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Knowledge Management Strategy by Means of Virtualization in Covid-19

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Abstract

In an era where companies, governmental programs, and the economy are knowledge-driven, they must understand the best ways to apply knowledge management to yield better results. Fortunately, technology is continuously evolving to better cope with knowledge management's arising challenges by innovating better problem-solving models. Cloud computing is one of the many technologies today that has revolutionized how different companies and economic sectors treat knowledge management by enabling this Knowledge's virtualization. The paper focuses on knowledge management transition to virtualization technology in supporting businesses during the COVID-19. Pandemic times despite many social restrictions being put in place to contain the virus. The text further presents the results of a study involving major firms in different sectors and how their applied virtualization technology is yielding results even during the toughest of times in any company or economy.

Keywords: Customer services quality; Customer satisfaction; Consumer behavior; Electronic commerce; Retailing.

1. Introduction

Knowledge management is a critical element in different industries as well as sectors. Companies and industries are driven by Knowledge to ensure the realization of maximum profits while minimizing the losses. Knowledge management is crucial in the collection, storage, and utilization of the Knowledge acquired in different contexts. Proper knowledge management leads to better results that may be acted upon to deliver some desired output. It is essential to understand knowledge management as it makes it easier to dissect knowledge management's evolution and the reasons behind these knowledge management changes. It is estimated that through proper knowledge management only, companies can increase their productivity by 10-40 [1]. This figure is an illustrator of how important Knowledge Management is in different firms. Greene further notes that the Fortune 500 Companies lose at least $31.5 billion annually due to poor Knowledge Management practices [2]. Hence, different firms must attach the required attention to Knowledge Management. The practices that they adapt by examining these procedures ensure that they create a favorable working ground to develop the best KM practices. It is also important to note that KM is dynamic rather than static. This statement means that different companies or industrial sectors may employ different sets of KM procedures and practices and achieve the same goal. Furthermore, as the company or organization grows, its KM practices are engineered to suit the direction of the company's goals and objectives as enshrined in its vision and mission statements.

1.1. Research Background

Knowledge management, as a concept, was invented by professional management consulting firms and communities. The internet revolutionized knowledge management in ways that continue to diversify the idea while offering more functionalities, flexibility, and cheap options for different companies looking to manage acquired Knowledge and information better. With the coming of the internet, various organizations discovered the great potential of computer networking. These companies realized that they could manage their Knowledge more efficiently by sharing the resources between other companies' subsidiaries while using an intranet. Intranets revolutionized how different firms

approached KM as the experience became accessible much easier. Various subsidiaries or branches in a given firm accessed the data using a simplified dashboard provided by the company. Collaboration on shared resources became easier as best practice lessons acquired through available internet KM tools were applied. In effect, these pioneering companies had landed upon a vital product with a ready market, especially in big corporations where knowledge management posed nightmares to the firms. This product was Knowledge Management as dubbed by the pioneering companies [3]. From here, Knowledge Management was put to use by McInerney during internal research that demonstrated the data handling mechanism within a large, complex, and widely dispersed company in the year 1987 [4]. Ernst and Young would then publicize the term in Boston at a conference [5]. The meeting saw the widespread usage of the knowledge management term.

In the coming months, the pioneering organizations offered consultation services to different companies yearning to try KM and improve their business success. The pioneering organizations cemented KM principles to ensure that certain practices were followed for propitious endeavors when applying these principles within their subsidiaries. Knowledge Management as a business product was well received, given the enthusiastic industrial propensity to better handle company data by different companies in the 1990s. It was a prime time to recognize company information, data, and Knowledge as important company capital assets that required better management.

Great value is attached to KM in any company or organization. It contains crucial information such as guidelines, procedures, and lessons learned in the past within these organizations and companies. Proper knowledge management involves the understanding of knowledge access and sharing principles vis-a-vis new knowledge acquisition. This text focuses on Knowledge Management during the COVID-19 Pandemic by applying smart KM tools readily available.

1.2. Search Strategy

A search strategy is a term that describes the set of procedures applied in the gathering of information around a given subject area. The search queries are executed against a database where information about the search topic is stored. The search strategy contains information such as keywords that are relevant to the said search subject. The keywords and phrases must be related to the search topic or issue; else, the database results that are returned by such a strategy may be irrelevant. An effective search strategy consists of critical pieces of information about the research subject. This attribute ensures that relevant results are retrieved much faster, giving the researcher more time to combine the different points from the query result set. There is a number of steps involved in the literature search, given the billions of available resources. These steps are essential in formulating an effective and time-saving search strategy. The steps are outlined below

- Understanding what the investigation is all about- the researcher must understand the topic so that the search scope march is defined. If the search scope is not understood, what follows is a lot of work that may not yield the desired results apart from being costly concerning time and financial resources.
- Definition of the search population- Any topic or subject may have information in different sources. Since one cannot peruse through all these sources, the researcher should define some population to check for their desired information. Even though the population may be large, some sources contain information within the search subject domain but may be irrelevant to the same. Therefore, it is vital to narrow down to a smaller population with specific relevant information related to the search topic or subject. For example, assuming that the community is a triangle, the base shall include the most general Knowledge around the search area. As one goes up the pyramid, the story is refined and better focused around the subject area. As one gets to the top of this imaginary information triangle, specific information around the subject area or the topic is found.

After accomplishing the two steps above, the researcher clearly not only understands what they are looking for but also where to look for the information that they need. At this juncture, a search technique is selected and applied in the information gathering. Different methods may be used at this stage. These include but are not limited to keyword searching, specific phrase search, subject headings search, Boolean logic search, and citation search. Given the subject's breadth under the topic, this text applies a combination of the keyword search, subject heading, and specific phrase search.

1.3. Data Sources

This text contains both primary as well as secondary data sources. In this text, secondary data sources have been applied in the research, as observed in the literature review section. The secondary data sources involved are heavily borrowed from scholarly materials available on the internet. This data is obtained from online libraries and e-books, after which the data is synthesized concerning the subject, as discussed here. On the other hand, primary sources are obtained from questionnaires used to collect data from correspondents who participated in this research. The questionnaires are discussed in the methodology chapter of this text. For clarity and authenticity, all information presented in this text was attributed to the original author by referencing the particular sources as required. The following section offers the review chapter that discusses the topic of research in detail.

2. Literature Review

This section discusses in detail the different sources that were used in information gathering and data collection. The information presented here was collected from the published sources accessed from the internet. These sources include scholarly journals, books, blogs, and websites.

2.1. Research Question

This section introduces the questions that the study seeks to answer. The following are the research questions that this text aims to provide concise answers to:

- What is the impact of the noble corona virus on knowledge management about virtualization technology?
- What is information technology's role towards achieving practical KM principles in different domains concerning KM's future?

2.2. Research Objectives

- To draw the role of smart KM applications in enhancing virtual knowledge management practices during the COVID-19 Pandemic.
- To derive the existing relationship between information technology and effective knowledge management practices in the 21st century.
- To identify and create awareness of knowledge management and knowledge management tools in different companies and organizations.

2.3. Research Importance

In 21st-century's knowledge-driven economies, knowledge management is a crucial opponent that companies and organizations must adapt to survive. Companies must understand the best practices concerning the KM strategies that they implement. With proper knowledge management practices, an organization's efficiency can improve. Furthermore, the company's decision-making is refined so that its decision has a positive outcome. Also, the organization's stakeholders reap the benefits of best practices since all the parties contribute to its decision-making processes.

As illustrated above, KM is an essential element in any company. This research paper aims to explore better ways of developing and implementing effective strategies by adapting information technology and utilizing available tools.

The research aims at establishing strong links between Knowledge and growth in a company's workforce that drives its goals. The study also explores the competitive edge that knowledge management virtualization has had on companies that adapted the model during the COVID-19 Pandemic. Even though the COVID-19 epidemic may seem like a rare occurrence given the number of times such a virus has terrified the world in human history, other calamities may have similar effects. Hence, organizations need to understand how to transition into the virtual era of knowledge management.

2.4. Research Goal

This study aims to establish the connection between knowledge virtualization and driving growth of an organization's KM practices. Knowledge management virtualization is powered by cloud computing thanks to the advancements in the field of information technology. The research further aims at encouraging more organizations to go virtual with regards to their knowledge management practices by presenting the results from a case based on some of the organizations that employed virtual KM after the limitations imposed by the COVID-19 Pandemic. The case study aims at illustrating that it is much easier and possible to manage all KM processes from a virtual cloud environment and achieve better results.

2.5. Research Sample

This research revolves around ten firms employing the virtual knowledge management model to continue with their daily activities, such as knowledge sharing, even when their employees were forced to work from home due to the restrictions that came about with the COVID-19 Pandemic. The data was collected using an online survey that contained particular questions related to the virtual KM transition. The sample consisted of both large and medium-sized companies specializing in different domains.

2.6. Research Problem

The COVID-19 Pandemic opened a Pandora's box of uncertainty that was thought could never happen before the epidemic crippled big economies in the world. Knowledge Management was greatly affected by significant companies that heavily relied on KM practices to move the firm forward. As a result, these companies ought to consider cloud computing in their KM by virtualizing their Knowledge.

2.7. Definition of Data, Information, and Knowledge

It is essential to make some definitions clear to ensure clear distinctions between the different components that define knowledge management. Therefore, it is paramount to establish the meaning of the term knowledge itself, after which it becomes clear to understand why managing the understanding is essential. The term knowledge assumes different meanings requiring different definitions according to the term's context or assigned meaning. When the term is used in everyday day-to-day conversations, it may refer to know-how, wisdom, or information. All these definitions are correct, depending on the daily context within which the term is applied. The term's close relationship with both data and information makes it difficult to understand the exact meaning. In the field of information technology, Knowledge simply refers to information. Information in information technology may be codified and transmitted in some means. In this sense, the term knowledge may be defined as information that can be codified and somehow transmitted. Information is a synonym of the term knowledge, which means that with this regard, the term knowledge is nothing more than its synonym. In the 90s, when the internet made information technology routine, the term knowledge was defined as mere information.

According to Davenport et al. [6], the three terms (that is data, information, and Knowledge) all have different meanings. Data is defined as simple, unstructured raw facts and figures, while information is synthesized from data and grouped neatly to derive meaning. On the other hand, the term knowledge is at the top of the pyramid and is defined as information about additional information [7-8]. As KM developed and grew further to include other components that are personal to an individual such as skills, the definition and meaning behind the term knowledge

also revolutionized to better alignment that favored KM components. At the date of writing this text, the Longman and Oxford online dictionaries define learning as a set of acquired facts, information, and skills in a given field through experience or education. According to Davenport et al. [6], information is data that has meaning and thereby useful in some way.

Information, therefore, has higher precedence than data [9]. With this regard, information is used in different industries and sectors as it represents essential information about the data, such as trends and patterns in market forces. Essentially, as used in this context, information is used to answer four questions. These questions start with the terms: what, when, where and how [10]. It is essential to understand that information technology is a crucial component of the process of large quantities of data. IT provides the tools that are used in the synthesizing of the meaning from data. In modern times, significant companies are data-driven in that all the company decisions are based on the actual trends observed from the information. Information technology, machine learning, and artificial intelligence, in particular, have made it possible for companies to predict their trajectory in the future and make smart decisions geared towards driving growth and sustainability by minimizing the losses incurred in the company's future.

According to this text, Knowledge refers to an individual's understanding and expertise in a particular field. This understanding and expertise is based on their comprehension and view of different occurrences in their surroundings, more so workplaces, and encompasses solutions to problems and new ways of performing various tasks [11]. Knowledge provides a conducive environment and framework for testing and absorption of new ideas and information [12]. More often than not, Knowledge is stored in a company's files, structures, strategic goals, and repositories. The info graphic figure below illustrates a pyramid that defines data, information, and Knowledge.

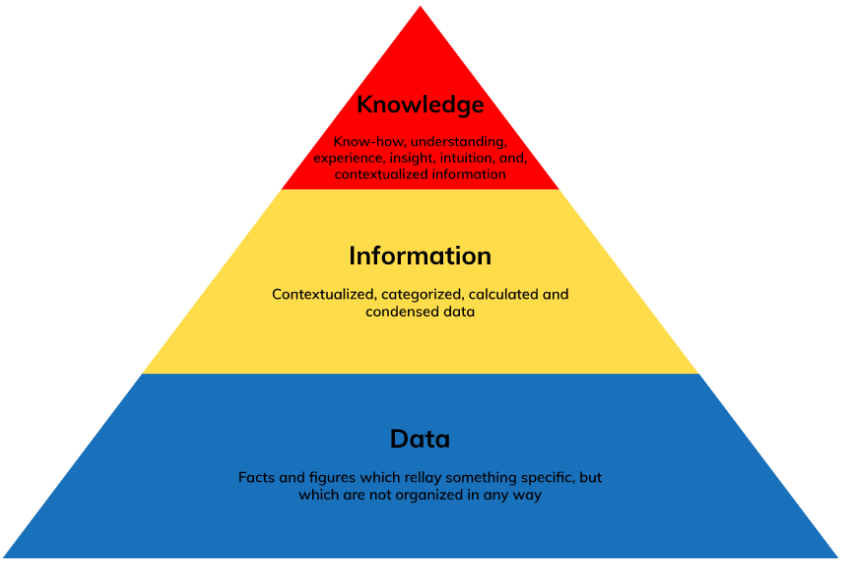

Figure. 1. Definition of Data, Information, and Knowledge (Courtesy: KMT)

2.8. Virtual Tools

Cloud computing and Web 2.0 technologies [13] are having a disruptive impact on many aspects of organizations' lives. One of those aspects is in the area of knowledge management (KM), traditionally reserved for well-endowed organizations. Cloud computing and Web 2.0 technologies are proving to be empowering agents for the implementation of KM projects [14].

Virtual universes, as electronic conditions where people can collaborate in a sensible way in type of symbols, are progressively utilized by employees, gamers, purchasers and workers. In this way, they give freedoms to rehashing business processes [15]. Particularly, compelling information the board (KM) requires the utilization of proper data and correspondence innovation (ICT) just as friendly communication [16]. Arising virtual universes empower better

approaches to help information and knowing cycles in light of the fact that these virtual conditions consider social angles that are vital for information making and information sharing cycles [17]. Hence, joint effort in virtual universes takes after genuine exercises [18].

In this paper, we shed light on the utilization of Second Life (SL) as a KM stage in a genuine setting. To investigate the potential and current utilization of virtual universes for information and knowing exercises for KM, we referred a subjective report at IBM. We talked with IBM representatives having a place with an extraordinary workgroup called 'Web 2.0/virtual universes' to acquire insight in creating and trading information by for all intents and purposes teaming up and cooperating. Our results show that virtual universes – assuming they can conquer issues like information vs respondents, level of the experience on KM – to bear the possibility to fill in as a KM stage. They work with worldwide and synchronous cooperation, make a typical setting for coordinated effort using virtual tools like MS teams, Zoom Video Communications, Google Drive, One Drive and many other online virtual tools available as a service by joining various devices for correspondence and improve information and knowing cycles.

3. Methodology & Research Approach

3.1. Introduction

This section discusses the methods of data collection and the tools that were adapted in carrying out the research. It also describes the research design, target population, sampling procedures, and data collecting approaches in the analysis of the gathered data and presentation approaches.

3.2. Confirmatory Factor Analysis Results

The research on knowledge management practices in transition to virtual knowledge societies used a hybrid research design. This design was most applicable in this case since the researcher aimed at the effects of knowledge management practices in the transition to virtual knowledge societies during the corona virus Pandemic intensively. It was, therefore, appropriate to combine both descriptive as well as quantitative research procedures. Descriptive research includes the circumstance of people, situations, and phenomena like the corona virus Pandemic that occurred unexpectedly. The main motive for adopting this kind of design was that the researcher might look at the research variables from different perspectives by using the different methods allowed by the design. It encompasses all the elements of the validity and reliability of the variables and the independent variable. Different scenarios are captured in the descriptive research design as various components are allocated the tools to be researched wholly as well as in the quantitative design. Descriptive research is also an efficient design as the data's validity is explicitly analyzed and collaborates with the variable. In other words, all the variables under study could be observed from descriptive and quantitative approaches. Therefore, the combined approach provides several answers to distinct variables in the research.

3.3. Study Area

The study area covered is central London since many of the sample companies have offices located within the jurisdiction. The region was chosen to draw a sample target from all the employees working from all the twenty-one organizations that were about 120 old and middle-level employees.

3.3.1. Target Population

A target population refers to a group of individuals from where a research sample is drawn for easier and effective analysis of the data. The population of this research constituted at least 200 companies from where a sample of 21 companies was selected. The study's target population constituted all the senior and middle-level employees in the

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various human resource departments in twenty-one organizations. There are 120 old and middle-level employees working in all the 21 organizations. The population was categorized as illustrated below.

Table. 1. Population distribution

Level of management	***Frequency***	***percent***
Senior-level management	40	33.3%
Middle-level management	60	50%
Operational-level management	20	16.7%
Total	120	100%

3.3.2. Sampling Target

Sampling represents a technique used to describe a sub-set to be used from an entire targeted population. The researcher focuses on the subsector that will be chosen randomly to represent the entire population. During the selection of an appropriate sample size, the case study applied a stratified random sampling method. This technique was the right one for this research since the population was divided into strata, and it is easy and quick to use.

Table. 2. Sample size

Level of management	***proportion***	***Percent***
Senior-level management	40	4%
Middle-level management	60	88%
Operational-level management	20	8%
Total	120	100

3.4. Data Collection Methods

Data collection methods are divided into quantitative and qualitative methods. This study is hybrid in that it adapts both descriptive approaches as a technique to determine the effects of covid-19 on knowledge management. As a result, a qualitative data collection method was most relevant to apply in the gathering of data for the data analysis. Qualitative research is explanatory research in that it is centered around the thoughts and opinions of people through discussions, interviews, and written correspondences. Qualitative data collection techniques can be further classified into two categories, that is, unstructured and semi-structured approaches. Semi-structured techniques include interviews where the set of questions that the correspondent is intended to answer are predetermined and prepared by the researcher before the actual questionnaires were administered.

Structured qualitative techniques, such as structured questionnaires, have chronologically predefined questions that researchers designed for the correspondents to answer. The researcher lets the questions flow naturally from the questionnaire with the correspondent. This aspect accounts for the fact that the data collected using this technique may not be specific or even relevant to the research. This case study applied the structured methods in designing a questionnaire that was used in the collection of the data from the correspondent. A structured data collection approach has numerous advantages in this research since all the respondents from the research sample answer

questions as it becomes easier to compare and analyze the obtained data. The following section explains in detail the method that was used in the collection of the data.

3.6. Questionnaire Design and Data Collection

The study created and deployed an online questionnaire to observe the provided health guidelines against the COVID-19 Pandemic. Two kinds of questionnaires could have been deployed when collecting the data from the participants. Firstly, an open-ended questionnaire was appropriate. An open questionnaire contains questions without any predefined choices. The correspondent is free to answer the items in the way that they dim or understand the answers that were asked in the questionnaire. At times, such a questionnaire's responses may not contain precise data if such data was required. The second kind of questionnaire is closed-ended. This kind of questionnaire includes questions with predefined choices from where the user can select an answer from a list of solutions provided to them.

Unlike the open-ended questionnaire, closed-ended questionnaires are focused on specific details and may, at times, contain leading questions [19]. The leading questions require a yes or no answer without further discussion or explanations. A closed-ended questionnaire strictly holds the correspondent within the context of what was needed for a problem. At times, the correspondents may feel limited as they may need to offer further explanations. Still, a closed-ended questionnaire saves time and is efficient in obtaining only relevant data for a study.

This case study applied a hybrid questionnaire by combining the concepts of both the open and closed-ended questionnaires. Some questions had choices, while others required the correspondent to give their views about the subject under study. The questionnaire contained two sections; the first section required the correspondent to fill in their company information such as their company's name, their full name, and their position within the company. The second part consisted of questions relating to the subject matter: knowledge management transition to virtualization during the Cold-19 Pandemic. For the correspondents' privacy and security, the participants were free to seek the anonymity of the data they provided, including that belonging to the companies in which they work. For this reason, the results presented may not necessarily contain information that could be traced back to the correspondent, such as their names and companies they worked for during the COVID-19 Pandemic.

The questionnaire was distributed among the sampled population to determine the effect of knowledge management practices in the transition to virtual knowledge societies during the corona virus Pandemic. The main reason for using the questionnaires was that the population was scattered as most employees were working from their homes. This method enabled privacy and transparency was maintained. Every employee participated because they could read and understand the questions clearly.

According to the qualities of response choices, close-ended questionnaires produce data that is individually conclusive. In addition to this, in terms of effectiveness and efficiency, the questionnaires are also very cost-effective, and people could fill them virtually. The questionnaires' validity was done through the use of a pilot study against the prospective sample population. The wording of questions was selected according to an earlier first test and outcomes reviewed. Furthermore, the questions were re-checked keenly so that there were no vague or probably inappropriate questions to the respondents that may lead to prejudiced feedback; therefore, it enhanced the research instrument's actual validity.

3.6. Data Analysis and Presentation

This section details the steps that were taken in the refinement of the gathered data to draw meaningful relationships between the different variables observed in the result. Data examination is the methodical organization and composition of the research data and the evaluation of study hypotheses, using the collected data. Prior to processing the answers, the completed questionnaire was edited for thoroughness and uniformity. Descriptive statistical procedures such as mean and standard deviation were employed in the investigation of the gathered data. Tables and

other graphical presentations were used to present the data to be collected for ease of understanding and research. A large number of the questions that were added to the created questionnaire were closed questions in that they required the respondent to select an answer from a list of possible choices accompanying the question. These were coded for easy analysis by computer. Multiple regression was used to ascertain the dimension to which the independent variables influence total variation in the dependent variable. The multiple linear regression model is as follows:

$$Y=\alpha+\beta_1X_1+\beta_2X_2+\beta_3X_3+\varepsilon$$

Where

Y = knowledge management practices in the transition to virtual knowledge societies

α= constant (free term equation)

X1= impact of corona virus on knowledge management about virtualization technology

X2= role of information technology towards achieving virtualization of knowledge management

X3=principles in different domains with regard to the future of knowledge management.

To establish the strength of the model, an ANOVA test is conducted. This helps to establish whether the model is significant in explaining the effect of knowledge management practices in the transition to virtual knowledge societies.

4. Result

This section deliberates the statistical, graphical analysis of the findings from the questionnaires given to the respondents over information. The responses as Data was implied and shown in the form numbers given in tables and plotted as relationship, pie charts and analyzed using population Distribution, Sample Size and hypothesis testing, It is necessary to thoroughly get ahead the collected data through a range of procedures mentioned therein. From the analysis of the data and desired results, the relationships between different values and variables were drawn. Key among these results are the relationship level of management, respondent's vs information and gender information within an organization's success who adopted KM strategies within the firm. If KM is proven as a growth factor for an organization, then information communication technology is the wheel upon which KM rides. Virtualization has not only dynamited, simplified the lives & careers of employees but has also opened new frontiers to so many people who remained unaware from the technology before. The results obtained only confirm that the future is digitization and heavily dependent on technology.

Whereas, the interpretation and presentation of the findings obtained from the field. . Initially, it presents the background and conclusions of the analysis based on the level of management illustrated in tables 3.1 (population Distribution) & table 3.2 (Sample Size) as per objectives of the research. The research targeted a population distribution and its sample size as shown in figure 4.1 which illustrates the level of management either operational, middle or Senior with its exact percentage of population Distribution (P.D) and Sample Size (S.S). The questionnaires were sent to the respondents to fill. At least 100 respondents submitted back the filled questionnaires. It was observed that out of the 100 received responses; only 50 of the questionnaires had full answers to all the questions. Only the complete responses were used in the study.

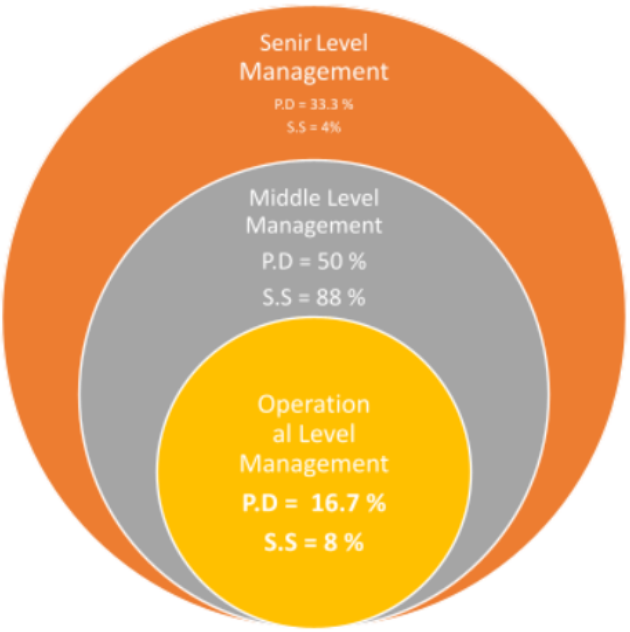

Figure. 2. Level of Management with Population Distribution & Sampling Size

Also it presents the respondents' background and conclusions of the analysis based on the objectives of the research. The research targeted a sample size of 120 respondents. The questionnaires were sent to the respondents to fill. At least 100 respondents submitted back the filled questionnaires. It was observed that out of the 100 received responses; only 50 of the questionnaires had full answers to all the questions. Only the complete responses were used in the study.

As earlier indicated, the research was done in adherence to the COVID-19 social distancing rules. The questionnaire was created using the online Google forms, and the participants were invited to fill out the questions. The response rate was satisfactory for analysis conclusions for the research.

4.1. Respondents Vs Information

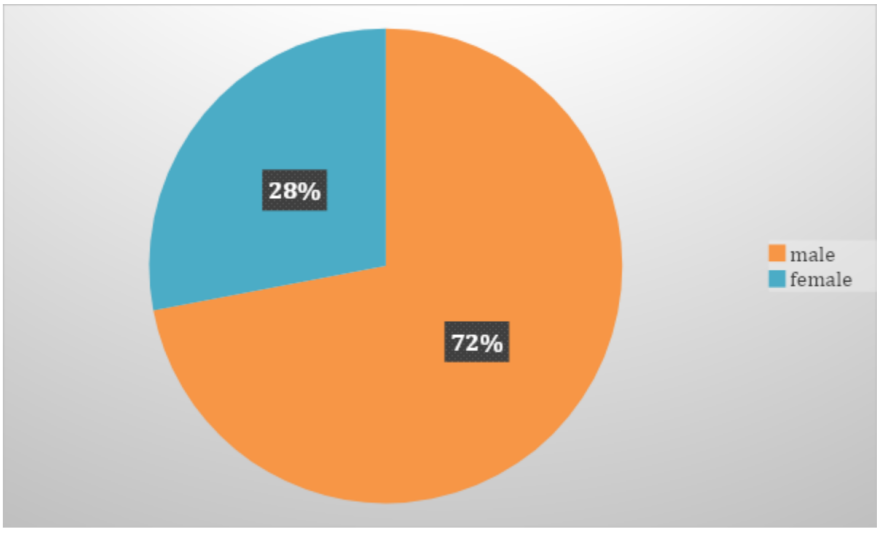

Figure. 3. Level of Management with Population Distribution & Sampling Size

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The research found that 72% were male, and 28% of the respondents were females, thus indicating that both male and female correspondents participated in the study. Hence, the results of the research did suffer from gender bias, given that the number of male and female respondents was not equal.

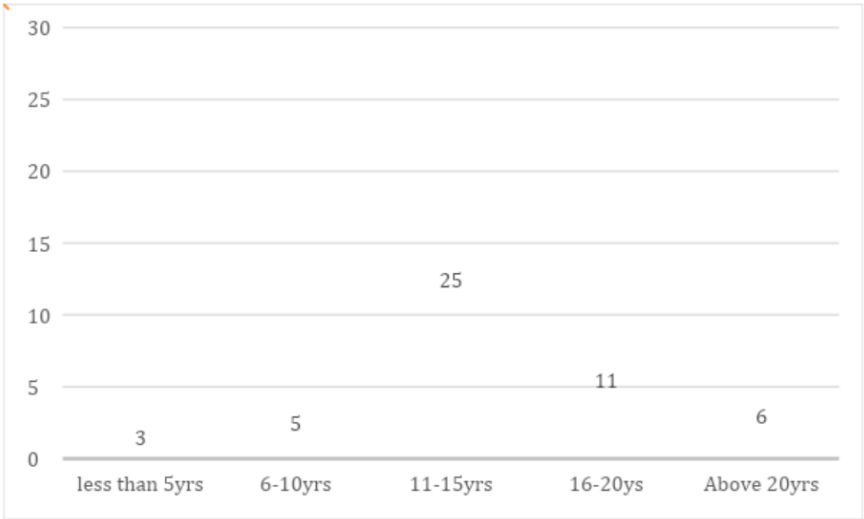

Figure. 4. Level of experience on knowledge management

The questionnaire requested the respondents to indicate their level of experience in the field of knowledge management. The findings revealed that 50% of the respondents had 11-15yrs of experience, 22% of the respondent had the experience of 16-20yrs, 12% of the respondents had a level of expertise of above 20yrs, 10% of the respondents had a 6-10yrs level of experience, and 6% of the respondents had less than 5 years of experience in the field of information technology. This illustrates that most of the participants had been in service for a substantial time-duration; hence, a good number of the research participants had enough Knowledge on knowledge management that this research could rely upon.

5. Discussion

This section described the statistical analysis of the findings from the questionnaires given to the respondents. Data was coded and presented in tables and pie charts and analyzed using mean, hypothesis testing, and standard deviation. It was essential to thoroughly pass the collected data through the various procedures mentioned here. From the data analysis and the discussion of the results, relationships between different variables were drawn. Key among these is these results are the relationship between an organization's success and the adapted KM strategies within the firm. If KM is a growth driver in any organization, then information technology is the wheels upon which KM rides. Virtualization has not only simplified the lives of employees but has also opened new frontiers to so many people who did not know about this technology before. The results here only confirm that the future is digital and heavily reliant on technology.

Associations, all things considered, live using virtual tools in an inexorably powerful world. Quite a bit of this dynamism is created by advancements or developments in innovation, particularly data and correspondence innovation through ICT. Using cloud and google tools, a few associations exploit this dynamism and make new items and plans of action which require knowledge insights to flourish the desirable information to respond. Others overlook it or consume most of the day attempting to adjust to it and battle, frequently with adverse results from the data i.e operational level management. A portion of these developments, to utilize the Knowledge Management using these leading tools with usage of sort leading devices like of the Smartphone and gadgets, the Web enables these innovators of an organization with a variety of online tools for distributed & virtualization computing over the globe

information. This paper presented the results in advancement peculiarity of vitalization, cloud computing and Google tools and explicitly looks at their effect on hierarchical information flow in and organization in a managed way.

As a summarized argument & apart from all, the results shown from relationship chart graph (Level of Management with Population Distribution & Sample Size), pie chart (Gender of the respondents) i.e respondents over information with gender disquisition resultantly as 72% male and rest 28 % are female respondents of information considerable as knowledge for an organization. Whereas, the graph (Level of experience on Knowledge Management) shows the 2-dimensional values leading the level of experience over knowledge management which are already described in detail in the results section.

6. Conclusion

The transition of knowledge management into virtualization has played a significant role in keeping companies KM strategies afloat despite the difficult times. The COVID-19 Pandemic posed the most significant challenge that any organizations and entire economies have witnessed in the last few centuries. The virus's implications on KM practices in different firms were devastating, yet it is not over. Smart online KM platforms' availability was a significant advantage to some of the large companies aware of virtual knowledge management. However, many of them must have struggled with the abrupt change in handling the company's knowledge assets. These companies continued driving their business even as the workers remained under lockdown to observe the imperative social distance.

Companies that were not aware of available online KM platforms before the Pandemic have appreciated the capabilities of the new KM concepts and principles for better business growth through effective implementation, sharing, modifying, and generation of further information. Some online free tools such as Google Drive, one Drive, Microsoft Azure, MS Teams, Zoom video communication including other online tools available as a service go a long way in helping companies keep tabs with their human resources through safer and faster knowledge management strategies that are virtual. The paid version of Google G-Suite offers an even better approach to KM as it automates note only knowledge sharing but also the generation and analysis of new data from which Knowledge can be synthesized. This tool is just one of the most useful virtual knowledge management software in the market today. Information technology has also played a significant role in realizing better KM as all the advanced tools result from computing and computer processing power advancements.

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