



FACULTY OF COMMERCE

GRADUATE BUSINESS SCHOOL

**TITLE: THE INFLUENCE OF KNOWLEDGE SHARING ON
INNOVATION IN PROJECT TEAMS. A CASE OF DEVELOPMENT
AID AGENCIES IN MASHONALAND CENTRAL PROVINCE**

BY

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**A PROJECT SUBMITTED TO GREAT ZIMBABWE UNIVERSITY IN
PARTIAL FULFILMENT OF THE REQUIREMENTS FOR A MASTER
OF BUSINESS ADMINISTRATION**

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MASVINGO, ZIMBABWE

YEAR 2023

RELEASE FORM

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TITLE OF THE PROJECT: **THE INFLUENCE OF KNOWLEDGE SHARING ON INNOVATION IN PROJECT TEAMS. A CASE OF DEVELOPMENT AID AGENCIES IN MASHONALAND CENTRAL PROVINCE**

PROGRAMME: MASTER OF BUSINESS ADMINISTRATION

YEAR GRANTED: 2023

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DECLARATION

It is at this moment declared that this research work titled, “**The influence of knowledge sharing on innovation in project teams. A case of development aid agencies in Mashonaland central Province**” was done by Rutendo Darangwa and is based on her original work in the Faculty of Commerce, Bernard Chidzero Graduate Business School, Great Zimbabwe University, Masvingo, Zimbabwe, under the supervision of Dr. W. Makumbe. Other researchers' ideas, suggestions and views were adopted, expressed, and acknowledged.

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DEDICATION

It is with genuine gratitude and warm regard that this piece of work is dedicated to my Mother, Rumbidzai Darangwa, and the rest of my family members. They really supported me in achieving this.

ACKNOWLEDGEMENTS

I owe a great debt of gratitude to the Almighty God for giving me strength to accomplish this. I will forever cherish and thank the vision of this great institution (Great Zimbabwe University), through my Supervisor, Dr. W. Makumbe who stood by me throughout this journey. I thank him for his immeasurable support and priceless effort extended to me during the time this project was being undertaken. **He is the best.**

I thank the management of the Munhumutapa School of Commerce which ensured that I completed my academic studies successfully. The school provided a peaceful and conducive academic environment. All the lecturers contributed a lot to the success of this academic endeavour.

Furthermore, my school colleagues are very critical to mention in the success of this whole work. It could not have been easy without the support of such great people. I am eternally grateful to the following people; Ms. P. Tsikwa, Mr. C. Tachiona, Mr. M. Magagula, Mr. E. Madekwana and Ms G. Chirairo, and all those not mentioned by names.

I appreciate God for the moral support I got from my workmates, the Zimbabwe Electoral Commission (ZEC) staff. They have been there for me all the way through. ZEC also gave me the great opportunity to learn a lot from their institution as I was carrying out this research. The team was behind me and I really appreciate their gestures.

My heartfelt appreciation goes to my twin sister, Ropafadzo Darangwa. How blessed I am to have such a caring and loving sister. She gave me moral and financial support which I am really grateful of.

May the Dear Lord bless everyone who made this possible.

ABSTRACT

The study sought to establish the influence of knowledge sharing on innovation in project teams. A case of development aid agencies in Mashonaland central Province. Study objectives were to examine the influence of knowledge sharing, to establish how tacit knowledge sharing affects Innovation speed and quality on project teams as well as to assess how explicit knowledge sharing impacts on innovation speed and quality in project teams. Forty (40) questionnaires were collected from participants who participated in the study. Participants were staff members who were available at the district project offices at the time of the study. The total of 6 units at the three different districts departmental categories were used to enhance the representativeness of the study and also to allow for the generalizations of findings. Quantitative approach was used in this research. Findings show that behaviors of team members are directly related to knowledge sharing and innovation. This means that an increase in knowledge sharing by team members will lead to an increase in innovation speed and innovation quality in development aid agencies. In addition, this study indicates that tacit knowledge sharing and explicit knowledge sharing were positively related and significant for innovation in the project teams. The findings of the study also reflect that the relationship between knowledge sharing and innovation in development aid agencies in Mashonaland central province is not only positive, but also significant. Therefore the team members' perceptions of knowledge sharing behaviors in their teams are directly related to innovation. Therefore increased knowledge sharing behavior among team members will lead to increased innovation in development aid agencies. The second research objective was to establish how tacit knowledge sharing affects innovation speed and quality on project teams. In this study, tacit knowledge sharing contributes moderately but significantly to innovation in project teams. The findings indicate that the tacit dimension of knowledge sharing is moderate but significant for innovation in project teams in development aid agencies in Mashonaland Central Province. This shows that the relationship is not due to chance. These findings indicate that in general, the team members' perception tacit knowledge sharing by their team members will lead to an increase in innovation in project teams. Thirdly, explicit knowledge sharing also contributes positively to innovation in project teams. The findings indicate that the explicit dimension of knowledge sharing is very significant for innovation in project teams in development aid agencies in Mashonaland Central Province showing that the relationships is not due to chance. The explicit knowledge sharing variable was found to be positively related and significant for innovation speed and quality by contributing the margins given to innovation in the development aid agencies project teams.

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CHAPTER ONE

INTRODUCTION

1.0 INTRODUCTION AND BACKGROUND

Radical globalisation over the years has forced organisations to adopt and find ways of harnessing and growing their intellectual capacity in order to achieve a sustainable competitive advantage. This has led to the reliance on innovation and intellectual capital to create economic value as a distinct characteristic of knowledge based economy. The general conclusion from literature is that knowledge sharing influences innovation in organisations (Storey and Kelly, 2002; Lin, 2001; Tsai, 2001. Further studies also conducted by other scholars such as Liao et al, (2007), Lin, (2007), Song et al, (2008)., Carmeloz-Ordazet et al, (2011) and others have also shown a positive influence of knowledge sharing on innovation in project teams. Much of the literature has however largely been foreign and has concentrated on the private sector. Hence, the influence of knowledge sharing on innovation in Zimbabwean Development Agencies project teams remains underexplored.

Past research indicates that reliance on innovation and intellectual capital can create economic value in knowledge-based economies. This trend has been since the mid-1980s where radical global changes have forced organisations to look for ways towards a means of harnessing and growing their intellectual capital in order to achieve and sustain competitive advantage. Zamora and Senoo (2013) highlight that the ways in which the intellectual capital possessed by firms is converted into innovation has now become a huge concern to management. This basically translates to the notion that the knowledge-based economy is dependent on innovation, which in itself basically linked to knowledge sharing which is a process of knowledge management.

Knowledge sharing is considered a key driving force for the maximisation of operational benefits (Chen et al., 2014) as well as competitiveness (Navimipour & Charband, 2016). This can be attributed to the fact that knowledge sharing allows the integration of experts' knowledge, critical skills and abilities to address complex organisational issues. Moreover, knowledge sharing is closely related to the concept of innovation, with knowledge being considered a key building block for innovation (Kamaşak & Bulutlar, 2010). For the purposes of this study, knowledge sharing is the process by which employees mutually exchange their tacit and explicit knowledge in order to create new knowledge (Razmerita, 2016). Schwartz

(2006) concurs by defining knowledge sharing as the exchange of knowledge amongst individuals, and within and amongst teams, organisational units and organisations

Studies conducted by (Storey and Kelly, 2002; Lin, 2001; Tsai, 2001) have shown that knowledge is the most vital element in innovation. Other studies conducted by (Kang and Kim, 2013;) suggest that knowledge management plays a prominent role in facilitating how organizations leverage their innovation capabilities, increase their profits, reduce production costs and redundancy in business processes thereby enhancing their efficiency and effectiveness. There are also existing studies (Kang and Kim, 2013; Zamora and Senoo, 2013) which suggests that firms that effectively manage their organizational knowledge develops a higher level of innovation and competitive advantage.

Leonardi (2014), asserts that knowledge management has four major processes namely knowledge discovery, knowledge capture, and knowledge sharing and knowledge application. Gupta et al, (2000) is of the opinion that of these four processes, knowledge sharing is the main process of knowledge management and it is often referred to be the most important aspect of knowledge management. Zhou and Li (2012) highlights that innovation initiatives tend to rely heavily on employee's knowledge.

A team's ability to exploit knowledge through knowledge sharing may determine its level of Innovation such as new problem solving methods. Leonardi (2014) notes that on-going sharing of knowledge will lead to innovation in teams and generation of new ideas for developing new products and services. Although these findings on knowledge sharing are global and have shown a consistent influence on innovation speed and quality, there is however a vacuum in the context of Zimbabwean Development Aid Agencies. It is therefore the objective of this paper to examine the influence of knowledge sharing on innovation Development Aid Agencies in Zimbabwe.

1.1 JUSTIFICATION OF THE STUDY

There have been various studies over the years on the Influence of Knowledge sharing on innovation. Chen and Cheng (2015) is an example of some of the researchers who have recently carried out studies to examine the relationship between knowledge sharing and innovation on project teams. These studies have however largely been foreign and based on the private sector. This creates the need to research on the influence of knowledge sharing on innovation in the context on the influence of knowledge sharing on innovation in context of Zimbabwean development aid agencies project teams and hence research justified.

1.2 STATEMENT OF THE PROBLEM

Over the years they have been growing consensus that there is a positive relationship between knowledge sharing and innovation. Wang and Wang(2012) assets that knowledge sharing is an essential element for project team performance as it as it positively impacts on innovation This is because innovation is critical to the survival of business and also gaining sustainable competitive advantage. Despite the importance of knowledge sharing on innovation in project teams, the concept remains largely underexplored in developing countries such as Zimbabwe. In fact, Zimbabwe lags behind in comparison to other Sub-Saharan African countries in the knowledge management landscape (see Global Innovation Index, 2023). This solidifies the need examine knowledge management dimensions in the Zimbabwean context.

1.3 OBJECTIVES

1.3.1 Broad research objective

To examine the influence of Knowledge sharing on Innovation in Project teams.

1.3.2 Specific Objectives

To establish how tacit knowledge sharing affects Innovation speed and quality on project teams

To assess how explicit knowledge sharing impacts on innovation speed and quality in project teams

1.4 RESEARCH QUESTIONS

1.4.1 Main Research Question

How does knowledge sharing influence Innovation in Project teams

1.4.2 Sub Research Questions.

How does the tacit knowledge sharing affect innovation speed and quality in project teams?

How does explicit knowledge sharing impact on innovation speed and quality in project teams?

1.5 JUSTIFICATION/SIGNIFICANCE OF THE STUDY

1.5.1 Student/Researcher

The research is of significance to the researcher as the researcher intends to gain more insight into the influence of Knowledge sharing on Innovation on project teams on in Development

Aid Agencies. The researcher intends to gain more knowledge of the relationship between knowledge sharing and innovation in Development Aid Agencies project teams.

1.5.2 Academic Fraternity

There is a vacuum in Zimbabwe with regards to literature on the Influence of Knowledge sharing on innovation in the Development Aid agencies project teams. Prior research studies have largely been foreign and focusing on the private sector. Findings from the study would serve as source of relevant information for Academia by serving as an additional source of library reference for students and lecturers.

1.5.3 Development Aid Agencies

The research will help Development Aid Agencies in Zimbabwe with strategies and plans on how they can harness on their intellectual capacity in order influence innovation which is critical to the attainment of their goals. Findings of this study will highlight to extent to which knowledge sharing influences innovation in project teams in Development Aid Agencies in Zimbabwe.

1.6 DELIMITATIONS OF THE STUDY

1.6.1 Geographic

The study will be carried out in the Mashonaland Central District in Zimbabwe in three districts namely Rushinga, Mt Darwin and Bindura.

1.6.2 Conceptual Limitations.

For the purpose of this study knowledge sharing will be discussed in the context of tacit knowledge sharing and explicit knowledge sharing. Innovation will be discussed in the context of innovation speed and quality.

1.6.3 Study Participants/Population

The participants will be drawn from project team members for Non-Governmental Organisation Operating in three districts in Mashonaland Central Province.

1.6.4 Data Period

The data will be collected from project members who are involved in the Development Aid Project program of October 2017 to May 2018.

1.7 LIMITATIONS

1.7.1 Potential bias

There is potential bias in that the researcher is a member of one of projects under the LSA programme. The researcher to drop and collect method whereby participants complete the questionnaires themselves to avoid bias.

1.7.2 Limited literature

Literature on the influence of knowledge sharing on innovation in Zimbabwe is limited. The researcher will thus make reference to literature from other countries.

1.8 DEFINITION OF KEY TERMS AND ACRONYMS

LSA –Lean Season Assistance

INGO-International Non-Governmental Organisation

LNGO –Local Non-Governmental Organisation

CPs – Cooperating Partners

Donor –Project Financer

Development Aid Agencies-Non Profit making Organisation

WFP- World Food Program

1.9 CHAPTER SUMMARY

The purpose of the study is will be to assess the impact of the impact of Knowledge sharing on innovation in project teams. This chapter consists of the introduction, background of the study, statement of the problem and justification of the study. The chapter also includes the research objectives, significance of the study, definition of terms and also the outline of the whole dissertation.

1.9.1 DISSERTATION OUTLINE

Chapter 1: Introduction

This chapter is made up of the introduction, background of the study, statement of the problem and justification of the study. The chapter also includes the research objectives, significance of the study, definition of terms and also the outline of the whole dissertation.

Chapter 2: Literature Review

The purpose of this chapter is to review the literature of the influence of knowledge sharing on innovation. It evaluates the relationship between knowledge sharing and innovation in project

teams. It consists of the theoretical framework, the conceptual framework for the study variables and also past studies about the relationship between knowledge sharing and innovation.

Chapter 3: Methodology

In this chapter there is a detailed discussion of the research methods which is the data collection methods used and the data analyses procedures. The section consists of eight sections namely research design, research approach, study site, study population, sampling strategies, sample size, data collection, data collecting instruments, participation. The chapter also discusses measurement scales and data Analyses. The chapter also includes justification of the data and also includes a discussion on the kind of data is required to examine the variables.

Chapter 4: Data Analyses and Presentation

There is use of data analysis processes and statistical techniques to analyse the data. The population, size, sampling of data and also the hypothesis of the study are analysed, reviewed and compared to previous studies. The chapter also discusses the ethical considerations of the study to ensure that the data is not biased. Conclusions are also discussed in this chapter.

Chapter 5: Conclusion, Summary and Recommendations

This chapter provides a summary of the study and also how the study will contribute theoretically in the bridging research. The chapter also discusses the limitations of the research and also offer an insight to further/future studies.

CHAPTER 2

LITERATURE REVIEW

2.0 Introduction

This chapter is a review of the, theoretical, conceptual and empirical framework/ literature which is pertinent to this study. Theories knowledge sharing and innovation which are the variables of this study are discussed and reviewed. Past researches on knowledge sharing and its impact on innovation which make up the empirical literature are also reviewed for the purpose of establishing the research gaps which are inherent to this study. The summary and research gaps are also key components of this chapter. This chapter will initially give a brief background of knowledge, knowledge management as knowledge sharing is an integral component of knowledge management. The chapter will also explain the innovation concept.

2.1 Explaining Knowledge

The value of knowledge cannot be debated but to benefit from it there is need for organisations and individuals to have an appreciation and understanding of what it is and also how it works as highlighted by Duffy (1999). Although Knowledge has at times been synonymously used as information Duffy (1999) argues that knowledge is information that has been enriched by the user of the information. He goes on to say that knowledge is a combination of insights, judgments, and innovation.

Several scholars have tried to illustrate the distinction between knowledge and information by first of all distinguishing data from information. Bailey and Clark (2012) elaborated that data becomes information when they are put in context and information becomes knowledge when it becomes of interest to potential users at a particular time. They further highlight that the information only becomes knowledge if a meaningful interpretation can be deduced in relation to the situation at hand as well as to the users. Leonardi (2014) also concurs to the above argument by also indicating that knowledge is gained when information and experience are integrated. They further elucidate belief is critical to this concept of knowledge because it is closely connected with individuals' or groups' values and beliefs. They further claim that knowledge from this perspective originates from the minds and bodies of individuals.

On the other hand some scholars like Wilson (2002), claim that knowledge is what we know and can only exist in our minds and anything we communicate or disseminate from our minds is information. In other words, Wilson argues that knowledge cannot exist anywhere else

except in our minds. Polanyi (1966) who has been heralded as the father of tacit knowledge, in his study of “one’s mind” suggests that what we know is more than what we are able to articulate.

2.2 Explaining Knowledge Management

Whilst some scholars have reasoned that knowledge can’t be managed but instead it can be enabled (Krogh et al. 2000, Wang and Wang 2012,). Over the years there have however been arguments against knowledge management as some scholars have depicted knowledge management as a concoction promoted by consultants to keep themselves in business (Lin, 2001; Tsai, 2001). This notion is further emphasized by Wilson (2002) who suggests that Knowledge Management was a formulation of the consultancy companies to continue reaping businesses after the waning of re-engineering. This conjecture is contested by Zhou and Li(2012) who notes that while the idea of consultants looking for a profitable new subject to replace an expiring one may hold water , it should however be realised that Knowledge Management is not only a consultant’s invention but a practitioner based, substantive response to real social and economic trends being witnessed global. Zhou and Li(2012) further note that globally organisations are in a quest to establish what it is that they know, who knows it and how they can best make use of it.

There have been several definitions of KM depending on what scholars have chosen to associate it with. Drucker (2002) defines Knowledge Management “as the coordination and exploitation of organization’s knowledge resources in order to create benefits and competitive advantage”. This definition is further supported by Chen and Cheng (2015) who defined Knowledge Management defined as “a discipline that systematically leverages content and expertise to provide innovation, responsiveness, competency and efficiency”. This definition ties the knowledge resources to content and expertise which may be regarded as resources embedded in the knowledge that is leveraged for other benefits as mentioned above.

Chen and Cheng (2015) highlights that organizational learning is part of the aims of Knowledge Management and that successful Knowledge Management gives employees and team members access to the information you they need to do your job, better than they did in the past. The author also further highlights that Knowledge Management facilitates for the learning of the answer rather than providing the answer. The process of the facilitation of learning to effect Knowledge Management is also implied by Leonardi (2014) who depicts Knowledge

Management as a conscious strategy of getting the right knowledge to the right people at the right time and helping people share and put information into action. Implementation of Knowledge management is done in different ways depending on the model that may be adopted by the implementing organization. The network model as highlighted by Carmeloz-Ordaz et al (2011) is considered to be characterized by horizontal patterns of exchange, interdependent flow of resources and reciprocal lines of communication. This was elaborated further by Bailey and Clark (2012) who indicates that this perspective emerges parallel with the themes of the network organization and focuses on acquisition, sharing and knowledge transfer.

2.3 Explaining Knowledge Sharing

Navimipour and Charband, (2016)'s conceptualization of Knowledge Sharing highlights it as a process where there is mutual exchange of implicit(tacit) and explicit knowledge by individuals so as to create new knowledge. Navimipour and Charband (2016)'s definition implies Knowledge Sharing behaviour is made up of both the supply of new knowledge and the demand for new knowledge. This notion is also supported by Kucharska and Kowalczyk (2016) who indicate that they are two behaviours central to Knowledge sharing namely Knowledge donating and Knowledge collecting and describes Knowledge donating, as communicating one's personal intellectual capital to others while Knowledge collecting is a process of consulting others to get them to share their intellectual factors.

Al-Husseini, and Elbeltagi(2015) highlight that Knowledge sharing improves individual and organisation performance as well as the innovativeness of the organisation. And they also acknowledge that in an economy which is increasingly considered to be a knowledge economy Knowledge has significantly gained importance and emphasis. This notion is also supported by Navimipour and Charband (2016) who notes that neither Knowledge sharing in an organisation neither does nor only happens at individual level but also at group level. The organisational capacity in relation to Knowledge sharing is a critical element on its ability to generate new knowledge as well as its ability to utilise the resources and capabilities of its members.

Nonaka (1991) classifies into tacit and explicit knowledge. Navimipour and Charband (2016)'s further clarifies that it is not easy to articulate tacit knowledge which rather makes it difficult to contextualise it in the form of words, texts or drawings. Contrary to tacit knowledge, explicit

knowledge however is manifested in form of content that can be captured in some tangible form such as words, audio recordings or images. Navimipour and Charband (2016) further elaborates that tacit knowledge tends to reside in the minds of the knower whilst explicit knowledge tends to be in the form of tangible or concrete media. Overallly this makes explicit knowledge easier to share via products, services or documented processes whilst making face to face communication is a better medium for sharing of tacit knowledge.

2.4 Explaining Innovation

Thompson, (2005) defines Innovation as the generation, acceptance and implementation of new ideas, processes, products or services. Zaltman et al. (1973: 10) view innovation as “any idea, practice, or material artefact perceived to be new by the relevant unit of adoption”. Recent scholars such as Leonardi (2014) define innovation as an intentional introduction and application of new products, processes, procedures, or ideas that are designed to significantly benefit the individual, the group, the organization or wider society. This definition by Leonardi (2014) helps to distinguish innovation from creativity as it puts into perspective that innovation involves the intentional introduction and application of new and improved way of doing business.

There is generally a consensus that innovation is generally analysed as a combination of invention and exploitation (Storey and Kelly, 2002, Lau et al, 2010, Kang and Kim, 2013). Research on innovation has highlighted that innovation can be achieved through two distinct strategies namely exploitation and exploration where exploitation is making use of existing opportunities and exploration involves the search for new ones. Over the years organisations are prioritising their ability to develop new ideas and innovation as a way of not only sustaining their business but also remain relevant and competitive given the intensity of the global competition.

Kang and Kim (2013) highlight that the ability of an organisation to innovate has become a major factor that contributes to the success of an organization. Organizations that dispose of the necessary resources, of a powerful motivation to innovate and of an organizational climate that would allow and encourage innovative ideas, are exactly those which will innovate quickly and successfully.

The capacity to innovate represents therefore the ability of continuously making knowledge and sharing the knowledge and ideas. Innovation process is very complex and multidimensional since many factors interact to make possible the emergence of this process. Generally, organizations which dispose of the necessary resources, a strong motivation to innovate and an organizational climate that allows and encourages the emergence of innovative ideas, are exactly those which will innovate quickly and successfully. The ability to innovate is represented by the ability to continuously transform and share knowledge and ideas into new products, processes and systems, to the benefit of both the organization and the shareholders. Wang and Wang (2012) argue that innovation relies heavily on the accumulation of new knowledge in an organization, which facilitates creative solutions and also that lack of knowledge to be the main barrier to innovation in service firm.) Wang and Wang (2012) also argue that innovation relies heavily on the accumulation of new knowledge and sharing the knowledge in an organization, which facilitates creative solutions. The effects of knowledge sharing can be better explained when both dimensions of innovation are considered together. The conceptual framework of this study is made up of two innovation variables namely innovation speed and innovation quality which will be discussed below.

2.5 Theoretical Framework

A theory is a phenomenon explanation of a certain aspect. Theories provide a practical value and they are used to understand phenomena better and also to predict and control phenomena. It is also used to inform a practice. Knowledge Sharing and Innovation have various theories which have been developed over the years. Some of the theories will be discussed in this study.

2.5.1 Knowledge Sharing Theories

The discussion below will discuss the theories which are applied on Knowledge sharing. Four theories will be discussed under this section namely Theory of knowledge creation, Theory of Reasoned Action, Theory of Planned Behaviour and the Social Exchange Theory.

Theory of Knowledge Creation.

The debate on what really constitutes knowledge can prove to be a long one but probably the controversy surrounding Knowledge management has attracted even more curiosity from researchers and scholars as shown in this section. Nonaka and Takeuchi (1995) highlight that Knowledge sharing affects all the processes of knowledge creation through the theory of

knowledge creation that consists of four knowledge conversion phases: socialization (tacit to tacit), externalization (tacit to explicit), combination (explicit to explicit) and internalization (explicit to tacit). They point out that the conversion phase takes as depicted in figure 2.1 below

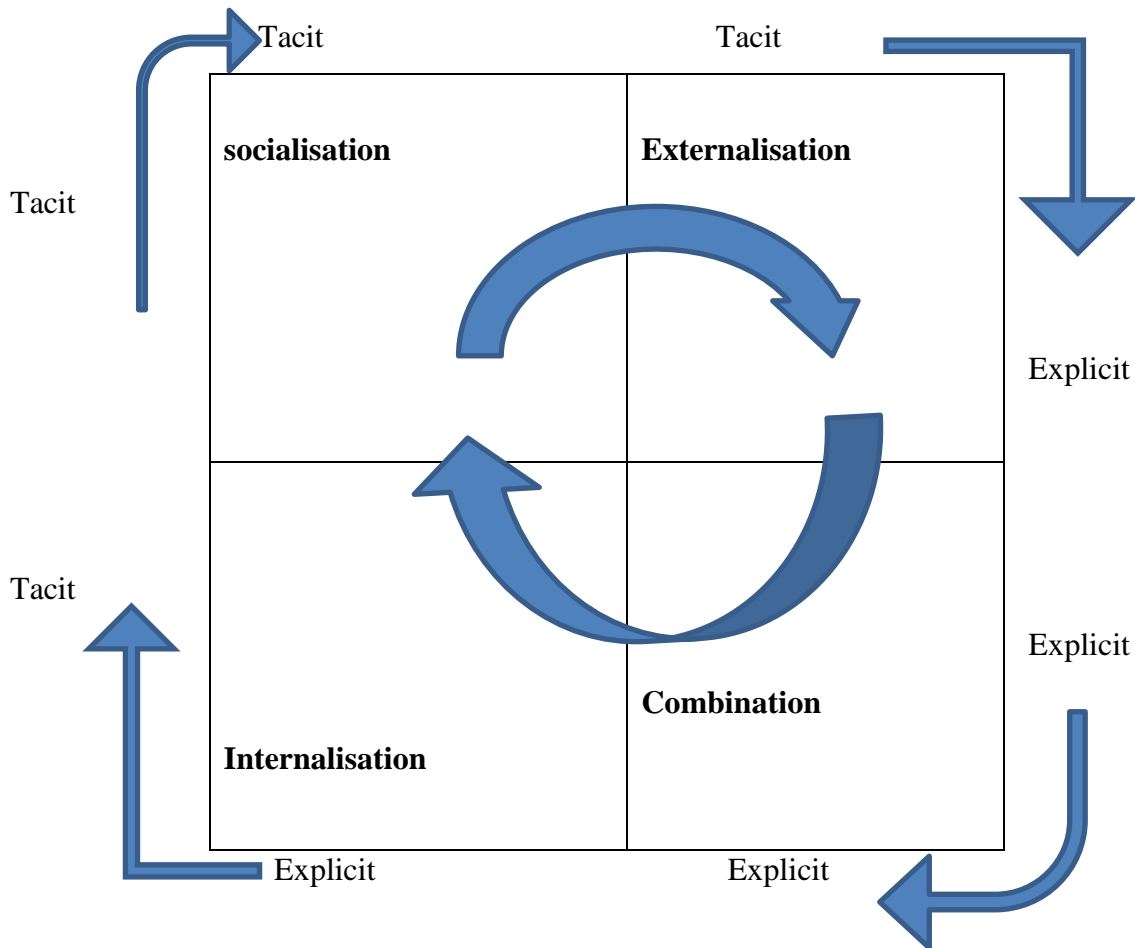


Figure 2. 1: The SECI Process (Nonaka et al. 2000, p12)

According to Nonaka (2000) Knowledge Sharing primarily occurs during the socialization, externalization and the combination phases and that the importance of sharing in the creation of knowledge is captured in the concept of redundancy. Nonaka (1991:12) “defines redundancy as the conscious overlapping of company information, business activities and managerial responsibilities”. This information is then used to find the best approach through developing a common understanding by the team and thereby leading to the team innovative speed and also improved quality speed. This is because the concept encourages team members to look at a project from a variety of a perspective and thereby improving their speed and quality of innovation through tacit knowledge sharing as well as explicit knowledge sharing.

Theory of Reasoned Action (TRA)

Theory of Reasoned Action (TRA) is a social psychology model, which was propounded by Ajzen (1985) and it explained the intention behaviour reasons. This TRA has been widely used by many scholars to determine the intention of individual behaviour in a multidisciplinary area. In this study, the theory of reasoned action focuses on the intention knowledge sharing behaviour among the individual preferences. The theory notes that intention of an individual to perform a behaviour influenced by positive attitude and social norms is the degree to which an individual perceives how others approve the individual's participation in a specific behaviour (Bock, Zmud, Kim & Lee, 2005). As noted by Ajzen (1985) this theory represents how the attitude and social norms influences the individual intention of knowledge sharing behaviour. Attitude is defined as a disposition to respond favourably or unfavourably to the self, others and the business environment (Ajzen, 1985). This basically translates to an employee or team member having a positive or negative attitude towards others in an organisation. Where team members have a positive attitude towards others the higher the knowledge sharing culture in that team and also the higher the level of innovativeness in the team.

While social norm is defined as the way individuals think and expectation from others towards individual actions. Some studies had been done by using TRA to explore the different variations in knowledge sharing behaviour. According to Bock and Kim (2002) who explored the relationship between the expected associations and contributions and the expected rewards as variables to determine the individual attitude and social norm represented as well as business climate. The result of the research indicated that attitude towards Knowledge Sharing and subjective norms have a positive effect on knowledge sharing behaviour.

Recent studies by (Teh & Yong, 2011 Bock, Zmud, Kim & Lee, 2005) which explored the sense of self-worth and studies by Williams & Anderson, (1991) on business citizenship behaviour using the TRA as the model to predict individual knowledge sharing behaviour the results highlighted that the three variables tested had a significant in determining knowledge sharing behaviour. The figure 2.2 below represents the dimension of the theory of reasoned action.

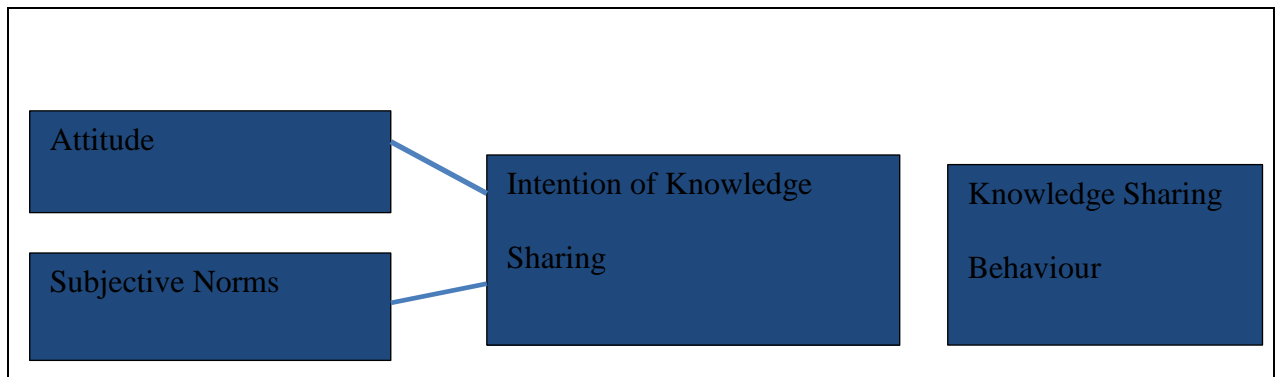


Figure 2. 2: Theory of Reasoned Action

Theory of Planned Behaviour (TPB)

The Theory of Planned Behaviour (TPB) is basically an extension of the Theory of Reasoned Action (TRA) that includes measures perceived behavioural control and propounded by (Ajzen, 1988). TPB defines the individual's intention to perform a given behaviour. The key word intentions in general study are assumed to capture the motivational factors that derive the individual behaviour in terms of their effort, willingness to perform the behaviour. In TPB, the assumption might be when the stronger the intention Attitude Subjective Norms Intention to Knowledge Sharing Knowledge Sharing Behavior to engage in behaviour, the more likely should be its performance (Ajzen, 1991).

There is need for the intention to be clear and precise so as to reflect the direction of what the individual wants to get and reflects to the individual behaviour decided to perform in what ways. The idea was revised from TRA that belief the intention of individual behaviour influenced by the attitude, social norms, and additional new dimension as introduced by Ajzen, (1991) is perceived control behaviour (PCB). According to the scholar's theory, perceived behavioural control is about beliefs of individual skills and opportunities to engage in behaviour. It is the extent to which a person feels able to perform the behaviour in two conditions namely the individual being able to control over the behaviour and level of confidence of the individual about being able to perform or not perform the behaviour. However, the original concept of perceived control behaviour was adapted from Bandura (1992) who highlighted that concept of perceiving control behaviour is the same as that of individual's perception of their self-efficacy. Self-efficacy is defined as a judgement or perception of individual capability to perform a particular course of action. In addition to Bandura's theory, the roles of perceived behavioural control strongly influenced by the

individual confidence of their ability to perform that course of action. Pandora (1991) also notes that self-efficacy can influence the individual's willingness and unwillingness to choose the activities, prepare them to participate, and influence their effort to the performance. Thus, the TPB introduces the construct of perceiving control behaviour as new element to the TRA in determining the individual intention and individual behaviour. The figure 2.3 below represents the concepts of the theory of planned behaviour.

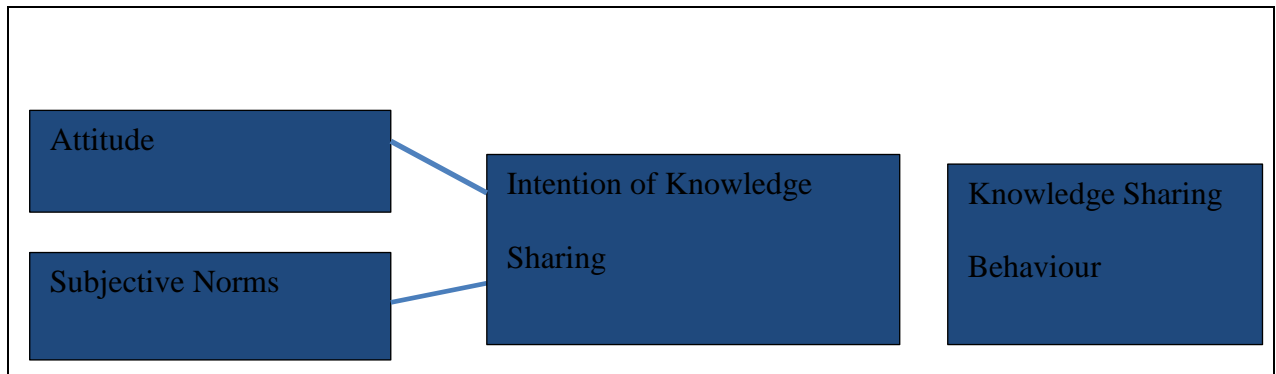


Figure 2. 3: Theory of Planned Behaviour

Social Exchange Theory (SET)

The Social exchange theory (SET) propounded by Blau (1964) is basically defined as an exchange of a valuable resource in which expected to benefits between two parties. This theory, practice to maximize the benefit and reduce the cost that will effect to the individual actions According to the antecedent of SET, it is a theory that describes the rational behaviour of an individual when they perceive the possibility of rewards that they would gain from the social exchange. In the context of project teams this would be what a team member would gain from sharing the knowledge they have. There must be an actor that has own perception to another and has a belief to create the other's perceptions needs.

A revision of the SET concept was done by Cry, and Choo, (2010) who revised the original concepts of SET and found that SET depended on belief of individual propensity to share and individual's social value orientation. This refers to the individual preferences (subjective attitudes or norms) regarding the distribution of outcomes to self and other in the sharing situation. In other words, the SET focuses in the maximization of benefits and reduction of costs that are incurred when an individual exchange knowledge with others. There are two categories of social exchange theory which are rewarding and social relations exchange.

Blau(1964) conceptualized the concept into four types of rewards as being Money, Social approval, Self- esteem or respect and Compliances. In certain particular need of individual, money might be appropriate and valuable to the individual exchange. However, in another perspective of social relations, social approval, self-esteem and compliance are the most influential towards the social relations exchange. These findings from this study argue that social exchange theory postulates that people interact with others based on a self-interested appraisal of the costs and benefits. Molm, (2001) also supported this notion by indicating that individuals seek to maximize their benefits and minimize their costs when exchanging resources with others

These benefits need not be tangible since individuals may engage in an interaction with the expectation of future reciprocity. Reciprocity is defined as all exchanges operate under the assumption that people who grant the benefits or valuable resources will receive rewards in turn as payment for value received. In this particular concept, it can be summarized that most of the recipient and the receiver will gain benefits when they exchange something to each other.

2.5.2 Theories of Innovation

For the purpose of this study the theoretical literature review will be reviewed in the context of the Diffusion of innovation by Everett Rodgers.

Classical Theory/Diffusion of Innovation Theory

Diffusion of Innovation (DOI) Theory, developed was propounded by Rogers (1962), is one of the oldest social science theories. It originated in communication to explain how, over time, an idea or product gains momentum and diffuses (or spreads) through a specific population or social system. The end result of this diffusion is that people, as part of a social system, adopt a new idea, behaviour, or product. Adoption means that a person does something differently than what they had previously (i.e purchase or use a new product, acquire and perform a new behaviour, etc.). The key to adoption is that the person must perceive the idea, behaviour, or product as new or innovative. It is through this that diffusion is possible.

Al-Husseini, and Elbeltagi(2015) highlights that some of the better known observations deriving from Rogers' work are the innovation decision process, which describes how potential adopters' perceptions of the attributes or characteristics of an innovation influence diffusion of

the innovation, and the relationship between adopter types and diffusion. The innovation-decision process consists of five stages that potential adopters pass through as they decide to adopt an innovation. Al-Husseini and Elbeltagi (2015) further highlights that these stages are:

- knowledge (becoming aware of the innovation)
- persuasion (developing positive attitudes toward the innovation),
- decision (making a cognitive decision to adopt the innovation
- developing an intention to adopt)
- implementation (using the innovation)
- Confirmation (continuing to use the innovation, adapting the innovation, or abandoning it).

Rogers (1962) also highlighted that innovations are more quickly adopted when they are compatible with current values, beliefs, and ways of doing things are seen to be more advantageous than the current practice, are easy to do or use (low complexity) are observed by others to be in use (observability) and can be easily tested before being formally adopted (trialability). This resonates with the concept variables of innovation in the study which are innovation speed and quality.

2.6 Hypotheses Development

Tacit Knowledge sharing and Project Performance (Innovation speed & Quality)

It has been claimed that tacit knowledge is acquired through an individual's direct experience for example, on job training and informal learning at work (Storey and Kelly, 2002; Lin, 2001; Tsai, 2001). Wang and Wang (2012) contend that tacit knowledge is both an individual and collective type of knowledge. They further note tacit knowledge is acquired by individuals through experience although they also note that it is innate thus enhancing the quality of products and services produced. Al-Husseini, and Elbeltagi (2015) also note that the presence of others is generally regarded as a necessity for its acquisition. This is because tacit knowledge facilitates routine behaviours but is simultaneously a source of innovation if not knowledge more generally. Organisations are generally over the recent years beginning to realise that tacit knowledge is critical to the key organizational tasks of creating new knowledge, generating new products and improving new business procedures leading to innovation which is the innovation quality.

Wang and Wang (2012) however highlights the difficulties of sharing tacit knowledge since it cannot be directly expressed using words. They further highlight that instead the only ways of presenting tacit knowledge are usually through metaphors, drawings and different methods of expression, which do not require formality when using it.

Tacit knowledge is the type that is the type of knowledge that is difficult to verbalize and codify because as it is ingrained at a subconscious level. (Storey and Kelly, 2002; Lin, 2001; Tsai, 2001) note that Tacit knowledge requires face-to-face interactions and a dialectic debate amongst employees in the workplaces. Wang and Wang (2012) also note that tacit knowledge is also a subjective, context specific, and difficult to capture and it is not easily to express or communicated via visually or verbally. Storey and Kelly (2002) also indicates that it is subjective as well as difficult to formalize. It is also important to note that tacit knowledge is embedded in action, commitment, and involvement which are content specific and also that it is derived from personal experiences which has a bearing on the quality of the innovations among project teams and organisations. Implicit knowledge which is also a form of tacit knowledge is the type of knowledge which is shared or understood by people or groups who are either unwilling, or unable to express it explicitly due to factors such a cultural factors or without a proper atmosphere.

Innovation speed, is defined by Wang and Wang (2012) as the time elapse between the initial development, including the conception and definition of an innovation, and the ultimate commercialization of a new product or services into the marketplace .This notion is also supported by Kang and Kim (2013) who indicates that this is a reflection of the organisation's capabilities in terms of their ability to accelerate their activities and also their tasks for building a competitive advantage which is relative to their customers within industries which of late have been characterised shortened product life cycles. This current emphasis bordering on innovation speed is representative of the paradigm shift from more traditional sources of competitive advantage towards a strategic orientation specifically suited to today's rapidly changing business environments.

H1: Tacit knowledge sharing positively influences project performance

Explicit Knowledge Sharing and project performance (Innovation speed & Quality)

Navimipour and Charband (2016) explains that knowledge sharing as that knowledge that can be embodied in a code or language as it can be verbalized, communicated, processed, transmitted and stored relatively easily. Even though a few scholars such as Horvath et al. (1999), highlight that one hardly acquires tacit knowledge from other people, the majority and later scholars seem to agree there is need for person to person contacts and observation of others for the acquisition of tacit knowledge (Storey and Kelly, 2002; Lin, 2001; Tsai, 2001).

Explicit knowledge is basically the type of knowledge that can be easily explained and codified, and the knowledge is also available in books, manuals and other types of publications. The dissemination and communication of explicit knowledge is generally easier as compared to that of sharing of tacit knowledge which is crucial for innovation speed as information is easy to relay and hence impacting at the rate at which new product and services can be implemented in a team. Navimipour and Charband (2016) highlight that the sharing of explicit knowledge can be done by means of books, manuals, video clips, databases and expert systems, as well as through formal training. Chen and Cheng (2015) articulate that explicit knowledge is objective, can be communicated visually or verbally, and is more easily codified. Explicit knowledge is the knowledge that has been or can be articulated, codified, and stored in certain medium and can be readily transmitted to others. The fact that explicit knowledge can be easily transmitted enhances the quality of innovation as organisations and project can communicate and react to changing consumer needs on time as well as quickly come up with products according to consumer needs. This systematic nature of explicit knowledge makes it easy to communicate in the form of hard data or codified procedure and hence making it possible for explicit form of knowledge be formalised as well as making it easy to be transmitted across individuals.

Innovation speed whose importance cannot be over emphasised is a crucial element to compete in the market as it has potential to up the performance of organisations and thereby resulting in superior performance. A positive association between speed-to-market and overall new product success has been empirical confirmed (Wang and Wang, 2012; Storey and Kelly, 2002, Lau et al, 2010, Kang and Kim, 2013). The team embodied nature of innovation speed which is also socially complex that cannot be easily developed or imitated by competitors enables the firms to keep in close touch with their customers as well as the needs of the customers. Due to the dynamic nature of the current business environment as well as the globalised nature of competition it has become of paramount importance that organisations be in position to

innovate faster in order to meet the demands which emanate from the technological developments in the markets and shorter product life cycles..

According to (Wang and Wang, 2012, Lau et al, 2010,Kang and Kim, 2013) the concept of innovation quality allows for the making of a statement regarding the aggregated innovation performance in every domain within an organisation by comparing the results, being it a product, process or service innovation, with the potential and considering the process on how these results have been .There is no dispute that innovation has strong links to the newness and creativity, to quality concepts like standardization, low tolerance and systematic procedure adhere, Chen and Cheng (2015) also further adds that with regards to products or services, innovation quality may be defined through variables like amount, effectiveness, features, reliability, timing, costs, complexity, innovation degree, value to the customer, and many more. Similar are things with respect to the process domain of innovation quality.

Although innovation quality is one of the most important factors for company applying innovation strategy to compete in the market, determining it might be faced with more challenges due to the increased complexity. Wang and Wang (2012) highlight that it is difficult to identify catalysts and the need to integrate measurements on so-called soft issues, such as relative citation ratio, citation-weighted patents, science linkage, scope of innovations, and so on. The knowledgeable nature of present day customers and also the availability of a wide range of information to them makes it important for organisations even those not in the private sector to improve their products and service offerings. This puts more emphasis on the need for quality innovations.

H2: Explicit knowledge sharing positively influences project performance

From the analysis above, a conceptual framework is proposed below:

2.7 Conceptual Framework

This research is based on the conceptual framework below. The conceptual framework explains the relationship between the variables of the study. This study assumes that knowledge sharing has a positive influence on innovation in project teams. Nonaka (1991), highlighted the two dimensions knowledge that can be shared as explicit knowledge and Tacit Knowledge. These two dimensions knowledge sharing were examined to determine their influence on innovation

speed and quality. Figure 2.4 is the conceptual framework used to illustrate the relationship between the variables of the study.

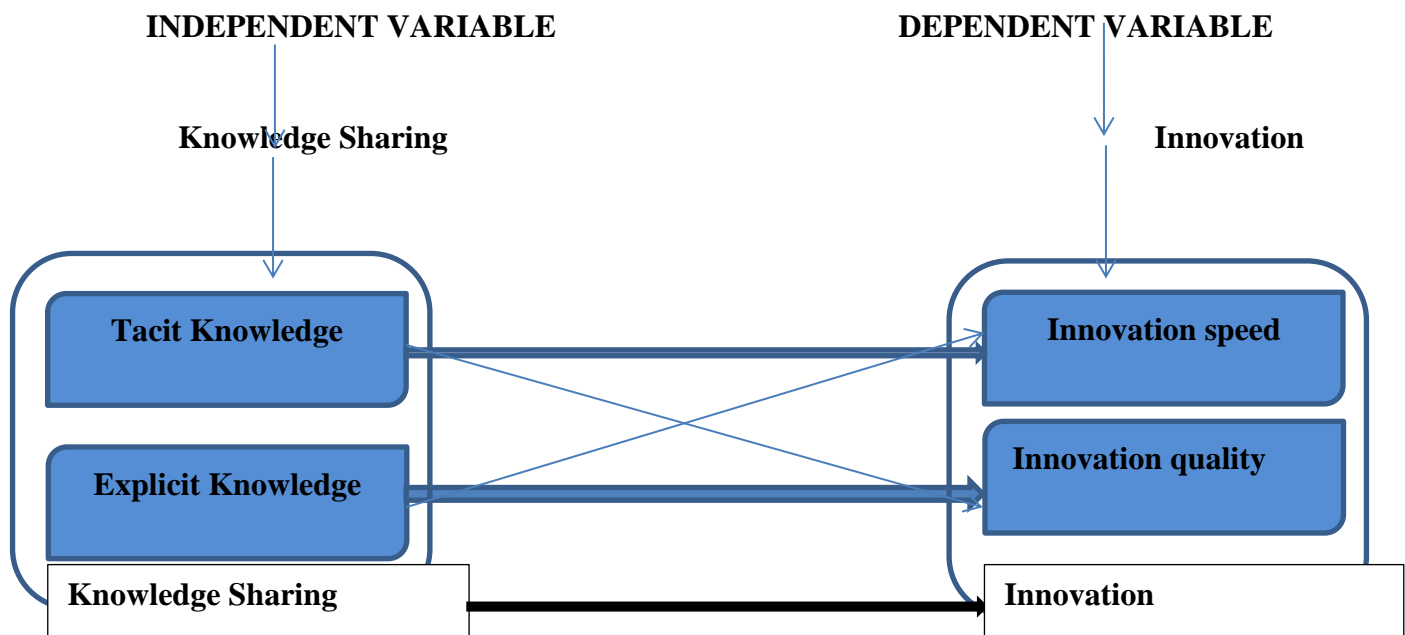


Figure 2. 4: Conceptual Framework of the study

2.8 Empirical Literature Review

Over the years there has been an analysis of the relationship between knowledge sharing and innovation (Storey and Kelly, 2002, Lau et al, 2010,) Meta-analysis have over the years shown that there is a positive relationship between knowledge sharing and innovation, Kang and Kim, (2013)The results of these previous studies holds the different organizational contexts the success of the project technology departments.

Wang and Wang, (2012) when organizations are finding ways to outperform one another the focus in the current business world is to gain competitive advantage which can be done through their ability to manage knowledge .Knowledge sharing becomes critical in ensuring innovation in projects. Wang and Wang, (2012) highlight that tacit knowledge and explicit knowledge sharing are critical to the innovativeness of an organisation or team which is a key strength for competitive advantage in organisations. Previous research studies have proved positive impact of knowledge sharing on innovation in organisations and project teams.

There is also increasing evidence that knowledge is a key building block for the innovation process and in particular for innovation management, Nonaka (2000). Innovation is closely related to the concept of knowledge creation as highlighted by (Story & Kelly, 2002; Lin, 2001). Leornadi (2014) indicates that in order for individuals to learn new knowledge there is

need to interact and share tacit and explicit knowledge. Wang and Wang (2012) maintain that the constant interaction between tacit and explicit knowledge, leads to the development of new and innovative ideas. Previous research on innovation supports the relationship between effective knowledge Management and innovation (Nonaka 2000, Wang and Wang 2012, Zhou and Li 2012).

Story and Kelly (2002) found that lack of knowledge is the main barrier to innovation in service firms. In addition, Tsai (2001) notes that new knowledge is critical to developing new products or innovation ideas. Knowledge dissemination and responsiveness to knowledge has been put forward as the two most important components impacting upon innovation due to their ambiguous and unique nature within the a team. Overall, continuously collecting and integrating new knowledge will lead to innovativeness, Zhou and Li (2012).

Kamasak and Bulutlar (2009) carried out a study to explore the effects of Knowledge Sharing on innovation. They used the survey method and the questionnaire data collection technique. The questionnaires were designed to measure the relationship between Knowledge Sharing and innovation. Data was collected from 246 middle and top level managers in Turkey and was explored using multiple regression analysis. In this study the researchers focused on two forms of KS namely knowledge donating and knowledge collecting. In particular the effects of knowledge donating and collecting on the exploitative and exploratory innovation. The results showed that knowledge collecting had a significant effect on all types of innovation and ambidexterity, whereas knowledge donating, involving donating inside and outside the group, did not have any effect on exploratory innovation. It was also observed that in-group knowledge donating affected both exploitative innovation and exploratory innovation.

Taminiau et al. (2007) carried out an empirical study about innovation in management consulting firms through Knowledge Sharing. The study was conducted using in-depth interviews with 29 consultants in the Netherlands. In addition to the interviews that took place with the consultants, meetings were held with three specialists in the field of consultancy and innovation. Additionally one of the authors spent a period of four months as an intern and was therefore capable of making observations on Knowledge sharing between consultants. The findings revealed that the process of innovation can be problematic in consultancy firms. Consultants do simply not find the time to innovate, since they are mainly rewarded for client related work (billable hours). In order to innovate, consultants need to share knowledge with

clients, colleague consultants and their experienced superiors. The findings also noted that the most fruitful route to innovation is through knowledge sharing.

2.9 Research Gaps

There have been various researches on the relationship between Knowledge Sharing and Innovation, Storey and Kelly (2006). Most studies in different organizations have also studied the impact of Knowledge Sharing on innovation. Leornadi (2014) highlights that past researches alone have mainly focused on the overall Knowledge Sharing rather than its dimensions. Conger and Kanungo (2010) indicate that they have been various studies on the impact of Knowledge Sharing on innovation in various settings including corporations and schools. Although there has been various studies conducted globally there, there has however been limited literature and no known studies that have been conducted in the Zimbabwean Development Sector. This study intends to gain insight into the influence of Knowledge Sharing on innovation in the Zimbabwe Development Sector.

2.10 Summary

The chapter reviewed the conceptual framework of this study .An illustration of the conceptual framework which is idealised influence (charisma), Tacit knowledge Sharing and Explicit knowledge sharing. This formed the independent variables of the study. For the purpose of the study the measure of innovation was innovation quality and innovation speed. These were the dependant variables of this study. An analysis was made of the variables of the previous studies. The study tries to gain an insight on how knowledge sharing can influence innovation in project teams.

The study also reviewed the theoretical framework of the study. This is the theoretical literature related to the study. Theory of knowledge creation as well as theories applied on Knowledge sharing were discussed in this chapter. The theory of Diffusion of Innovation was also discussed in the section. The interactions of these theories help clarify issues within the concepts and simplify their interrelatedness.

Previous studies over the years reveal that knowledge sharing has a positive impact on innovation. This section also shows how tacit knowledge sharing and explicit knowledge sharing affect explorative innovation and exploitation innovation. When knowledge sharing occurs in organisation and project teams it leads to innovation quality and speed .Thus to in

order to gain a competitive advantage Organisations opt to set the agenda for knowledge sharing and innovation as key to gaining competitive advantage.

CHAPTER 3

RESEARCH METHODOLOGY

3.0 Introduction

This chapter discusses the methodology used in this research and provides justification for the choices made. The research methodology section comprises of eleven sections. The research philosophy, research approach and the research design of the study are discussed along with the reasons for which the choices are made. The target population, sampling technique, sample size and the research instrument as well as the components of the research instrument is also discussed in the chapter. The chapter also discusses the data collection procedure, the data analysis and the pilot study. The benefits for conducting the pilot study have also been highlighted. The chapter is concluded by discussing the ethical considerations of the study.

3.1 Research Philosophy

The term research philosophy relates to the development of knowledge and the nature of that knowledge. This study is guided by the Positivism research philosophy. Mugenda and Mugenda (2010) highlight that positivism involves working with an observable social reality and that the end product of such research can be law-like generalisations similar to those produced by the physical and natural scientist and involves the use of theories to develop hypothesis. Positivism makes use of highly structured methodology in order to facilitate replication Jones (2011). The emphasis will be on quantifiable observations that lend themselves to statistical analysis as will be depicted in this study.

3.2 Research Approach

There are three research approaches namely quantitative, qualitative and mixed research. A quantitative research approach was used for this study. Mugenda and Mugenda (2009) highlight that research designs can be grouped into two namely experimental and non-experimental such as surveys. The survey research designs provide the quantitative or numeric descriptions of trends, attitudes or opinions of a given population by studying a sample of that given population. The purpose of using a descriptive design is to find the new meaning and this is done by describing what exists and determining the frequency of occurrence.

3.3 Research Design

According to Bass and Avilio (1993) a research design is the arrangement of all the conditions that affect a research. For the purpose of this study knowledge sharing characteristics and innovation characteristics were described and measured for the purpose of examining the relationship also establishing the causal effects between the variables being studied. The design of this study was also cross sectional in nature meaning that it involved a once off interaction with groups of people. Jones (2011) notes that studies of cross sectional surveys yields data which can be modelled by a regression analysis and the findings are based on the generalised sample of the population.

3.4 Target Population

The target population of this study is made up of project team members of two development aid agencies operating in three districts in Mashonaland Central Province. Mugenda and Mugenda (2010) defined population as a complete set of individual cases or objects with common observable characteristics. These are the project team members who are part of the different development aid agencies at the time of this study. For the purpose of this study the sample used was drawn from the project teams in the district.

KEY INFORMANT	TYPE OF ORGANIZATION	NO. OF INTERVIEWEES	DISTRICT
World Vision	INGO	15	Rushinga
World Vision	INGO	15	Mt Darwin
Africare	INGO	10	Bindura
Total		Total 40	

Table 3. 1: Target Population

3.5 Sampling Frame

The sampling frame which was used for this study was the total number of staff member who were available at the district project offices at the time of the study. According to Gibson (2010) a sampling frame is a directory or index of cases from which a sample can be selected. The total of 6 units at the three different districts departmental categories were used to enhance the representativeness of the study and also to allow for the generalizations of findings.

3.6 Sampling technique

The stratified random sampling technique was used to draw the sample elements. Jones (2011) highlights that stratified random sampling involve stratification or segregation of sampling elements which are then followed by random selection of the subjects from each stratum. The sample was stratified into two as projects in development aid agencies are mainly made up of two departments namely in projects which are field staff and support staff based on their functional areas .More stratification was based on respondents' position that is either of a manager, supervisor or non-managerial staff within the departments at the time of data collection. The study adopted the departments as unit of analysis (where generalizations would be done) and respondents' as unit of observation from whom which the required data for analysis was collected.

3.7 Sample Size

According to Jones (2011) the main factors to be considered in determining the sample size for this study is the need to keep it manageable enough while also ensuring a high level of precision. The same approach was used for the purpose of this study. This was done to ensure that the study, derives detailed data at an affordable cost in terms of time, finances and human resources, Howell and Avolio (2006) while also allowing for generalization of the results of the study. The sample size for this study was drawn using Watson (2001) sample size table, at 95% confidence level for population of 2 different departments in three projects thereby generating a total of 6 units.

The formula for the sample size is given as;

$$ss = \frac{Z^2 * p * (1-p)}{C^2}$$

Where;

Z = Z - value (i.e. 1.96 for 95% confidence level).

P = Percentage picking a choice, expressed as decimal (0.5 used for sample size needed)

C = Confidence interval expressed as decimal (0.04 = ±4).

Of all the 6 units which were sampled for the purpose of this study, respondents were picked from the different units to avoid biased reporting. This brought to a total 40 respondents which

were used for the purpose of this study. Creswell (2010) notes that the sample size will depend on the accuracy required and the likely variation of the population characteristics being investigated as well as the analysis to be conducted on the data. Both the management and employees as well as field and support staff from the three different projects in the three districts was largely considered to be homogenous and any major diversity was captured in the demographic data.

3.8 Research Instrument

3.8.1 Questionnaire

The Research used both Primary and secondary data for the purpose of this study. The secondary data was collected from books, journals, organizational reports and websites, and primary data was collected using a questionnaire designed and administered to both managerial and non-managerial staff. Cooper and Schundler (2014) define a questionnaire as a self-report instrument used for gathering information about variables of interest to an investigation. The questionnaire being the main tool was preferred for its advantages in that it permits the respondents to give greater depth of response, time to verify answers, anonymity and it is also economical in terms of time and cost. The questionnaire used for the purpose of this study consisted of closed-ended questions. All questions were concise and relevant in order to maximize the response rate, Mugenda and Mugenda (2009) the questions on both knowledge sharing and innovation were adopted from Knowledge sharing, innovation and firm performance Questionnaire (Wang and Wang, 2012) comprising 13 items on the two variables of a knowledge sharing .Innovation speed and quality had a total of 10 questions, 5 relating to speed and the other 5 to quality.

3.8.2 Rating scales

For the purpose of the study a likert scale is adopted where there is a need to measure respondents' opinions and beliefs (Avolio 2014). For example the opinions and beliefs of this study were those on knowledge sharing, and innovation. The likert rating scale allows a numerical value to be given to an opinion, Cooper and Schundler (2014). Based on the foregoing discussion, all items for independent and dependent variables were measured on a five point likert-scale (ranging from strongly disagree - 1 to strongly agree – 5, or no extent – 1 to very great extent - 5). A five point scale was considered appropriate for this study to reduce confusion and help respondents to maintain consistency in their ratings.

3.8.3 Content of Questionnaire

Reproduction of the questionnaire is in Appendix B. Questions were devised in such a way that respondents could answer immediately without having to look for information. Guidelines recommended by Gibson (2010) of asking questions as complete sentences using closed ended questions with ordered response categories were followed. The questionnaire had three sections; relating to demographic data, Knowledge sharing and innovation themes of the study.

3.8.4 Measures of variables

In measuring both knowledge sharing and innovation the Multi-factor knowledge sharing, innovation and firm performance by Wang and Wang (2012) was adopted with few amendments to suit the study. This tool measures the two variables of knowledge sharing as tacit knowledge sharing and explicit knowledge sharing. Innovation questions were based on the innovation variables namely innovation quality and innovation speed. The indicators were rated anonymously by respondents on a five-point likert scale (1= no extent; 5 = Very great extent). Respondents were asked to rate their innovation over the last two years in relation to innovation indicators given.

3.9 Data Collection Procedure

The participating organization World Vision and Africare and participants from the different project teams were approached through a letter to the management of the organization. . The Project team leaders were approached to randomly select the participants for data collection according to the categories identified earlier in the sample size. The choice of the team leaders was deemed to be the best as they had control and authority over subordinates and would lead to the desired respondents. Informed consent was sought from the subjects and also an Indication as to whether they were willing to participate in the study or not. Participation was however on voluntary basis and respondents were allowed a 2 day period to complete the instrument and return it to the manager for collection. Those not having completed were reminded and given one more day upon which the rest were treated as non-response rates.

3.10 Data Processing and Analysis

Data processing and analysis comprise categorizing, manipulation and summarizing of data in order to obtain answers to research questions (Kothari, 2009). Before conducting the analyses, the researcher screened the data for outliers, input errors and missing data. Due to incomplete data out of the 40 completed surveys, only 36 surveys questionnaires were finally used for data

analysis. The data was entered into the statistical package for social science (SPSS) version 22 and various analyses run to establish the study objectives and test hypotheses.

3.10.1 Descriptive Statistics

Frequencies, percentages and cumulative percentages were used to establish the scores in the demographic data. Means and standard deviations were used to establish the typical average value or deviations in the distribution of independent variables. Reliability analysis, using the Cronbach alpha as well as confirmatory factor analysis was conducted to establish the consistency of measurements in the data collection instrument.

3.10.2 Inferential Statistics

A preliminary inferential analysis employed correlations of study variables explored the existing relationships between variables of the study. The independent variables (knowledge sharing variables) were correlated with those of Innovation, to determine the direction of the relationships and significance for each independent variable and the dependent variable in the study. Multiple regressions to assess the relationship between the dimensions of knowledge sharing as independent variables on innovation as dependent variable before a hierarchical regression analysis done to predict the causal relationships and significance between the study variables.

The multiple regression formula is presented as;

$$Y_s = \beta_0 + B_1X_1 + B_2X_2 + e$$

Where;

Y_s = Knowledge Sharing

β_0 = Constant

X_1 = Tacit Knowledge Sharing

X_2 = Explicit Knowledge sharing

e = error term.

3.11 Hypothesis testing

There are two types of statistical hypotheses. Null hypothesis, denoted by H_0 and alternative hypothesis denoted by H_a or H_1 , Dillman (2010). The null hypothesis is usually the hypothesis that sample observations result purely from chance, while alternative hypothesis indicates that sample observations are influenced by some non- random cause, Kothari, (2009)

Symbolically the hypotheses are expressed as;

H_0 : = 0.5

H_a : \neq 0.5

The alternative hypotheses were tested at 95% confidence level ($\alpha = 0.05$), whereby;

When P - value ≥ 0.5 the observed difference is “not significant” and

When P - value ≤ 0.5 the observed difference is “significant”.

Based on the above, the study thus either rejected the null hypothesis and supported the alternative hypothesis, or failed to reject null hypothesis for want of evidence.

3.12 Pilot Testing

A pilot study is a mini-version of a full-scale study or a trial run done in preparation of the complete study, Jones (2011). A pilot study is essential to prevent the waste of time, energy and resources as it can detect possible flaws in measurement procedures including instructions, time limits, etc. and in the operationalization of independent variables. A pilot study is also used to identify unclear or ambiguous items in a questionnaire. A pilot study was conducted for this research. A total of 7 questionnaires were distributed as part of the pilot study to check for possible flaws in the study and also in the instrument.

3.13 Ethical Considerations.

The study considered four considerations that are central to ethical issues in research as listed below

- Obtained informed consent from relevant authorities and interview participants
- Ensured no harm to participants by ensuring anonymity.
- Respected privacy of participants (avoid invasion of privacy)
- Did not make use of deception or coercion to obtain information

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSION

4.0 Introduction

This chapter of the study discusses and presents the findings of the study and discussions of the results as indicated in the research methodology. The findings of the study are on how knowledge sharing action impacts on innovation in the Zimbabwean development sector in Mashonaland central province. This chapter also presents the findings on the extent to knowledge sharing innovation at two development Aid agencies in three districts of Mashonaland Central Province. The chapter contains the response rate, reliability analysis of instrument, characteristics of study variables in this case which were tacit knowledge sharing and explicit knowledge sharing. These formed the dimensions of Knowledge sharing and also the independent variables of this study. Findings of correlations and regression analyses are also provided in this chapter and hypothesis testing to determine the direction and significance in the relationship between variables. Chapter concludes with a summary.

4.1 Response Rate

For the purpose of the study a total of 40 questionnaires were distributed for surveys for data collection to sample the sampled departments at three project sites. Out of the 40 questionnaires issued for data collection to the respondents, a total of 38 questionnaires accounting for 95 % were returned. After cleaning of data a total of 35 completed questionnaires were used for analysis. This accounted for 87.5 % of the total number of questionnaires distributed. According Bono and Judge (2011) over 50% response rate is adequate for analysis while over 70% is rated as very good. The response rate was thus rated as very good and was therefore deemed suitable for analysis.

4.2 Reliability Analysis

Reliability of an instrument refers to its ability to produce consistent and stable measures. When an instrument is reliable, measurement will consistently assign the same score to the same phenomena. According to Creswell (2009) reliability refers to stability or consistency of measurements; that is whether or not the same results would be achieved if the test or measure was applied repeatedly. The most common reliability coefficient is the Cronbach's alpha, which estimates internal consistency based on the average inter - item correlation. Cronbach's alpha reliability coefficient normally ranges between 0 and 1. The closer the value is to 1, the greater the internal consistency of the items (variables) in the scale. The questionnaire

employed for this study measured two constructs being knowledge sharing, and innovation. Knowledge Sharing measured using 13 questions and the scale had a high internal consistency as determined by Cronbach’s alpha value of 0.93. The innovation which was measured using 10 items and also had a Cronbach’s alpha value was 0.93. .

The reliability of the constructs for the questionnaire were acceptable based on the rule of Carlson and Perrew (2010) who ascertain that Cronbach’s alpha value that is greater than 0.9 is considered excellent; value of 0.8 is deemed very good and 0.7 is rated as good. In Social sciences researches, a reliability value of 0.7 or more is considered acceptable. Both knowledge sharing and innovation achieved the threshold of acceptance in social science researches (Chekwa2011). Thus reliability of the questionnaire was affirmed and accepted altogether.

4.3 Demographic Data

For the purpose of this study and also as a means to assess the relationships between the variables of the study, it was considered important to first establish the demographic information of respondents such as gender, age bracket, level in organization, period served in the said organization and the size of department. Demographic data are also nearly always collected in surveys in order to enable a judgment to be made about the representativeness of the respondents in terms of the larger population (Creswell, 2009). The demographic data was also considered important because previous studies have revealed that the demographic characteristics have an influence on innovation.

Gender	Frequency	Percent	Valid Percent	Cumulative Percent
Male	19	54	54	56
Female	16	46	46	100
Total	35	100	100	

Table 4. 1: Gender Distribution of Respondents

The gender of respondents was viewed as an important element in this study as earlier studies on knowledge sharing and innovation and has shown that it has a direct effect on the variables. The gender of respondents in the study indicate a fair distribution between the two categories as shown in Table 4.1.

Based on the findings highlighted above it can be concluded even though the majority of the respondents were male 54%, there has been a fair balance in gender at the three projects sites

in Mashonaland Central Province. This helps highlight that the two development aid agencies as part of the Zimbabwean development sector is in line with the Zimbabwean constitution that upholds equality and affirmative action in development aid agencies service to ensure gender balance. In this case, the gender is well represented by the study and thus findings can be generalized in both cases.

4.3.1 Respondents Age Bracket

The age bracket of respondents was considered in this study and of the 35 respondents, 3 (8.6%) were between 18-24 years of age, 4 (11.4%) were between 25-29 years of age, 8(22.9%) were between 30-34 years of age, 7 (20%) were between 35-39 years of age, 9 (25.7%) were between 40-44 years of age, and 4 (35%) of the respondents were of 45 years and above . The Table 4.2 and figure 4.1 illustrates the results.

Age	Frequency	Percent	Valid Percent	Cumulative Percent
18 to 24 years	3	8.6	8.6	8.6
25 to 29 years	4	11.4	11.4	20
30 to 34 years	8	22.9	22.9	42.9
35 to 39 years	7	20	20	62.9
40 to 44 years	9	25.7	25.7	88.6
above 45 years	4	11.4	11.4	100
Total	35	100	100	

Table 4. 2: Age bracket of respondents

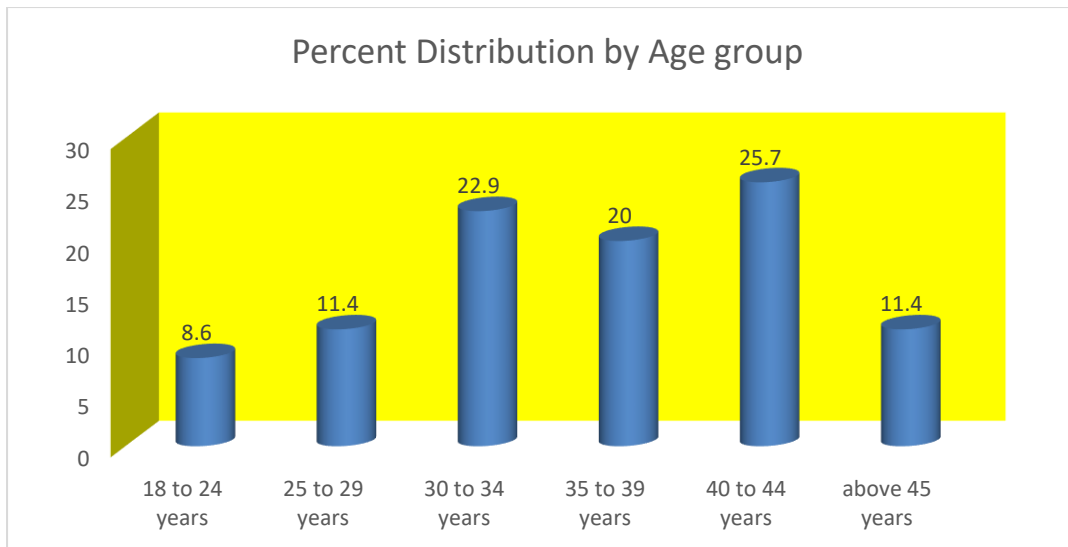


Figure 4. 1: Frequency Percent Cumulative Percent

Based on the above results, it can be deduced from the above results that most active work force at in three districts where the tow development aid agencies operate and hence lie between the ages of 25 – 44 years, accounting for approximately 80 % for the category of age groups as shown from the findings. Only 10 % were above 45 years, this reflects a normal curve as the retirement age of 60 years does not guarantee the aged remain in the service for that long. Even further is the mortality rate in third world countries that show a high mortality rate with the life expectancy of the Zimbabwean population currently at 49 years.

4.3.2 Level in the Organization

The level (status) of employees in the organization were considered important in this study, due to previous studies revealing that supervisory or management levels had a direct impact on organizational performance. In this study, the respondents were asked to state the level category they were in at the organization. With the response rate at response rate of 50, 34 (68%) of the respondents were in non-management level, 10 (20%) of the respondents were in lower management level, 5 (10%) of the respondents were in mid-management level, and 1 (2%) of the respondents were senior level managers. This result is given in Table 4.3 and Figure 4.2

q3 level in the organization				
level in the organization	Frequency	Percent	Valid Percent	Cumulative Percent
non-management	28	80	80	68
lower management	2	5.7	5.7	85.7

mid-management	3	8.6	8.6	94.3
senior management	2	5.7	5.7	100
Total	35	100	100	

Table 4. 3: Level of respondent in the organisation

Based on the findings, the majority of the respondents (28) were in non – managerial and this Accounted for 80 % while only 2 (5.7%) were in senior management. This is considered a normal curve of an organization as it’s the norm to have more employees than management in any given organization. The triangular representation of a normal organization, show the base of the triangle as holding most of the organizational workers usually in the positions which are non-managerial. For the purpose of this study the respondents were drawn from both managerial and non-managerial positions.

4.3.3 Organizational Service Duration

Duration of stay in the organization was an important aspect as the length of service in an organization, considered to have an influence on the performance of the organization moreover employees gain more experience as they work in organizations leading to performance. For the purpose of this study the respondents were asked to state the organizational service duration category they belonged to. Out of the 50 respondents; 5(10%) of the respondents had been in their organization for a duration of between 3 - 5 years, 11 (22%) of the respondents for a duration of between 6-10 years, 20 (2240) of the respondents for a duration of between 11-15 years, 14 (28%) of the respondents for a duration of between 16-20 years while only 14 (28%) of the respondents had served in their organization for a duration 21 years or more. This result is given in Table 4.4.

q4 Service in the organization				
Service in the organization	Frequency	Percent	Valid Percent	Cumulative Percent
0-1 years	15	42.9	42.9	42.9
1-2 years	3	8.6	8.6	51.5
2-3 years	5	14.3	14.2	65.8
3-5years	5	14.3	14.2	80
5 years+	7	20	20	100
Total		100	100	

Table 4. 4: Length of service in organization

From the findings above, it can be observed that approximately 42.9 % of the respondents had been in with the organizations for less than a year which can be attributed to Lean Season Assistance program which both organizations implemented from October 2017.20% of the participants have been with the organizations for over 5 years while the rest fall between 1-4 years. The trend shows that more people have been joining the organization over the past 5 years as it accounts for 80% of the participants. There is a possibility of more people joining the organizations depending on the organizations coming up with more new projects.

4.3.4 Department Size

The smaller the departmental sizes the more cohesive the members, ease of control as well as sharing of knowledge. In the study, the respondents were asked to state the departmental size category they were in. Out of the targeted 35, 8 (22.9%) of the respondents departmental size of between 3 or less employees, 15 (42.9%) of the respondents departmental size of between 3-5 employees, 12 (34.3 %) of the respondents departmental size of between 5-7 employees, none of the respondents were from departmental size of between 7-10

Table 4.5 and Figure 4.2 illustrate the results

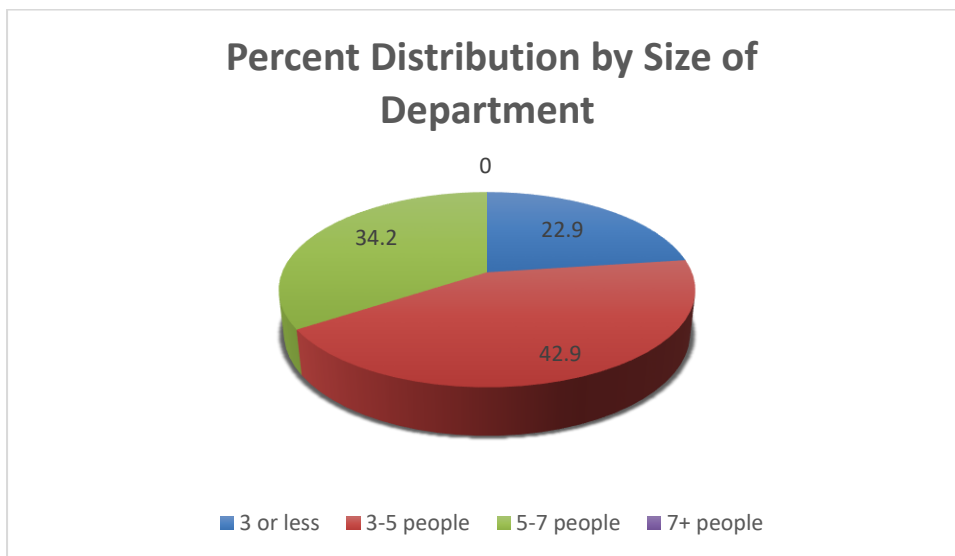


Figure 4. 2: Department size

It seems clearly from the statistical result above that all the respondents are from departmental sizes of 7 or less employees. Most organizations know the effectiveness of small work groups and encourage small departments for efficiency and effective working among staff.

4.4 Variables of the study

The Independent variables of this study were made up of explicit knowledge sharing and tacit knowledge sharing. The variables were analyzed to determine the respondents' perception regarding the existence of knowledge sharing. Means and regression were used to establish each items implication on knowledge sharing. Mean is used to calculate measures of central tendencies in order to determine the typical average value in a distribution. The mean takes into account the precise score of each case and it incorporates more information as compared to the median which only states a scores relative position. Regression on the other hand, was used to determine the measure of variation with the negative or positive signs to show the direction of variation.

4.4.1 Explicit knowledge sharing

The study sought to find out from respondents if members of their team shared knowledge with them through organizational system. For the purpose of the study, six items were used to determine knowledge sharing and questions as to whether the people the team frequently shared existing reports and official documents with members of my team, members of the team frequently shared reports and official documents that they prepare with members of their teams, people in the team frequently collect reports and official documents from others in the team, people in the team were frequently encouraged by Knowledge Sharing Mechanisms, people in the organization were frequently offered a variety of training and development programs, people in the organization were facilitated by IT systems invested for knowledge sharing. The results for the frequency of the six questions on explicit knowledge sharing is highlighted from table 4.6 -4.9

4.4.2 Tacit knowledge sharing

It was the intention of the study to find out from respondents whether there is tacit knowledge sharing traits being displayed by their team members. The study intended to answer the following questions with regards to tacit knowledge sharing: people in the organization frequently shared knowledge based on their experience, people in the organization frequently collected knowledge from others based on their experience, people in the organization frequently shared knowledge of know-where or know-whom with others, people in the organization frequently collected knowledge of know-where or know-whom with others, people in the organization frequently shared knowledge based on their expertise, people in the organization frequently collected knowledge from others based on their expertise, people in the

organization will share lessons from past failure. The findings of the tacit knowledge sharing questions are presented below from 4.7 to 4.7.7

4.5 Innovation speed

The purpose of this section is to highlight the innovation speed for the project teams over the past two years in relationship to knowledge sharing variables.

4.6 Innovation quality

The purpose of this section is to highlight the innovation quality for the project teams over the past two years in relationship to knowledge sharing variables.

4.7 Analysis of Data Using Descriptive Statistics

Knowledge sharing

Descriptive statistics were used to analyse the data where, strongly agree (1), agree (2), neutral (3), disagree (4) strongly disagree (5). Mean scores of less than 2.5 indicated that in the respondent’s opinion on knowledge sharing agreed by many respondents while a mean of 3.5 and above indicated that the explicit knowledge sharing is present under neutral. Any mean above 3.5 indicated that the respondents view knowledge sharing as not accepted (disagree).

	N	Minimum	Maximum	Mean	Std. Deviation
People in my organization frequently share knowledge based on their experience	35	1	4	1.89	.796
People in my organization frequently collect knowledge from others based on their experience	35	1	5	2.23	.973
People in my organization frequently share knowledge of know-where or know-whom with others.	35	1	2	1.29	.458
People in my organization frequently share knowledge of know-where or know-whom with others.	35	1	4	2.29	.926
People in my organization frequently share knowledge based on their expertise.	35	1	4	2.26	.886
People in my organization frequently collect knowledge from others based on their expertise.	35	1	2	1.14	.355
Valid N (listwise)	35				

Table 4. 5: Descriptive Statistics for explicit knowledge sharing

The table above showing results of descriptive, the values of mean ranges from minimum of 1.14 to a maximum of 2.6 and the variance scattered around 0.5. Since most of the mean scores lies below 2.5 then, the respondents view explicit knowledge sharing to be accepted (agree). From these results, we can also say some of the respondents favors strongly agree but some choose to rate explicit knowledge sharing as moderately accepted.

	N	Range	Minimum	Maximum	Mean	Std. Deviation
People in my organization frequently share knowledge based on their experience	35	4	1	5	2.14	1.033
People in my organization frequently collect knowledge from others based on their experience.	35	4	1	5	2.66	1.056
People in my organization frequently share knowledge of know-where or know-whom with others.	35	4	1	5	2.43	1.170
People in my organization frequently collect knowledge of know-where or know-whom with others.	35	4	1	5	2.57	1.195
People in my organization frequently share knowledge based on their expertise.	35	4	1	5	2.46	.886
People in my organization frequently collect knowledge from others based on their expertise.	35	4	1	5	2.94	.968
People in my organization will share lessons from past failures	35	4	1	5	2.57	.948
Valid N (listwise)	35					

Table 4. 6: Descriptive Statistics for tacit knowledge sharing

The table above showing that, the values of mean ranges from minimum of 2.14 to a maximum of 2.4 and the variance scattered around one. Since most of the mean scores lies between 2.5 and 3.5 then, the respondents view tacit knowledge to be moderately accepted. For the mean below 2.5, this means that tacit knowledge accepted to a lesser extent by the respondents.

Descriptive Statistics for innovation

Descriptive statistics used to analyse the data where, no extent (1), lower extent (2), moderate (3), great extent (4) and very great extent (5). Mean scores of less than 2.5 indicated that in the respondent's opinion on innovation liked to a lower extent by many respondents while a mean

of 3.5 and above indicated that the innovation is present under moderate extent. Any mean above 3.5 indicated that the respondents view innovation type accepted to a greater extent.

	Range	Minimum	Maximum	Mean	Std. Deviation
Our organization is quick in coming up with novel ideas as compared to other key development organisations.	3	2	5	3.71	.710
Our organization is quick in new product launching as compared to other key development organisations.	2	3	5	3.94	.725
Our organization is quick in new product development as compared to other key development organisations	2	3	5	4.00	.686
Our organization is quick in new processes as compared to key other key development organisations	3	2	5	3.40	.812
Our organization is quick in problem solving as compared to other key development organisations.	2	3	5	4.43	.655
Valid N (listwise)					

Table 4. 7: Descriptive Statistics for innovation speed

The results shown in table of innovation speed indicate that the mean scores obtained range from 3.4 representing moderate extent to 4.43, which lies between greater extent and very great extent. The mean scores of the questions under innovation speed are scattered around the values 3.5, which is near 4 (great extent) with some questions, support moderate extent and some support very great extent. The variances are all small meaning that views of respondents are not different.

	Range	Minimum	Maximum	Mean	Std. Deviation
Our organization is quick in problem solving as compared to other key development organisations.	2	3	5	4.17	.618
Our organization does better in new product launching as compared to other key development organisations.	2	3	5	4.09	.612
Our organization does better in new product development as compared other key development organisations.	2	3	5	3.69	.583

Our organization does better in processes improving as compared other key development organisations.	2	3	5	3.86	.550
Our organization does better in management improving as compared to other key development organisations	2	3	5	3.51	.612
Valid N (listwise)					

Table 4. 8: Descriptive Statistics for innovation quality

The results depicted in table of innovation quality, indicate that the mean scores obtained range from 3.51 representing moderate extent to 4.17, which lies between greater extent and very great extent. The standard deviation scores range between .550 and .618 on. All questions under innovation quality had a mean of 3.51 and above, suggesting innovation quality exist to a greater extent in areas listed because then mean for all questions is near 4.

4.8 Inferential Statistics

The researcher used the SPSS software to conduct statistical analysis of the data that was presented. Reliability tests, correlation, hypothesis testing and structural equation modelling was all carried out using the tool.

4.8.1 Reliability and Validity Tests

Reliability and Validity of the data was assessed using Indicator reliability (Factor loadings), Cronbach's alpha, Average Variance Extracted (AVE), Composite Reliability (CR). As shown in the table below, the data satisfied the minimum thresholds.

Indicator reliability: Reflective indicator loadings which are greater than 0.5 show that the item is a good measurement of a latent construct (see Hulland, 1999). Accordingly, all the indicator loadings were greater than 0.5 (see Table 4.9).

Internal consistency reliability: Composite reliability (CR) and Cronbach's alpha (α) can be used to assess internal consistency reliability. According to Gefen, Straub, and Boudreau (2000), a CR value of at least 0.7 indicates adequate internal consistency reliability. Hair *et al.* (2017) suggested that Cronbach alpha (α) values of between 0.60 and 0.70 are widely considered desirable in research to indicate internal consistency reliability. As shown in Table 4.9 below all the constructs satisfied the threshold values for the Cronbach alpha and Composite Reliability.

Convergent reliability: Convergent reliability is the extent to which a measure correlates positively with alternative measures of the same construct (Hair *et al.*, 2017). Convergent reliability is assessed using the Average Variance Extracted (AVE). The AVE should be greater than 0.5 (see Bagozzi, 1986; Hair *et al.*, 2016). The AVE for all the constructs in this study was greater than 0.5 (see Table 4.9 below) thus the measurement scales showed good convergent reliability.

			Factor Loading	Cronbach Alpha	Average Variance Extracted	Composite Reliability
Explicit Knowledge sharing	E1	People in my organization frequently share knowledge based on their experience	0.72	0.843	0.52	0.85
	E2	People in my organization frequently collect knowledge from others based on their experience	0.85			
	E3	People in my organization frequently share knowledge of know-where or know-whom with others.	0.0.89			
	E4	People in my organization frequently share knowledge of know-where or know-whom with others.	0.80			
	E5	People in my organization frequently share knowledge based on their expertise.	0.88			
Tacit Knowledge Sharing	T1	People in my organization frequently share knowledge based on their experience	0.65	0.916	0.69	0.92
	T2	People in my organization frequently collect knowledge from others based on their experience.	0.72			
	T3	People in my organization frequently share knowledge of know-where or know-whom with others.	0.67			

	T4	People in my organization frequently collect knowledge of know-where or know-whom with others.	0.83			
	T5	People in my organization frequently share knowledge based on their expertise.	0.73			
Innovation Speed	IS1	Our organization is quick in coming up with novel ideas as compared to other key development organisations.	0.63	0.862	0.57	0.86
	IS2	Our organization is quick in new product launching as compared to other key development organisations.	0.77			
	IS3	Our organization is quick in new product development as compared to other key development organisations	0.86			
	IS4	Our organization is quick in new processes as compared to key other key development organisations	0.72			
	IS5	Our organization is quick in problem solving as compared to other key development organisations.	0.77			

Table 4. 9: Reliability and Validity

4.8.2 Confirmatory Factory Analysis

After running the confirmatory factor analysis for the model, the results indicated that the model was good because it fitted to the data. The model fit indices that were obtained from the confirmatory factor analysis are as follows: CMIN=1.8; p=0.000; IFI=0.924; RMSEA=0.080.

	Value	Recommended value
CMIN/DF	1.8	1 < CMIN/DF < 3
CFI	0.910	> 0.90
IFI	0.924	> 0.90
RMSEA	0.080	< 0.08

Table 4. 10: Model summary and results

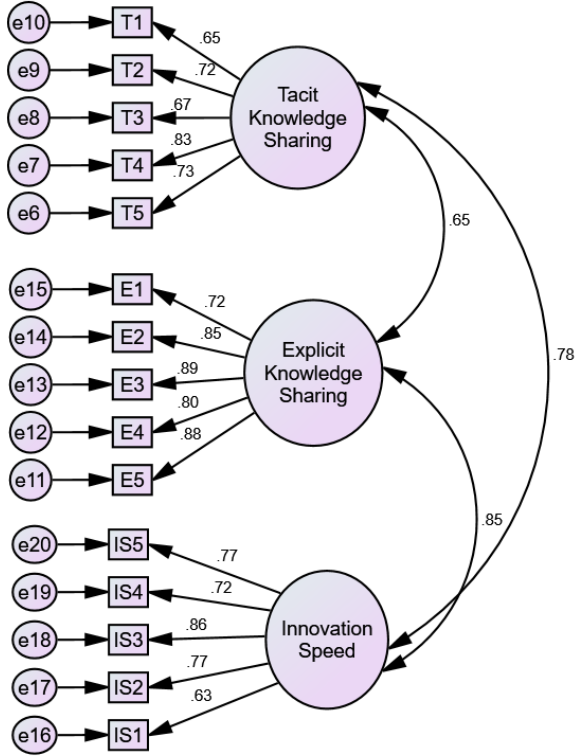


Figure 4. 3: Confirmatory Factor Analysis

4.8.3 Structured Equation Modelling

The researcher conducted structured equation modelling (SEM) to test the hypotheses of the study. Table 4.11 below shows the outcome of SEM analysis.

	Value	Recommended value
CMIN/DF	1.8	1 < CMIN/DF < 3
CFI	0.910	> 0.90
IFI	0.924	> 0.90
RMSEA	0.080	< 0.08

Table 4. 11: Model summary and results

The results were within the recommended range of values. Hu and Bentler, (1999) stated that RMSEA ranges between 0.05 to 0.10 to be a fair fit. Hair et al (2010) recommended a CFI of >0.9 as a satisfactory fit. Bollen, (1989, cited by Glen, 2023) noted that an incremental fit index of 0.09 means a satisfactory.

4.8.4 Hypothesis Testing Results

The outcome of hypothesis testing using SPSS statistical software are shown in figure 4.4 and table 4.12 below

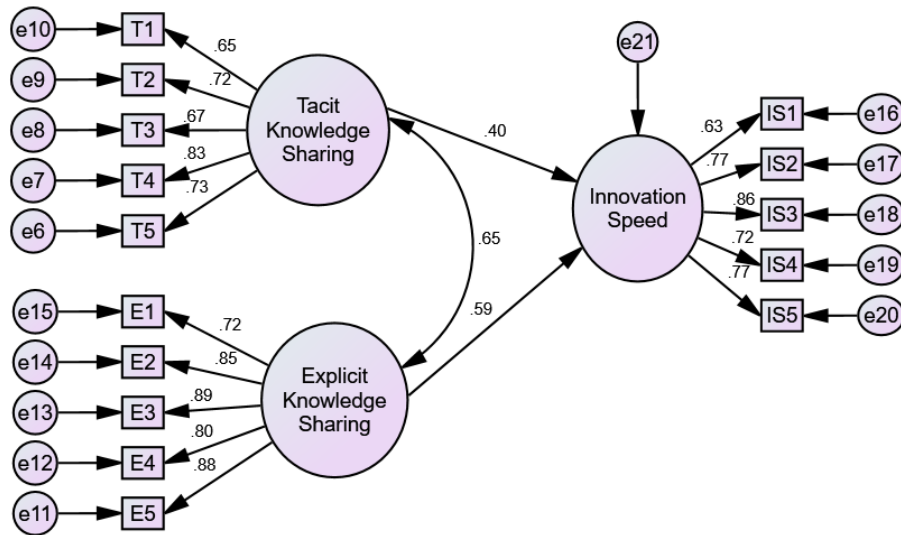


Figure 4. 4: Hypothesis testing diagram

Path	Result (β)	Probability value (p)	Decision
H1: Tacit knowledge sharing positively influences Innovation	+0.40	+0.00	Accept
H2: Explicit knowledge sharing positively influences Innovation	+0.59	+0.00	Accept

Table 4. 12: Hypothesis Tests Results

Table 4.12 shows that tacit knowledge sharing has a positive impact on innovation with a beta of +0.40, hence the decision is to Accept H1. Explicit knowledge sharing has a positive impact on innovation with beta of +0.59 hence the decision is to accept H2.

4.6 Chapter Summary

Chapter four was a presentation and an analysis of the study findings. The findings were presented in tables and diagrams which included pie charts and bar graphs. Findings presented showed the impact of knowledge sharing on innovation in project teams, focusing on tacit knowledge sharing, explicit knowledge sharing, innovation speed and innovation quality. Chapter five will focus on making conclusions on the findings and put forward some recommendations.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

Chapter 5 is the summary of the whole study carried out and it looks at the earlier formulated research objectives and hypotheses. Primary data was obtained from respondents and the data was analysed leading to the findings which were discussed and presented in Chapter 4 from which this summary has been drawn. The Theoretical and empirical literature in chapter two was used to compare the findings of this study and from which the conclusions were drawn. Based on the conclusions and key implications drawn from the study, recommendations have been provided as well as suggestions for further research.

5.1 Summary of the Findings

The main reason for conducting the study was to assess the influence of knowledge sharing on innovation in project teams in the development aid sector with Mashonaland central province being the case study. The study was guided by one main research objective and four sub objectives as well as the hypotheses as stated earlier in chapter one. That is the knowledge sharing behaviours were tested on innovation speed and innovation quality using both correlation and regression analyses. There was the integration of the two research themes; knowledge sharing and innovation which then provided valuable insight into their relationships and also how they influence each other. It is also important to note the study sought to establish the relationships between the independent and dependent variables and also their significance

5.1.1 Explicit knowledge sharing

From the descriptive analysis, percentage for explicit knowledge sharing revealed that majority of the team members in their organisation displayed tacit knowledge sharing behaviour in the course of their duties. The highest percentage from the six items was for the question as to whether people in my organization are facilitated by IT systems invested for knowledge sharing. This implies that organisations not only acknowledge the importance of knowledge sharing in modern day business but have also facilitated for knowledge sharing through IT systems within their organisations. The correlation analysis results indicated that there was a positive relationship between explicit knowledge sharing among project team members and innovation. The findings imply that the project team members from the development aid

agencies were exhibiting high levels of explicit knowledge sharing. The relationships were found to be significant (not due to chance). These findings imply that, an increase in explicit knowledge sharing among team members would lead to an increase innovation in project teams. From the findings, it is indicative therefore that there was a significant relationship between explicit knowledge sharing among project teams and innovation in development aid agencies. The regression analyses depict that explicit knowledge sharing is positively related to innovation in development aid agencies. This implies that in the event of an increase in explicit knowledge sharing would lead to an increase in innovation in the development aid agencies.

5.1.2 Tacit knowledge sharing

The study findings indicated that project team members from the three project teams under study displayed tacit knowledge sharing attributes. This is expressed overall in percentages with highest percentage being for the question people in my organization frequently share knowledge based on their expertise? From the correlation analysis results, it is evident that there is a moderate but positive relationship between tacit knowledge sharing among team members and innovation in project in development aid sector. This relationship is also not due to chance. This implies that an increase in tacit knowledge sharing behaviours would lead to an increase in innovation in project teams operating in the development aid sector. Tacit knowledge sharing in the development sector has not been fully exploited by the development aid agencies to influence the outcomes of innovation in their project teams. Henceforth there is also core-relation between explicit knowledge sharing and tacit knowledge sharing. Regression analyses supported the correlation findings revealing that tacit knowledge sharing attributes by team members in the three project teams was both significant and positively related to innovation in project teams. Thus if tacit knowledge sharing was improved it would lead to an increase in innovation amongst the project teams in Mashonaland central province.

5.2 Conclusions

The study tested the research framework with key variables as knowledge sharing (with two dimensions), and innovation (quality and speed) in order to establish their relationships and influence on each other. Findings suggest that; team members from different project teams displayed the two knowledge sharing attributes of explicit and tacit knowledge sharing. Knowledge sharing (overall) is instrumental to achieving positive organizational outcomes. The two knowledge sharing attributes of explicit knowledge sharing and tacit knowledge

sharing were found to be positively related and significant to innovation in three project teams in Mashonaland central province.

5.3 Implications of Study and Recommendations

Following the findings of this study, the following recommendations have been given for both theory and practice.

5.3.1 Theoretical implications

This study joins a growing body of literature that shows the relationships between knowledge sharing dimensions and innovation in different disciplines. The study gives understanding how knowledge sharing influence innovation in development aid sector specifically in the International Non-Governmental Organisation (INGO). This literature will not only fill a gap in theory but also the knowledge acquired will also help the project team leaders and managers in the development aid sector to develop training programmes for their project teams with a focus on knowledge sharing that will lead to improved innovation speed and quality.

5.3.2 Managerial recommendation

Project managers should arouse their project team members' curiosity about work and enhance their innovativeness through knowledge sharing. The following specific recommendations are made in line with the findings of the study; project team managers in development aid sector specifically World Vision and Africare who intend to boost their innovation speed and quality through knowledge sharing should focus on explicit and tacit knowledge sharing since they were found to be significant to innovation. The managers should however put more emphasis on tacit knowledge sharing this is because it was found to be moderate although significant to innovation.

5.4 Areas for Further Research

This study focused on the influence of knowledge sharing in innovation on project teams in development aid agencies in Mashonaland central province. There is however still need for future researches to be done which focus on other non-private sectors such as the public sector and government departments. Studies may also be done to establish the mediating variables which influence the relationship between knowledge sharing and innovation. Studies may also be done to establish why tacit knowledge sharing was found to be moderately related to innovation as to the study findings.

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QUESTIONNAIRE

My name is Rutendo Darangwa, a final year student at Great Zimbabwe University studying Master of Business Administration (MBA). The purpose of this questionnaire is to gather information about the influence of knowledge sharing on innovation in project teams. A case of development aid agencies in Mashonaland Central Province. Your participation in the study will be greatly appreciated. Your views, opinions, ideas and beliefs are vital to this research and information gathered will be treated with much confidentiality.

Instructions to the Questionnaire

A box represents an option, please tick (✓) the most appropriate answer where applicable.

SECTION A: SOCIO-DEMOGRAPHIC CHARACTERISTICS			
ITEM NO.	ITEM	DEMOGRAPHIC CATEGORY	MARK
1.	Gender	Male Female	<input type="checkbox"/> <input type="checkbox"/>
2.	Age Bracket	18 - 24 years 25 - 29 years 30 - 34 years 35 - 39 years 40 -44 years Above 45 years	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

3.	Level in the organisation	Non-Management Lower Management Mid-Management Senior management	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
4.	Length of service	0 – 1 years 1 – 2 years 2 – 3 years 3 – 5 years 5 years +	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
5.	Work Experience	0 – 3 years 4 – 6 years 7 – 9 years	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

SECTION B:

Indicate level of agreement with each of the following statements. Indicate your best opinion by ticking in the appropriate box.

Key : 1=Strongly Agree , 2=Agree, 3= Neutral , 4= Disagree, 5= Strongly Disagree

ITEM CODE	STATEMENT	1	2	3	4	5
Explicit knowledge sharing						
1	People in my organization frequently share knowledge based on their experience					
2	People in my organization frequently collect knowledge from others based on their experience					
3	People in my organization frequently share knowledge of know-where or know-whom with others.					

4	People in my organization frequently share knowledge of know-where or know-whom with others.					
5	People in my organization frequently share knowledge based on their expertise.					
Tacit knowledge sharing						
1	People in my organization frequently share knowledge based on their experience					
2	People in my organization frequently collect knowledge from others based on their experience.					
3	People in my organization frequently share knowledge of know-where or know-whom with others.					
4	People in my organization frequently collect knowledge of know-where or know-whom with others.					
5	People in my organization frequently share knowledge based on their expertise.					
Innovation speed						
1	Our organization is quick in coming up with novel ideas as compared to other key development organisations.					
2	Our organization is quick in new product launching as compared to other key development organisations.					
3	Our organization is quick in new product development as compared to other key development organisations					

4	Our organization is quick in new processes as compared to key other key development organisations					
5	Our organization is quick in problem solving as compared to other key development organisations.					