ADDIS ABABA UNIVERSITY

COLLEGE OF NATURAL AND COMPUTATIONAL SCIENCES

SCHOOL OF INFORMATION SCIENCE

Factors That Influence Motivation of Knowledge Intermediaries To Transfer Knowledge

By: Birhane Wakuma

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November, 2021

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Declaration

I, the undersigned, declare that this thesis is my original work and has not been accepted for any degree in any university. All sources are acknowledged by citations accordingly.

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This thesis has been submitted for examination with my approval as university advisor.

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Daraje Teferi (PhD)

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Contents

List of Acronyms

AKT ..... Agricultural Knowledge Management
IK ..... Indigenous knowledge
KI ..... Knowledge intermediaries
KM ..... Knowledge management
KT ..... Knowledge Transfer
MOA ..... Ministry of agriculture
OAB ..... Oromia agricultural bureau
ABW ..... Adda'a barga woreda

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Operational Definitions

Agricultural Knowledge: consists of the attitudes, cumulative experiences and developed skills that enable a person to consistently, systematically and effectively perform farming practices.

Stakeholders: In the context of this study, an individual, group or organization that directly or indirectly involved in agricultural activities.

Agricultural Knowledge Transfer: is a process by which research output are transmitted from research producers to the research users.

Intrinsic factors: It is internal desires to perform a particular task. It arises from within the individual.

Extrinsic factors: It is external desires to perform a particular task. It arises from outside of the individual or tangible rewards.

Knowledge intermediaries: is knowledge actors who transfer agricultural knowledge and technology from researchers to farmers.

Abstract

In a country like Ethiopia, where agriculture productivity levels are in the early stage of development, transferring advanced agricultural knowledge that used to solve inadequate farming activities is essential. To this end, the knowledge intermediaries' (KI) motivation is the basic concept which is undermined. The purpose of the study was to examine the extrinsic and intrinsic factors that influence motivation of KI in agriculture. This study was answered the following research questions (I) what practice exist to transfer agricultural knowledge? (II) What extrinsic and intrinsic factors affect knowledge intermediaries' motivation to knowledge transfer? To select the area of the study both Minister of Agriculture and Oromia Agricultural offices selected purposively. Whereas Adda Berga woreda was selected using two stage random sampling techniques from 180 woredas existed in Oromia region. All knowledge intermediaries, who satisfy the inclusion criteria made for this research in each organizational level was selected because of the population was small in size. The study population contained a total of 170 KIs from the three organizations. The basic evidences used in this study were collected from 152 knowledge intermediaries through structured questionnaires and 6 interview informants. To analyze the data, descriptive statistics was employed. The key findings of the study was that the extrinsic factors include, reward, recognition, training, working environment, transfer mechanism, role and stakeholder relationship identified as having significant impact on knowledge intermediaries' motivation. And Intrinsic factors, including appreciation, work meaningfulness, trust, responsibility, significance and fairness identified as having significant impact on knowledge intermediaries' motivation.

Keywords: Agricultural Knowledge Transfer, Knowledge Intermediaries, Motivation.

CHAPTER ONE

1. INTRODUCTION

1.1.Background of the study

For Ethiopian economy, agriculture is a critical input. Agricultural sector controls the growth of the country, then contribute to the global economy. As Cochrane study in 2011, was cited by (Belay & Dawit, 2017) although agriculture has contributed to the economy, and the country is considered by diverse agro-ecological zone and remarkable with sufficient natural resources which support successful crop and animal production, the sector has low productivity. Consequently, food insecurity was the biggest challenge of a rapidly growing population. Around 90 percent of the agricultural outputs are generated by traditional tools and farming practices (MoFED, 2006). Ineffectiveness of agricultural technology, dissemination, utilization of up-to-date production inputs and the low adoption rate of technological production by smallholder farmers, absence of formal and informal knowledge integration, absence of stakeholders' participation in agricultural knowledge activities are among the important factors which, makes the sector low productivity result (Ayalew& Abebe, 2018).

Today's economy has become knowledge-based and knowledge is also the engine of economic development (Peng & Hsieh, 2006). Agricultural knowledge was used to develop new technologies to improve agricultural products. Therefore, an enhanced knowledge exchange within the agricultural stakeholders is critical, especially with farmers to improve small-scale agricultural production. Agricultural knowledge is a key component to increase agricultural production, improved quality yield, food security and national economies. Knowledge transfer (KT) is critical phase of the knowledge management process. Nowadays organizations struggle to create and preserve competitive advantage, successful strategy, effective management, sustained development and efficient use of resources (Liyanage et al., 2010). Therefore, KT can aid as an influence for attaining these goals.

In agricultural sector KT is used to improve farming performance and improve productivity by connecting research-farm practices through transferring the desirable knowledge and adopting new technologies to achieve set objectives in sectors. In the last decades, agricultural technology has increased rapidly; however, the effective transfer of agricultural knowledge and the technological package system were challenged yet.

There is agreement that the success of agricultural knowledge transfer (AKT) depends on a variety of factors: personal, social, cultural and economic and the knowledge itself (Pannell, 2006). In addition, as (Prokopy, 2008) study shows that access to information, education levels, income, capital, farm size, attitudes, awareness and utilization of social networks are additional factors associated with the success of AKT in the sector.

Focusing on individual characteristics study such as skills, beliefs, values, and motivation are the furthermost factors which has impact on KT successes in agriculture (Ticha, 2007); (Arisa & Osondu, 2016). Among this motivation is the basic determinant for other individual characteristics those influence KT (Dangnga & Nuddin, 2018). For instance, as motivation theory show (Herzberg, 2015) motivation have a positive effect on job satisfaction. Currently motivation of knowledge workers is one of the main issues of any organization and understanding this situation can be a key basis for improving productivity (Arief, 2020). Thus, the purpose of this paper is to identify the extrinsic and intrinsic factors that affect motivation of KI to transfer knowledge.

1.2. Statement of the problem

Studies have been conducted previously on investigation of factors affecting knowledge transfer. For instance, a study conducted in Ethio Telecom shown four sets of factors these are knowledge (knowledge tacitness and knowledge complexity), client (learning intent, absorptive capacity and motivation), vendor (vendor capability, vendor credibility and vendor openness), and relationship (relationship quality, relationship duration, relationship governance and organizational distance) (Worku, 2017). The research conducted on knowledge transfer from training to the job on commercial banks in Kenya revealed that factors related to trainee characteristics such as personality, trainee ability and motivations are significantly influence knowledge transfer. As (Choong and Fang , 2016) study shows both ability and motivation of knowledge receivers are determinant for knowledge transfer.

In addition, as study (Lonel, 2010) suggestion trust among individuals, members of the team, project culture, values and the beliefs of the individuals and motivation of those involved in the process, both intrinsic and extrinsic are factors affect knowledge transfer process.

Therefore, the effectiveness of the knowledge transfer, both at the individual and the organizational level depends on different determinant. Pervious study mainly focused on determinant related knowledge itself, knowledge producers, and knowledge receivers. However, there is no research conducted to explore determinant related to knowledge intermediaries with specific context in investigating what factors are affecting their motivation to transfer knowledge. As (Viorel & Stefania, 2011) study point out the major requirements must be fulfilled before knowledge will be transferred is "Motivation." Agreeing to the motivation theory, only if individuals will gain incentives, they will intensify the sharing of knowledge and their skill.

Thus, based on the identification of gaps in the previous study this study answered the following research questions:

1. What practice exists to transfer agricultural knowledge?
2. What extrinsic and intrinsic factors affect knowledge intermediaries' motivation to transfer knowledge?

1.3. Objective

3.1 General objective

The general objective of this research was to examine extrinsic and intrinsic factors that affect motivation of knowledge intermediaries'.

3.2 Specific objectives

- To identify what practice exist to transfer new knowledge
- To examine what extrinsic and intrinsic factors affect motivation of knowledge intermediaries'.

1.4. Scope

These studies were focused on investigating extrinsic and intrinsic factors which influence KI motivation in KT process. However, agricultural sector have different KI and have different organization under it, this study focus only on extension workers from Ministry of Agriculture, at the federal level, Oromia Agricultural Offices, at the regional level, and extension workers from Adda Berga woreda at woreda level. In addition this study focused only on knowledge intermediaries' from knowledge actors, as it will need sufficient time, money and other accommodations to cover all.

1.5. Significance

This study were attempted to assess extrinsic and intrinsic motivation factors that affect knowledge intermediaries' to transfer knowledge. Hence, to improve agricultural productivity and food security knowledge transfer is a key process in agricultural knowledge management. Thus, this study will contribute in solving agricultural knowledge management. In addition, it will use as an insight for policy maker and future researchers in this area.

1.6. Organization of the thesis

This paper is arranged into five chapters. The first chapter deals with an introduction part including background, problem statement, objective, research questions, scope and significance of the study. The second chapter covers review of critical findings from different literatures and related works. The third chapter contains methodologies and design used in the study. Chapter four presents the result and discussion of the study. Lastly, the final chapter presents the conclusions and recommendations of the study.

CHAPTER TWO

2. LITERATURE REVIEW

2.1. Concept and Definition Knowledge

Knowledge can be described in several perspectives. From resource- based view, in organization it can be considers as strategic assets which are important to achieve the organizational objectives (Blackler, 1995). It is recognized as the most significant resource for competitive advantage (Anatan, 2015) and also key to enhance innovation (Al-Husseini and Elbeltagi, 2015). Knowledge is the insubstantial asset of organizations that exist within its workers, work techniques, organizational procedures, and knowledge artifacts at the individual level, group level and organizational level both in tacit and explicit forms. It also observed as intelligent properties of people.

From the cognitive science point of view, knowledge is intuitions, understanding and practical know-how which are the essential resource to act wisely (Dalkir, 2008). It also further described as a key factor that makes organization, person and group intelligent behavior possible. It is facts, concepts, procedures, interpretations, observations, ideas and judgments related personal information exist in the mind of individuals (Alavi, 2001). Also defined as a state of knowing or an understanding gained through experience.

It is an understanding, interpreting, observing and judgments or awareness of something, such as facts, ideas, skills and objects (Schubert, 1998). It is a dynamic process of justifying personal belief towards the truth (Nonaka, 2014). As Cawley, & Anthony in 2018 cited by (Fahey, 2000) knowledge is a resource that is placed within an individual or group then rooted in a process, but later used. Knowledge is shaped and prepared by flows of information and formed by their holder (Serrat, 2008).

(Temtim, 2014) Stated knowledge as a source of power for those who possess it at the right time and at the right place and regarded as the factor of production together with others resource. In addition, knowledge the factor of production addition to land, capital and labor. It also presented as a contextual information, values and professional understanding that delivers a basis for evaluating and integrating new experiences.

2.2. Classifications of Knowledge

Knowledge theorists distinguish it as having several classifications. Understanding different types of knowledge, is an essential step in knowledge management process. The flowing are some knowledge classifications.

2.2.1. Explicit Knowledge

Explicit knowledge (EK) can be codified in journals, books and reports as well encoded and can be transmitted in various formats, and is sometimes stated to as know-what (Brown & Duguid, 1998). Such type of knowledge is easy to identify, store, and retrieve (Wellman, 2009). Additionally, it can be described as knowledge that holds the description of judgments, facts, and ideas. As many theoreticians said (Haradhan, 2017) the critical challenge of this knowledge is, it should be ensured because of users must have access to what they need. It is reviewed, updated, or discarded.

2.2.2. Tacit knowledge

All individuals have a distinctive personal collection of knowledge grown from exercise, life experiences, and professional connections, which is indicated as tacit knowledge. Polanyi was a person who define tacit knowledge firstly (Polanyi, 1966). It was referred to as know-how and inbuilt, hard to define and is largely experience based. This type of knowledge was carried in people's head and is often context dependent in nature. It is not easy to formalize since it is an understanding, principles, decision and beliefs within individual (Chala, 2013); (Nonaka, 2014). Moreover, it requires personal communication and trust to share well. Since knowledge management was dealing with both tacit and explicit, it must be contextualized before used because it depended on a specific time and space (Alie, 1845).

Tacit and explicit knowledge form is the most popular knowledge classification. Both tacit and explicit are converted to each other's through the process called knowledge conversation. There are four types of tacit to explicit and vice versa knowledge exchange process named as socialization, externalization, internalization and combination (Nonaka, 2014) .

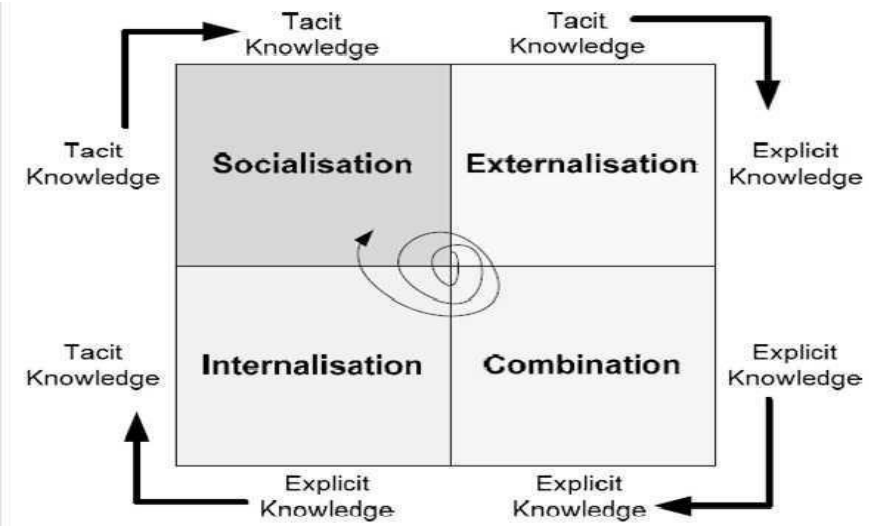

Figure 1: Models of Knowledge Sharing (Nonaka, 1994).

Socialization (tacit to tacit): Is the act of person to person knowledge acquiring (Nassuora, 2011). It occurs when tacit knowledge is formed through shared experience between individuals. It is the process of converting new tacit knowledge, as stated by (Nonaka and Toyama, 2003), through shared experience in day-to-day interaction. Socialization provides chance for both the sender and the receiver to work together by using demonstration, observation. As (Nonaka and Toyama, 2003) stated this process of knowledge conversation needs spending time together in the same environment to share knowledge to each other.

Externalization (tacit to explicit): It is the practice of converting tacit form of knowledge into explicit form through expression in comprehensible and can be easy to share or into tangible format. It is processed through which tacit knowledge is conveyed into explicit knowledge and shared with others as a source. It is used as a source to create new knowledge in different format such as written documents, concepts and images (Nonaka and Toyama, 2003).

***Combination (explicit-to- explicit*)**: Is the act of prepare knowledge in different format and making knowledge more usable and understandable form. Also described as the process of integrating external and internal explicit knowledge (Nonaka and Konno, 1998). It takes place by capturing, disseminating and revisiting or re-conceptualizing and may need technological tools.

Internalization (explicit-to-tacit): Is the act of translating explicit knowledge into tacit knowledge. This takes place learning by doing or through practice.

Based on its source or origin knowledge can be classified as indigenous knowledge or scientific knowledge. Some literatures have different definitions about the concept of indigenous knowledge. This is due to variation in perspectives of the authors (Assefa, 2010). However, several definitions also have some common characters. Indigenous knowledge named or referred as folk knowledge, traditional knowledge, local knowledge, people's knowledge. It is the knowledge that is distinctive to a given society. Societies use indigenous knowledge at the local level as the basis of decision making about a medical, agricultural, environment to solve conflict and etc. Many research workers determine indigenous knowledge is critical for development because it was internalized in people head and rooted in society to make connection and solve problem easily by integrating with formal knowledge. Whereas scientific knowledge or formal knowledge is produced by applying scientific methods, procedures, tools and it is proven and tested.

The other classification is grouping knowledge into five types as Embodied, Encultured, Embrained, Encoded and Embedded (Blackler, 1995).

• **Embodied knowledge:** is action oriented, relating to practical experience and relations between persons. It is mostly tacit also the act of transferring knowledge through observation and social interaction (Omotayo, 2015).

• **Embrained knowledge:** is based upon an individual's ability to understand abstract knowledge. It is often gained through experience. Transferring this form of knowledge is based upon the transmitter's ability to understand specific resources and cognitive and intellectual skill of the receiver's abstract new thing (Jensen, 2010).

• **Encultured knowledge:** is socially constructed of shared understanding between societies. It is both explicit and tacit knowledge analyzed from social structures. As (Wilkinson et.al, 2015) stated it is a set of knowledge that is shared among groups of people who share a similar culture, such as what is accepted or not accepted what activities, opinions reflected as normal or not and what behaviors are expected of people.

• **Embedded knowledge:** is knowledge which exists in in organized routines and procedures. It can be easily investigated from prearranged procedures. (Hislop, 2013) Support this fact by stating that knowledge, is embedded in the job performed is simultaneously embodied by the workers who carry out these practices.

• **Encoded knowledge**: is documenting or explicating knowledge as text, symbols number and illustrations. For example (Daven and Prusak, 2000) Stated that organizational knowledge is embodied and embrained in the workers, embedded in procedures/common tasks, encultured among the workers, and encoded in manuals and guidelines. Therefore, organizational knowledge is the total of the critical intellectual capital exist within an organization.

2.3. Knowledge Management

Knowledge need good management as it is recognized as a resource or capital for the organization. Knowledge management (KM) is a systematic discipline, processes and activities which allow organizations to apply knowledge to improve effectiveness, innovation and quality (Sehai, 2006). It is a discipline that encourages an integrated approach to capturing, identifying, evaluating, retrieving, and sharing information in the organization (Blackler, 1995).The organizations contain

knowledge and information about activities and best practices. Therefore, KM is used in the process of generating, distributing, using and handling knowledge and information within an organization. It is supported by a knowledge management system which is an integration of technologies and mechanisms. KM contains actions and procedures that are proposed to discover, capture, share, and apply knowledge (Fink, 2004). It is important since it improves the efficiency of an organization's capability of decision-making because all workers have access to the whole know-how held within the organization. Globalization of business, leaner organization and technological advances are the most reasons today, an organization should be focused on KM (Uriarte, 2008).

2.4. Agricultural Knowledge Management

As (Kampala, 2011) study shows following to labor, land and capita knowledge is the production factor. It is mainly critical in the agricultural sector. Agricultural knowledge is created from formal and indigenous knowledge to help farming community by improving production and productivity. Knowledge management in this sector is about the systematic connecting of stakeholders to the best practices of agricultural activities for sustainable development. It is expected to focus on knowing what needs to be done to solve the problems in the sector and provide opportunities; how it can be done (best way); the source of knowledge (where); and who can do it (by whom) (Shimels, 2013).

The challenges to achieving food self-sufficiency, accessibility, awareness of extension services in agriculture makes the concept of knowledge management to exist in the sector. Hence, the solution must be innovative and knowledge based with the appropriate integration system in line with evaluation and assessment process. To this end, farmers, policy makers, extension agent, scientist and other shareholders must work for the achievement of efficient agriculture knowledge management. According to (Ray, 2017) study in today's competitive market, there is need for value added farming and demand for renovation of agriculture.

The last few years have seen as a paradigm shift in the understanding of the nature of knowledge and how it is exchanged in the agricultural context (Kampala, 2011). Different terms have been used to describe the role of facilitating access to knowledge. Among this knowledge Transfer (KT), Knowledge Translation (KTn), Knowledge Exchange (KE), Knowledge Brokering (KB) and Knowledge Mobilization (KMb) (Shaxson, 2012). Those can collectively refer as K∗. Those terminologies show a variety of tasks have been shifted from the linear distribution of knowledge which is from producer to user. In recent years, there has been a change in emphasis from unidirectional KT to multi-directional KE; from passive participation to functional participation for collaborating participation between researchers and farmers (Pretty, 1995).

The theory of knowledge exchange in agriculture sector has emerged in line with shifting from one way model of knowledge transfer to a perspective that integrates knowledge from multiple stakeholder participation. A changing environment, in line with multi-functional land management, inflexible environmental problems and recreation for sustainable agriculture has conveyed new challenges. According to (Lavis et al., 2003) Lately, knowledge exchange is emerging as a result of developing indication that the successful commitment of knowledge requires more than one-way communication it require open communication among researchers, decision makers, farmers and other stakeholders.

In any kind of dimension knowledge occurs, and it must be transferred from one individual to another person or from one group to another. Knowledge transfer (KT) was defined in different disciplines from a different point of view, such as (Howells, 2006) work define KT from an organizational perspective, it is the process that involves one group that affected by the experience and knowledge of other groups. As (Syed and Rowland, 2004) said KT wants to be involved with the readiness of groups or individuals to work with each other's and share knowledge to their common profit. Most of the authors agreed on the concept that KT

completely depends on the individual characteristics which consist of experience, skills, beliefs, values, and motivation (Syed and Rowland, 2004).

2.5. Factors Influencing AKT success

Different factors determine the agricultural knowledge transfer success. As (Chala, 2013) study shows among those determinant, the knowledge itself, knowledge actors, knowledge transfer mechanisms and feedback system is the most determinant to it.

2.5.1. Factors related to the knowledge itself.

Knowledge by itself is one of attribute to determine AKT success. It should be easy to understand, simple to implement, clear language and applied by the receiver of that knowledge before transfer (Kilgore et al., 1993). In addition, as (Hemsley et al., 2003) argued that the lack of applicability of the knowledge is the most important obstacles to its implementation. The other thing is the relevance of knowledge. Therefore, knowledge should be remarkable, trustworthy and made at the appropriate time before it can be transferred to receivers.

2.5.2. Factors related Agricultural knowledge actors

Agricultural knowledge actors are covers all researchers (knowledge suppliers), extension agents (knowledge intermediaries) and farmers (knowledge receivers) and other. Determinants related to knowledge suppliers are credibility and experience of the research organization and recognition for these activities has a major impact on the transferring the research results. As (Huberman, 1990) suggestion this credibility is often developed with time due to sustained interactions between researchers and the other actors involved in the knowledge transfer process. Transfer agents (knowledge intermediaries) play a crucial role in the knowledge transfer process. The effectiveness of the AKT process, both at the individual and the organizational level depends more on knowledge intermediaries.

As most literature showed that the qualified experience and the cognitive capabilities of the transfer agents are other bases of KT. As (Osterloh & Frey, 2021) point out two major requirements must be fulfilled from knowledge intermediaries before knowledge will be transferred: (1) intention to transfer related to "*Cognitive capability*", and (2) ability to transfer knowledge related "*Motivation*". As motivation theory shows, only if individuals will gain inspirations, they will intensify the sharing of knowledge. Motivational limitations that constrain knowledge transfer are associated with hindrances such as risk and uncertainty.

These two pre-requirements have a definite impact on the ability to share or transfer knowledge (Cavallari, 2013). In addition to individual determinant organizations which knowledge intermediaries belong have also some characteristics that determine the effectiveness of knowledge transfer. Among those organizational structures and context, as well as the resources and policies have impact on knowledge transfer activities (Chala, 2013).

2.5.3. Factors related to the transfer mechanisms and feedback system

Knowledge transfer mechanisms and feedback system are other factors which affect agricultural knowledge transfer success. In the literature two categories of transfer mechanisms are mentioned. The information mechanisms and the interaction mechanisms. Information mechanisms, is the ways of accessing and transferring knowledge without personal interaction. Among this report, scientific papers, journals, emails and blogs (Argote, 2000). Whereas interaction mechanisms, is the ways of acquiring and disseminating knowledge through on personal interactions between actors. Some examples of this category are oral presentations, conferences, seminars, workshops, training, meetings, discussions (Jackson et al., 1993). Interaction mechanisms are more important to confirm the success of knowledge transfer. It proved the opportunities which allows to share experiences and to develop a common new practice (Briscoe and Peters 1997). (Argote et al. 2000) argued that training is probably the most suitable knowledge transfer mechanism. It allow participants to develop new skills related to the application of new knowledge. This increase the interest in adoption and use of new knowledge.

The feedback system is a reply or facts that occur as a result of actions or behavior undertaken by an individual or group. The knowledge suppliers, policy makers and others stakeholders use the feedback gained from knowledge/technology users as an input to make decisions, advance research output and to know the usability of the knowledge. Feedback provides a sense of commitment and interactivity for knowledge suppliers. Effective feedback system is used to show knowledge receivers their current level of performance and awareness (Barnard, 2001).

2.6. Concept and Definition Motivation

Several theories attempt to explain motivation in different bases. The most popular descriptions of motivation are based on the needs of the individual. These needs differ from one individual to another. Needs involve of internal states, such as the desire for power, success, victory and love. These needs are factored for most of the individual behavior (Burrows, 2000). It also

defined as psychological process that gives purpose, way, and power for behavior and an internal drive to fulfill and unfulfilling need (Kreitner, 1995).

In the organizational context, motivation is defined as an individual's readiness to apply and sustain an effort towards organizational goal (Anh, 2003). In addition, many authors describe motivation as the process that guides, initiates, and holds goal-oriented behaviors. It is one of the driving forces behind human actions. It includes the "biological", "emotional", "social", and "cognitive forces" that activate behavior. It is influenced by the satisfaction of needs.

2.6.1. Motivation theory

In literature, many theories have been proposed to answer what exactly motivates people to work. The basic theories of motivation are: McClelland's Need Theory, Maslow's Need Hierarchy Theory, Herzberg's Motivation Hygiene Theory, McGregor's Participation Theory, Urwick's Theory Z, Argyris's Theory, Porter and Lawler's Expectancy Theory and Vroom's Expectancy Theory.

2.6.1.1. Maslow's Need Hierarchy Theory

Maslow's need hierarchy theory is the most popular motivation theory. It is based on the human needs. He classified all human needs into five hierarchical levels. In this theory, there is believe that once a given level of need is satisfied, it no longer serves to motivate person. Then, the next higher level of need has to be stimulated in order to motivate the people (Chand, 2005).

Figure 2: Maslow Need Hierarchy.

2.6.1.2. Herzberg's Motivation Hygiene Theory

Frederick Herzberg a psychologist who extended the work of Maslow and suggested a new motivation theory known as Herzberg's motivation hygiene (Two-Factor) theory. Herzberg, believes in the presence of a dual continuum. The opposite of satisfaction is not dissatisfaction. Means that, today's motivators are tomorrow's hygiene since the later stop influencing the behavior of individuals when they get them. Therefore, one's hygiene may be the motivator of another (Bonjour, 2010); (Kreitner, 1995).

Figure 3: Herzberg's motivational and hygiene factors

2.6.1.3. McClelland's Need Theory

McClelland developed his theory based on Henry Murray's studies of personality. It is closely related with learning theory. He believed that needs are experience of people, which acquired from events. This theory focuses on three needs; "achievement', "power" and "affiliation". The three need theories of motivation summarized as shown in the following figure. It describes that parallel association between the needs in each of the theories (Chand, 2005); (Cheber et.al, 2016).

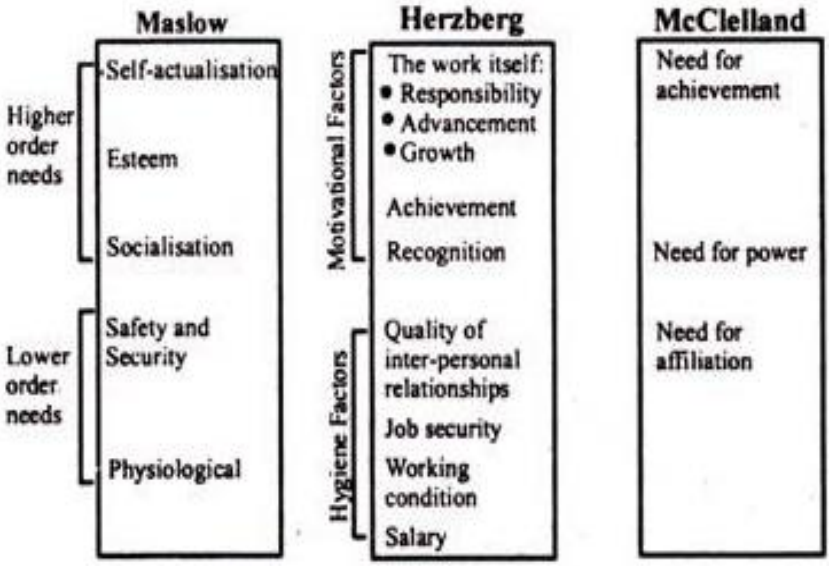

Figure 4: a summary of the three need theories of motivation.

2.6.1.4. McGregor's Participation Theory

Douglas McGregor expressed two different views of human beings based on contribution of workers. Theory X (negative) and Theory Y (positive) with following assumptions (Chand, 2005).

Assumptions of Theory X:

- Indolence of people by nature.
- Dislike responsibility and interest of directed by others.
- Selfishness
- Lack of being very sharp and bright.

Assumptions of Theory Y:

- People are not passive by nature.
- People want to accept responsibility.
- People want the success of their organization.
- People are talented for directing their own behavior.
- People need for their achievement.

2.6.1.5. Urwick's Theory Z

Far after theories X and Y stated by McGregor, theory Z were formulated by three theorists Urwick, Rangnekar, and Ouchi. It is the most theory gate attention from management practitioners and researchers. There are two suggestions in this theory. (1) Every individual should know the organizational goals exactly his contribution towards these goals. (2) Every individual should identify that, the organizational goals, satisfy his/her needs. These two views, make people ready to achieve both organizational and individual goals.

2.6.1.6. Argyris's Theory

Argyris motivation theory established based on intention how management practices affect the individual behavior and growth In his view, the seven changes taking place in an individual personality make him/her a mature one (personality of the individual develops). This changes showed in the following table.

Immaturity		**Maturity**
Passive		Active
Dependence		Independence
Capable of behaving in a few ways		Capable of behaving in many ways
Shallow interest		Deep interest
Short-term perspective		Long-term perspective
Subordinate position		Superordinate position
Lack of self-awareness		Self-awareness and control

Figure 5: personality of individual develops.

Argyris states his views that immaturity exists because of organizational situation and management practices such as task specialization and duration of management. In order to make persons more mature, the existing management system must be changed to the more flexible and participative management. As Argyris states that such condition makes a person more motivated to make more use of their potential in achieving organizational goals not only their physiological and safety needs (Osterloh & Frey, 2021); (Chand, 2005).

2.6.1.7. Vroom's Expectancy Theory

Vroom's theory is a cognitive practical theory of motivation. It is initiated on the ideas that people will be motivated to apply a greater level of effort when they trust there are relativities

between the effort they put, the performance they reach, and the rewards they get (Chand, 2005).

2.6.1.8. Porter and Lawler's Expectancy Theory

Porter and Lawler's theory is an improvement on Vroom's expectancy theory. They suggest that motivation does not equal performance or satisfaction or it does not lead directly to performance. However, it is mediated by abilities and traits and by role perceptions. Finally, performance leads to satisfaction. This idea showed in the following Figure.

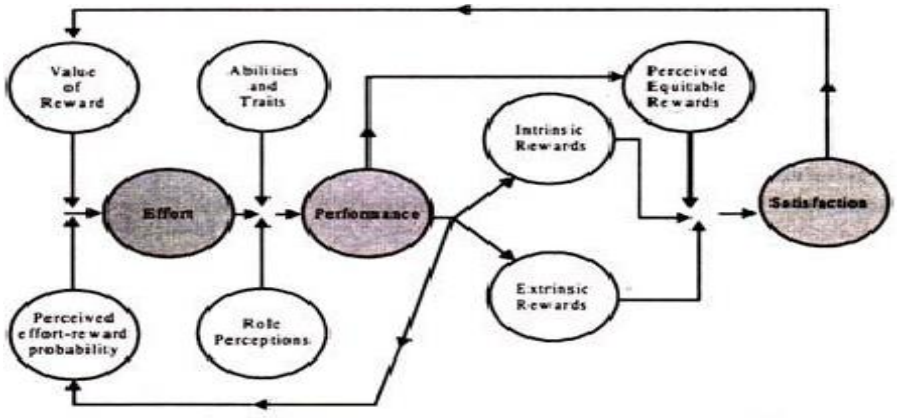

Figure 6: Porter and Lawler's motivation model

As (Stefania, 2011) study shows there are two major types of motivational factors which are extrinsic and intrinsic factors. Extrinsic factors are those that arise from outside of the individual or to tangible rewards. Those factors are unrelated to the job persons are performing. It refers to behavior that is driven by external rewards such as salary structure, style of leadership, job enrichment, effectiveness of information, and quality of working environment, worker and management relationship, promotion opportunities existence, influence by co-workers and Nature of the job itself are belonging to this type (Jumbi, 2014). Extrinsic motivation causes an individual to do or not something.

Intrinsic factors are those that arise from within the individual. It is internal desires to perform a particular task. People do certain activities because these activities give them pleasure, develop a particular skill, or these are morally the right thing to do (Bonjour, 2010). Recognition and appreciation, skill variety, work meaningfulness trust, feedback, the amount of responsibility within job, fairness of treatment at the workplace, training and development, Job significance contribution and empowerment are examples of the intrinsic factors (Jumbi, 2014).

2.7. Related Work

Authors	Objective	Methodology	Finding
(Choong and Fang , 2016)	To examine how ability and motivation affect knowledge absorptive capacity in Multinational Corporations.	Qualitative	Both ability and motivation of knowledge receivers are determinant for knowledge transfer.
(NJERU, 2014)	to find out the factors affecting transfer of knowledge from training to the job among employees of large commercial banks in Kenya	Quantitative	Factors related to trainee characteristics such as personality, trainee ability and motivations are significantly influence knowledge transfer
(Lonel, 2010)	to study the factors affecting the knowledge transfer process and their importance for project's success	Quantitative	Trust among individuals, members of the team, project culture, values and the beliefs of the individuals and motivation of those involved in the project, both intrinsic and extrinsic are factors affect knowledge transfer process.
(Xuan, 2019)	To identify factors employees to transfer knowledge	Both Quantitative and Qualitative	Reward, Fear of losing power, Concepts for self-interest, promoting the role of the group, the concept for social benefits significantly affect Knowledge transfer.
(Worku, 2017)	To examine knowledge transfer processes and identify the key factors that significantly impact knowledge transfer success from vendors to Ethio telecom in IS outsourcing.	Qualitative approach	There are four sets of factors which facilitate knowledge transfer success These are**: knowledge** (knowledge tacitness and knowledge complexity), **client** (learning intent, absorptive capacity and motivation), **vendor** (vendor capability, vendor credibility and vendor openness), and **relationship** (relationship quality, relationship duration, relationship governance and organizational distance).

Table 1: Summary of related work

CHAPTER THREE

1. METHODOLOGY AND RESEARCH DESIGN

1.1. Methodology

Methodology covers all entire approach to the research which used to know how we design and implement research studies. It's all about how a researcher designs a study to ensure valid and reliable results that address the research aims and objectives. It is used to answer what data to be collected, by whom it collected, from where to collect, how to collect and way of analyzing methods the data (Derek and Kerry, 2020). A research design is the prearrangement of situations for collection and analysis of data in a manner that solve the research problem. To accomplish the objectives of these research, qualitative and quantitative research methods were employed. Qualitative research refers to a study which focuses on collecting and analyzing spoken words and textual data that is concerned with how people think and act. Whereas quantitative is research about the measurement and testing using numerical data. The aim of quantitative research is to determine the relationship between quantitative variables (Kothari, 2004). Using mixed research method is help for balancing the weakness and strength of both approaches (Creswell, 2003).

1.2. Study Area

(1) Minister of Agriculture (MoA): It was the government ministry located in Addis Ababa, which supervises the agricultural and rural development policies of Ethiopia at the federal level. The duties of the MoA contain: conservation and use of forest and wildlife resources, food security, water use and small-scale irrigation, monitoring events affecting agricultural development and early warning system, promoting agricultural development, and establishing and providing agricultural technology training. The structure of the ministry has extension directorate to manage agricultural research outputs. Knowledge intermediaries' at federal level was selected from extension director of MoA.

(2) Oromia Agriculture Bureau (OAB): According to (ONRSAB, 2014) Oromia region is located in the central part of Ethiopia. Stretching from the Sudan border in the west and then to the eastern part making a curve to the south up to Kenya boarder. From the 10 regions of the country, it is the largest administrative region in relations with population and area which cover 363,136 Square kilometers. The region is characterized by: agro-climatic zones, topography, agricultural potential and natural resources gift. The knowledge intermediaries' at regional level was selected from this region.

(3) Adda Berga woreda (ABW): Ada'a Berga is one of 18 woredas in the west Shewa zone of Oromia region, Ethiopia. It is bordered on the south by Walmara, on the southwest by Ejerie, on the west by Meta Robi, and on the north and east by the Muger River. It is characterized, as one of the mixed agricultural area. The knowledge intermediaries' at woreda level was selected from this woreda (Tamiru, 2017).

1.3. Population of the Study

The target group of this study was agricultural extension workers exist in selected organization

Inclusion Criteria: - all extension workers with a minimum of degree level of education, who have direct participation with any agricultural knowledge transfer.

Sampling Technique

In this study, both non-probability and probability techniques was applied. Non-probability sampling techniques were used to select the study area (except at woreda), questionnaire survey respondent's and interview informants. While probability sampling was applied to select woredas in the selected region. Ministry of Agriculture (MoA) was selected, due to it has the task of coordinating inter-regional extension work, providing policy advice on countrywide agricultural extension issues. From regional agriculture bureaus, Oromia region was similarly selected purposely due to its suitability and the interest of the researcher. Whereas, Adda Berga Woreda was selected by using two stage random sampling from 180 woredas existed in Oromia region. Through lottery method, at the first round one letter was selected from A-Z alphabet randomly. Next, one woreda from the list of the woredas corresponding to the selected letter is selected. In the case of selecting respondents, all extension workers, who satisfy the inclusion criteria in each organizational level are selected purposively.

Sample Size

Sample size refers to the number of substances to be selected from the population of the study (Kothari, 2004). A sample that is too large will lead to the excess of resources such as time and money, whereas, a sample that is too small will not let to gaining reliable observations. The sample should be optimum the one which satisfies the desires of efficiency, reliability and flexibility. While deciding the size of the sample, investigators must determine the acceptable confidence level for the estimate. According to (Kothari, 2004) Sample size, is a key feature for any study to make inferences about a population. In this study, from 10 regions of Ethiopian regions 1 region is selected as a sample purposively. From the selected region again one woreda is selected randomly. Finally, all Knowledge intermediaries' who satisfy inclusion criteria in three organizations was selected. 29 respondents from MoA, 20 respondents from OAB, and

103 respondents from ABW. Also a total of 6 key informants, 2 of them from federal, 2 of them from regional and 2 of them from woreda where selected.

1.4. Data Collection Methods

Both primary and secondary data are used as the sources of data for this study. Primary data sources were gathered from selected organizations through structured questionnaire and interview. Whereas Secondary data gathered by reviewing different literatures.

1.5. Data Collection Instruments

1.5.1. Questionnaire

For the purpose of this study it was developed by referring relevant studies, accordingly it generates the desirable information. After the questionnaire was organized and prepared by English then it was pre-tested by 5 PhD holders of extension expertise in the target population. Based on the response obtained from 3 of them, some modification was made to fitting the questionnaires for the specific scope and the objectives of this study. The questionnaires were designed in five-point likert-scale in which respondents were asked to provide relevant data on a set of statements which range from strongly disagree to strongly agree.

1.5.2. Interviews

The interview were conducted with extension expertise from selected organizations by the researcher. Using information from the write-ups and recorded sound generated from interview data, then it was analyzed in order to provide answers to the research questions for the study. The findings from the interviews informants are presented in a descriptive form.

1.6. Ethical Consideration

The researcher was used a recommendation letter from the Addis Ababa University during data collection. For the purpose of respecting the participants' right to privacy, the result were present in secret. The data gathering process is made-up on the agreement of the respected participant's. At the end, the data collected from selected organization was used for education purpose only.

Data Analysis Methods

Data analysis is the process of analyzing raw data in order to make decisions about that information. The purpose of data analysis is reducing gathered data to a manageable size, developing summaries, looking for patterns and applying statistical techniques (Cooper et al., 2011). In this study both qualitative and quantitative data were analyzed separately and then

the results were compared and contrasted to produce a single interpretation based on the objective of the research. Descriptive analysis was used to determine the proportions and the frequency of the variables. To complete this Statistical Package for Social Science (SPSS) program was used.

CHAPTER FOUR

2. DATA ANALYSIS

2.1. Introduction

In this chapter the results of the findings of the data analyzed from the questionnaires and interview were discussed. The data were analyzed based on the research question and questionnaire items using a statistical tool to generate the results of the analysis.

2.2. Response Rate

The quantitative data was conducted through questionnaires distributed to 164 respondents. The quantitative data analyses was made up on the questionnaires returned from only 152 respondents. The 8 respondents are excluded due to the inclusion criteria made in this study and 4 respondents are left due to the difficulty to get them. Also qualitative data were analyzed depending on interview conducted with 6 informants.

2.3. Profile of the Respondents

Table 2: Respondents profile

Profile of the Respondents	Classification	Frequency	Percent
Gender	Male	95	62.5
	Female	57	37.5
Age group	< 25	22	14.5
	25-34	68	44.7
	35-44	41	27
	45-50	17	11.2
	> 51	4	2.6
Education Level	Degree	117	77
	Master's Degree	27	17.8
	PhD	8	5.3
Organization Scope	Federal level	29	18.4
	Regional level	20	13.8
	Woreda level	103	67.8
Working experience	< 10	41	27
	11-20	49	32
	21-30	32	21
	>31	27	17.8

2.4. Factors affecting KI Motivation

Identifying and working on the factors and problems that affect the agricultural knowledge transfer was play a vital role to improve the agricultural production, productivity and effective utilization. Based on the assumption that the agricultural knowledge management is influenced

by a number of factors those are: factors related to knowledge attributes, the knowledge actors in the process, transfer mechanism and feedback. This study was focused on factors affect knowledge intermediates' motivation to transfer knowledge to this end, the respondents were asked to indicate their level of agreements with the following two types of motivational factors which influence the KI motivation.

2.4.1. Extrinsic Factors that Influence KI Motivation

1. Salary Structure

The following result were obtained when the respondents were asked to indicate their level of agreement with the salary structure influenced the motivation of KI. The majority of them, 45.4% (69) showed that they agreed that salary structure influenced the KI motivation levels. Whereas 27.6% (42) of respondents indicated that they strongly agreed. The rest of the respondents, 11.8 % (18), 9.9% (15) and 5.3% (8) of indicated that they disagreed, neither agreed or disagreed and strongly agree respectively that salary structure influenced the KI motivation levels. A mean value for this variable was 3.78 which indicate that most of the respondents agreed that the salary structure affect their motivation.

Table 3: Salary Structure

	Level of Agreement					**Total**	**Mean**	**SD.**
	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree		3.78	1.133
Frequency	8	18	15	69	42	152		
Percent	5.3	11.8	9.9	45.4	27.6	100		

2. Transfer Mechanism

Below results shows that the level of agreement with question '***the knowledge transferring mechanism used in the sector has an impact on my motivation***." Based on this majority of the respondents, 53.9% (82) indicated that they agreed that the transfer mechanism influenced the KI motivation levels. Whereas 28.3% (43) of respondents strongly agreed with the idea. The rest of the respondents 11.8 (18) of them neutral about it, 5.3% (8) disagreed and 0.7% (1) strongly disagreed that the transfer mechanism influenced the KI motivation levels. The mean value 4.04 this reflects most of the respondent strongly agreed.

Table 4: Transfer Mechanism

	Level of Agreement					Total	Mean	SD.
	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree		4.04	0.821
Frequency	1	8	18	82	43	152		
Percent	0.7	5.3	11.8	53.9	28.3	100		

3. Working Environment

Based on working environment "***The quality of working environment in the organization has an influence on my motivation level***." Below shows majority of the respondents, 63.8% (97) they agreed that the working environment influenced the KI motivation levels. While 16.4% (25) of respondents showed that they strongly agreed.

Whereas 9.2 (14) neither agreed nor disagreed, 5.9% (9) disagreed and 4.6% (7) of respondents stated that they strongly disagree about it. A rating average of 3.82 shows that most of the Knowledge intermediaries' agreed with the idea.

Table 5: Working Environment

	Level of Agreement					Total	Mean	SD.
	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree		3.82	0.93
Frequency	7	9	14	97	25	152		
Percent	4.6	5.9	9.2	63.8	16.4	100		

4. Relationship

As can be observed from table 6, the majority of the respondents, 50% (76) they agreed that relationship between other stakeholders influenced the KI motivation levels. While 22% (34) of respondents indicated that they strongly agreed with the idea. The rest of the respondents 17.1 (26) they neither agreed nor disagreed, 6.6% (10) disagreed and 3.9% (6) strongly disagree with that. A mean of 3.80 shows the majority of respondent agreed that the relationship they have with other stakeholders has an impact on their motivation.

Table 6: Relationship

	Level of Agreement					Total	Mean	SD.
	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree		3.80	0.99

Frequency	6	10	26	76	34	152		
Percent	3.9	6.6	17.1	50	22.4	100		

5. Reward

The respondents also acquired to indicate their level of agreement were on "Reward I can get from management body have an impact on my motivation." As the result showed in table 7, of the total the respondents, 48% (73) they agreed that reward influenced the KI motivation levels, 25% (38) they strongly agreed, 15.1% (23) they neither agreed nor disagreed with the idea, 6.6% (10) disagreed and 5.3% (8) strongly disagree that reward influenced the KI motivation levels. A mean value of 3.81 indicate that majority of respondents agreed about it.

Table 7: Reward

	Level of Agreement					**Total**	**Mean**	**SD.**
	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree		3.81	1.05
Frequency	8	10	23	73	38	152		
Percent	5.3	6.6	15.1	48	25	100		

6. Recognition

The researcher also inquired respondent to indicate their level of agreement on "Recognition from my organization have an impact on my motivation." Majority of the respondents, 46% (70) indicated that they agreed about that, 19% (29) of them indicated they strongly agreed, 15.8% (24) of the respondents neither agreed nor disagreed, 15.1% (23) disagreed and 3.9% (6) strongly disagree. Moreover a mean value of 3.61 reflect that they agreed about that.

Table 8: Recognition

	Level of Agreement					**Total**	**Mean**	**SD.**
	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree		3.61	1.08
Frequency	6	23	24	70	29	152		
Percent	3.9	15.1	15.8	46.1	19.1	100		

7. Training

Regarding to the issue absorbed from table 9 shows the results that were obtained when the respondents were asked to indicate their level of agreement on the question "The extent to which I feel I am being trained on new generated knowledge has an impact on my motivation."

The majority of the respondents, 48% (73) indicated that they agreed about it. Whereas 21% (33) of them indicated that they strongly agreed. The rest of the respondents, 16.3% (25) neither agreed nor disagreed with the idea, 9.9% (15) disagreed and (3.9%) 6 of showed that they strongly disagree. A mean values 3.74 shows that the majority of the respondents agreed about the statement.

Table 9: Training

	Level of Agreement					**Total**	**Mean**	**SD.**
	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree		3.74	1.034
Frequency	6	15	25	73	33	152		
Percent	3.9	9.9	16.4	48	21	100		

8. Role

Concerning about the role of KI in the knowledge transfer process, the respondents inquired that "*The nature of my role in the knowledge transfer process in itself influences my level of motivation.*" Below table shows the results that indicate their level of agreement. 46.1% (70) of the respondent forward their level agreement with agreed, 20% (31) of respondents were indicating that they strongly agreed, 15.8 (24) neither agreed nor disagreed with the question, 9.9% (15) disagreed and 9.9% (11) of them strongly disagree. Mean value of 3.64 indicates that they agreed with the idea.

Table 10: Role

	Level of Agreement					**Total**	**Mean**	**SD.**
	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree		3.64	1.47
Frequency	11	15	24	71	31	152		
Percent	7.2	9.9	15.8	46.1	20.4	100		

2.4.2. Intrinsic Factors that Influence KI Motivation

1. Feedback

As shown in table 11 below the results that were obtained when the respondents were asked to indicate their level of agreement with the statement "***the feedback I had gained from knowledge user influences my motivation".*** 50% (76) of participant reflected that they agreed about that, While 29.6% (45) of respondents, indicated strongly agreed. The rest of the 9.9% (15) respondents neither agreed nor disagreed, 7.2% (11) respondents' disagreed and 3.3% (5) respondents strongly. The mean value of 3.95 indicated majority of them agreed with the idea.

Table 11: feedback

	Level of Agreement					Total	Mean	SD.
	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree		3.95	0.99
Frequency	5	11	15	76	45	152		
Percent	3.3	7.2	9.9	50	29.6	100		

2. Appreciation

"I am more motivated to do my job when I feel I am appreciated for my contribution." Were forwarded to respondents.

Based on the result reflected on below table 12, 49.3% (75) indicated that they agreed that they more motivated to do their job when they feel they appreciated for their contribution in Knowledge transfer process. 29.6% (45) of them strongly agreed, and 9.2% (14) they neither agreed nor disagreed about it, 9.2% (14) disagreed and 2.6% (4) of them strongly disagree with this idea. A mean value of 4.04 shows that majority of the respondents strongly agreed with the idea.

Table 12: Appreciation

	Level of Agreement					Total	Mean	SD.
	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree		4.04	0.82
Frequency	1	8	18	82	43	152		
Percent	0.7	5.3	11.8	53.9	28.3	100		

3. Skill

As we can observe from below table 13, of total responded of the survey, 45.4% (69) state that they agreed, 23% (35) strongly agreed that the skill to transfer agricultural knowledge is one of the factor influenced the KI motivation, 15.1% (23) neutral about the issue, 9.9% (15) disagreed and the rest 6.6 % (10) of respondents strongly disagree with the idea. The mean value of 3.82 reflects that most of the respondents agreed about it.

Table 13: Skill

	Level of Agreement					Total	Mean	SD.
	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree		3.82	0.93
Frequency	7	9	14	97	25	152		
Percent	4.6	5.9	9.2	63.8	16.4	100		

4. Work Meaningfulness

Based on the result reflected on table 14 50 % (76) of the respondents with the work meaningfulness influenced the KI motivation, 24.4% (34) of respondent strongly agreed with it. The other of the respondents, 17.1% (26) they neither agreed nor disagreed, and 6.6% (10) of them disagreed and 3.9 % (6) strongly disagree that the work meaningfulness influenced their motivation. The mean value of 3.80 indicates that more of the respondents agreed with it.

Table 14: Work meaningfulness

	Level of Agreement					**Total**	**Mean**	**SD.**
	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree		3.80	0.99
Frequency	6	10	26	76	34	152		
Percent	3.9	6.6	17.1	50	24.4	100		

5. Trust

Table 15 below indicates the results that obtained when the respondents were asked to indicate their level of agreement with "The degree of trust at my work environment is a determinant of my motivation." statement. 43.4% (66) about it, 28.9% (44) of them, they strongly agreed. The rest of the respondents 17.1% (26) neither agreed nor disagreed with the statement, 6.6% (10) disagreed and 2.6 % (4) strongly disagree. The mean value 4.04 reflect that most of respondents strongly agreed with the concept.

Table 15: Trust

	Level of Agreement					**Total**	**Mean**	**SD.**
	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree		4.04	1.77
Frequency	4	10	26	68	44	152		
Percent	2.6	6.6	17.1	43.4	28.9	100		

6. Responsibility

As can be observed from Table 14 below, displays the results that obtained when the respondents were enquired "***The amount of responsibility I possess without my job description has had an impact on my overall motivation."*** 43.7% (74) of respondents agreed that the amount of responsibility they possess within knowledge transfer process has had an impact on their overall motivation, 29.6% (45) strongly agreed with it, 9.9% (15) of them neutral about

it, 9.2% (14) disagreed where as 2.6% (4) of them strongly disagree. Mean value of 3.93 show that most of Knowledge Intermediaries agreed the amount of responsibilities they possess without their job description decrease their motivation to transfer agricultural knowledge.

Table 16: Responsibility

	Level of Agreement					Total	Mean	SD.
	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree		3.93	1.1
Frequency	4	14	15	74	45	152		
Percent	2.6	9.2	9.9	48.7	29.6	100		

7. Fairness

As the result on below table 17 shows of a total respondents, 53.3% (81) of them indicated that they agreed they are more motivated to perform their role when they feel there is fairness of treatment at the workplace, 20.4% (31) strongly agreed with the idea, 13.8% (21) of them natural about it, 9.2% (14) disagreed and 3.3 % (5) strongly disagree with it. The mean value of 3.78 show most of them agreed about it.

Table 17: Fairness

	Level of Agreement					Total	Mean	SD.
	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree		3.78	0.983
Frequency	5	14	21	81	31	152		
Percent	3.3	9.2	13.8	53.3	20.4	100		

8. Significance

As can be observed from below table 18 of the total of respondent 48% (73) of them agreed they are more motivated when the feel that knowledge has a significant contribution for receivers, whereas 34.2% (52) of respondents, strongly agreed with the concept, 10.5% (16) of the them indicated that they neither agreed nor disagreed with it, 3.9% (6) of the respondents disagreed and 3.3 (5) strongly disagree on the issue. The mean value of 4.06 indicates that most of them strongly agreed.

Table 18: Significance

	Level of Agreement					Total	Mean	SD.
	Strongly Disagree	Disagree	Neither Disagree nor Agree	Agree	Strongly Agree		4.06	0.951
Frequency	5	6	16	73	52	152		
Percent	3.3	3.9	10.5	48	34	100		

2.5. Other Factors Influencing Motivation of KI

The respondents asked to mention other factors affecting KI motivation. Below table shows those factors according to with their organizational level.

Table 22: Other factors influencing KI motivation.

Organization	Factors
Federal respondents	• Absence of practical and continuous training • Good governance • Leadership style • Attitude towards transferring knowledge
Regional respondents	• Absence of Promotion. • Absence of Career development. • Absence of feedback system. • Absence of administrative to having agricultural knowledge.
Woreda respondents	• Absence attention from governing body at different levels. • Politics. • Absence of appropriate budget with new generated knowledge. • Transportation • Absence of on time delivery

2.6. Additional Recommendations for Improving KI Motivation

The respondents also asked to put the recommendations for improving KI motivation. To this end the put the following suggestion:

- Facilitate required materials and tools in the training center.
- Developing the transfer plan in the organization.
- Updating transfer mechanism.
- Establish and Strength the knowledge transfer system.
- Validated knowledge.
- Give attention to improve KI motivation.
- Allocating enough budget.
- Give capacity build training for KI.
- Develop the way of the experience sharing among KI.

2.7. Qualitative Data Analysis

In order to support quantitative survey and to gain more in-depth understanding of the knowledge transfer practice from selected organizations, face-to-face interviews were conducted with selected informants who were recognized to provide very important information. The researcher explained to the respondents the objective of the interviews. All the interviews were held in their office, as it's hard to understand all the exact opinions of participants at the interview time, the respondents were also asked permissions to record their responses and based on their permission all interviews were recorded except two of them. Informants were key individuals of the organization who are serving as head of the agricultural extension of their own organization. All the participants were more educated having, masters and above in educational qualification with an experience of minimum more than 3 years in the current position. The responses of respondents are presented as follows:

To know the current practice of agricultural knowledge transfer process in the selected organization level, respondents were asked to answer "How agricultural knowledge transfer is practiced in your organization?"

Two of the interviewers from the federal office replay that "***Different agricultural researchers and other concerned body disseminate the new generated knowledge/technologies through knowledge intermediaries at federal. After adopt the knowledge produced by researchers then, it is transferred to regional extension workers."***

Two of the interviewers from regional office replay that ***"extension expertise from, federal offices and regional research institute transfer the new generated knowledge/technology to our extension workers. Then after take training about new knowledge by concerned extension from federal and research institute. The new knowledge/technology was pre-tested in same area before disseminating it to knowledge receivers."***

One of the interviewers from the woreda replay that ***"knowledge intermediaries at regional and zonal transfer new generated knowledge/technology to our extension workers through training. Then it disseminated to model farmers."***

Respondents were asked to answer about the *knowledge intermediaries'* motivation related problem in knowledge transferring process "What are the problems hindered the agricultural knowledge transfer process in your organization related to knowledge intermediaries' motivation?"

All respondents raised the problems by agreeing that ***"a great responsibility for bringing change in the agriculture reset on knowledge intermediaries', they are at the front-line of the struggle for advanced change in agriculture in Ethiopia. Therefore, the absence of knowledge intermediaries' motivation lead to farmers may not get the correct advice and technical support in case of building their capacity to solve the challenges they face in farming activities and to increase their agricultural production and productivity. In addition, Information may be lost or distorted between knowledge intermediaries' exist in different organization level or proper translation of the research output is in question. Generally it decreases the effectiveness and efficiency of the sector."***

Interviewers were also asked to answer "How does your organization measure the success of the transferred knowledge?"

One respondent from woreda reply that ***"We are conducting the assessment at implementation phase and take feedback from farmers. However, the result was not suitable in line with increasing productivity."***

Two of the interviewers from federal and region said that ***"Most of the time we take reports from extension agents and same times we observe physical but, we are not satisfied 100% with the result. Luck of ability to adopt new knowledge, low awareness among farmers, and luck of motivation and skills among extension workers are some factors for low productivities."***

In order to increase KI motivation and overcame the problems the respondents were asked to answer "What do you suggest to increase knowledge intermediary's motivation levels in the agricultural knowledge transfer process?"

Four respondents replayed that ***"the government must give attention on developing knowledge intermediary's motivation by working on factors limit their motivation. Also giving continuous practical training, increasing the relationship between knowledge intermediaries exist at different administrative levels. In addition, more scholarship programs must be prepared to improve their professional skills within the organization.***

Two informants from woreda replay that ***"solving problems related with logistics and accommodations would create satisfactory working conditions for the knowledge intermediaries (DAs). It is good if the concerned body assure that knowledge intermediaries have suitable housing condition, materials and transportation facilities such as motorcycle, bicycle, horse or mule depending on the existing situation of the area. In addition working***

on developing the capabilities and skill of knowledge intermediary's and having good governance are improve the problems."

2.8. Discussion of Findings

The result of this study indicated that reward, role, training and working environment where the most important extrinsic factors that influenced motivation KI in transferring knowledge. As the findings show that reward is one of the most highly KI motivations influencing factor. These findings agree with (Mahadeo, 2013) who also identified that reward is an extrinsic factor affecting motivation of KI. Reward used to make attract, retain and motivate KI to better perform. The study indicates that training was another extrinsic factor. Training provides opportunities to improve their knowledge and skills. The findings agree with (Abdullah and 2011) who identified that trained KI are more motivated with their jobs as contrasting to the untrained KI to transfer knowledge. Working environment also the most influencing factor on motivation of KI. These findings agree with (Chintalo, 2013) who find that the work environment as an extrinsic factor affecting KI motivation. Further, stakeholders' relationship, recognition, transfer mechanism and salary are other extrinsic factor that that determines motivation of KI in the sector.

Regarding to the intrinsic factors the result shows responsibility, skill significance and appreciation were the most highly cited intrinsic factors influence motivation of KI. This finding agreed with (Abo et al., 2018) they found that when KI given responsibility to make critical decision on issues under their responsibility, they motivated more. The degree of skill requirement influences KI motivation. These findings also similar to (Jackson, 2011) study. The more the KI involved the more meaningful for their work in knowledge transferring process. This further improves their attachment to the knowledge transferring process.

Furthermore, other factors such as absence of practical training, attitude, acceptance KI from low administrative level and good governance influence the KI motivation at the federal, absence of promotion, absence of career development, lack of knowledge about agricultural from administrative body, weak relationship with federal KI influence the motivation of KI at the regional and Absence of attention by different administrative levels, current political issue, lack of appropriate budget with new generated knowledge, transportation, Lack of on time delivery are determinant their motivation at woreda.

The significance of new knowledge by itself is another intrinsic factor which has influence on motivation of KI. This is because most people need to do something meaningful in addition to

other satisfactions that comes with their job. Appreciation is intrinsic factor influencing KI motivation. This is because when KI was rewarded or recognized for their work, they feel like they are part of the agricultural knowledge transfer and actually contribute to the achievements of the process. Factors such as trust and fairness also the other most intrinsic factor highly influences KI motivation.

CHAPTER FIVE

3. CONCULUTION AND RECOMMENDATION

3.1. Conclusions

Knowledge transfer, a key element in knowledge management, has nowadays achieved recognition for the important role it plays in creating sustainable competitive advantages and organizational efficiency. The general objective of this research was to determine factors that affect knowledge intermediaries' motivation to transfer knowldge. In order to this objective the researcher tried to answer the following research questions:

(I) what practice exist to transfer agricultural knowledge? (II) What extrinsic and intrinsic factors affect knowledge intermediaries' motivation to knowledge transfer? In response to this questions, primary data and secondary data were collected through questioner, interview and reviewing relevant documents.

- Extrinsic Factors.

KI motivation is a very critical concept which is influenced by a different factors. Among these factors an extrinsic factor is one. They arise within the organization. Same times it called as "environmental" factors. It is within the controls of the management in order to increase the levels of motivation to do tasks. The way in which the organization manages these factors are certainly essential in determining not only the level of motivation, but also effect other factors, mainly the intrinsic factors which additional act as determinants of the level of motivation. As the finding of this study shows reward, role, training and working environment are the greatest important extrinsic factors which have significant impact on motivation of KI to transfer knowledge. In addition, stakeholders' relationship, recognition, transfer mechanism and salary is also other extrinsic factor.

- Intrinsic Factors.

The intrinsic factors are other significant factors which determine motivation of KI. It is the reflection about their jobs and the feeling that they have on the relevance of tasks that they are given. The matter of motivation is a personal or inherent factor in a knowledge worker and influence them to advance an assured mind set concerning their occupations. Intrinsic factors are therefore critical in determining the level of happiness that a KI feel about their work. In line with this, responsibility, skill significance and appreciation were the most highly critical

intrinsic factors that influence motivation of KI to transfer knowledge. Further, trust and fairness are another the most influential factor.

3.2. Recommendations

Knowledge transfer is a critical issue of organization, for practicing knowledge management. Therefore, the success of these transferring process was influenced by different factors. Due to this fact, government and others must give attention to this core circumstance in the agricultural sector. Based on the outcomes of this study, the following recommendations are forwarded for necessary policy interventions and improvement action.

- All organizations at each administrative level must understand the significance of the extrinsic factors in determining the motivation of KI to transfer knowledge. They should recognize and feat the extrinsic factors in their strategy, so as to ensure that the KI are well motivated to transfer knowledge accordingly and practice effective knowledge management.
- All the organizations at each administrative level and the KI should recognize the influence of the intrinsic factors on motivation of KI to transfer knowledge. The organizations should identify the intrinsic factors influencing motivation of KI as a strategy. The organization should encourage KI involvement in the decision making and innovation, increase the opportunities for the individual growth and enable the establishment of high motivation levels of KI.

5.3. Limitations of the Study and Future work

Due to time and resource constrained, this research focused only on KI from knowledge actors existed agricultural sector. It is good if future researchers conduct a comparative study on the impact of motivation on agricultural knowledge success among the other knowledge actors (knowledge producers and knowledge receivers) to put broader understanding in the area.

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Appendix

Appendix I: Self-Administered Questionnaire

Dear Respondent,

The aim of this structured questionnaire is to collect primary data from sample population and to use it for conducting study for master's thesis titled "Impact of knowledge intermediaries' motivation on knowledge transfer." The main objective of this study is to assess the factors affecting knowledge intermediaries to transfer knowledge. You are kindly requested to provide the required data in the questionnaire. The information that you provide will remain confidential and is sought exclusively for the partial fulfillment of the Master of Information Science at Addis Ababa University. Your input will go a long way in enhancing the management of agricultural knowledge in Ethiopia and ultimately help decision makers to improve knowledge related problems in the sector. Thank you very much for taking your time to complete this survey.

If you have any questions or concerns about completing the questionnaire or like to receive a copy of this report, please use the following contact address.

Kind Regards,

Birhane Wakuma

E-mail:BirhaneWakuma21@gmail.com

Phone: 0922251537

SECTION I: Demographic Information

1.	Gender	Male	
		Female	
2.	Age group	< 25	
		25-34	
		35-44	
		45-50	
		> 51	
3.	Education Level	Diploma / Level	
		Degree	
		Master's Degree	
		PhD	
5.	Organization Scope	Federal level	
		Regional level	
		Woreda level	
6.	Working experience	< 10	
		11-20	
		21-30	
		Above 31	

SECTION II: Extrinsic Factors that Influence Knowledge Intermediaries' Motivation

Extrinsic factors that influence knowledge intermediaries' (Development agents) motivation are those determined by the external surroundings.

Put √ sign in the space provided for your evaluation in the corresponding box of evaluation criteria according to level of your agreement: (1) Strongly Disagree (2) Disagree Agree (3) Neither Disagree nor Agree (4) Agree (5) Strongly Agree.

	Statements	1	2	3	4	5
A.	The salary structure has an impact on my motivation.					
B.	The knowledge transferring mechanism used in the sector has an impact on my motivation.					
C.	The quality of working environment at the organization has an influence on my motivation level.					
D.	I believe the relationship I have with other stakeholders has an impact on my motivation.					
F.	The reward I can get from management body have an impact on my motivation.					
G	The recognition from my organization have an impact on my motivation.					
H	The extent to which I feel I am being trained on new generated knowledge has an impact on my motivation.					
H	The nature of my role in the knowledge transfer process in itself influences my level of motivation.					

SECTION III: Intrinsic Factors that Influence KI Motivation

Intrinsic factors that influence knowledge intermediaries' motivation refer to those inner factors that arise from within the KI.

	Statements	1	2	3	4	5
A	The feedback I had gained from knowledge user influences my motivation.					
B	I am more motivated to do my job when I feel I am appreciated for my contribution.					
C	The degree of my skill to understand the newly generated knowledge has an impact on my motivation.					
D	How meaningful I believe my role has influence on my motivation level.					
E	The degree of trust at my work environment is a determinant of my motivation.					
F	The amount of responsibility I possess without my job description has had an impact on my overall motivation.					
G	I am more motivated to perform my role when I feel there is fairness of treatment at the workplace.					
H	I am more motivated on my role when I feel that knowledge has a significant contribution for receivers.					

Appendix II: Interview Question for Extension Expert

1. How agricultural knowledge transfer is practiced in your organization?
2. What are the problems hindered the agricultural knowledge transfer process in your organization related to knowledge intermediaries' motivation?
3. How does your organization measure the success of the transferred knowledge?
4. What do you suggest to increase knowledge intermediary's motivation levels in the agricultural knowledge transfer process?"

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Addis Ababa University
College of Natural Science
School of Information Science

Date: April 14, 2021
Ref No. SIS/38/2021/13

To Whom It May Concern

Subject:- Student Birhane Wakuma

Dear Sir /Madam,

Student Birhane Wakuma (ID.No GSR/4144/12) is graduate student at the School of Information Science, Addis Ababa University. He is currently conducting a M.Sc. Thesis research under the title "Impact of Knowledge Intermediaries Motivation on Agriculture Knowledge Transfer Success."

I would like to thank you in advance for all the assistance that you would provide to the student.

With Regards

Tibebe Beshah (PhD)
Head, School of Information Science

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