3. DISCUSSION

3.1 Business Outlook

Business organizations understand the need to invest in resources that improve the intellectual knowledge of employees. Corporations understand that by developing and investing in the knowledge based resources, they will go a long way towards ensuring the growth and future success of the organization. The competitive business environment will result in strategic planning tools for profit enhancement and product or service differentiation to meet the needs of the consumer [1].

3.2 Cultural, Informational and Technological

When comparing culture, technical and informational knowledge management, it is important to decide what type of information that the researcher is looking for. Has the information already been created or must it be created, is it Tacit or Explicit? Wallach [2] stated that Tacit culture consist of three groups bureaucratic, innovative and supportive. The correlation or comparison of the knowledge management is based on the unique categories of Tacit and Explicit data that this research will compare. Knowledge flow information is broken down into two categories (a) Tacit and (b) Explicit. Tacit knowledge or information is that information or knowledge that is known only to the individual, like cultural tacit knowledge, informational tacit knowledge cannot be touched or heard. Each individual person has their own unique set of habits and norms that make them different from everyone else. How an individual solves a problem using their intuition or habit is that individual's Tacit knowledge, Tacit knowledge is not written down, nor can it verbalized [3]. As teams are formed each member will have their own unique tacit habits, but for the teams to be successful each team member will have to find a method of articulating their expertise, by turning their tacit information into explicit information.

3.2.1 Tacit

Bureaucratic Tacit work cultured environments are regimented; rules will be followed to the letter with little deviation from the assigned directions for completing the task, any deviations from these guidelines could result in repercussion for the employee. Tacit Innovative work culture is the exact opposite of bureaucratic culture; innovative culture encourages creative thinkers to express themselves by coming up with innovative ideas to improve processes and procedures, that could help improve the corporations standing in their respective industry. Because innovators are encouraged to think outside the box, they sometimes take risks, to try out a new innovative idea or inventions, these types of risks would not be encouraged in a bureaucratic culture. Wallach [2] defined a Tacit supportive culture as one where ideas will be encouraged and shared amongst not only to direct team members but to other departments that might see benefit in the ideas being presented [2].

3.2.2 Explicit

Explicit information is that information, which can be shared, whereas tacit information is personal to the individual and cannot be touched; explicit information or knowledge is information that can be, heard, read and touched. Explicit knowledge is that knowledge that was once Tacit but has now been transferred to a shareable medium; this shareable medium, could be an instructional manual, a training CD etc. Explicit information gives each team member the opportunity to learn new methods or techniques to resolve an issue or simply familiarize themselves with a new process or technique [8].

3.3 Cultural Knowledge Management

The organizational cultural beliefs instilled in corporate employees ensure that everyone in the corporation has same understanding of the goals the organization is trying to achieve. These organizational beliefs determine the observable organizational norms and practices that consist of rules, expectation, rituals and routines, power structures, and control systems [4]. From a knowledge management perspective Tacit culture decides the norms or beliefs that will determine who will control knowledge as well as who will share the knowledge. Only when Leadership and employees start to share or gain an understanding of each other's cultural ideologies, visions and beliefs will true informational and technological change begin to take place. If there is no understanding, distrust and acrimony could set in delaying the project [5]. Park [6] believed there was a direct correlation between the success and failure of informational and technology based knowledge management integrations and the tacit cultural attributes exhibited by employees of a corporation. Tacit cultural questions or concerns must be addressed before information and technological concerns could be addressed. The proper corporate culture will enable and motivate employees to produce, share and use information that will be of benefit not only to the corporation but also the employee's as well. Schein [7] described culture as a set of rules or beliefs held by members of an organization or group. The cultural rule determines how the group adapts or reacts to it, not only to their environment but also in how they react to stakeholders within its environment. Schein [7] believes that tacit culture exists in correlations with three conceptual levels, basic assumption, values and artifacts. Basic assumption or beliefs are interpretive ideas which individuals give sense to activities and human relations that is the basis of cooperative action. Beliefs or basic assumptions develop through time as groups or corporations deal with the consequences of actions taken, resolve a problem or issue. Values can be described as the rules that define norms so that communication among team members or others in organization can occur. Depending upon the organization or group, values will define what it deems socially acceptable or socially unacceptable behavior, when dealing with a co-worker or dealing with a customer. Although Tacit by category, Artifacts can be explicitly seen, heard and smelled; they are not localized to one individual but it is available to the masses or to those authorized to see or hear the information. Artifacts can be cultural dances, or cultural languages, or it could be a video recorder with specific instructions how to reproduce Einstein theory of relativity [7]. From a Tacit cultural perspective, Artifacts are the first step in gaining a true understanding of the importance of information and the impact it has on Knowledge management. As mentioned previously, before leadership can begin integrating a knowledge management system into the corporate environment they must get a true understanding of the culture. After the cultural hurdles have been overcome, leadership must then begin the process of determining how to go about increasing the knowledge flow by turning the tacit data into Explicit data, so that everyone can have access to the necessary information.

3.4 Information Knowledge Management

Explicit information is that information, which can be shared, whereas Tacit information is personal to the individual and cannot be touched; Explicit information or knowledge is information that can be, heard, read and touched. Explicit knowledge is that knowledge that was once Tacit but has now been transferred to a shareable medium; this shareable medium, could be an instructional manual, a training CD etc. Explicit information gives each team member the opportunity to learn new methods or techniques to resolve an issue or simply familiarize themselves with a new process or technique [8]. The learning flow categories look at how team members adapt to each other and how they adapt to their surroundings. Just as Tacit information is unique to each individual, how each person adapts to new surrounding and each other will be unique as well. Conventional needs to be questioned, if it is determined that the Explicit information for a process or procedures is no longer relevant. It is imperative that the team members do everything necessary to get more updated Explicit information, If is determined that the updated information is still in a Tacit state, then leadership and the team must, devise a new plan of action. If individuals on the team insist on using the out dated information, the project or task will assuredly move in direction that will result in eventual failure. Lastly, Behavioral changes focuses on how the individual's team members react when being given Tacit or Explicit information in the form of feedback or direction, by superiors or other teammates. Do the teammates get defensive or are they receptive when the information is negative, or do they take it as information that is used to improve. Behavioral scientist theorizes that learning is a change in an individual or corporations behavior; brought on by past or present experiences and how those experiences affected the decision making process of the organization or individual [9]. Individuals have to ask themselves did the internal or external feedback from those experience assist them in making better decision going forward or did it have such a negative impact that the individual refuse to address the feedback given and keep using old information that caused the experience to occur as a barometer in their decision making process?

3.5 Technology Knowledge Management

Place Nonaka [10] stated that for Tacit information to be turned into explicit technological information, individuals or groups would need to show a common interest in resolving a unique problem. After the common interest groups are formed, the team members will have meetings to discuss their common interest in resolving the issue, and to get updates on the status up to this point on how close they believe they are in coming to a resolution. The common interest groups are not necessarily localized to a common college or town; the members could be in different states, or different countries. Four team members could be in Australia, while two could be in Japan and six could be in Nigeria, but they all came together to resolve a common issue. Because the geographical hindrance in face to face meetings would not be a feasible means of collaboration. The team members will need an agreed upon technological tool to conduct their meeting, such as email, chat rooms, video conferences such as Skype or WebEx sessions where they view each other's computer

screen [11]. The goal of Technology based explicit knowledge or information is to make tacit information accessible. Explicit knowledge or information is presented to users through artifacts, such as a computer, CD, network storage appliance or chat room. The Explicit data could be used by teammates working on a project, or a customer looking to get information on a new product, that is due to be released. Explicit information is meeting through manuals, electronic bulletin boards, and text through phones etc. or in some cases using Customer Resource management technology applications.

4. SHARING OF INFORMATION

Without the sharing of information, projects or job functions will suffer. Information must be shared between teammates or coworkers relevant to their designated role in the organization or to the project; the team members are currently assigned to. Lytras & Pouloudi, [9] proposed three information dynamic flows to improve information flow between groups or individuals: Knowledge flow, Learning Flow and Behavioral change. Knowledge flow is based upon the team building concept e.g. everyone coming together for a common cause or goal. For projects or other tasks to be successful, it is imperative that everyone on the team has the correct information. If it is found that team members are not sharing information or giving required feedback, or it is determined that the data is out of date, then knowledge or information flow will become stagnant and project will suffer. Knowledge flow information is broken down into two categories (a) Tacit and (b) Explicit. Tacit knowledge or information is that information or knowledge that is known only to the individual, like cultural tacit knowledge, informational tacit knowledge cannot be or heard. Each individual person has their own unique set of habits and norms that makes them different from everyone else. How an individual solves a problem using their intuition or habits which is that individual's tacit knowledge, tacit knowledge is not written down, nor can it be verbalized [3]. As team are formed each member will have their own unique tacit habits, but for the teams to be successful each team member will have to find a method of articulating their expertise, by turning their Tacit information into Explicit information. Tacit Information is derived from a person's head to resolve a particular issue for a customer or coworker. Once that information is documented, it is then shared with others on the team, once it is shared with the team it can be used as a tool or a resource.

5. CONCLUSION

Cultural, informational and technology based knowledge management are so close but so far away in how they use information. The first thing that stood out to this researcher is how each relied upon different aspects of information to be successful. The knowledge protocols compared to each other because they each need information to be successful. From the leadership perspective, the primary difference between information, technology and culture knowledge, is that information and technology management both have physical attribute that are easily accessible to a user; versus cultural knowledge that would be abstract to the naked eye [12]. Technology by definition is an artifact that presents information to a user [7]. Information by nature starts out in a tacit state; it does not become usable until it is presented in an explicit state by a technology artifact. The Tacit information could be a theory in a user's head on how to splice DNA, but until someone documents the processes and procedures and puts them on a shared media, it is unusable [11]. Unlike Technology or informational-based knowledge management, an artifact does not represent cultural knowledge. Cultural knowledge management is based upon beliefs, values exhibited groups, or organizations, a culture that is conducive to change will ensure that knowledge management integration will be a success. However, cultural knowledge management has no impact on the actual information or technology integrated into an organization. Cultural Tacit information could be based on many variables, such as the country the integration will take place, the religious beliefs of people working in the organization, the age of the employee's in the office. However, those variables have no impact on tacit informational knowledge management or Technology knowledge management being deployed within an organization. Just as Tacit, information from a cultural perspective is based upon beliefs or norms and is purely abstract. Information and Technology knowledge management are based upon known truths, experience or ideas [4].

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