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KNOWLEDGE MANAGEMENT INSIDE OF A SMALL *ORGANIZATION*

Case study on knowledge sharing in product-based company

Dijana Novakovic m2016023

Project Work presented as partial requirement for obtaining the Master's degree in Information Management, with a specialization in Knowledge Management and Business Intelligence

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ABSTRACT

Knowledge Management is wide and unclear concept of creating, sharing and applying knowledge inside and outside of organization. Strategic and systematic use of this approach can have beneficial outcome on organizational progressing. Thus, knowledge management appears to be the new main assets when it comes to organizational effectiveness. This work aims to create a valuable insight into knowledge flow insight of the small organization and its effect on their growth. For this purpose, we define Knowledge Management, introduce it inside of a small organization and apply the most effective model of knowledge sharing into that organization. The right model will be chosen after creating and analyzing right survey composed out of 21 questions related to the topic. Finding the right model for knowledge obtained inside of organization presents a great challenge for leaders. In this dissertation, we analyze the best solutions and strategies that could upgrade organizational growth, along with providing new knowledge creating and sharing models but at the same time preventing knowledge loss.

KEYWORDS

Knowledge management; knowledge sharing; organization; framework

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LIST OF ABBREVIATIONS AND ACRONYMS

HR- Human Resources

EE- Employee Engagement

KM- Knowledge Management

KT- Knowledge Transfer

OC- Organizational Culture

OE- Operational Excellence

PR- Public Relations

1. INTRODUCTION

1.1. RESEARCH BACKGROUND

Knowledge is a comprehensive and theoretical notion that has been emphasized, researched and debated upon by all disciplines such as socio-economic and management science, drawing a general consensus that transformation subjected to knowledge management (KM) has occurred (Alavi and Leidner, 2001; Davenport, De Long, and Beers, 1998). Knowledge is referred to as the combination of information together with experience and the ability to interpret and reflect. It is in its complete value-added form of facts that are applicable to decision making process and actions (Evangelista, Esposito, Lauro & Raffa, 2010).

Although knowledge and information are not distinguishable according to Davenport et al., (1998), both are categorized to be valued and substantially contribute to the determinants of human capital. Given the significance of such an asset (knowledge), it has been treated as a key organizational resource over the decades (Wiig, 1993; Davenport et al., 1998; Alavi and Leidner, 2001; Evangelista et al., 2010; Gunjal, 2019). The emerging attention submitted to organization knowledge and KM stems from the shift into the field of knowledge where knowledge from a theoretical perspective is seen as the valuable resource of sustainable and profitable competitive advantage. The volatile and dynamic nature of globalized markets has shaped a competitive incentive amongst companies of all sizes to influence their assets of knowledge as a resource of creating value and attaining unique core competencies. Hence the emphasis on KM is critical for the success of small firms to achieve a competitive edge in the market. In other words, Rubenstein et al., (2001) highlight that the strategic management of knowledge is an important tool for growth, maintaining the competitive edge and surviving in the market dominated by large MNCs.

KM, as suggested by Gunjal (2019) supports an organization by gaining insight and developing a better understanding from its own prior experiences. Thus, specific KM implementation and activities help an organization to majorly focus on researching, selecting relevant, information, storing and utilizing that information for solving problems, manage a crisis, planning strategically and decision-making processes. It also helps to prevent valuable assets from depreciation, aids to organizational knowledge and delivers enhanced flexibility.

1.2. Problem Statement

KM is not narrowed down to Knowledge Technology but refers to the broader dynamic of tools which enable to achieve strategic business objectives. Hence there are numerous studies which have emphasized on the need to inculcate KM initiatives to achieve sustainability, growth, and profitability (Gunjal, 2019; Wiig, 1993; Alavi, 2001). Although such studies have defined and given empirical evidence as to the significance of KM in organizations, the question of how to apply and implement KM in the most strategic way within an organization, still remains. Considering the importance of knowledge in the modern world, organizations cannot afford to lose information due to mismanagement in communication or restrictions of interaction among employees. Hence the current study aims to provide strategic processes and interpretation of using KM within-firm with the focus on a small organization.

1.3. Objectives of the Study

The main goal of the present research is to find a significant relationship between KM and its influence on the effectiveness of a certain organization. For this purpose, the study defined the following specific objectives:

1. To identify the key tools which address to KM within an organisation;

2. To understand and study the needs of individual employee regarding KM within an organisation; and

3. To provide an extensive analysis of the management efficiency of the organisation selected with regards to its current level of KM .

This study will use a small-scale scale organization as a proof of concept *to provide effective KM Processes.*

1.4. Methodology Overview

The current study adopts a mixed research approach involving qualitative and quantitative data collection methods. The study will follow a qualitative approach by critically reviewing and analysing previously published literature and theoretical concepts in the field of KM. The study will also undertake the approach in the form of survey with managers and employees of the selected organisation. The survey will be a semi-structured questionnaire of multiple-choice questions as well as open-ended questions, making up for 21 questions. This approach will help to offer new insight into the gathered data regarding the business aspects of finance, human resources (HR), ethical issues and public relations (PR). The quantitative approach, on the other hand, includes research articles and case studies covering the challenges of inculcating KM within an organisation. The approach will help the study to utilize hard data and scientific facts which will give the conclusions the entailed integrity. The introduction of different approaches in the study to collect information will help to analyse the topic of KM more profoundly.

1.5. Dissertation Structure

In order to provide a better understanding of the effectiveness of KM in small scale organisation, the study is separated by 6 chapters.

- Chapter 1 gives an introductory background of the topic of the current study, thereby defining KM from different perspectives and identifying where the research in the field of KM lacks. Thus, the chapter also includes a detailed description of how the current study will contribute to the practical implications and academic knowledge of the already existing literature, with an overview of the methodology to be used, as well as limitations and research objectives which the study tends to achieve.

-Chapter 2 sets a theoretical foundation of the study, inculcating the idea of KM by defining the key terms, presenting the different kinds of knowledge, knowledge conversations and KM.

-Chapter 3 presents methodologies used for work research and critically analyses the previously published literature in the domain of organisational KM, thereby giving a perspective of knowledge from the view of an organisation, Knowledge Sharing Culture, correlating KM and IT, Workhorse of KM, identifying the role of managers and employee in KM and how KM can be disrupted within the organisation.

- Chapter 4 discusses the framework for knowledge sharing comprising of its requirements, short-term, mid-term and long-term solutions identified.

- Chapter 5 defines the structure of the company by giving an overview of the personal experience, the team structure and organisational KM approaches being used. Along with revealing the structure, chapter 4 includes survey results, and interpretation of the results. As well as discussing the reflection of the survey.

-Chapter 6 presents evaluation and effectiveness of a given framework presented earlier in chapters 4 and 5.

-Chapter 7 aims main findings of a work and limitations that came through during research process. Final word gives an insight in to the future works that could benefit from this research.

2. THEORETICAL BACKGROUND

2.1. INTRODUCTION

KM is an important element that helps businesses in generating value from their knowledge-based assets and intellectual capital. In the past few years, management of knowledge has gained tremendous recognition as it helps organizations in increasing their competitiveness and overall business profitability, specifically by utilizing knowledge (Omotayo, 2015). In short, the performance of the organization is mainly dependent on its ability to effectively manage and transfer their knowledge. In order to gain in-depth insight into KM , the chapter review different literature about the idea of KM. In this account, different kinds of knowledge and the concepts of knowledge conversion and KM are discussed in detail.

2.2. KNOWLEDGE MANAGEMENT

The concept of KM can be understood as the systematic management of the knowledge within the organization (Girard & Girard, 2015). The main dimensions of the KM include the understanding of knowledge as a standalone concept, followed by the determination of types of knowledge, concept of knowledge conversion, and lastly the understanding of KM.

2.2.1. Concept of Knowledge

The term, ‘knowledge’ can be understood as the beliefs that are based on truth. This shows that to be called ‘knowledge’ the belief must be justified and correct (Hunt, 2003). It has been established by Hajric (2018), knowledge is the combination of contextual information and framed experiences. However, Bolisani and Bratianu (2018) proclaimed that knowledge is the understanding and awareness of the aspects of reality. Consequently, the research work of Brătianu (2016) highlighted that knowledge is the synthesis of action and thinking of the individuals. Primarily, knowledge is know-how and consciousness about a person, fact,

or a particular thing (Agarwal, 2015). While discussing the concept of knowledge, Bergeron (2003) has highlighted that it is the information that is summarized, synthesized, and organized that facilitates understanding and comprehension of particular scenarios or concepts under consideration. On the other hand, the research work of Karlsen and Gottschalk (2004) has demonstrated the concept of knowledge as the information that is combined with creativity, intuition, context, and experience. In short, it can be affirmed that 'knowledge' is a comprehensive concept as it is dependent on the person's experiences and thinking.

2.2.2. Types of Knowledge

Knowledge is categorized into four (4) types, i.e., procedural, personal, tacit, and propositional knowledge that are discussed in the proceeding sections.

Personal Knowledge: Personal knowledge is considered as the broader type of knowledge as it entails both procedural and factual knowledge. As per Jones (2016), knowledge can be regarded as 'personal' mainly in six senses that include: "transmitted by me", "about me", "relevant to me", "directed towards me", "experienced by me", and "owned by me". This shows that personal knowledge is the one that is gained by an individual through experiences. Likewise, Martin (2008) asserted that personal knowledge includes the gain of knowledge from informal and formal means, instructions, books, readings notes, documents, personal contacts, and experiences. On the basis of these evidence, it can be affirmed that the knowledge, held or gained by an individual through experiences, readings, etc. are regarded as personal knowledge.

Propositional Knowledge: It has been established by Williams (2008) that propositional knowledge is basically the knowledge based on facts. In accordance with the view of

Williams (2008), it is the most important type of knowledge, that a person and organizations seek for, or takes interest in. It is due to the fact that propositional knowledge facilitates fact-based decisions that eventually result in fruitful outcomes. It has been documented in the research of Jones (2016), this type of knowledge includes facts and figures that are derived through various studies and holds a strong justification of belief. Most importantly, this type of knowledge eradicates the ambiguities and confusion because of the presence of strong factual data.

Procedural Knowledge: This is one of those categories of knowledge that demonstrates the way of carrying out things. In short, this type of knowledge helps individuals and organizations to carry out their day-to-day tasks. In accordance with the views of Ragab and Arisha (2016) organizational makes use of procedural knowledge in order to carry out required tasks. Therefore, it can be contended that procedural knowledge deals with 'how to do things.

Tacit Knowledge: Tactic knowledge can be understood as one of those categories of knowledge that is difficult to reciprocate. Personal knowledge that is present in the perceptions, behavior, and mind of the individual is regarded as tacit knowledge. In particular, this type of knowledge includes judgment, intuition, insight, experiences, and skills. It is important to bring into the notice that this type of knowledge is shared through person-to-person interaction, analogies, stories, and discussions. This feature often restricts the representation and capturing of this knowledge in the explicit form (Ancori, Bureth, and Cohendet, 2000; Howells, 1995).

2.2.3. Knowledge Management and Conversion

The term “KM” can be understood as the process associated with using the available knowledge for the sake of bringing innovation and resolving the existing issues. The research work of Filemon and Uriarte (2008) has presented multiple definitions of KM by categorizing into tree different types. These include technology- oriented, process- oriented and results-oriented. In this account, the results- oriented approach considers KM as the practice of ensuring the right knowledge, at the right time and place and in the right format. However, technology- oriented concept considers KM as the combination of intelligent agents, search engines, collaboration, as well as business intelligence. Lastly, as per process- oriented approach KM can be regarded as the systematic management of processes through which knowledge can be applied, shared, gathered, created, and identified. It has been recognized from the analysis of all of these definitions that the main objective of KM is to ensure the timely availability of required information to make informed decisions or to formulate strong strategic. This idea was supported by the research work of Girard and Girard (2015) that found that KM is about creating, sharing, organizing and using the information to take advantage of it while achieving its pre- defining goals and objectives. In accordance with the view of Penn and Pennix (2017), KM is a trans- disciplinary approach, that improves organizational performance in term of making informed decisions and generating productive outcomes. Therefore, it can be assorted that KM is the key to successful business operations.

Knowledge conversion is an important aspect of organizational learning. As per Nonaka and Takeuchi (1997), the organization tends to convert the tacit knowledge into explicit knowledge for creating a synergy between both categories of knowledge and gaining fruitful outcomes. It is significant to note that tacit knowledge is obtained through personal experiences and is related to the actions, procedures, and idea. On the other hand, explicit

knowledge is the one that is transferred and articulated easily due to the systematic scientific nature that enables it to be disseminated among the individuals easily. The conversion theboth types of knowledge usually occurs during the interactions (Bennet & Bennet, 2008). It has been established by Andrei (2013), in order to carry out the knowledge conversion process, the presence of an interactive environment is vital to gain fruitful outcomes.

According to Masrekand Zainol (2015), the role of knowledge conversion is undeniable in the business organization. It is due to the fact that it usually results in creating knowledge at different levels, like inter-organizational, organizational, group, and individual levels. Knowledge creation includes the interaction between the socialization (tacit to tacit), combination (explicit to explicit), externalization (tacit to explicit), and internationalization (explicit to tacit/implicit). It has been assessed that the effective conversion of knowledge facilitates the business organizations in improvising its performance, while effectively managing its KM functions (Masrek, 2015). Carvalho and Ferreira (2001) outlined the factor that is important for the conversion of knowledge. As per the views of Carvalho and Ferreria (2001), technology is one of the most important factors that frame and direct the process of knowledge conversion in an organization. In fact, the research stressed on the fact that the right use of technology expedites the process of transferring and creating knowledge that eventually results in improving the overall performance of the organization.

2.3. How Knowledge Management is Viewed in an Organization

Knowledge has been evolved and is continuously evolving. The knowledge transformation, from an organizational perspective (defined as applying the knowledge in business), began when it was reflected by learning and the knowledge element of the work. In previous

research, the questions related to KM were posted in different ways; some were based on the traditional way of thinking, which were linked to the questions of control, ownership and values of an organization, while the other questions focused on collecting and organizing knowledge. In the course of retaining personal expertise, people were forced to narrow-down specialization, at the time when more synthetic and in-depth thinking was required (Allee, 2012). Successful KM initiatives lead to the formation of learning organizations and new knowledge development. There have been multiple beneficial performance outcomes of KM initiatives, which have been derived from previous studies, namely, product and service quality, productivity, capacity and market position, innovative ability and activities, customer-relationship and satisfaction, employee satisfaction, communication and knowledge distribution and knowledge preservation and transparency. The measure of success of these initiatives of KM initiatives are dependent on how the KM resources are employed and what are the employee's assumptions and perceptions towards knowledge being an asset (Fruehauf, & Lehman, 2016).

2.4. The Culture Of Knowledge Sharing

Managing organizational knowledge has been described as a critical competitive factor. Organizational culture (OC) also performs an imperative part, as the ability to capture and effectively use knowledge has been said to be dependent on the culture of an organization. Therefore, understanding an organization's culture has been a crucial step in the development of a KM strategy. According to previous researchers, without the understanding that culture plays a vital role, knowledge remains a wasted resource/asset (Fruehauf, & Lehman, 2016). A study was conducted to understand an Albanian's organization culture pressures and KM obstacles, in the small and medium-sized enterprises (SMEs) (Boca, Mukaj, & Viskurti, 2017). The study took into account, both internal and

external environment considerations of SMEs, where OC became the mediating factor between the personal knowledge and the organizational knowledge. Furthermore, the study recognized some cultural barriers for KM, namely, the difference between the manager's actions and behavior, apathy in the dissemination of knowledge, the over appreciation of the technology and the attitude on the global market. The study endeavored to develop a comprehensive model, to determine a relationship between the components of OC and the KM, in correlation with the cultural dynamics of a global market (Boca et al., 2017).

Fruehauf & Lehman (2016) described KM initiatives to be a mean to build up the OC. Therefore, a suitable and right culture should develop and maintain an organization, in order to make KM initiatives to get successful.

2.5. Information Technology and Knowledge Management

KM has also been expedited by a firm's information technology (IT) structure. However, some of the information technologies and systems have been specifically established to follow and assist KM; the other and overall IT systems of an organization were actually developed to aid and help the firm’s need of information technologies, which also assisted the KM indirectly. The information technology (IT) arrangement included: data handling, data storing, communication technologies and other related structures. Also, it comprised of a complete range of the organization’s information systems, which included transaction processing arrangements and management information schemes (Becerra-Fernandez, & Sabherwal, 2014). Holtshouse (2013) linked IT with KM, in terms of data. It said that bad data lead to bad decisions. Many organizations made bad decisions due to lack of information available; also, they did not know how to analyze information and better alternatives.

According to Becerra-Fernandez and Sabherwal (2014), KM made many efforts from 1995 to 1999, especially on information technologies and the problems identified.

Previous literature has paid a lot of attention on what KM is and how organizations can create, transfer and use knowledge, along with the role of IT and its assistance for KM processes to create value (Okumus, 2013). It is important to confer how hospitality organizations could assist the KM through the use of IT. However, there are potential challenges while using IT tools for KM initiatives within organizations, which provided theoretical and practical implications for future researchers (Okumus, 2013).

2.6. Knowledge Management Collaboration and Roll Of People

KM tools are often regarded as the workhorses of structured data management. On the other hand, collaboration needs freestyle communication (Zimmerman, 2003). It is observed that successful KM projects enhance and promote collaboration between employees. It does not automatically enhance collaboration, but the existence of collaborative technologies may facilitate the process. Empirical evidence suggests that KM is a collaborative activity that relies on the development of shared context between the participants (Clarke and Cooper, 2000).

It has been believed that knowledge stays in the brains of the employees and the workers. Therefore, organizations develop numerous schemes to build organizational knowledge by leveraging employees' knowledge (Birasnav, 2014). An employee's creativity has been defined by a framework where creativity is a key component of personal characteristics (i.e. skills, experience, character and inspiration). While when the research was held on creativity, it was according to the perspectives of personal knowledge, social and KM perspective. This focused on the necessity to recognize the features that influenced the

cognitive processes of an individual employee, by focusing on the people's openness to different types of knowledge. Also, informal networks could assist sharing of knowledge, learning and creativeness by nurturing trust, interchange and communications among all the employees. Therefore, more focus has been shifted from the employee to be a creative person and to the connections that this individual/employee possesses. It is important to emphasize on these connections, that how they can facilitate in the transfer of knowledge and KM procedures that may result in an innovative and advanced output (Sigala, & Chalkiti, 2015).

The human resource managers are engaged in the process of locating the right leadership style that could support the execution of KM setups to boost the overall organizational performance. The transformational theory has proposed that a leader or a manager should exhibit certain actions and behaviors, in order to accelerate the employee's level of innovative thinking, which would improve employee performance, organizational innovation and overall organizational performance. Transformational leaders significantly influence the employee’s engagement, which is very important for the implementation of KM processes to enhance organizational performance (Birasnav, 2014). Therefore, managers play a vital role in highlighting and careful allocation of the intangible resources like knowledge and people’s talent, which can help the companies to achieve the competitive goals and strive to be sustainable and achieve competitive advantage over the other players. In addition to this, managers themselves also should acquire and gain knowledge of the intangible resources. They should also learn from the experiences of other employees and similar organizations (Bhatti, & Zaheer, 2014).

2.7. The Knowledge Loss in an Organization

Knowledge has not only been described as produced from internal learning and processes but also derived from the external sources. Knowledge storage retention embraces procedures such as the documentation and codification of knowledge. This step has been crucial in order to develop the knowledge base of an organization and to reduce the loss from any type of information loss. Usually, knowledge loss is caused by retirement, departure of employees from the organization, termination or death. This KM task may create a great challenge for the SMEs, as most of the knowledge is kept and retained in the minds of the owners and the key personnel, rather than storing important information physically or any other substation arrangements (Durst, & Edvardsson, 2012). Knowledge has been defined to be a critical and vital intangible asset in every leading and progressive organization. While the learning process has been explained to be the creation of both knowledge and the source from where it has been extracted. Usually, an organization has a strong and rigid memory and is not vulnerable to the loss of important knowledge, when the employees switch their jobs, and move to other organization or quit their jobs (Serrat, 2017).

2.8. Knowledge Barriers

Paulin and Suneson (2015) explained knowledge transfer (KT) to be the essential method of evolution and that it was essential for learning, which was critical to the development and exploring KT . Knowledge sharing or transfer should not be ignored. Studies have discussed barriers affecting KS and KT, which has a further negative impact on the KM and its possibilities to deliver a positive return on investment. Another type of knowledge barrier to understand the interruptions or slower dissemination of innovation and how KB could be passed or lowered. Furthermore, the terms KT and KS are sometimes used as over lapping concepts and are related to lack of knowledge. In order to determine how to overcome the

lack of knowledge, the solutions were dependent on the knowledge barriers. Usually, barriers to adaptation have been defined as obstacles, challenges, bottlenecks, hurdles and constraints that may impede adaption of knowledge. Furthermore, it takes time to overcome the barriers. Inspired leadership can establish novel mechanisms in this regard and can mitigate the obstacles and create change for decision making (Eisenack et al., 2014).

2.9. CONCLUSION

From the preceding analysis, it has been concluded that KM has become one of the most important aspects in today's competitive corporate environment. It has been established from the above evidence that KM is one of those systematic approaches that help in renewing, sharing, applying, sustaining, organizing, and acquiring both explicit and tactic knowledge that offers tremendous outcomes. In the organizational context, these outcomes are usually in the form of the increased value of business process, creation of knowledge-intensive services and products, increased revenues, and improved organizational performance.

In order to profoundly assess the concept of knowledge, the chapter has discussed few types of knowledge. These different types of knowledge are used in organizational settings to make informed decisions and gaining higher competitive advantages. In fact, the concept of KM has become important in the organization, due to the value it creates and the uncountable benefits that it offers. Since the world is converging towards technological advancements, maintaining the competitive edge and distinct value proposition in the market has become the core business strategy. In such circumstances, investing in the creation and management of knowledge allows the organizations to maintain stability,

specifically by thoroughly understanding varying market demands and developing products/services, accordingly.

Furthermore, based on the above discussion, it can be said that KM is an integral part of an organization and business environment, which ensures growth and competitive advantage to any organization. As, presently, many organizations are losing the sight and value of competitive edge, for growth and competing with the other organizations, mainly because of their mismanagement, lack of experience, expertise and knowledge resources/assets. Therefore, to be a competitive business in the competitive environment, besides being innovative, the organization also needs to make use of its prior knowledge, experiences and learning in a more effective and useful manner. KM is said to be an effective tool used to control the organization's knowledge assets, which generates profits and fosters creativity. In addition to this, KM leverages the organization's knowledge, produced internally and externally both, in order to build and sustain a competitive advantage. Also, organizations should focus on information systems, as KM can be facilitated by IT. An effective KM is said to be a result of both technological and behavioral aspects, where KM system must have a holistic approach involving people (managers and employees), processes and the technology (Goswami and Goswami, 2013).

3. METHODOLOGY

3.1. INTRODUCTION

The term KM, in the context of management philosophy, technological methods, and managerial actions, has extensively influenced the business world. The key motivation for the penetration of KM was because it made a significant difference to any organization's bottom line (Lin, 2015). Furthermore, KM has been referred to as classifying and leveraging the combined information and knowledge, within an organization, in order to assist a business to compete with the other players. Accordingly, KM is complex concept whose research requires a layered academic approach. Thus, methodologies applied in this work are mixture of quantitative and qualitative methods. Quantitative methods are used as academicals background that will support new academic discoveries in a form of a literature review. However, qualitative part is a result of a studious research based mostly on a employees personal experiences and beliefs.

3.2. METHODOLOGICAL APPROACH

As it has been discussed that the study will include mixed research approach to analyse the process of KM within small scale organisation, the integration of the research work and data collection of the study will be a challenging task. Therefore, the results drawn from the qualitative and quantitative methods, after combining might not be treated with the equal significance hence merging data will also consequently affect the integrity of the results.

Thus, survey is chosen as an effective and reliable method to emphasize current organizational KM level as well as knowledge sharing and knowledge production level. By compiling different sets of question author is opening new perspectives to locate the weakest points of the company's KM. Thought scanning answered questionnaires author can

get a truthful image to where is company standing at the moment when it comes to organizational KM. Thus, survey results will indicate hidden problems among employees and it will point out remoteness on all organizational levels. Finally, once when all the aspect of business effectiveness and readiness are determined new approaches will be appropriate with the survey outcome. Project will offer insights into following questions:

1. Analysis of company knowledge distribution.

2. Creating method for developing and overcoming knowledge distribution obstacles

3. Rating new methods

The figure below (Figure 3.1) shows methodology structure used in this work.

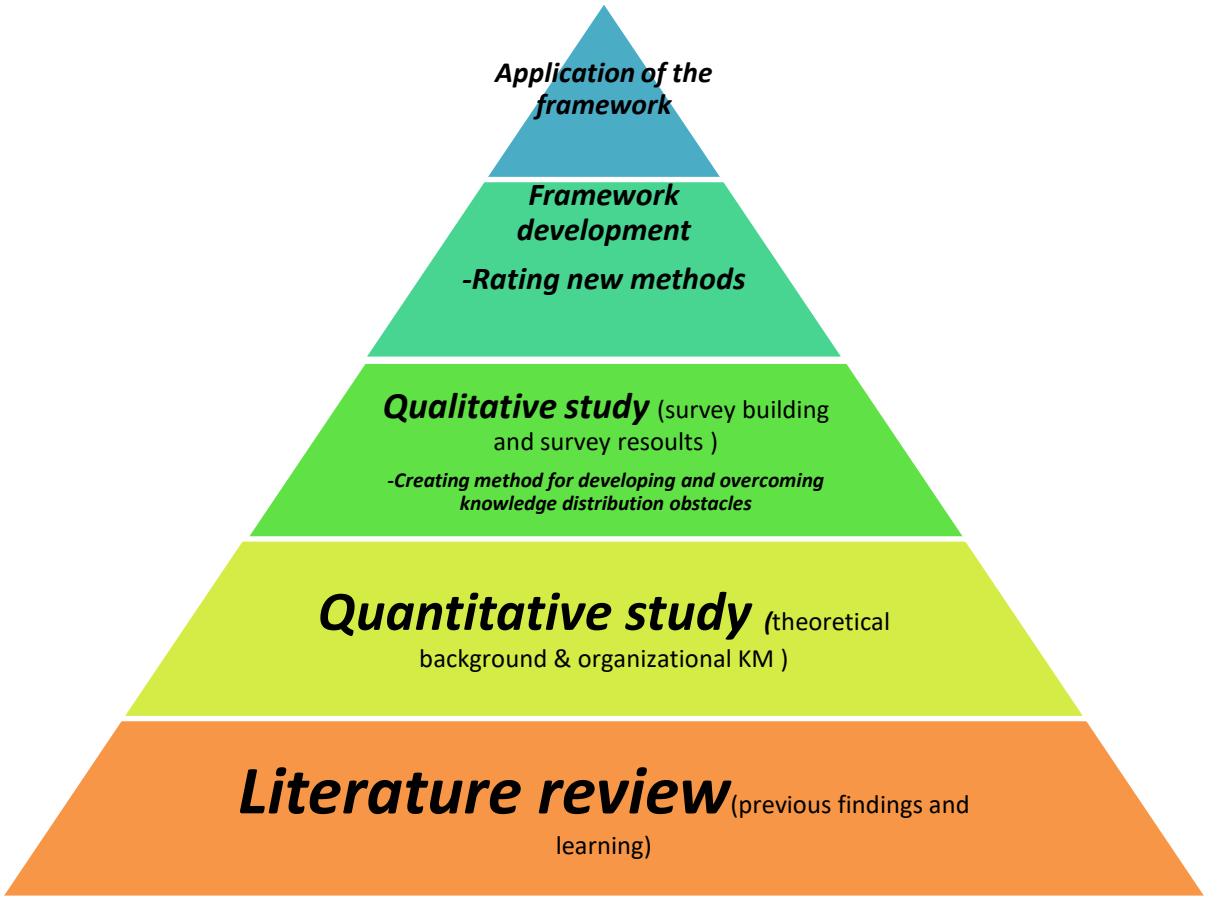


Figure 3.1 Methodologi stages diagram

3.3. CONCLUSION

In conclusion, Chapter 3 provides practical overview of methods which will be used in obtaining reliable study. Literature review will be presented in the first part of the work while interview and framework creation will take its roll later in to the research process.

Graphical Figure 3.1 shows all stages of methodological approach throughout the while work.

4. FRAMEWORK DEVELOPMENT

4.1. INTRODUCTION

The objective of this research study is to evaluate the notion of KM at the organizational level and to develop a framework for an effective knowledge sharing i.e. designing an effective KM process that is applicable within a small-scale organization, which is 'Inside Maps' in this case.

This chapter of the study would propose and present a knowledge sharing framework, based on the analysis of KM at Insight Maps.

4.2. REQUIREMENT OF THE FRAMEWORK

Framework bellow (Figure 4.1) is based on the key themes identified from the survey results, which either facilitate or serve as a barrier to knowledge sharing. These themes, which are proposed as the components of an effective knowledge sharing framework are:

1. Employee Engagement
2. Operational Excellence
3. Internal Process Improvement
4. Barriers and Work Obstacles

This section explains these components or requirements of the knowledge sharing framework in light of previous literature.

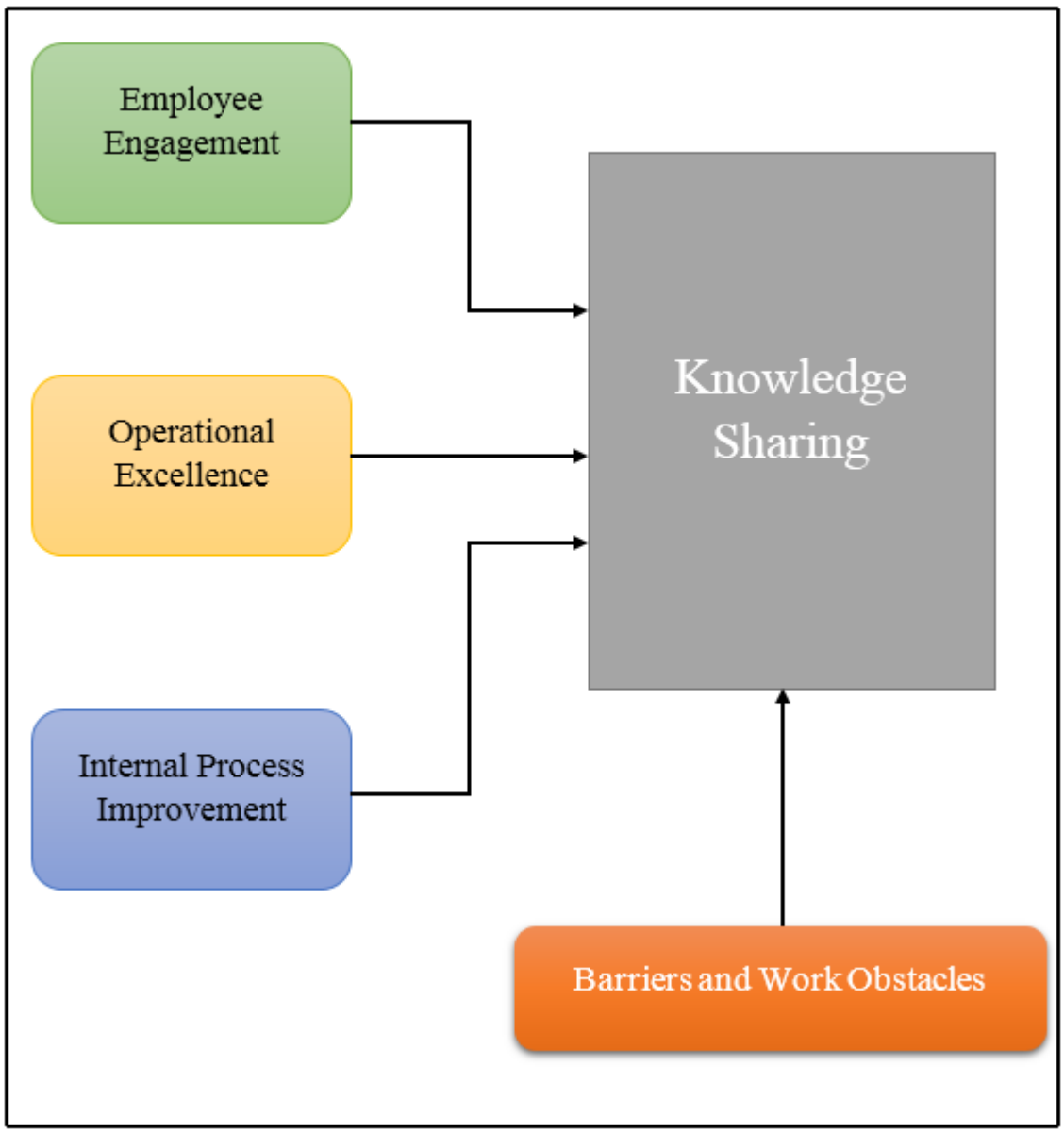


Figure 4.1 Knowledge Management Framework

4.3. EMPLOYEE ENGAGEMENT

Employee Engagement (EE) is referred to as a desirable condition, which facilitates an organizational motive by connecting involvement, devotion, enthusiasm, group efforts, and stamina. Hence, it is the collaboration of both attitudinal as well as behavioral elements in workplace environments. According to Saks and Gruman (2014), EE has been described as utilizing an individual's expressions in tasks and duties which intend to promote relationships

with work and with others. It employs the personal presence of an individual including all three categories; physical, mental along with emotional.

The study published by Chen, Zhang and Vogel (2011) presents a work-engagement theory based upon the premise that EE is a significant determinant of sharing knowledge among employees. It states that work engagement improves employee's proactive behaviors that are enhancing their work beyond their contractual obligations, which reflects in improved availability of knowledge as employees share knowledge freely which they think will assist to enhance work processes, fellow employee's ability and overall performances. Furthermore, it proposes certain circumstances under which the willingness to share knowledge among the members of the organization will exist or improve. That is:

1. Committed employees who persistently perform their tasks, will be the ones who by choice will accumulate sufficient and important professional information that can be shared among colleagues.

2. In order for workers to communicate task-based knowledge, it becomes essential for them to be involved and invest extra concentration in work as well as their surroundings.

3. When individuals are passionate about the tasks they perform, the probability that they willingly share task-related knowledge among co-workers increases.

In a similar context, Kim & Park (2017), examine 400 full-time workers employed in Korean firms to evaluate relationships between employee work engagement, knowledge sharing and, creative work attitudes. It concludes that corporations that undertake fair decisions and procedural justices are likely to have motivated employees who not only repay them by

performing well but also facilitate knowledge sharing and creative work methods. It further recommends that in order to support better dispensing of information, firms must execute environments to communicate tactical along with explicit knowledge among colleagues, subordinates and even teams, for example, the introduction of virtual intelligence programs enabling employees to share opinions, solutions and innovative ideas to address management challenges.

Wang and Noe (2010) describe knowledge sharing as foundational measures allowing employees to contribute to knowledge application, creativity, and innovation, and enable firms to sustain a competitive advantage within itself. Sharing information and knowledge among employees and across different departments qualifies organizations to manipulate knowledge –related resources to their commercial benefit. It highlights that a deeply integrated knowledge-sharing culture that is accustomed by the willingness, trust, and support of the employees influences the quality and level of knowledge shared.

While most literature discussed above examines EE as a determinant to share knowledge, the literature presented by Juan et al., (2018), examines knowledge sharing as a significant resource to affect EE. It proves that structural, perceptive and relational dimensions of knowledge positively impact the degree of EE.

As the significance of EE has been recognized, it becomes necessary to evaluate the determinants of EE, which contribute positively towards knowledge sharing and transfer among corporations. The study of Anita (2014), presents a 7-step model (Figure 4.2): work environment, leadership, team and co-worker factors, training and career-building, compensation (financial and non-financial), organizational policies and framework, and lastly

workplace well-being as significant elements which influence the degree of engagement of each employee. This model is presented below:

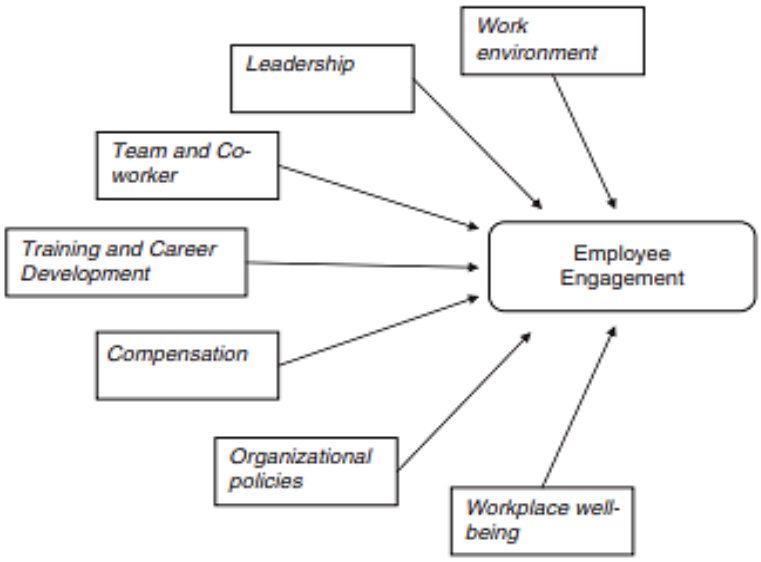


Figure 4.2 7-step model. Source: Anita (2014)

4.4. OPERATIONAL EXCELLENCE

Operational Excellence (OE) has been described as improvements in business methods and processes that allow companies to significantly perform better than their competitors. It leads to improvements in innovation initiatives along with restricting waste, enhancing customer experiences and managing internal processes (Bonacorsi & Dixon, 2017).

Rehman, Ilyas and Asghar (2015), explain the association of knowledge sharing and management with respect to firm performance and excellence. It highlights that not only does efficient KM construct a solid base for organizations to attain competitive positions but it also increases the probability to improve the quality of goods produced in terms of much better management optimization and consumer satisfaction. In the same token, the research conducted by Zack, McKeen and Singh (2009), identify OE as a means of competing

through efficient internal management systems and operations. Hence in order to improve OE, KM and sharing practices were implemented to the three values of discipline namely-Product Leadership, Customer Intimacy, and OE. Wu and Chen (2014) recognized that due to nature, knowledge sharing and transfer becomes difficult as beneficial knowledge is imbedded deep within individuals and contexts. Hence, it depends upon the abilities of the corporations itself to encourage knowledge dissemination. Their study further defines that integration of knowledge within firm's everyday operations is necessary in order to limit redundancies, improve consistency, replace obsolete existing information's and maximize the impacts and usefulness of knowledge synergy. When valuable knowledge is shared among the right individuals in the appropriate environments it influences the attitudes of the precipitants and helps in the development of new products and services, improvements in OE, improvements in external and internal relationships, alternate strategic directions and overall enhances competitive circumstances.

The size of an organization plays an important element affecting organization performance and knowledge flows. Bontis et al., (2007) discuss an inverse relationship between the size of the firm and sharing of knowledge as it is highly influenced through fluctuations in social relationships. Literature which is reviewed in previous chapters explains the four elements affecting knowledge sharing, transfer and flows as explained below:

1. Organization's unit formation refers to the construction of an organizational unit that is built to divide tasks, activities, and responsibilities among a suitable network of people. The study entails that larger organizations due to higher bureaucracy and narrower chains of command and complexity share a negative relation with knowledge sharing while small and medium-sized enterprises operate a

flexible, informal, less procedural, multiple-task oriented structure allowing them to inhabit a positive relationship with internal knowledge flows.

2. Trust and levels of social relationships are based upon emotional attachments with individuals in workplaces, feelings of mutual trust, understanding and regards given to co-worker's personal capabilities. Managers in organizations aim to not only maximize intellectual capital resources but in addition foster and assist environments where individuals themselves accommodate sharing of intellectual assets within the organization as positive relations exist among the degree of social relations with knowledge sharing.

3. Connective efficacy is established upon the hypothesis that people are motivated to share knowledge when they expect that the shared information will be effectively utilized. This is evaluated by strength in the relationship between knowledge contributors and recipients. The more the strength or capability in the relationship, the more knowledge would be shared and provide benefit to the overall organization.

4. Interpersonal communications narrate open face-to-face and electronic-based interconnectivity between members of the same organization. Such connects play a vital source in information sharing. Hence firms lacking hard-drives or built-in IT systems, integrated into communicational activities, find it hard to share and store knowledge.

As the flow of knowledge can be described as a branch of OE, Erhardt, Martin-Rios and Harkins (2014), define the flow of knowledge the transfer of information of relevant data from one party to another. Their results reveal that effective knowledge flow practices,

specifically managerial knowledge, caters creativity, innovation along with encouraging learning.

4.5. Internal Process Improvement

As firms realize the potential benefits of knowledge sharing, both at a strategic and at lower management levels, certain key processes, methods, and tactics enable them to fully exploit these benefits to achieve maximum commercial returns. Ming (2018) identifies that factors affecting the quantity and quality of information shared on an individual level include the degree of interpersonal trust among workers, levels of altruism, the openness of organization towards feedback and openness to experiences. In contrast, at the higher management level, key elements or activities enable firms to embrace knowledge sharing. These include:

1. Establishment of clear and measurable goals and association of knowledge sharing strategy with them.
2. Advocate creativeness, collaborations, teamwork, and innovations
3. Remain easily available and accessible from time-to-time for sharing of knowledge
4. Launch a compensation system providing non-financial and team-based rewards
5. Adapt to a less centralized and more delegated organizational structure. This might include less-formalized practices while being more integrated and inter-connected.

KM over the years has gained popularity as it is recognized as effective internal methods to use knowledge as valuable assets for organizations. However, the effectiveness of these process implicated among organizations depend upon their members, technologies (systems) and internal processes as drawn in the framework below (Figure 4.3) (Igbinovia & Ikenwe, 2017):

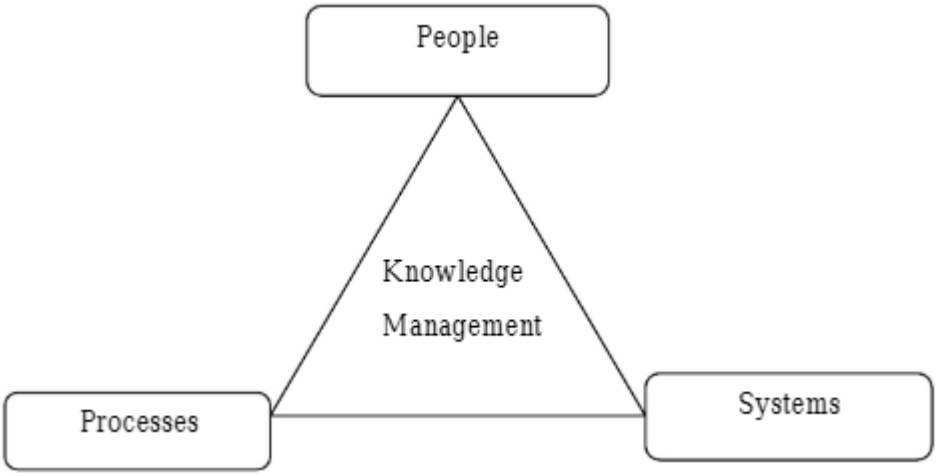


Figure 4.3 KM model. Source: Igbinovia and Ikenwe (2017)

The literature presented by García-Holgado et al., (2015), identifies business departments as series of black boxes as they restrict the sharing of information while only collaborating when it comes to using inputs and outputs of resources. This information is regarded as useful because when a team of employees undertakes business processes together, oftentimes they improve the process altogether through trials and errors. This knowledge, generated through experiences, is recognized as best practice(s). When these best practices are restricted within the framework of organizational divisions, as reflected by the term Black Box, knowledge becomes confined as represented by the model below (Figure 4.4). It exhibits that while Division A enhances its process N, Division B is left unaware:

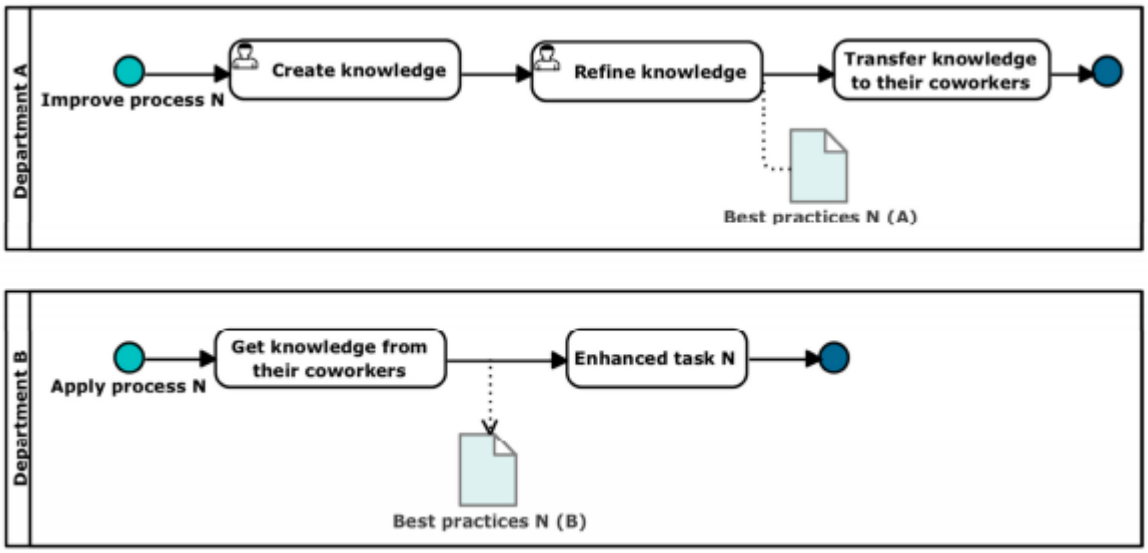


Figure 4.4 Knowledge creation within a black box. Source: García-Holgado et al. (2015)

4.6. Barriers and Work Obstacles

While sharing of information may look as an easy continuous process as workplaces are made up of individuals who communicate on a regular basis. However, in most situations, the willingness to share information barely exists. This is identified by Nadason et al., (2017), in their study. It states that barriers and obstacles in knowledge sharing can be classified into four groups namely, Individuals, Culture, Technology and lastly the Organization itself. Individuals are reluctant when it comes to sharing information due to fear of loss of power, and worry that they might suffer from loss of job security is they share knowledge that is private and confidential. Technological barriers existing in large corporations such as absence of IT arrangements integrated into work processes, unwillingness towards usage of IT systems, inferior technical supported provided.

In a similar context, the framework developed by Kukko (2013) explains three categories of barriers that occur in Individual or employee level, Organization level, and Technological level (Figure 4.5). This is mentioned below as:

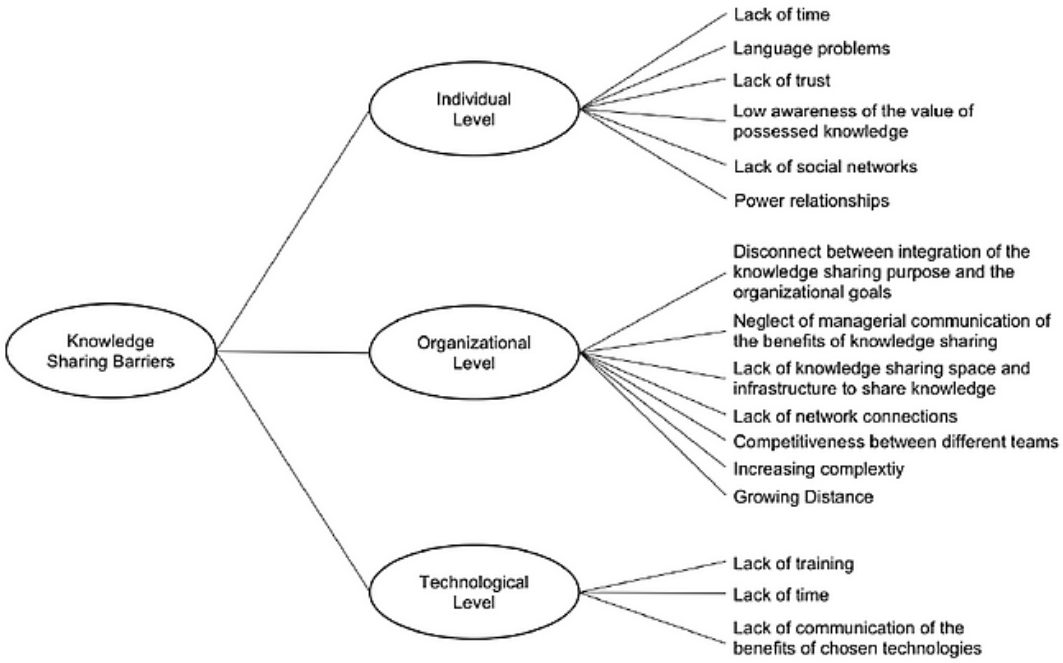


Figure 4.5 Categories of Barriers. Source: Kukko (2013)

Kazaure et al. (2016) further explain Individual, Organizational and Technological knowledge sharing obstacles, some of which differ from the above-mentioned model. In the case of Individuals, people's ethnicity, age, educational level, apprehension of fear for job security, and lack of interaction time appear as major barriers. Organizational barriers included the type of corporate culture established, for example, where sharing of knowledge is seen as taboo, absence of integration of KM strategies, lack of resources to share appropriate knowledge, high internal competitiveness, the large size of organizations departments, etc. Lastly, technological hurdles involved absence of technical support to run IT systems, lack of training among employees to integrate IT effectively, mismatch between the range of IT employed and range actually needed to work, etc.

4.7. CONCLUSION

In conclusion, in this chapter author presents few main focusing arias when it comes to knowledge sharing perspective. Knowledge sharing might be either most affective assets if it is done on the right way or it could be downsides of every organization if their application is not implemented right. Key elements are: EE,OE, Internal Process Improvement. Whole chapter is based on supporting the elements and finding factors that affect their performances.

Chapter provides proofs from variety academic studies how human impact is affecting these elements. Also, shows how Knowledge sharing can be improved by giving some examples thought previous research work done in the past in similar arias.

5. KNOWLEDGE MANAGEMENT AT INSIDE MAPS

5.1. INTRODUCTION

The management of experience and knowledge are key elements through which software development and processes improvement occur (Ward, & Aurum, 2004).Quality has remained an issue of concern in the Software Development industry (Ouriques et. al., 2018). Moreover, knowledge and KM has been considered essential for organizations. Thus, handling and supervision of knowledge in different organizations have taken an important place to be competitive in the complex world (Liophanich, 2014). Furthermore, big giants and high-tech companies including Xerox Corporation, Hewlett-Packard Company and IBM, were the first explorers in the field of KM, where they tried to apply their novel technological capabilities for the KM (Prusak, 2001). In this section of the study, the case of a Software company, 'Inside Maps' is considered. The following discussion provides an overview of the KM in the software industry, followed by the organizational summary.

KM is known to be critical for all organizations, nature of business and styles of trades. Furthermore, especially in the Software industry, all over the world, mostly data related staff has been employed, in order to perform particular tasks and operations, for which it is essential to share and transfer knowledge. Hence, the Software companies, in today's world are focusing more on the investment and acquiring a larger share of knowledge, which can be acquired by the experienced and skilled employees (Ouriques et. al., 2018). The massive Software service providers start to build the senior-level management position in the firm, in order to ensure that KM works efficiently (Al-Rowaily, & Al-Sadhan, 2012).

Companies know that the equipment, machinery and buildings cannot hold that importance, as KM and correct management do. As it will help the company to excel in its core

competencies, in order to get a competitive edge over the competitors (Akhavan, Jafari, & Fathian, 2005). Like all industries, Software development firms have also set up KM systems, in order to acquire an edge over the competitors. For example, companies like Amazon, have ensured to install useful KM programs. It means that companies using KM value their intellectual assets (Liophanich, 2014).

Goal of this chapter is to inform and to give a deeperinsight into KM current level inside of the company. How developed knowledge sharing, and KM is in general. Survey will provide some answers which will be used in the future as a guideline for overall KM improvement.

Analyzing the answers, one will get better perspective into the problems who are not clear and tangible now, but it is clear they are stopping whole company from faster growth.

This part is presenting one step of a qualitative research which will help the most to build perspective into reviling requirements and needs of all employees. Survey is anonymous which is providing respondent freedom to express opinion.

5.2. ORGANIZATION SUMMARY

Inside Maps is a software development company, whose main focus is the creation of high-resolution photos, 3D models, 3D Virtual Tours, and floor plans (Inside Maps, 2019). The company is headquartered in San Francisco, California. The management, sales and marketing departments are based in San Francisco, whereas, the development office is based in Belgrade, Serbia. In addition to this, the customer support offices are based in Dhaka, Bangladesh, and in Kiev, Ukraine. The development team has been distributed into 6 main departments (Table 1):

Department	Function
Website Developing Team – Front End	Website Visualization and Code Writing.
Website Developing Team – Back End	Website Monitoring and Code Writing.
Quality Control	Software Testing.
3D Modelling Team	Assistance with Code writing.
Design team	App and Website visual appearance.
App Developing Team	New features integration and application development.

Table 1 - Inside Maps Departments

Inside Maps has made a huge investment in the KM programs, where customer support teams in Dhaka, Kiev and Belgrade are communicating daily with clients. The clients submit questions or requests via the Inside Maps Application or website and receive replies via the application or email. The Operations department of the company played the key role, in

managing the overall knowledge, as well as guiding KM activities in other business units. Also, in order to promote the successful sharing of knowledge, the managers at Inside Maps are analyzed on the level of their interactions and sharing. Moreover, to promote the trend of sharing knowledge, the reward mechanism is connected to this. By using this innovative and novel strategy, Inside Maps has managed to dodge the trap of acquiring knowledge. Inside Maps has managed to build various procedures and tactics, which helped it to gain the right, relevant information. The company is operating with around 60 employees. The organizational structure related to HR is shown in the chart shown below (Figure 5.1). The Managing Director is the head of the company.

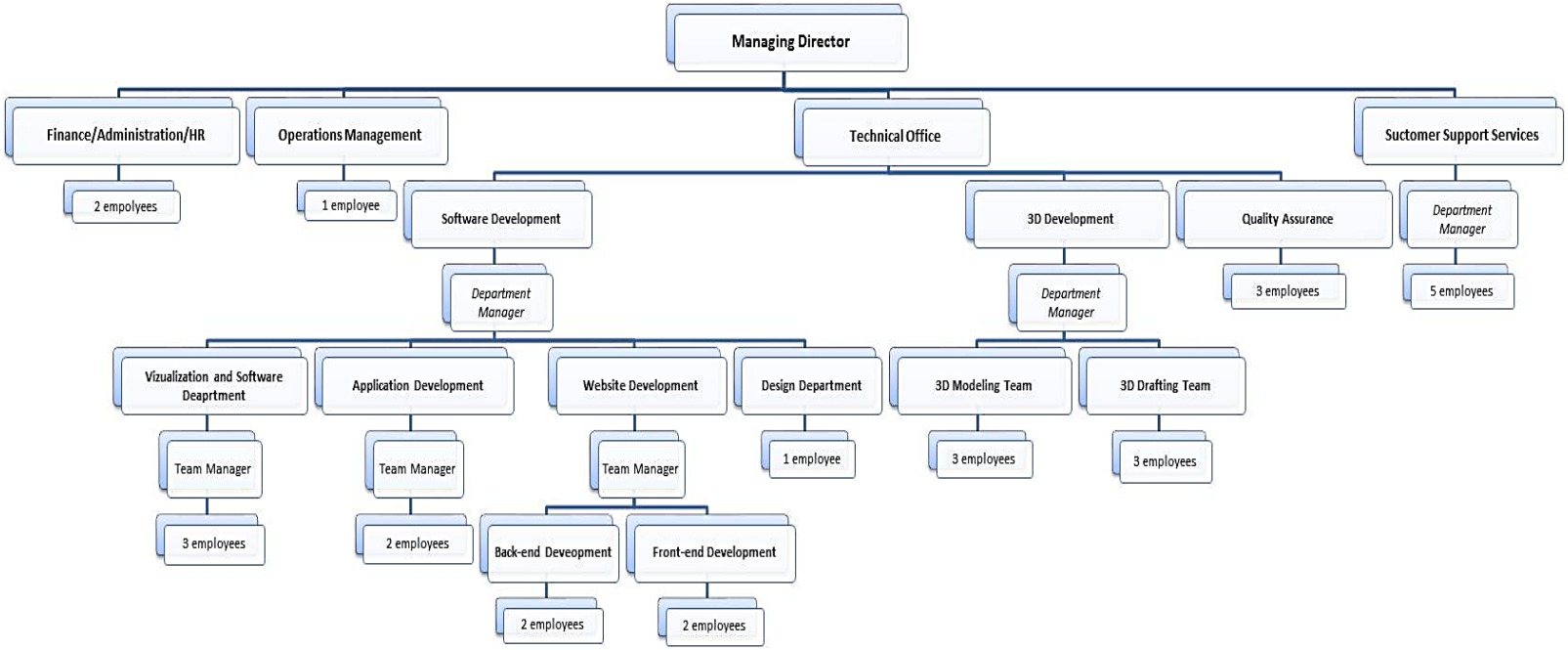


Figure 5.1 InsideMapsOrganizationalStructure

5.3. SURVEY DETAILS

The survey is built in order to provide some answers related to the KM level inside of the company. Questions are constructed to target specific areas of common problems among employees and superiors. Also, some points are highlighting overall knowledge, sharing process and mutual readiness for company growth.

Table 2 shows main survey characteristics; company name, type of question, number of questions, survey open dates and number of responders.

Survey details
Company name: Insight Maps
Type of questions: Multiple choice questions, Open-ended questions, Rating scale questions
Number of questions: 21 question
Survey open: 10 days (from 10.06.2019 to 20.06.2019)
Employees who responded on a survey: 29 out of 34 (82%)

Table 2 - Survey details

Table 3 shows all question in the survey, question type as well as aim of a question.

Questions are sorted without specific order so we can avoid possible answering by default. Also, different type of question will provide easier and clear results reading.

	Question	Question type	Aim of a question
1	What is your position in the company?	Open end question	Operational excellence
2	Have you been introduced to KM on the beginning of your career inside of the company?	Multiple choice questions	Internal process improvement
3	In my company coworkers are highly cooperative?	Rating scale questions	Employee engagement
4	How many members is inside of your team?	Multiple choice questions	Employee engagement
5	Who are you addressing your problems when it comes to work obstacles?	Multiple choice questions	Internal process improvement
6	Which KM method is the most effective by your personal opinion?	Multiple choice questions	Operational excellence
7	Organizational mechanism inside of the company operates on highly satisfying level	Rating scale questions	Operational excellence
8	Supervisors are making knowledge flow improvements within the time accordingly with KM insights and feedbacks	Rating scale questions	Internal process improvement
9	How long you are in the company?	Multiple choice questions	Employee engagement
10	When it comes to knowledge sharing how willing other employees are to distribute their attainment?	Multiple choice questions	Employee engagement
11	My work and dedication are understood and appreciated by mentors and other employees	Rating scale questions	Internal process improvement
12	During your career inside of the company what type of a KM training	Rating scale questions	Internal process

	you been undertaken?		improvement
13	Existing KM model maximize companies grow?	Rating scale questions	Operational excellence
14	What is the main obstacle when it comes to knowledge flow within a company?	Multiple choice questions	Internal process improvement
15	Superiors strongly encourage KM methods when it comes to overcoming obstacles and they are giving example through their actions?	Rating scale questions	Operational excellence
16	By your opinion the most effective way of learning is...?	Multiple choice questions	Internal process improvement
17	Do you believe that company is using the most effective approach when it comes to knowledge sharing?	Rating scale questions	Operational excellence
18	Do you agree that some coworkers disrupt knowledge sharing inside organization because they are afraid for their position?	Rating scale questions	Employee engagement
19	Knowledge flow is distinctly determined inside an organization?	Rating scale questions	Operational excellence
20	Which IT systems you are using for the purpose of information flow within the company	Multiple choice questions	Operational excellence
21	Right use of knowledge management boosts employee productivity?	Rating scale questions	Employee engagement

Table 3 - Survey questions

Questions are divided into three focus areas where each area is covering one specific topic.

Those areas are:

- *Employee engagement*

1. What is your position in the company?

3. In my company coworkers are highly cooperative?

4. How many members is inside of your team?

9. How long you are in the company?

10. When it comes to knowledge sharing how willing other employees are to distribute their attainment?

18. Do you agree that some coworkers disrupt knowledge sharing inside organization because they are afraid for their position?

- *Operational excellence*

6. Which KM method is the most effective by your personal opinion?

7. Organizational mechanism inside of the company operates on highly satisfying level

13. Existing KM model maximize companies grow?

15. Superiors strongly encourage KM methods when it comes to overcoming obstacles and they are giving example through their actions?

17. Do you believe that company is using the most effective approach when it comes to knowledge sharing?

19. Knowledge flow is distinctly determined inside an organization?

20. Which IT system you are using for the purpose of information flow within the company

- *Internal process improvement*

2. Have you been introduced to KM on the beginning of your career inside of the company?

5. Who are you addressing your problems when it comes to work obstacles?

8. Supervisors are making knowledge flow improvements within the time accordingly with KM insights and feedbacks

11. My work and dedication are understood and appreciated by mentors and other employees

12. During your career inside of the company what type of a KM training you been undertaken?

14. What is the main obstacle when it comes to knowledge flow within a company?

16. By your opinion the most effective way of learning is...?

21. Right use of knowledge management boosts employee productivity?

5.4. SURVEY RESULTS

Question group I (employee engagement)

First group of question has mostly informative character. It provides answers when it comes to general information. Importance behind this question group is to give a right perspective about whole department. How well they are linked among each other, relations between new employees and experienced workers, etc.

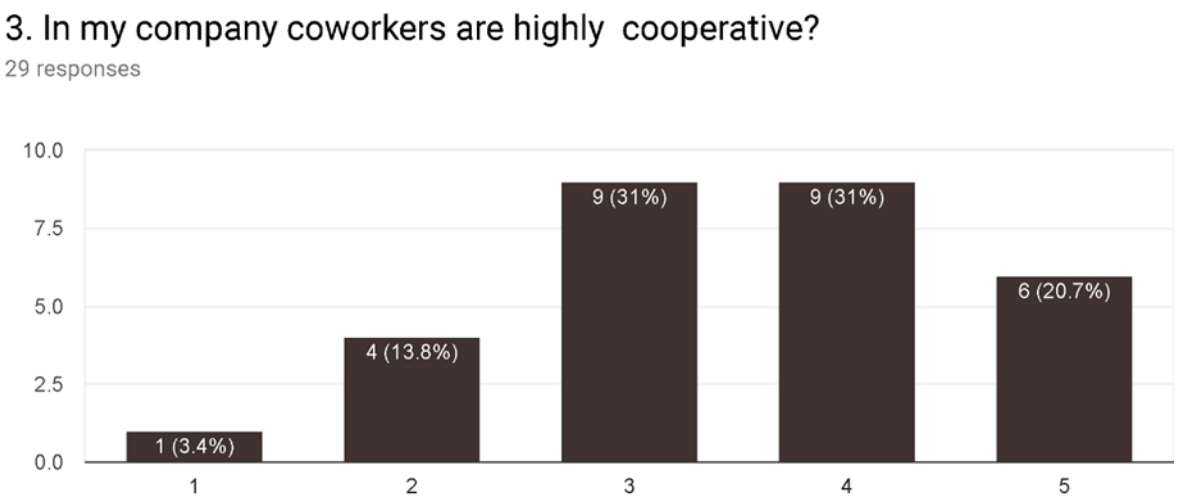


Figure 5.2In my company coworkers are highly cooperative?

Question number3 (Figure 5.2) has 29 respondents where majority states that cooperation between coworkers is on the medium level. This graph gives us insight that shows division among opinions. 15 out of 29 states that they are happy with coworker readiness to share their knowledge but almost a half of them believes that cooperation between employees is not pleasing. Trough further questions author will discover if this discontent comes from the isolated cases or it depends on certain group(office). Question is visual presented above.

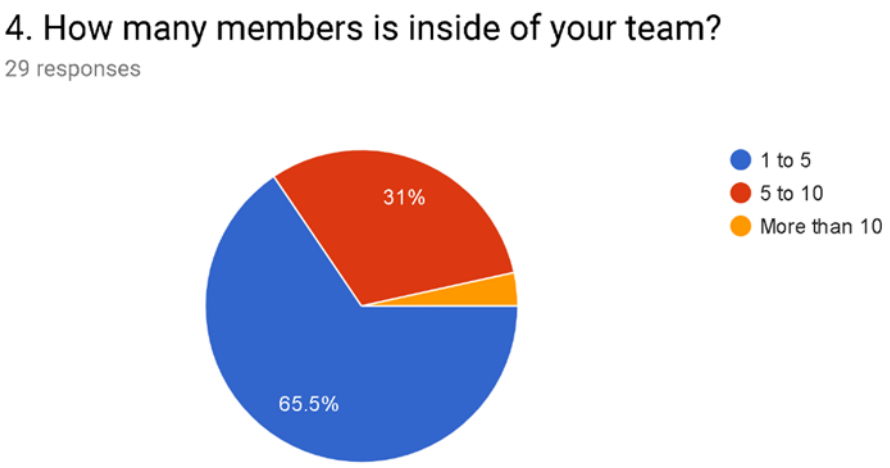


Figure 5.3How many members is inside of your team?

Question number 4 (Figure 5.3) reflects graphically that whole department is mostly compound out of small teams (65%). Teams with maximum 5 people are instructed to each other which limit communication with residue. Consecration to limited number of people reduces chance for new ideas and perspective.

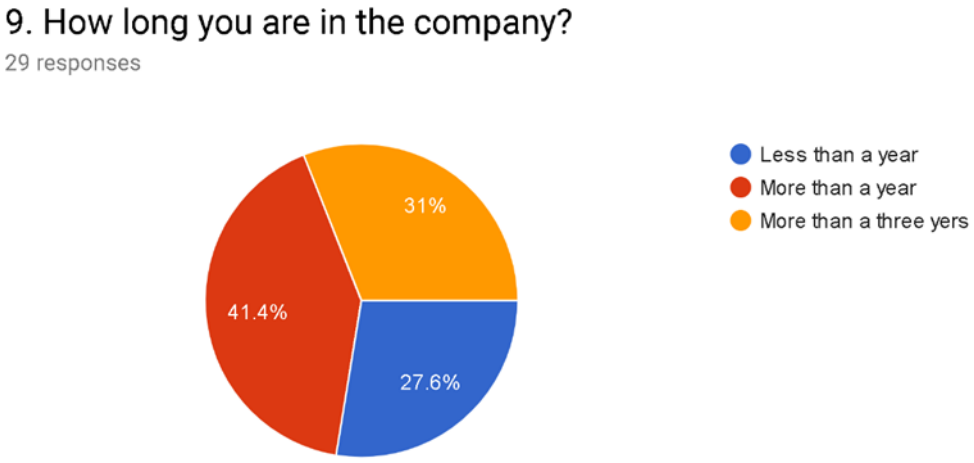


Figure 5.4How long you are in the company?

In this case (Figure 5.4) 41% is in the company for more than a year, 31% more than three years and 27% is in the company less than a year. Company is relatively new on the market but almost half of employees are there from the beginning. Thus, core of the company is built from experienced members who take primacy over new coworkers. It will be significant to get an image on how new members are accepted by other colleagues.

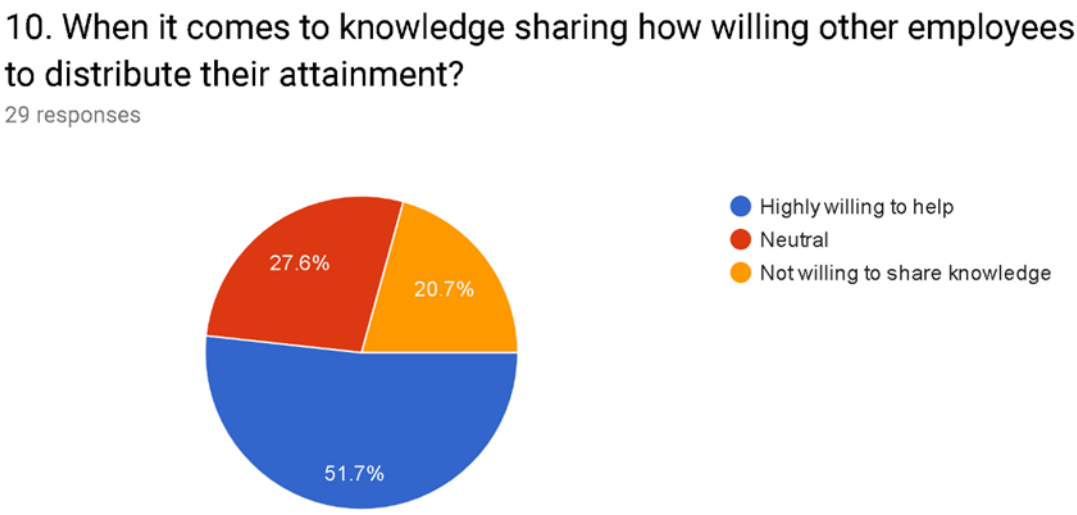


Figure 5.5When it comes to knowledge sharing how wiling other employees are distribute their attainment?

This question (Figure 5.5) is based on personal experience of every respondent. In addition, 51% considers that the rest of the team is “Highly willing to help” while 20% is “Not willing to share” and 20% declared as “Neutral”. Number of “Neutral „is disturbing because that potentially means these members are not seeking any interaction when it comes to knowledge gain.

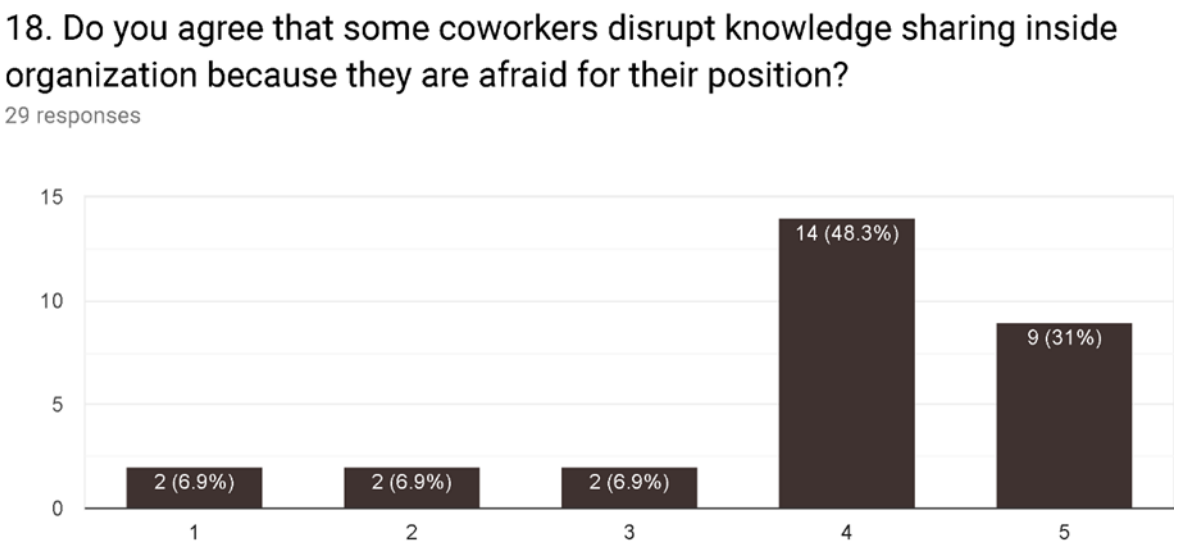


Figure 5.6 Do you agree that some coworkers disrupt knowledge sharing inside organization because they are afraid for their position?

Question 18 (Figure 5.6) gave us results where is shown that almost 80% strongly agree on fact that some coworkers are not willing to share their knowledge because they are afraid for their position. Only small number (6 members) states the opposite. Moreover, such results are reflecting poor cooperation among employees which leads to weak coherency and sharing.

Question group II (-Operational excellence)

Aim of this question group is to grade existing approaches and methods. However, it gives an opportunity to survey respondent to point out on some flaws when it comes to knowledge distribution and to evaluate KM approach taken so far.

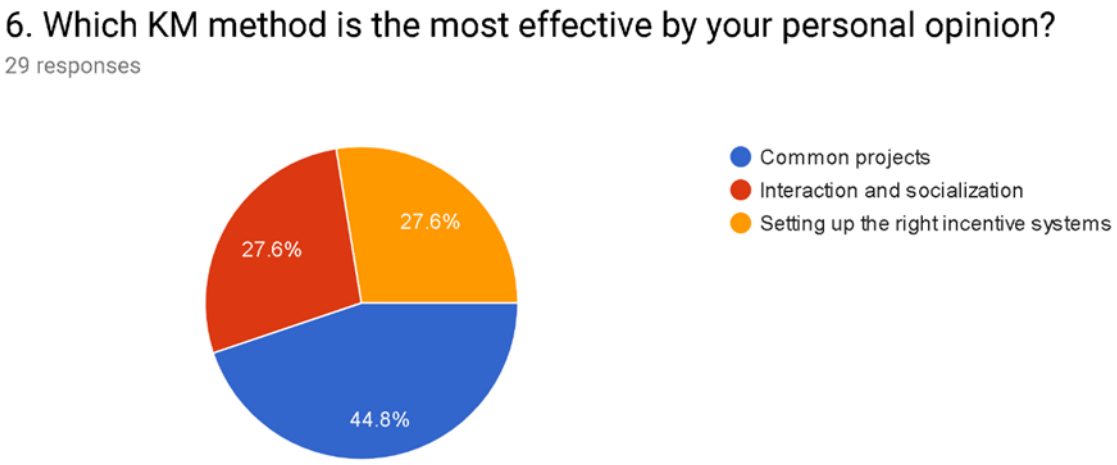


Figure 5.7Which KM method is the most effective by your opinion?

Question 6 (Figure 5.7) aim is to target what method employees find the most effective for knowledge sharing purposes. Majority declared that common projects are the best fitting method in that purpose. However, interaction and socialization along with IT systems are useful for significant number of workers too.

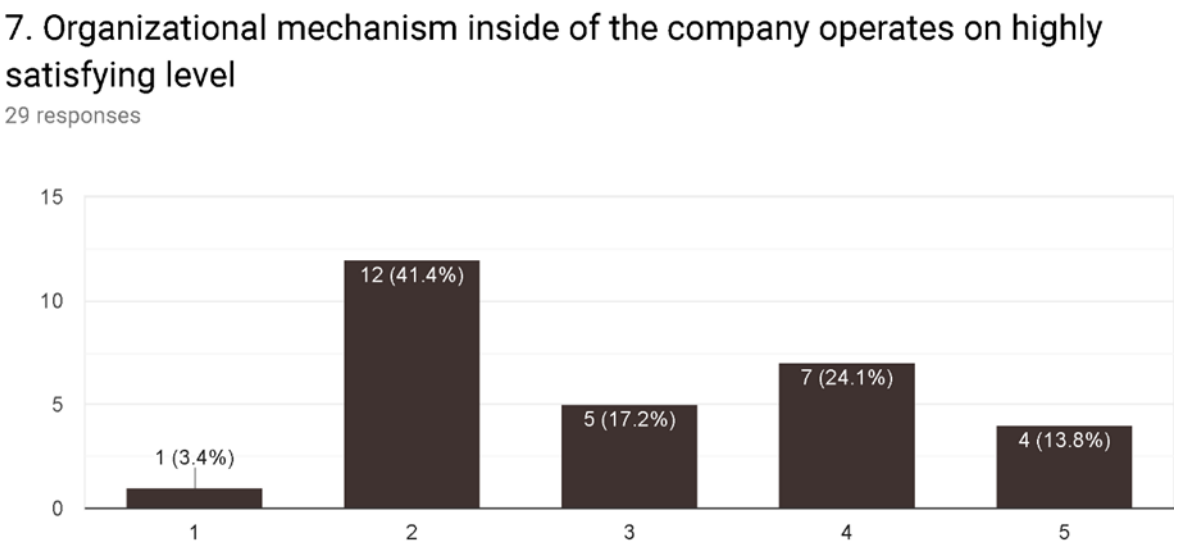


Figure 5.8Organizational mechanism inside of the company operates on highly satisfying level

Answers on question number 7 (Figure 5.8) provide a visual response that current method are not considered as assertive by significant number of participants. 13 respondents are unsatisfied when it comes to organization work, 5 is considering setup on medium level and 11 participants sees organization as highly functional system.

The diversity of answers indicates that the organizational structure inside of department must be better defined among all teams and team members.

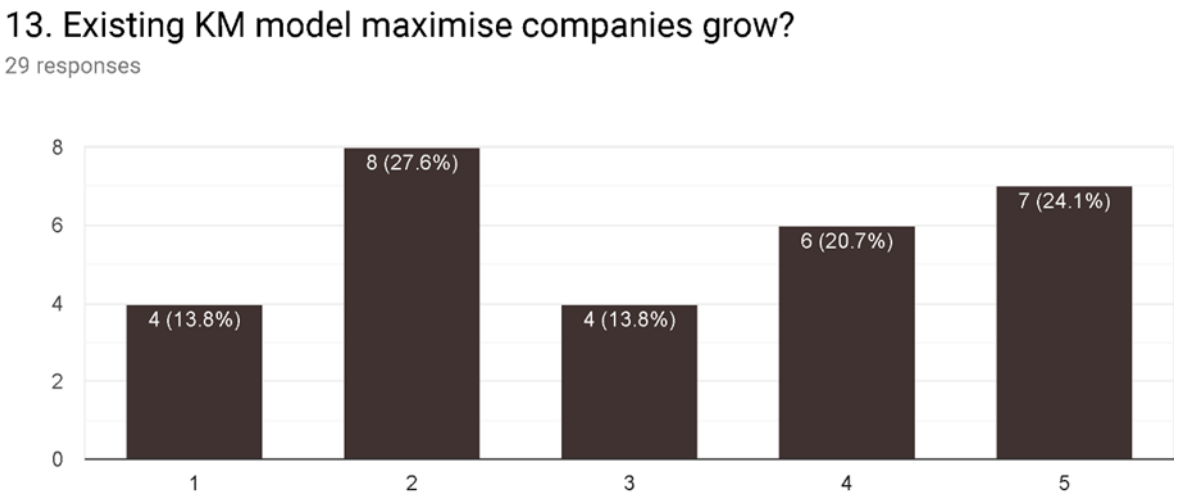


Figure 5.9Existing KM model maximize companies grow?

Results of question number 13 (Figure 5.9) are expected if we consider previous question where respondents mostly stated that company's sharing platform is not running at the most telling way. 14 people declared its dissatisfaction with existing methods. 13 believes that current situation is satisfying while 4 is in not specified.

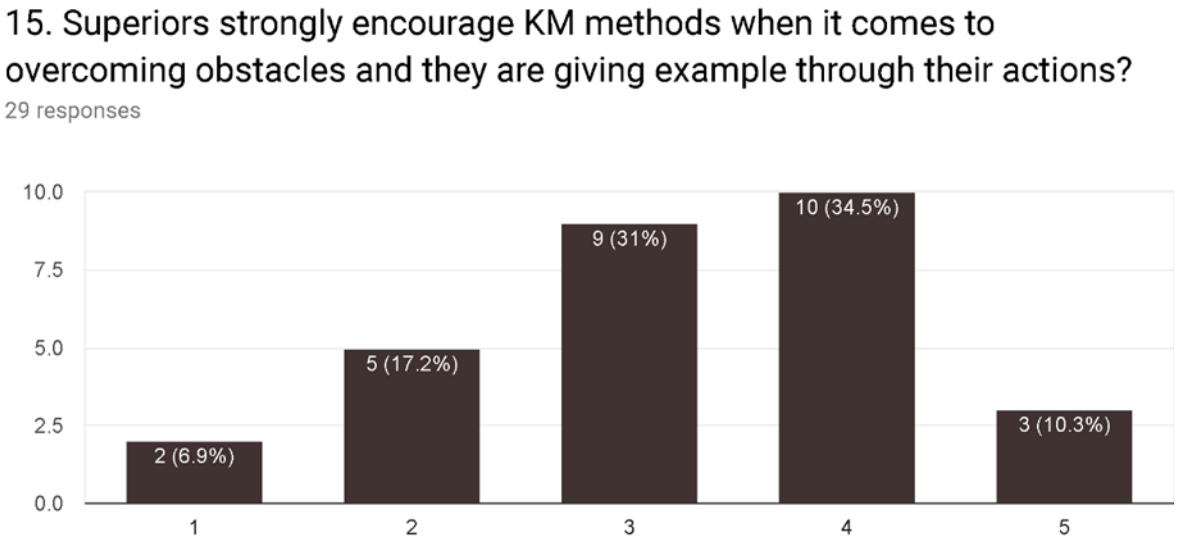


Figure 5.10Superiors strongly encourage KM methods when it comes to overcoming obstacles and they are giving example through their actions?

Looking at the graph number 15 (Figure 5.10) one can conclude that opinions are divided on this question too.

7 out of 29 is dissatisfied with superior approach when it comes to obstacles overcoming, 9 is partially satisfied and 13 respondents responds positively on this topic. Since author does not know who declares negatively on this question solution is standardization of knowledge sharing at all teams and offices so that we do not have the oscillations we currently see on the graph.

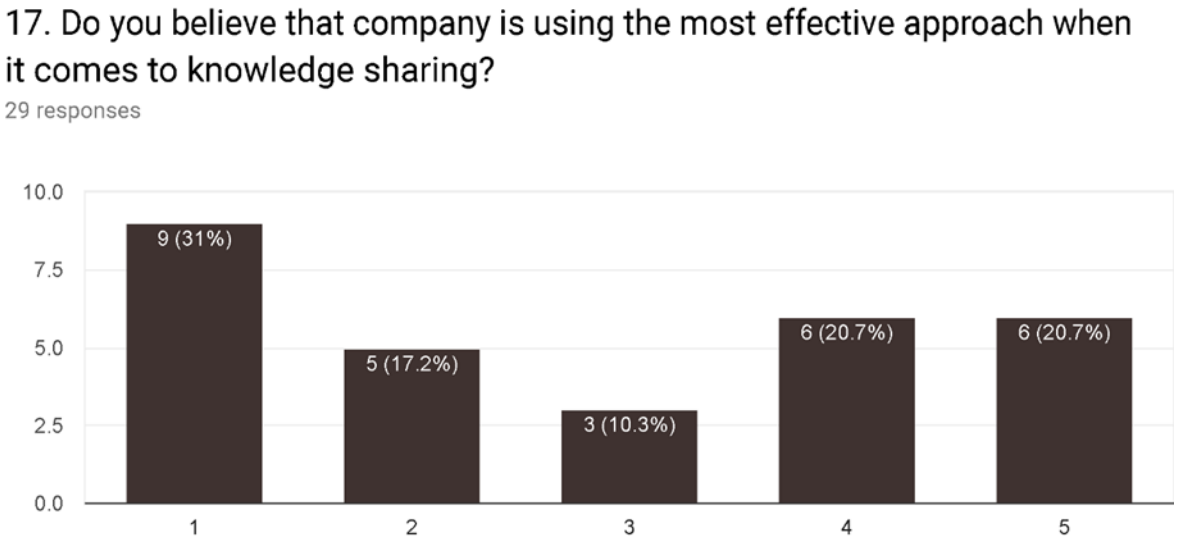


Figure 5.11Do you believe that company is using the most effective approach when it comes to knowledge sharing?

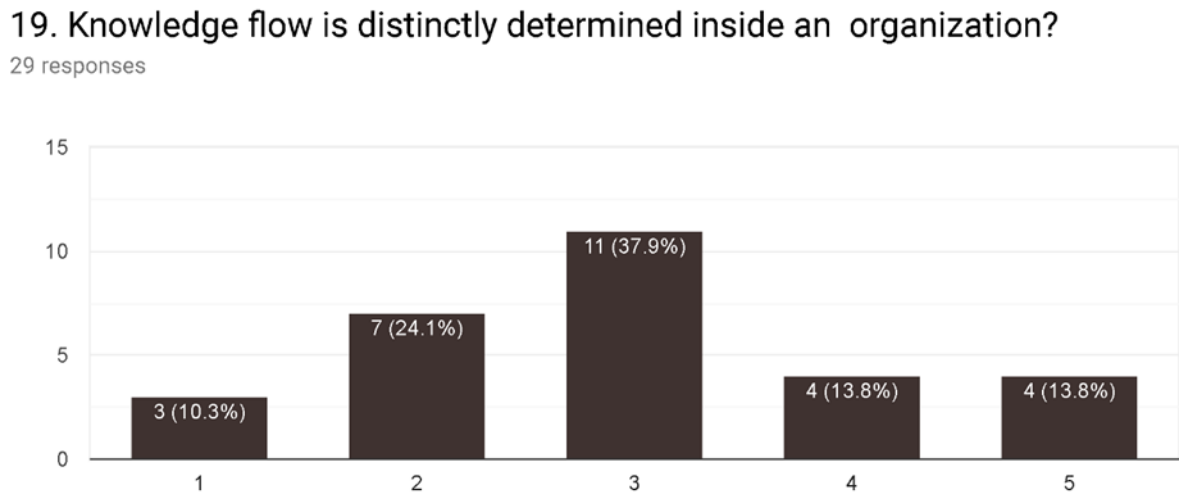


Figure 5.12Knowledge flow is distinctly determined inside and organization?

Questions 17 (Figure 5.11) and 19 (Figure 5.12) graphical presentation of employees on company knowledge deployment .

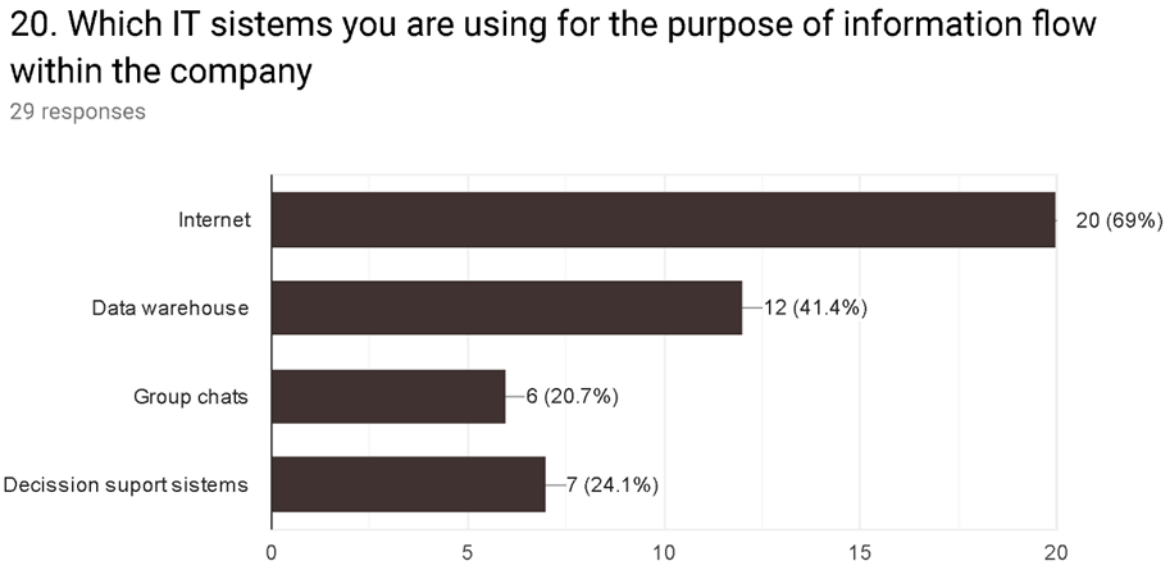


Figure 4.13Which IT systems you are using for the purpose of information flow within the company?

Question number 20 (Figure 5.13) is structured as a multiple-choice type of a question which gives option to choose more than one option. Survey participators agreed that the most used tool for KM cooperation in the company is internet (20 people), data warehouse system is second most used option with 12 answers while decision support system and group chat are following with 7 positive answers each. From this answer author is getting an insight that internet platform is the most spread IT tool who meets worker needs. Internet as ground point for knowledge flow and as such should be used and standardized in the way where all employees will find stable source of networking trough certain app or platform.

Question group III (Internal process improvement)

Internal process improvement is one of the main focusing areas when it comes to companies' long-term goals. By the answers from the final group author will obtain image on how employees see importance of their roll for future company grow. Moreover, it will show how hard they are willing to commit in order to achieve personal advancement and advancement of the company.

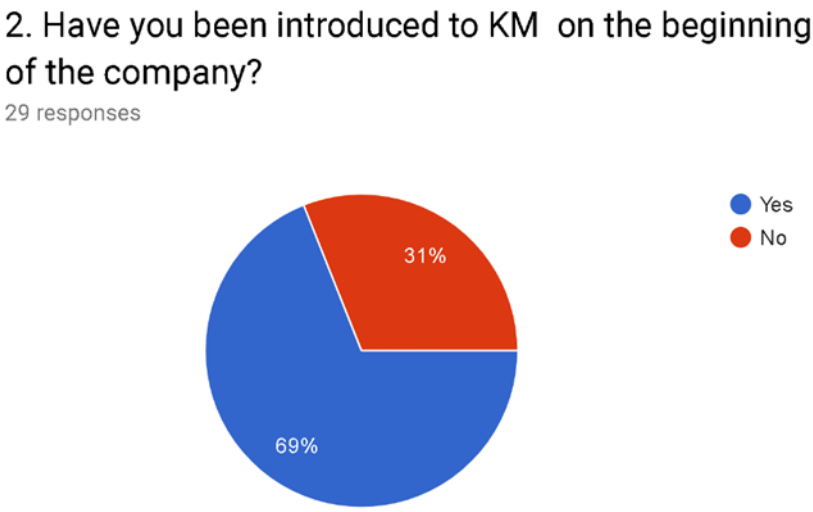


Figure 5.14Have you been introduced to KM on the beginning of your career inside of the company?

Graph number 5.14(Figure 5.14)is visually presenting percentage of who how many employees declare that company at the beginning provide KM training. Out of 29 respondents 69% said “YES „and 31% answered “NO”. Such a result clearly indicates that company does not have a specific rule where all employees go through identical admission. Further questions will show if survey numbers are reflecting corporate mistake or this is a consequence of different managerial approach during employment.

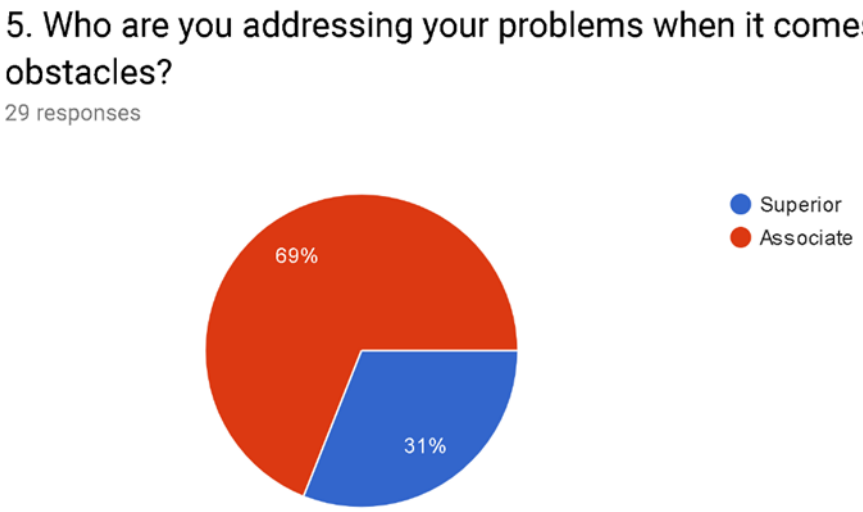
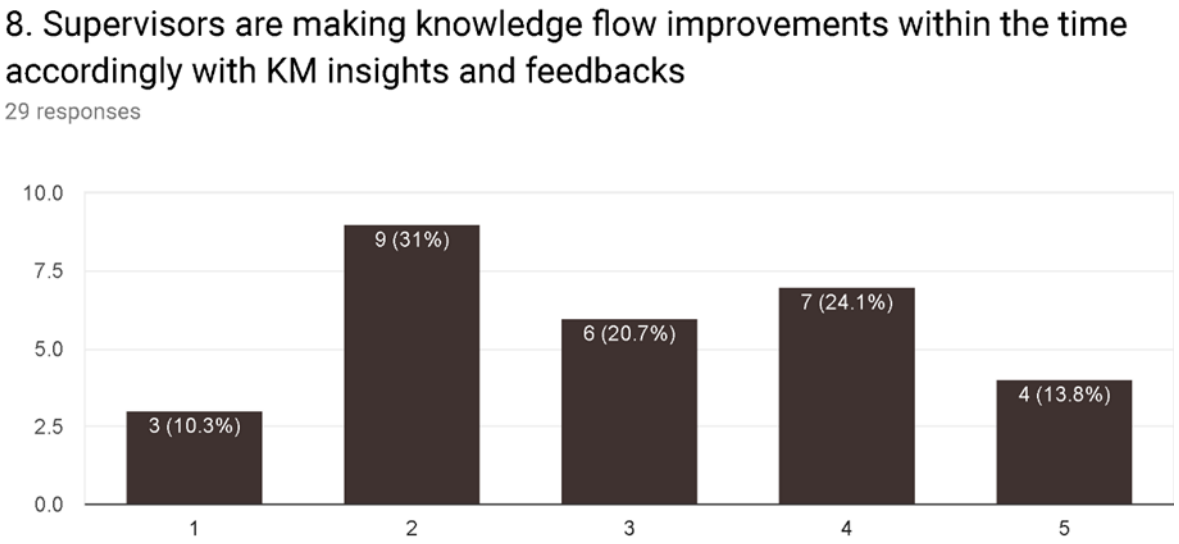


Figure 5.15Who are you addressing your problems when it comes to work obstacles?

Looking at the graph (Figure 5.15) it is clearly shown that almost 70% reach to their associate rather than to their superior when it comes to the work obstacle. This result indicates that there is a gap between bottom-end and up-end members of the team. Poor communication brings misunderstanding and bad business decision making.



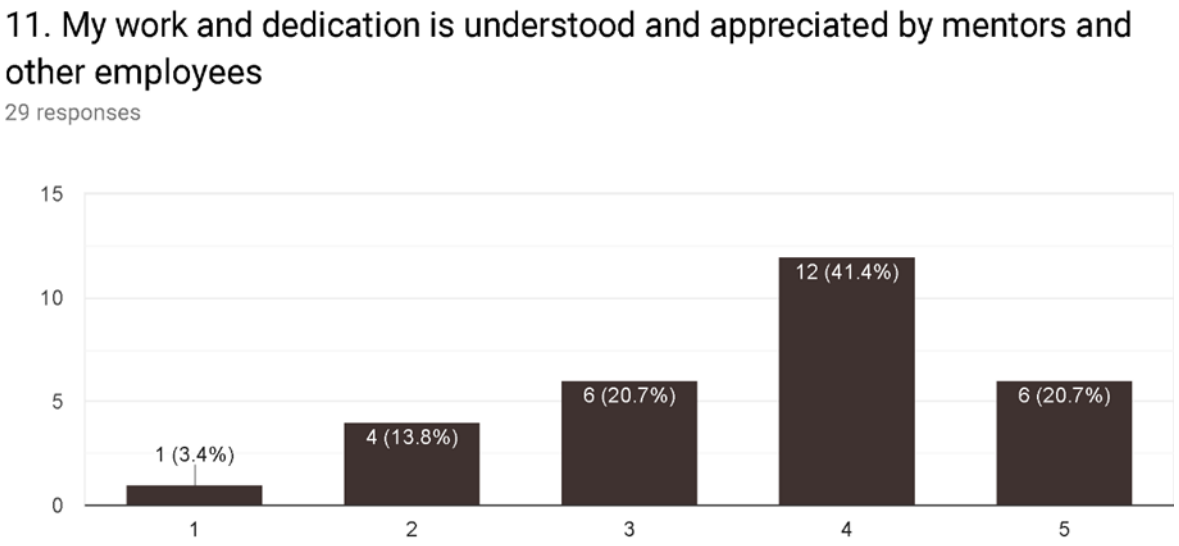


Figure 5.16Supervisors are making knowledge flow improvements within the time accordingly with KM insights and feedback

Question 8 and question 11 (Figure 5.16) are created in order to make author familiar with how employees experience own importance for the company. If they feel that their voice is heard and prominent by superiors, they will put good work and keep being dedicated to the job. From the first this graph it is pictured that 12 participants are not satisfied with changes brought from corporative top-end staff.

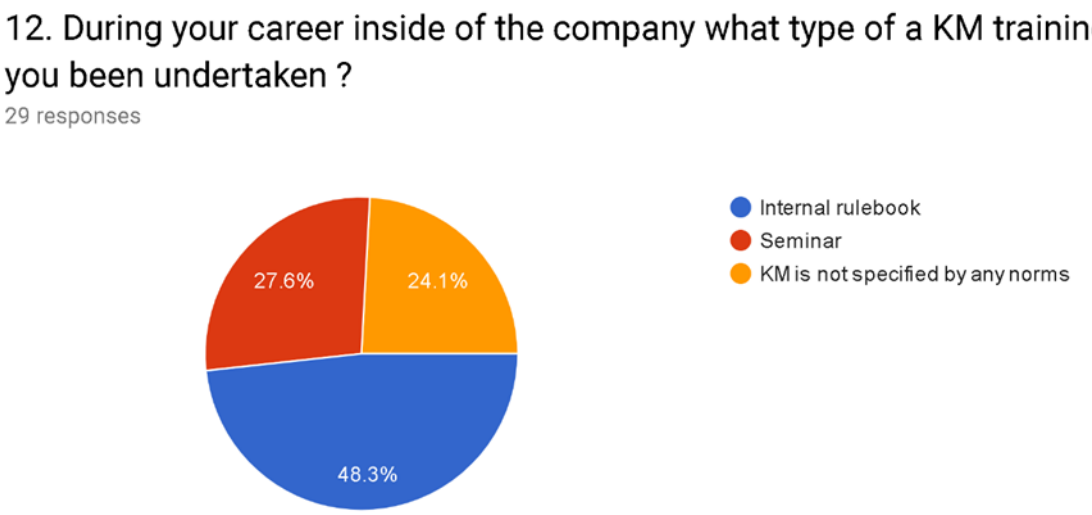


Figure 5.17During your career inside of the company what type of a KM training you been undertaken?

Question number 12 (Figure 5.17) targets approaches who are taken inside of the organization. The most used KM learning technique by survey results is internal rulebook with 48% of positive answers. Creating internal rules who are not legally determined indicate substantial need for cooperation and linking between coworkers. However, diversity of responses indicates requisite for structuring knowledge flow on general level inside of the company.

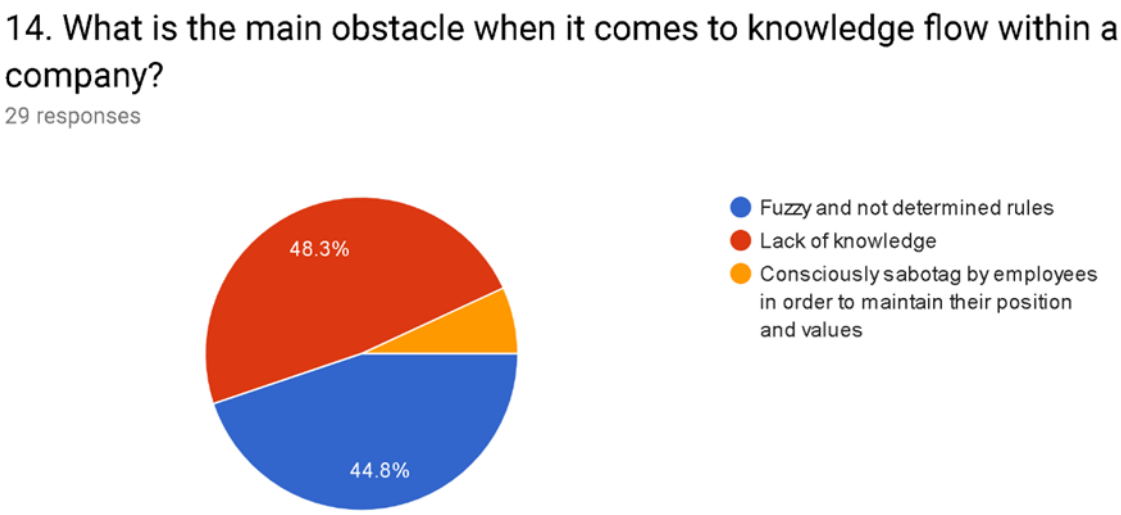


Figure 5.18What is the main obstacle when it comes to knowledge flow within a company?

Question number 14 (Figure 5.18) overlook obstacles which are stopping knowledge flow among employees. Survey results declared that 48% deem that lack of knowledge is the main obstacle to knowledge flow inside of the company. Second cause with 44% is fuzzy and not determined rules. The answers indicate weak management aspects who require structural rescript.

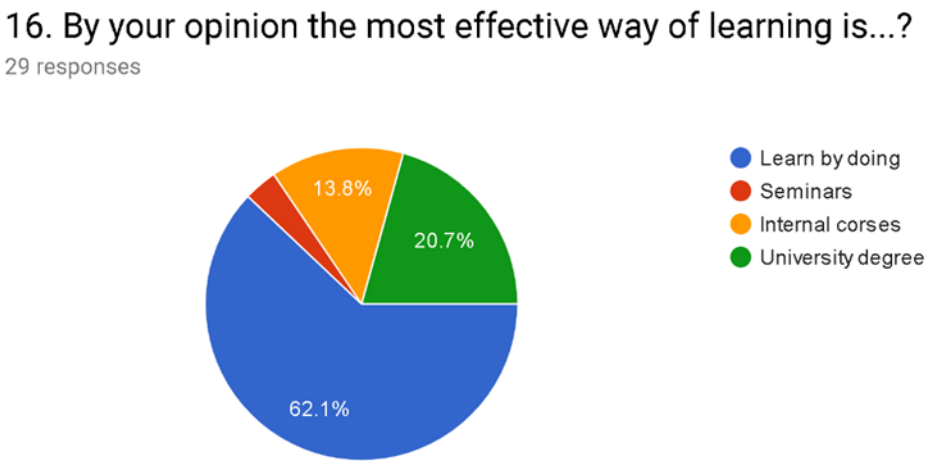


Figure 5.19By your opinion the most effective way of learning is…?

Question number 16 (Figure 5.19) aim is to indicates which approach would be most acceptable to most employees. 62% say that learn by doing is most beneficial method for learning, when creating future cross functional framework, it should be taken in account possible method that will include learn by doing process as already prove to be effective.

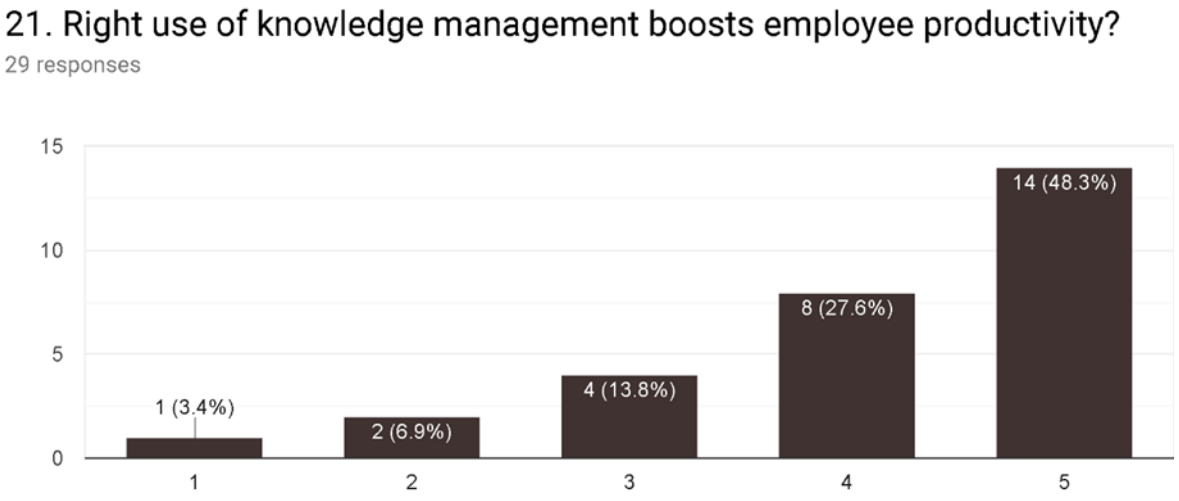


Figure 5.20Right use of knowledge management boosts employee productivity?

Question number 21 (Figure 5.20) proving link between productivity and right managerial leading. Majority responders are emphasizing importance of right use of managerial position for the purpose of higher performances. Visual presentation is pictured on the graph above.

5.5. CONCLUSION

Chapter 5 powers visual graphical insights into responders answers. All questions are composed in a way where author can get a better insight into Inside Maps team. Questions are mostly made in a way where responders can share their point of view and their

perspective about what KM presents for them and how KM is actually done in their company.

Therefore, this survey gave us valuable results that provided answers which will not be possible to collect by any other method because in this way author got qualitative feedback. Completing the survey it was possible to compound three focusing arias which were further explored during the research as the most significant approaches to the whole work.

6. APPLICATION OF THE FRAMEWORK TO INSIDE MAPS

6.1. INTRODUCTION

In order to evaluate the framework of knowledge sharing on the basis of its three elements along with the barriers and work obstacles within an organization, the study has evaluated the KM of Inside Map company. As discussed earlier this is done through a survey divided into three distinct variables (i.e., EE, OE and Internal Process Improvement) filled by the employees of Inside Maps. The following analysis is based on the answers of the employees given in the survey, which determines how Inside Map's EE, OE and Internal Process Improvement enhance Knowledge Sharing of the organization. In addition, the answers are also examined to identify the barriers and challenges which have been observed by employees associated with the KM system.

6.2. EMPLOYEE ENGAGEMENT AND KNOWLEDGE SHARING

To assess the engagement of Inside Maps' employees, the survey asked basic questions involving the time period spent by employees in the organizations, their positions, the number of co-workers they engage with on daily basis, their perception of the workers and management being cooperative and lastly, how willingly employees volunteer to exchange knowledge about differing fields. To these questions, majority of the employees considered that there is high cooperation among the team indicating that when it comes to helping each other out, the team members are always present to provide meaningful solutions and share knowledge regarding the problem-solving methods. Further majority of the departments of Inside Maps have 5 members each, with the majority of the workers employed for more than a year or more than three years, thus representing a low employee turnover ratio, with closely associated team members. The importance of the time period whereby the employee is associated with the organization reflects the comfort level of employee with the

management team, as well as, employee being satisfied, devoted and involved in the company. Chen et al., (2011) and Kim and Park (2017) in this context suggests, that high devotion, group efforts (i.e., cooperativeness of team member) and working for long periods of time in the organization shows high engagement level of employees. Thus, it can be deduced that Inside Maps' employees are highly interactive and engaged with each other.

However, despite the high level of engagement in the organization, the survey results reveal the employees are scared of sharing knowledge which has a different point of view, due to the loss of their job positions. The practical implication, of EE enhancing knowledge sharing within Inside Maps, therefore does not support the theory of Wang and Noe (2010). The theory suggests that through knowledge sharing, employees can contribute to knowledge application, creativity and innovation, and enable firms to sustain a competitive advantage within itself. However, Inside Maps might not benefit from this competitive advantage if its employees are not sharing information.

6.3. Operational Excellence and Knowledge Sharing

Operational excellence as discussed earlier is defined as improvisations in the way's businesses operate so that the company can perform better in the market than their competitors (Bonacorsi, 2017). To investigate how Inside Maps does this and how does Knowledge Sharing System relate to improvement of business operations in Inside Maps, the survey asked employees their perspective of KM effectiveness in terms of company growth and efficiency of company operations. Employees point of view in this respect indicates that knowledge sharing within common projects and interaction or socialization along with IT systems are deemed more useful in the organization. Further majority of the employee's perspective regarding the KM model being effective in the growth of the company and

efficiency of operations is negative, reflecting that the employees are not keen on Knowledge Sharing model. In addition, the employees were asked how adaptive are the superiors any problem with the approach of KM, to which the majority of the employees responded positively. This determines, that Inside Maps' supervisors overcome obstacles through KM model and practically encourage it by doing it themselves to set an example for the employees to follow. Showing that KM model is taken as a very crucial aspect of business on the upper-level management in Inside Maps company, the study of Wu and Chen (2014), supports the survey results. The study explains that KM is mostly associated with management since it is responsibility of the management to encourage knowledge dissemination among employees.

However, within the lower level of hierarchy in Inside Maps, most of the employees are not satisfied with the company's approach to Knowledge Sharing and think that it can be enhanced further, and following this, the organization operations can be improved in a better way. Finally, the employees are also slightly confused as to how the hierarchal flow of knowledge works in the company, exhibiting that this might be the potential reason of employee's negative perspective towards KM model of the company. Overall, the results of the survey of this variable conclude that the company lacks in operational excellence, and accordingly has a relatively inefficient system of knowledge sharing management. As described by Rehman, Ilyas and Asghar (2015) that knowledge sharing helps the company to significantly improve their performance, thereby attaining a competitive advantage in the market and if KM is inefficient. Thus the operations of the business will lack effectiveness and vice versa.

6.4. INTERNAL PROCESS IMPROVEMENT AND KNOWLEDGE SHARING

To discourse about how Inside Maps' internal process improvement influences knowledge sharing and vice versa, the survey asked employees, about their introduction and training of KM models within their employment period in Inside Maps. As suggested by Ming (2018) that knowledge sharing at lower management levels, help to improve certain key processes, methods, and tactics enable them to fully exploit these benefits to achieve maximum commercial returns, the employees were also asked who are they supposed to address in case of any problem or obstacles in the routine tasks of the organizations, and how their supervisors and management are trying to make knowledge flow enhancements.

The results of this survey variable comprise of a majority of the workers being introduced to KM in the beginning of their employment tenure in Inside Maps, thereby indicating that management is encouraging information sharing on individual levels by training and other communication mediums. Moreover, the survey results observed that majority of the employees prefer addressing their work problems and challenges to their associate than a superior co-worker, thereby showing the level of trust among the teams. This suggests, according to Ming (2018), that the KM model of Inside Maps is highly influenced by information sharing on individual levels, as there is a high degree of interpersonal trust among workers. Furthermore, majority of the employees take their supervisor's feedback approach of KM to be inefficient, consequently believing that the supervisors or management is not putting in much efforts to make the flow of knowledge better in the organization. Many employees also think that they are well appreciated and compensated by the mentors on their tasks. This can be viewed as a management technique to improve knowledge sharing the organization as rationalized by Zack, McKeen and Singh (2009).

6.5. Barriers and Work Obstacles

Mostly the training of KM received by Inside Maps employees is limited from two sources, seminars and internal rulebook, or there being none at all. Mostly employees received the training or were introduced to KM through the internal rule book, only a small portion of employees received training through seminar and a relatively small portion is totally unaware of Inside Maps having a proper KM of the organization.

Furthermore, to investigate how internal processes of Inside Maps are well integrated with KM, the respondents were asked to state the main obstacle when it comes to the flow of knowledge among hierarchal levels within the teams. To this, employees answered in three main domains, the first and common obstacle being confusing and unclear rules, the second most major challenge being lack of awareness of the benefits and existence of KM in the organization and lastly, being afraid of losing positions hence not engaging in KM practices. The results extracted from the survey are illustrated in the chart below (Figure 6.1).

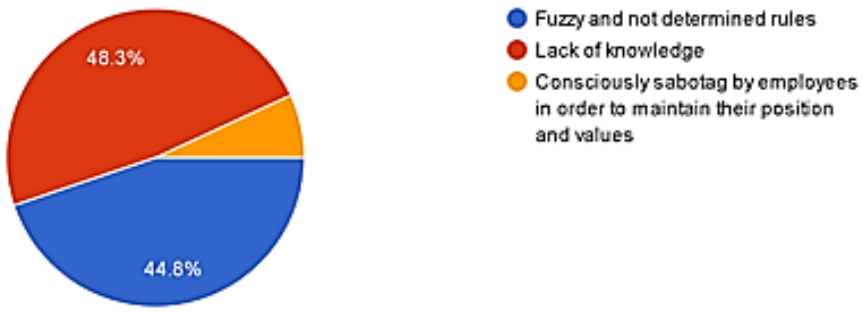


Figure 6.1 Main Obstacles related to knowledge flow. Source: Survey

Most employees think that the obstacles surrounding the ineffectiveness of KM in the organization can be solved by practicing KM routinely in the daily tasks performed by the teams together, other solutions include adequate level of formal education from universities

or higher educational institutes, internal training provided by Inside Maps and a small proportion of respondents think that attending seminars will help to reduce the obstacles arising in knowledge sharing model. Finally, the survey serves as an indicator that employees perceive KM as a way to boost employee productivity concluding that most employees are aware how beneficial is KM if practiced in an effective way.

6.6. Recommendation and Solution

The aforementioned problems, identified from the survey results consist of;

1. Lack of awareness of Knowledge Sharing on lower employment levels
2. The ambiguity between co-workers, teams and departments as to who is responsible for which employee
3. Absence of training regarding KM.
4. No such established rules or activities which will make knowledge sharing an every-day practice
5. Afraid of losing jobs if employees voice out their concern or present a different point of view

The following strategies are recommendations and solutions, which can be applied for effective KM in Inside Maps and other organizations:

1. Encourage collaboration and discussions among teams and outside of teams regarding important business decisions of organizations. These decisions can include, product line expansion, hiring or employing new technology to benefit the employees, ways to be more productive, ways to reduce costs or decisions on a

bigger scale such as growth of the company, tapping into new markets, etc. this will create chance for workers to ideas among superiors and co-workers.

2. Ensure Feedback and Questions after every discussion session. This will also include supervisors appreciating the employees who voiced their concerns and who thought of new ideas and brought a different perspective to table which can be more cost-effective to optimize business processes. This way, employees will feel motivated and devoted to research and come up with new plans, strategies and ideas which will make them appreciable in front of their supervisors instead of the fear of losing jobs.

3. Establish a clear KM Plan on upper management level, to be distributed and centralized on each employment level of the organization. This will be done by employing the KM approach introduced by Warner (2011) which is based on the vision statement and mission of the organization. The KM plan will be based on the business plans which are formulated according to the strategic vision. This will help managers to set a road map for a knowledge management plan, thus improving the KM infrastructure in an organization. The flow chart below (Figure 6.2) illustrates the steps of outlining the KM plan. Here the KM infrastructure is referred to the Organization culture, structure, IT, common knowledge of employees attained through training and job orientation, and the physical environment of learning in the company.

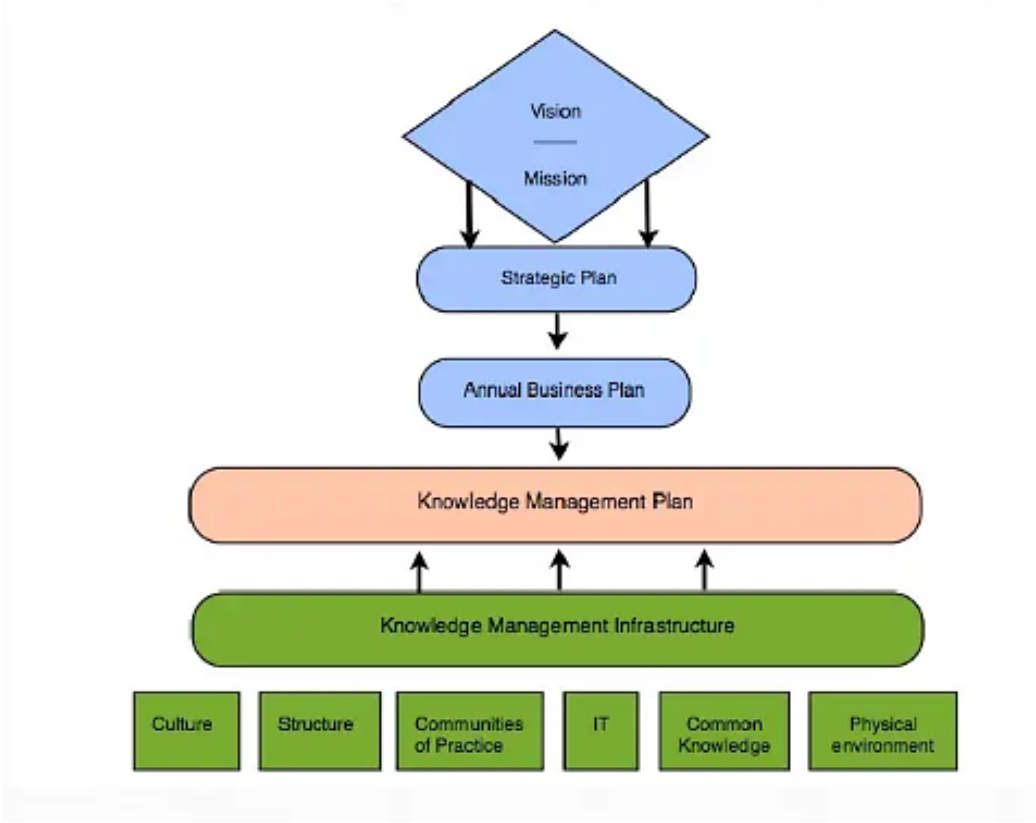


Figure 6.2 KM Plan. Source: Warner (2011)

4. Train employees in a way so that they know that knowledge sharing is appreciated and rewarded if observed as a routine practice among co-workers

6.7. CONCLUSION

Overall, evaluation drawn from the survey conclusively specify that KM of an organization is (in this case Inside Maps) is directly related to how strong the internal processes are and to OE. However, employee engagement and knowledge sharing, as seen in the organization of Inside Map serve as an indicator that the two variables are indirectly related since a high EE level does not fully contribute to high level of knowledge sharing. Also, engagement is classified and formal and informal, and according to Chen et al., (2011) only formal OE improves employee behaviors, enhance their productivity of tasks which is reflected through high accessibility and availability of knowledge to assist them in their tasks.

Also, KM, as seen as significant to boost company's performance and provide a competitive edge to the company as their personnel, becomes more productive enhancing the performance along with it too. However, in many companies such as Inside Map, even though after the recognition of KM's importance on upper and lower management levels, it cannot be implemented effectively due to complex hierarchal levels and unclear positions of sub-ordinates, or roles and responsibilities of managers. Hence companies, in order to encourage and benefit from KM should establish a hierarchal flow chart, to determine, which employee can address which supervisor in case of problems and thereby keep discussion sessions every now and then to promote healthy formal EE of ideas within the companies.

7. CONCLUSION

7.1. INTRODUCTION

The final chapter provides previous chapter overlook and summarizes major findings regarding the overall research plan. Besides the limitations of the study, questions for future work are also provided.

7.2. MAIN FINDINGS

Chapters 2 and 3 provide an overview of present KM learning and how today's business world is approaching this topic from both cultural and conceptual way. Through literature review we contributed to a better understanding of KM value on all organizational levels starting from the IT part, Roll of people and KM importance in general.

The rest of the study provided picture of a small-scale organizational KM. By extracting employees' testimonials through a survey, a KM framework was built and guidelines to match employees needs and emotions to reach highest working efficiency was provided.

Therefore, the study gives us some solutions and behavioral models to obtain full working potential in a small-scale organization. Vital elements, such as EE , OE and Internal Process Improvement served as focus areas for knowledge extraction. Moreover, the author turned focus areas into central objectives for problem solving models.

7.3. LIMITATIONS

The study will help to analyse the OC by providing insight into how employees are managing the changing trends of the markets and work challenges through their knowledge and expertise shared within the firm. The study will also help to provide a new perspective for institutions and academia to look beyond the human factor management which prioritizes IT learning and, thereby, neglecting the importance of implicit knowledge and knowledge

sharing among the employees within a similar organisation. However, the study is focused only on a small company, specifically the Insight Maps. This might limit the generalization of study's results to other small-scale organisations.

7.4. FUTURE WORK

KM study area offers significant potential for the further examination and research. This study could be extended to other focus areas, such as technology sector improvement, in order to increase organizational KM. Since IT is presenting one of the main assets in modern companies, the existence of extended quantitative studies could provide useful links between IT- Human impact and KM.

Moreover, future studies could involve EE , OE and Internal Process Improvement with the IT system model to possibly create knowledge sharing platforms which could be implemented on other types of companies. Thus, the ultimate goal would be building models for small-scale companies, since it is easier and more approachable to gain knowledge from that type of companies, and then use them on big-scale organizations.

It is essential that the flow of knowledge among employees is directed in the right direction since "trapped knowledge" is a lost knowledge. For that matter, by investing in KM, a company invests not only in wholesome relations among employees, but also to achieve the maximum capacity and organizational efficiency.

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