JIMMA UNIVERSITY

COLLEGE OF NATURAL SCIENCES

DEPARTMENT OF INFORMATION SCIENCE

THE IMPACT OF ORGANIZATIONAL LEARNING CULTURE AND STRUCTURE ON ORGANIZATIONAL PERFORMANCE AND INNOVATIVENESS: THE CASE OF SELECTED PUBLIC HIGHER LEARNING INSTITUTIONS, ETHIOPIA

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A Research Submitted to the Department of Information Science, College of Natural Sciences, Jimma University, In Meeting the Partial Fulfillment for the Award of the Degree of Master of Information Science (Information and Knowledge Management).

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As members of the board of examining of the Msc thesis open defense examination of the above title, we members of the board (listed below), read and evaluated the thesis and examined the candidate.

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DEDICATION

This work is dedicated especially to my beloved family my Father Gebreabzgi T/haimanot and my Mother Mebrat Woldaregay, my brothers and my sisters for their invaluable and enormous support, prayers, sacrifice and encouragement all through this study.

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Table of Contents

LIST OF FIGURES

LIST OF TABLES

LIST OF ABBREVIATIONS

ASTU: Adama Science and Technology University

ANOVA: Analysis of Variance

CL: Continuous learning

DI: Dialogue Inquiry

DCS: De-centralization Structure

EE: Employee Empowerment

ES: embedded system

FS: Formalization Structure

HLIs: Higher Learning Institutions

JU: Jimma University

LL: leadership learning

OC: Organizational Culture

OL: Organizational Learning

OLC: Organizational Learning Culture

OI: Organizational Innovation

OP: Organizational Performance

TL: team learning

WKU: Welktie University

ABSTRACT

This study aimed to investigate the impact of organizational learning culture and structure on organizational performance and innovativeness at selected higher learning institutions in Ethiopia. The study addressed organizational learning culture and structure in terms of continuous learning, dialogue and inquiry, team learning, embedded system, empowerment and leadership and also, de-centralization structure and formalization structure respectively with the purpose of finding out how each of these influences organizational performance and innovativeness. It also addressed a gap related to the fact that there is a lack of research investigated on the area of organizational learning culture and structure of higher learning institutions in Ethiopian. The methodology employed to conduct this study was cross-sectional survey design. Questionnaire was prepared and examined based on open and closed ended questions. The sample size of 312 academic and administrative staff was taken from a total population of 1667 from three selected universities, namely Jimma University, Adama Science and Technology University and Wolktie University by using stratified random sampling followed by purposive sampling and data was collected through questionnaire and interview. The data was analyzed using descriptive statistics (Frequency, Percentage, Mean and Standard Division) and inferential levels (correlation coefficient, variance analysis, independent T- test) using SPSS software version 20. The findings of the study shows that organizational learning culture and structure have a positive impact and significant (at p-value=.001 and .000) but, strongly and moderate effects on organizational performance respectively. Moreover, organizational learning culture and structure have a positive impact and significant (at p-value=.000, and .000) and moderate effects on organizational innovativeness respectively. The finding of the study revealed, that, there were lack of organizational learning culture indicators in HLI but those are more effected organizational performance and innovativeness like team learning, employee empowerment, dialogue and inquiry, leadership and continuous learning. The researcher strongly recommended that organizations should be formulating to implement organizational learning culture and structure based on the proposed model in order to achieve an excellent performance standard and also universities should be adopt more de-centralization form of structures as means of improving the decision making process and that employees should be empowered to be more innovative in carrying out tasks.

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CHAPTER ONE

1. INTRODUCTION

1.1. Background of the study

The success of any organization highly depends on the match between individuals and the culture of the organization and any gap between these two variables has potential to risk the organizational efficiency and success (Mohammad, 2011). Today, organizations work in a dynamic environment that is continually changing. This has forced the organizations to revisit their learning culture. Organizations have begun to recognize that strategic planning is necessary for the maintain of its own responsiveness to a rapidly changing environment (Rahimian *et al*., 2009).

According to Salajegheh *et al*. (2015) "*colleges and Universities have experienced rapid to changes connected with ageing facilities, changing technology and increasing competitions*". Nowadays, organizational learning culture and structure is one of the most important assets for any organization to create and share value and sustainable competitive advantage (Alavi & Leidner, 2001). At the organizational level, organizational learning culture is one of the appropriate processes to enhance organizational obligation and essential motivation. In addition, it refers an organization skilled in creating, acquiring, and distributing knowledge, interpreting and in changing its behavior to reflect new knowledge and ideas (Fang et al., 2016). Zahid and Ali (2010) stated, organizational learning as growth of behaviors and cognitions through acquiring, distributing, interpreting and storing knowledge to respond the change in better way.

Organizational structure is the way or method by which organizational activities are divided, organized and coordinated. And it has created structures to organize activities of doing task and to control acts of employees Alireza *et al.* (2015).In today, organizational knowledge is quickly converted into the main competitive advantage of the organizations and in the modern world it is suitable opportunity for organizations knowing and manages it well. In this regard, knowledge management is a methodology for producing, maintaining and using all facilities of huge collection of knowledge that each organization has used in its daily activity. Educational organizations structure has relationship with knowledge. The most important of issues in one

organization is high ability of information and knowledge that managers need to it (Quangyen and Yezhuang, 2013).

For example there are two dimensions of organizational structure, formality structure and de-centralization structure. Formality refers to the rate or standard of organizational jobs, so that in the formal organization organizational relations are explained in written and accurately and according to the organizational chart for employees and subsequent changes are formally announced by manager, this is the explicit knowledge. De-centralization structure in the hierarchy of authorities that has power of decision making, when the decision making delegate to lower levels are de-centralization structure (Tran and Pham, 2016).

In worldwide situation organizational learning culture and structure both are considered as valuable strategic management tools to increase up the profit as well as Non-profit organizations. Now organizations are accepting different learning practices and innovative culture to be fine their performance levels by gaining competitive environment (Nafei *et al*., 2012).

Non-profit organizations like universities are currently functioning in a very complex and dynamic environment and facing uncertainty challenge i.e. lack of resources like, inadequate infrastructure, lack of enabling research environment, discrepancy benefits like salary and allowances (Eyal and Kark, 2004; Trautmann, Maher, and Motley, 2007). Beside this, organizations are adopting practical methods and introducing many learning practices i.e. leadership support that strengthen to learning, behavioral & cognitive changes, knowledge sharing and team work to improve their skill. But, in some universities still now facing uncertainty challenge (Fang et al., 2016).

In order to handle with the current external opportunities and threats, organizations have to learn, that is, obtain new knowledge and skills that will develop their existing and future performance. Many scholars suggest that the effective strategy for sustaining and improving an organization's competitive edge and performance is organizational learning culture (Gyalyam and Grange, 2005).

Another study by (Kuo, 2011) indicated that organizational learning is a better way to organizational innovation and knowledge management ability, which ultimately contributes to achieving organizational performance. Organizational innovation indicates in knowledge management ability development, which contributes to the establishment of organizational and

technological development should utilize organizational knowledge in order to enhance organizational performance.

Salim and Sulaiman (2011) stated that, the impact of organizational learning on innovation as well as the impact of innovation on organization performance. They founded that organizational learning contributes to innovation ability, and that innovation is positively related to organization performance. Farther, another research indicates that the effect of organizational learning on organization performance is likely to be both direct and indirect because the creation of innovative culture through learning allows organization to achieve a better competitive position and above-average performance (Taslimi, 2015). Therefore, understanding the relationships between organizational learning culture, organizational performance and innovation is the main focus of this study under the setting of Ethiopia.

As organizational learning culture and structure are playing a crucial role on organizational performance and also many higher learning professionals believe that Universities are the main organizations for promoting the learning process in the society (Emami *et al*., 2013). Therefore, the researcher will attempt to determine the gap and propose the supportive organizational learning culture as well as organizational structure that enhance the organizational performance and organizational innovativeness in Ethiopian higher learning institutions.

Higher Learning Institution is facing major challenges at the global level (Masri & Wilkens, 2011). The spread and the expansion of educational services generated this kind of competition for the education staff (Koupahi *et al*., 2013). Consequently Learning institutions must survive and create a sustainable competitive advantage through the provision of educational services with high quality and the pursuit of provide innovative services (Pokharel *et al*., 2015).Therefore, the level of performance in education is an important aspect of quality in higher learning institutions, this began to pay greater attention to assessing the quality of performance in higher learning institutions (Wu, Lv, Qi, & Zhang, 2010). In other words, higher learning plays an important role in the conversion of a low-wage economic structure to the high levels of performance, by increasing the learning skills and improves the ability of employees to develop and use technology, which enhances productivity and thus enhance economic conditions of the country (Alavi and Leidner, 2001).

1.2. Statement of the problem

In highly competitive and dynamic environmental change, many organizations including higher learning institutions need to be familiarized and survive in this competitive world (Mariama *et al.,* 2013). There are many motivating forces that activate the need for organizational change such as the advancement of information and communication and organizational learning culture and structure (Anas et al., 2016). Thus, for organizational employees to handle external and internal issues, organizational learning culture is gaining widespread attention as a crucial need for global strategic effectiveness (Doz et al., 2001).

Higher learning institutions also provide opportunities for lifelong learning, allowing employees to development their knowledge and skills from time to time based on social needs (Sudha, 2013). Since, organizations' learning culture (OLC) and structure allows the organization to increase the quality and to achieve competitive advantage; it is also a major process in any effort to achieve organizational performance (Tahir, 2011). As he stated OLC and structure have strong effect on organizational performance. Therefore, it should be encouraged in HLIs. Nowadays, there are some challenges faced by universities such as limited team learning because it is the most way of knowledge sharing among employees, lack of comprehensive and appropriate framework, lack of procedure efficiency, limited knowledge in using technology, and the need to enhance the number of workers and increase human resources' competence and there is lack of de-centralization decision making.

Farther, there is lack of employees' encouragement, lack of knowledge to do new things, lack of opportunities for training to share knowledge with other employees and there is a problem in the best use of experiences and human competencies at the educations level *(*Harrim, 2010). Moreover, one of the obstacles in institutionalizing organizational learning is believed to be the lack of effective leadership and there is lack of continuous learning like positive discussion in order to learn and treat each other with respect (Ferdinandus, 2012).

Even if there were few previous researcher attempts on the relationship between organizational learning and organizational performance, most of them focus on the area of healthcare organizations and banks sectors other than HEIs (Wageeh, 2015), (Mariama *et al.,* 2013). To the researcher knowledge so far there is no study conducted that investigated the impact of organizational learning culture and structure on organization performance and innovativeness in

Ethiopian public higher learning institutions. Thus, there is a dire need to conduct this research because to increasing or decreasing the performance and innovativeness of any organization was based on the OLC and structure.

Hence, the researcher motivated to address this gap by assessing the impact of organizational learning culture and structure on organizational performance and innovativeness by incorporating impact of culture differences for organization difference in Ethiopia public university. Accordingly, the study would attempt to answer the following research questions.

1.3. Research questions

1. Does an organizational learning culture have impact on organizational performance?
2. What is the impact of organizational learning culture on organizational innovativeness?
3. How does organizational structure of public universities affect organizational performance?
4. What is the effect of organizational structure on organizational innovativeness?

1.4. Objectives of the study

1.4.1. General objective

The general objective of this research was to determine the impact of organizational learning culture and structure on organizational performance and innovativeness in selected Ethiopian public Universities.

1.4.2. Specific objectives

1. To determine the impact of organizational learning culture on organizational performance
2. To investigate the impact of organizational learning culture on organizational innovativeness.
3. To find out how organizational structure affects organizational performance
4. To determine the effect of organizational structure on organizational innovativeness
5. To propose a framework that enhance organizational performance and innovativeness in Ethiopian public universities

1.5. Significance of the Study

The study was help to create awareness and understanding of the concept of organizational learning culture and structure on organizational performance. The result of this study may benefit different learning institutions especially academic and administrative staff acting as a center of acquiring knowledge on organizational learning culture and structure and its impact on organizational performance.

The study also, was contributed to the development of organizational theory in general and particularly as it occurs in the higher learning institutions. Additionally, the finding was providing insight into how organizational learning culture and structure manifested in the higher learning institutions. Moreover, the study has allowed for HLI administrative and academic staff to understand how their own organizations learn culture and the role that a learning culture plays in sustaining continuous improvement efforts. Finally, the study provides useful insight for managerial as a managers can make more informed decision derived from sharing knowledge. The findings on higher learning institutions enhance managers' understanding of how institutional factors influence organizational performance and innovations. Finally, the finding of this study can be used as input to guide the university in order to match individuals and the learning culture of the university, which could make a whole lot of difference for both the employer and employee. In addition, as such it opens up the new prospect for the managers and administrators in the university to rethink about their predictable OLC.

1.6. Scope of the study

The study was delimited to three Ethiopian public universities. The reason in using three universities' only, by generation i.e there was similar status and establishment of the universities and to ensure that, represent one university for the generation. In addition, the study attempted to assess organizational learning culture and structure and its effects on organizational performance and innovativeness. Besides, the study was going to focus on academic and administrative staff as study population in Ethiopian selected public universities.

1.7. Limitation of the Study

This research has some limitations. First, this study focuses only on higher education institutions. The study was restricted to the three selected universities context and hence the results may not be generalized to all other education sectors. Second, this research did not studied empirically and it is new in Ethiopia thus hard to get local literature. Third, is related to the participants, most of them did not respond the questionnaire at the required time and it was difficult to get the data especially open-ended question because most of the respondents not willing to fulfill open-ended question. Another limitation was that respondents of organizations were geographically dispersed and this lowered the rate at which data was collected. However, the researcher was able to get 83% response rate which was considered adequate. And other limitation of this study was, the researcher has taken seven respondents for interview due to time constraints. If the future researchers will have taken more than seven respondents for interview, it is more conductive the qualitative data to quantitative data.

1.8. Operational definitions of terms

Organizational learning: The strategic management of information which allows transfer of knowledge through the organization.

Organizational learning culture: It is a type of organizational culture that integrates with knowledge sharing. In the HLI contexts, organizational learning culture is how employees develop their knowledge by sharing or working together like, team work, dialogue and inquiry, continuous learning, employee empowerment and continuous learning.

Organizational structure: It is the arrangement of duties use for the work to be done or the formal arrangement of jobs and tasks in higher learning institutions to motivated employee's satisfaction.

Higher learning institution: - The HLI can be defined as a university level learning. It offers a number of qualifications ranging from Higher National Diplomas and Foundation Degrees to Honors Degrees and as a further step, Postgraduate programs such as Masters Degrees and Doctorates.

Organizational performance: Ability of an organization to create employment, improve effectiveness, efficiency and quality of work life resulting in organizational growth and survival.

In HLIs context to measure organizational performance based on employees satisfaction, internal process and teaching learning process.

Innovativeness: is the degree to which new ideas and suggestions are adopted and treated in the organization. It is related to supporting the new ideas, favorable responses to initiatives of employees and the development and facilitation of change.

CHAPTER TWO

LITERATURE REVIEW AND RELATED WORKS

2.1. LITERATURE REVIEW

2.1.1. Organizational learning

Organizational learning has been defined by a number of scholars with the focus on the improvement of organizational knowledge to solve problems and organization performance (Simon, 2009). Nevertheless, the definition in this way is still controversial amongst various scholars as knowledge development does not always lead to better performance at the same time (Fiol and Lyles, 2002). Some scholars consider organizational learning as synthesis of the learning by individuals in organizations. Organizations do not have brains but they have their cognition systems and memories. As individuals develop their personalities, personal habits and beliefs over time, organizations develop worldviews and ideologies (Hedberg, 2001).

Moreover, organizational learning also relates to culture and knowledge management in organizations. According to Fiol and Lyles, organizational learning is the change of organization activities by improving knowledge and understanding (Fiol and Lyles, 2005). Although a number of definitions of organizational learning have been discussed and published, Argote and Ella MironSpektor (2011) stated that most scholars agree with the definition: "Organizational learning is the change of organizational knowledge through practical experiences".

2.1.2. Organizational learning culture

Organizational learning culture generally focuses on research studies related with the concept of organization culture (Watkins and Marsick, 2003).This learning ability has to be the continuing and driving force for all organizations in order to adjust to any unexpected changes in the environment. There is a relationship between organizational learning culture, employee satisfaction and organizational performance, as well as teaching and learning outcomes (Pantouvakis and Bouranta, 2013).

Skerlavaj et al, (2010) stated, organizational learning is where people continually expand their capacity to create the results they truly wish, where new and widespread patterns of thinking are nurtured, where collective hopeful is set free, and where people are continually learning to see

the whole together. In a study that focus on organizational learning culture, Kassim and Khaled (2012), suggested that organizational learning culture is one of the core elements in creating learning organization that emphasize application of knowledge to improve organizational performances. A study conducted by Skerlavaj, et al (2010), discussed that OLC is a set of norms and values about the functioning of an organization that support systematic, in-depth approaches aimed at achieving higher-level, strategic or generative organizational learning through phases of information acquisition, information interpretation and accompanying behavioral and cognitive changes.

2.1.3. Organizational structure

Is a process how individual and team work within an organization are organized. To achieve organizational goals and objectives, individual work needs to be organized and managed. Structure is a valuable tool in achieving coordination, as it specifies reporting relationships (who reports to whom), delineates formal communication channels, and describes how separate actions of individuals are linked together (Asri, 2016).

The structure of an organization influences the employees with whom individuals frequently interrelate. Claver-Cortés et al. (2007) indicated that the important of the organizational structures on successful organizational performance. Organizational structure therefore, facilitates knowledge sharing and collaboration across boundaries within the organization (Quinn et al., 1998). Zheng *et al*. (2010) argue that a team-based, non-hierarchical and self-organizing, organizational structure is the most effective for knowledge acquisition, information distribution and interpretation. Wei *et al*., (2011) consider that for the structure of organizations it has to be created in higher levels of structural dimensions. This level comprise trust-based relationship, externally-oriented interactive relationship, emotionally- inclusive relationship.

2.1.4. **Organizational performance**

Performance can be described as the significances of an organizational management or accomplishment of organizational goals and it consists of the famous three Es which are economy, efficiency, and effectiveness of an organization program or activities. This broad construct is essential in allowing researchers and managers to evaluate organizations over time and compare them to competitors. In short, organizational performance is the accomplishment of work, tasks or goals to ascertain level of desired satisfaction (Richard et al., 2009).

In addition, it is the crucial objective of organization's business process (Noruzy *et al.*, 2010), therefore all organizations looking for ways to gain and multiply their performance. Farther, performance defined as how well organization measures its effectiveness (Dirani, 2009), or how the organizational input in compare with the outcome. Many studies also utilized financial performance, non-financial performance such as job satisfaction, organizational commitment, and other work related outcomes (Balay, 2012; Pary, 2011). Those findings show that performance, either individual or organizational level is defined by multivariable, and there is no standard on how much each factor giving contribution. The successes of organizations are often viewed from level of earnings, market share, sales, productivity, debt ratio and stock prices (Noruzy *et al.*, 2010). Learning institutions uses how many researches accomplished, student' GPA, number of faculty certification, popularity ranking in websites and how many labor's absorption are as performance indicator. (Noruzy *et al.*, 2010) find out each organization uses different measurement for organizational performance, and based on the organizations evaluate their achievement either externally comparing with other organizations, or internally as the reference to make better decision for their continuity.

On attempt to achieve their performance, organizations need to explore what factors that play significant roles in undertaking performance success, either internal or external source. When the powerful elements are found as performance essential, organizations players will improve the magnitude of those factors and furthermore, will seek for new ways as the alternative for following better outcomes (Tippins & Sohi, 2003). It is value to mention that apart from the height of performance, organizations who have ability to manage information and capital accumulation will afford reliable means to obtain organization's advantage.

Louise (2012) defines organizational performance as the ability of an organization to fulfill its mission through complete management and strong governance to achieving results, or the effectiveness of the organization in fulfilling its purpose. Thus, it can refer to something either completed, or ongoing. High organizational performance is achieved when all the parts of an organization work together to achieve great results with results being measured in terms of the value they deliver to customers. Since HEIs are a public institution with a policy mandate, its results would be measured by organization outcomes.

2.1.5. Impact of Organizational learning culture on organizational performance

Learning helps the organizations to maintain sustainable competitive dispositions and weather successfully through any possible upcoming and unexpected confusion (Dickson, 2010). Many scholars provide amount of evidences to support the positive impacts of the organizational learning on organizational performance. For example, Baker and Sinkula (2005) stated that learning orientation directly affects organizational performance of an organization. Another study conducted by Bontis *et al*. (2002) has also concluded that organizational learning has positive effects on organization's performance. However, Bontis *et al*. (2002) have concentrated on the challenges and stocks of learning at three levels, namely, individual, group and organizational. However, there are only a few researches that concentrate exclusively on the organizational learning process. Concerning the process of organizational learning, Tippins and Sohi (2003) have illustrious five stages within the organizational learning which affect organizational performance. As stated earlier, these stages are: information acquisition, information dissemination, and interpretation, behavioral and cognitive changes.

2.1.6. Impact of Organizational learning culture on organizational innovativeness

Innovativeness is an organizational culture that encourages employees to be innovative and indicates an organization's accessibility to follow the development of new service or processes. It also requires one to transform and exploit extant knowledge, including the knowledge and information shared by the employees (Baker and Sinkula, 2005). Organizational innovation defined into two categories: technological innovation, including product, services, and processes; and administrative innovation, including organizational structure, administrative process, and programs (Chiu and Huang, 2013).

Innovative is a value to note that the learning capabilities of an organization have essential role in generation of innovativeness (Sinkula *et al*., 2009). However, innovation itself implies generation, acceptance, and implementation of new ideas, processes, products or service. Therefore organizational innovation is considered as utilizations of the new ideas and their application to the organizational management. The new ideas may be incarnate in processes, products or service and management or market system (Weerawardena *et al*., 2006). As mentioned earlier, organizational learning and organizational innovations are two closed related phenomena. Calantone et al. (2002), emphasized that, the degree of organizational innovativeness depends on the level of the learning orientation of that organization. Weerawardena *et al*. (2006) have similarly concluded the higher the orientation learning, the greater the organization's innovation level. In all these viewpoints, learning is regarded to be driver of innovations and innovative ideas within an organization.

Kitapch *et al*.(2012), in their study found that organizational learning capacity affected innovativeness as well as financial perspective. Chen (2010) suggested that organizational learning enhanced organization innovative capabilities that improved the level of organizations' competitiveness and performance. Yuan *et al*. (2010) discussed that the effects of organizational learning on the innovation and concluded that the organizational learning had a direct and positive impact on the innovation performance in an organization. That is the organizational learning increased the organizational performance by developing new capabilities. Jimenez and San-Valle (2010) stated that the organizational learning effects on the affected innovation as well as the performance. Their findings showed that the organizational learning and innovation contributed directly to organizational performance increase. The organizational learning also affects the organizational innovation. The findings however, showed that the organizational learning effects on the innovation were higher than organizational performance. Chang (2010) studied the relationship between the organizational learning and organizational innovation. The result showed the organizational learning capabilities positively and significantly associated with the organizational innovation. In other words, the organizational learning is considered as one of the essential as well as facilitating elements for the organization that could be conductive to the growth and innovation. So, the spread of learning culture among an organization's members led to the production and innovation of knowledge systems and new creative ideas in the organization that finally generated the innovation. Liao (2008) said that innovativeness is the

prerequisite of knowledge creation and the essential key of knowledge management because, the organizations mainly learn from the innovation made or adapted. Teo and Wagn (2005) believed that organization's innovativeness was determined by the organization's learning orientation and organization's learning capability had a key role on increasing the performance. Hence, it should be developed to increase the organization performance. Accourding to Hovland (2003) an organizational learning culture may be modified by specific management practices through strategic direction, employee selection, rewards and recognition, employee development, support of idea generation, and multifunctional learning to encourage innovative behavior.

2.1.7. Impact of Organizational Structure on organizational Performance

Rahimian, et al. (2009) stated, structure as the starting point for organizing which include roles and positions, hieratical levels and distances of accountability, mechanism for problem solving and integration. Lawrence (2000) described structure as "*the technique in which the organization is differentiated and integrated*". Organizational structure can be defined as the established pattern of relationships among the components or parts of the organization.

Ajagbe (2007) pointed out organizational structure "*is the formal system of tasks and reporting relationship that controls, coordinates and motivate employees so that they cooperate to achieve an organization's goal*". Ajagbe *et al.* (2011) stated that organizational structure "*how job tasks are formally divided, grouped, and coordinate*".

Therefore, Organizational structure was indicated by many studies, and currently the accomplishment research requires extra investigation about the impacts of organizational structure in the organizational accomplishment process. Cater and Pucko (2010) had attempted on banking sector, there was a relationship between the good organizational structure and organizational performance therefore; they recommended that further studies should involve it in other sectors, such as the learning sector. Rahimian, et al. (2009) and Alashloo, *et al*, (2005), in their studies on the higher learning sector in Iran, have related between the organizational structure and organizational learning and considered them as achievement factors having a positive impact on the organizational performance.

2.1.8. Organizational structure and organizational learning

The term of organizational learning (OL) has been expanded to different academic disciplines in order to promote a greater understanding of the phenomenon. Learning is a dynamic concept, and its use in theory emphasizes the continually changing nature of organizations (Abdullah *et al.,* 2013). Hence, the field of OL has been characterized by a wide diversity of definitions and conceptualizations, which have been used to examine OL issues. Previous researchers have identified factors with influence both individual learning and OL (trust, leadership and organizational culture and structures). Consequently, organizational structure is a combined factor with influence on OL. Fiol and Lyles (2005) stated that organizational structure usually determines OL itself, while most authors believe structure is an outcome of OL. Organizational structure therefore plays a crucial role in determining learning processes (Bapuji and Crossan, 2004). The characteristics of organizational structure were also recognized as critical elements influencing organization productivity and innovation (Germain, 2006).

Organizational structure reflects the way in which information and knowledge is distributed within an organization, which affects the efficiency of their utilization. Consequently, it greatly influences the distribution and coordination of the organization's resources, the communication processes and the social interaction between organizational members (Chen and Huang, 2007). Therefore, the configuration of organizational structure impedes or facilitates the capacity of the organization to adapt, to change, to learn, to innovate or to improve its ability to generate added value for its employees.

Structure is a dynamic factor because, on the one hand, it can change over time as consequence of new organizational conditions. On the other hand, it can be frequently modified so that staff could have access to and acquire new and varied knowledge that would help them to overcome a range of problems, fluctuations and diverse situations (Fang et al., 2011). Thus, structure is not an organizational uniform condition, because different parts of an organization face differing

environmental pressures and may need to respond by developing distinct practices, policies and structures.

Previous, Fiol and Lyles (2005) belived structures have influence on the organization's learning ability. Several reasons justify this opinion: OL is developed by different subjects, the organizational structure defines the way in which their processes interact and gives rise to the OL (Dodgson, 2003); OL is itself highly organization-specific, and its structure plays a fundamental role in driving and shaping the OL (Marengo, 2002); learning activities needs coordination, and the mechanisms used to achieve such coordination play a central role in shaping the OL and determining its outcome and also learning process requires information, the organizational structure influences the information flows (Abdullah *et al.*, 2013).

All points of view confirm that structure is important in the learning process, and its adequacy depends on the amount of organizational flexibility required (Nicolini and Meznar, 2005). This means that organizational structure can be a highly powerful element in the creation (learning), combination, grouping and integration of the knowledge generated by organizational employees, which return it directly, making it a lever for competence creation. Organizational structure also plays a fundamental role in a organization's capacity to identify the knowledge sources needed, acquiring new knowledge, integrating it into the organization and recognising its absorptive capacity. Consequently, the organizational structure is very important in how organization process knowledge.

In generall, the type of organizational structure is critical in the development of OL. The design of the organization constitutes a process through which managers model and characterize their structure and organizational processes, determining managerial procedure and operation. It is also crucial for organizational performance since it influences the organization's ability to act and react effectively.

2.1.9. Organizational innovativeness on organizational performance

Organizational innovativeness (OI) define an organization's recognition and employment of new ideas, processes, products, or services and tendency to change through accepting new technologies, resources, skills, and administrative systems (Hurley, & Knight, 2005). An organization's innovative has been shown to influence its ability to satisfy employee requirements, meet growing employee expectations, and respond to rapidly changing environments (Ghobadian, & Sims, 2006). In the same, OI includes an organization's ability to

be innovative and to produce innovative contributions and also it is established upon the innovative behaviors and cognitive of individual organization members (Ozer, 2006). Besides organizational benefits, an OI has been shown to strongly improve employees' job attitudes, job satisfaction, and organizational commitment as well as encourage the establishment of personal innovativeness. In this regard, an innovative orientation shares many of the same characteristics as a learning organization (Zhou *et al.*, 2005).

Han et al. (2012) find out innovativeness is an essential factor contributing to better organizational performance. Innovativeness can produce some competitive ways and achieve optimal performance level regardless of whether as a result of a response to adaption to changes in environment or as a pre-emptive determination to affect the environment (Hult *et al*., 2004). If the level of innovation and quality of services improve, organizations can keep current employees and engage more employees through attracting their loyalty, as a consequence of which their knowledge share and performance may increase (*Rust et al*., 2002).

2.1.10. Indicators of organizational learning culture and structure

Organizational learning culture refers to the development of new knowledge and has the potential to change behavior. It is a time-honored process that involves changing individual and organizational behavior (Marray and Donegan, 2003). Organizations that have developed a strong learning culture are good at creating, acquiring and transferring knowledge, as well as at modifying behavior to reflect new knowledge and insight (Huber, 2006). Hence, organizations stressing organizational learning culture (OLC) must first knowledge acquisition distribute and interpret it to fully understand its meaning and transform it into knowledge. At the same time, they must not forget the most important part to implement behavioral and cognitive changes in order to convert words into action.

Like organizational culture, organizational learning is also a very intangible concept due to the variety of perspectives that come under inquiry examination in the academic literature. There have been numerous attempts to define organizational learning and its several aspects. Stata (2008) Discussed that OL as "a continuous testing of experience and its transformation into knowledge available to whole organization and relevant to their mission" while Huber (2006) emphasized that OLC is a combination of four criteria's: information acquisition, information distribution, information interpretation and behavioral and cognitive change.

Argyris and Schon (2007) were even less restrictive in their definition by declaring that organizational learning emerges when organizations acquire information (knowledge, understandings, know-how, techniques and procedures) of any kind by any means.

Organizational learning is general in nature taking into account the individual's dynamic use of knowledge to direct behaviors in ways that would help the organization to adapt to the changing developments (Argote *et al*., 2003). On the other hand it refers to the specific strategies, policies and rules which are supportive for promoting learning and affecting decisions and actions (Robinson et al., 2004).

Organizational learning is a multi-dimensional indicators construct and researchers have proposed various dimensions to measure learning culture (Jamali and Sidani, 2008). But, majority of the researchers has focused on the six dimensions proposed by Shoaib et al. (2011) and Shadi E. and Maziar S. (2014). Those are: continuous learning (CL), dialogue and inquiry (D&I), team learning (TL), embedded system (ES), empowerment (Emp.), and leadership (Ldp). The current study had taken those six indicators of organizational learning and to investigate their impact on organizational performance of higher learning institutions.

Another model that supported organizational learning indicators and its qualifications was proposed by (Jyothibabu *et al.*, 2010). In their studies, organizational learning occurred at two levels, a people level and a structural level. People level comprised of four dimensions those are: continuous learning (CL), dialogue and inquiry (DI), team learning (TL), and employee empowerment (EE).

The structural level consisted of three dimensions, leadership learning (LL), and embedded system (ES). Generally, the following are the indicators of OLC in organizations:

Continuous learning: Continuous learning related to the occurrence of support and reward for learning to gain needed skills to survive with the changes in the work environment. According to Laatikainen (2014) define continuous learning as providing opportunities to learn from the problems that people encounter, using incentives to support both formal and incidental learning and better planning. Continuous learning helps individuals acquire new competencies to be applied on the job. When these individuals are rewarded for learning it creates greater motivation and the individuals become more receptive to learning and develop high self-efficacy that in

return improves the individual's performance leading to improved organizational performance (Vijjuprabha, 2015).

Inquiry and dialogue: Dialogue inquiry related to the openness of all organizational members in communicating all aspects in relation to their organization and also it is concerned with learning from the experience of others. Dialogue provides a platform for questioning, being open to new ideas and understanding the opinion of other people. It ultimately aids to building a common understanding and cognition among individuals and a shared understanding within the organization (Watkins and Marsick, 2003).

Team/ group learning: Team learning related to the freedom of a team to complete tasks and reward team performance and it is a vital element of all learning organizations (Senge and Garvin, 2009).Team-learning is a shared discipline that involves developing the practices of discussion and how to deal creatively with the powerful forces. It encourages people to develop shared understandings about complex issues, coordinate their activities and share best practice (Consortium for Excellence in Higher Education, 2003).

Organizations have continued to depend on teams to achieve effectiveness through task performance. Through learning together, team members can adapt to changing circumstances, discover new ways of achieving team objectives, and continually refine practices and processes leading to discovery of new and better ways of achieving team objectives and realizing team goals, which finally results in a better team performance (Bunderon and Sutcliffe, 2003).

Embedded system: Related to the organizational conditions that allow organizational members to interact with their environment to gain knowledge and related to the incorporation of acquired knowledge into an organizational system. And also, it is necessary systems to share learning are created, maintained, and integrated with work; technology systems are accessible for employees.

Employee empowerment: Employee empowerment means involving employees in decision making by giving them for example, the power in form of self-sufficiency; information in form of feedback; knowledge in form of training and reward in form of for job upgrading (Demirci and Erbas, 2010). An organizational learning system is supported by a common vision through ways such as keeping people committed to the vision and encouraging them to identify them with the vision that promotes organization goals (Yang, 2012).

According to (Vijjuprabha, 2015), employee empowerment is a powerful management tool and if managed well can cause an increase in performance, productivity and job satisfaction.

Through empowerment, employees feel energized and become willing to do whatever it takes to get the work done thus enhancing better performance of the organization (Demirci and Erbas, 2010).

Leadership: Building and sustaining an organizational learning culture is admittedly not an easy task for it requires continuous commitment, champions, effort and resources (Dan, 2017). The above requirements can be enhanced by the senior leadership team. Karani*et al.,* (2014) conducted a study on effective use of monitoring and evaluation systems in enhancing learning culture in local organizations in Kenya. They established that factors such as lack of commitment by the managers, incompetency on the use of the monitoring and evaluation systems by managers affected organizational learning which bore an influence towards organizational performance and innovativeness.

2.1.11. Organizational performance and innovativeness Indicators

The previous studies attempted on identifying organizational performance measures. Some studies concerned with the financial dimension of performance, and the others are based on the non-financial dimension of performance. To consider other measures of performance through efficiency and effectiveness are to determine the core needs of the organizational performance, which is divided into four sub-dimensions of Balanced Scorecard perspectives (Employees' perspective, teaching learning perspective, internal process,) to measure overall organizational performance adapted from (Ahmed *et al*., 2016). Farther, another study stated by Kadarsah and Parsi (2007), the main functions in universities key performance indicators are teaching and learning, research quality, financial perspective. Measurement of university performance could be based on these three functions.

Therefore, the current study adapted and modified the key performance indicators of HLIs from different scholar's i.e teaching and learning, research quality, community support and services, Employees' perspective, and internal process because those are more identified HLIs performance. The measurement of organizational innovativeness on the other hand was operationalized in line with sustainable balanced scorecard according to Matej et al., (2012) as cultural innovation (technical and administrative innovation).

2.1.12. Organizational learning culture and performance in higher learning institutions

The scientific literature associates organizational learning culture with greater organizational performance to develop competitive advantages for sustainable development (Guţă, 2014). Previous studies suggested that organizational learning is a determining factor in business performance in different industries, such as the telecommunications industry, to promote new service development and the metal industry to associate with employee satisfaction, customer orientation and the financial index of organizations (Aydin and Adnan, 2009). Moreover, another study conducted by Ángel et al. (2010) finds out "the organizational learning has a direct and positive effect on the business performance in a manufacturer's experience was validated".

In higher learning settings, organizational learning culture should be paid more attention because universities and colleges do not culture learn as effectively as they could. Institutional employers are skilled of applying their practices as communities of researchers to the studies of the institution itself. The potential for institutional learning exists, but institutional improvement depends on the effectiveness of faculty and staff putting this culture learning into action (Bauman, 2005). The behavior and confidence of the faculty members that much is related to organizational learning is also one of the most important organizational factors for outstanding university performance (Nafei et al., 2012). Guţă (2014) stated that the positive relationships between the components of the organizational learning process (knowledge acquisition, information distribution, information interpretation and behavioral and cognitive changing) and organizational performance. These above studies recognized the importance of organizational learning culture in higher learning institutions and its relationship with performance with different general variables and measures of organization success, customer and employee satisfaction and happiness and financial performance targets.

Currently, there are different studies relating to measuring university performance, of which, Kadarsah (2007) stated that the main functions in a university are teaching and learning, community support and services. Measurement of university performance could be based on these three functions (Donald, 20008). (Xiaocheng, 2010) suggest that the performance of a university is based on a pyramid model that consists of academic results (comprising of teaching and researching outputs). The teaching and learning, employees' satisfaction and internal processes are the more suitable measures for university performance and relevant to

organizational learning culture need to be analyzed and selected for this research.

2.1.13. Organizational structure in higher learning institutions

Baldrige and Adstein consider university's organizational structure as a controlling tool and trust that in a university setting, organizational structure-which includes management, leadership and regulation sets is a managerial tool which both provides a necessary ground for creating educational initiatives and is a tool for matching university with educational initiatives (Baldrige and Deal, 2003). As Burton and Baldrige suggested, university's organizational structure is a framework which should both deliver the opportunity for direct reaction to different phenomena and maintain the total union of university by high level managerial loops (Clark and Baldrige, 2004). In addition to avoid from disorder in the organization, the structure should be designed in such a way that it can coordinate staff's abilities (Bennet and Bennet, 2004). So, it can't be achieved to the goal without an appropriate organization. And it is necessary to consider the kind of organization and structure for having efficient organizations. Since those working in organizations with appropriate structure are more efficient and more satisfied, the importance of organization and its design methods become more clear or understandable (Rezaeeian, 2008).

Organizational structure is described as:" a framework for the relationship of different jobs, systems and operational processes and persons and groups who try to achieve the goal (Daft, 2000). According to (Shoghi and Nazari, 2012) organizational structure shines the levels within the official hierarchy and defines the control area of managers and supervisors. It should be attention that an appropriate structure is considered as important assets for the organization (Irannezhad, 2008). Any organizational process needs considering its requirements. One of the most important dimensions of each organization is organizational structure which we should consider it as the second major part of the organization, after the organizational goal (Powell, 2002). Organizations have different structures which are applied based on the conditions of each organization. To Burns and Stalker, the most effective structure is a structure adjusts itself with the requirements of environment (Gresov and Drazin, 2007). Organizational structure has some dimensions including:

Formality: Formality refers to standard degree of organizational jobs and organizational relations are explained for staff wittingly and carefully with an organizational graph. And also if it is necessary, the further changes are mentioned by the manager; but in an informal

organization, organizational relations are explained for staff orally and if it is necessary, they change naturally (Rezaeeyan, 2008). If a job has a high formality, its performer has a minimum freedom for doing the related activities and the time and manner of doing them. In such a circumstance, staff is expected to use the same structures with a certain method in order to cause some predetermined results. So, when there is a high formality, we can see some explanations about certain jobs, many rules and regulations and obvious directions about work process in the organization. When there is a low formality, staff's behaviors may be relatively not planned; in such situation, persons have a more freedom in their jobs for applying their own ideas (Robbins, 2008).

Decentralization: refers to the degree to which decision making is allowed for lower-level managers. In a decentralized organization, decision making is pushed down to the managers closest to the action. It is the term for pushing decision authority downward to lower level employees (Ann *et al.*, 2003). A decentralized organization can act more quickly to solve problems, more people provide input into decisions, and employees are less likely to feel disaffected from those who make decisions that affect their work lives (Stephen and Timothy, 2012). Similar to the opinions of Stephen and Timothy, research investigating a large number of Finnish organizations demonstrates that organizations with decentralized structure and development offices in multiple locations were better at producing innovation than organizations that centralized all structure and development in a single office (Seyed *et al*., 2013). This is due to the fact that employees in all organizations want to work in an environment of trust and respect where they feel they are making a real contribution to organizational goals and objectives (Ann *et al.*, 2003).

2.1.14. Organizational learning, organizational structure and knowledge management

The relation between knowledge management and organizational learning demands for exploration. Pasteur *et al.* (2006) stated that, though the crucial objective of knowledge management and organizational learning might be related, the paths and methods by means of which to accomplish such objectives vary significantly in both thinking and practice. The application of different policies in each intervention might clarify why a number of knowledge management initiatives and organizational learning policies undertaken in organizations.

Some scholars, such as Wilberforce (2011), consider organizational learning to be a knowledge management strategy; whereas others declare that knowledge management is an employment strategy for organizational learning. Fundamentally, organizations can only be competitive if they "*continuously learn and develop their knowledge assets in order to respond to the changing environment*" (Appelbaum and Gallagher, 2000). Such continuous learning and upgrading requires that those organizations which are in pursuit of a competitive advantage should be implement knowledge management initiatives and pursue policies that will make them learning organizations, thus supporting the relation between the two strategies. According to Fiol's (2004) perspective, organizational learning is considered to be a process of accomplishing changes in states of knowledge.

Organizational structure is a visible chart in the organization. Organizational chart is also a visible of total activities and procedures of the organization. In the same way, organizational knowledge is central building of in the organization. Moreover, knowledge sharing is the most important source of developments of the organizations and delivers valuable opportunity for promoting indicators of all organizations. In addition, knowledge sharing includes to the group of organization and indicates decentralization and change in the decision of individuals based on group decisions Alireza *et al.* (2015).

From the previous research shows that sharing and understanding high capacity of information and knowledge in the organizations is affected by factors inside the organization and factors outside the organization (Zheng, Yong & Mclean 2010). One of the effective internal factors on the knowledge management in the organizations is the structure and its dimensions (de-centralization and formality structure). Organizational structure is the way or method by which organization activities are divided, organized and coordinated. Organizations should have knowledge to created structures to coordinate activities of factors doing task and to control acts of employees Alireza *et al.* (2015).

2.2. Related works

Different studies are conducted internationally to investigate about organizational learning culture on organizational performance and innovativeness.

A case study conducted in Iran by Hadi V. (2010) on "*organizational learning in the higher learning institutions of agricultural and natural recourses campus, University of Tehran*". In his study the researcher categorizes factor influencing Organizational Learning in the Higher Learning Institutions in to individual factors (awareness, willingness, and behavioral control), leadership, shared visions/ missions, teamwork, organizational culture and organizational factors (organizational structure, administrative support, information technology systems, rewards systems, and trust). The studies had gotten the subjective ideas of faculty members in agricultural and natural recourses campus of University of Tehran. The numbers of faculty members were 120, randomly drawn from the selected population. Data was analyzed using frequencies, percentages, and mean. The researcher findings that the majority of the respondents (90% faculty members) had highly covenants about meeting institutions of higher learning of agriculture as learning organization. His findings show that organizational learning was a statically significance on organizational performance.

A study conducted by Shoaib *et al*. (2011) on organizational learning in Pakistan. They said that the learning sector is the most important sector of any country as it is involved in the building of the future human capital. The aim of their study was to examine the impacts of organizational learning on organizational performance of learning of Pakistan. To attain the objectives of their study the researchers were used some factors that affect organizational learning on organizational performance. Those are, continuous leaning, dialogue and inquiry, team learning, embedded systems, empowerment and leadership. Moreover, the researchers used Non-probability purposive sampling strategy was adopted, and a sample of size 150 was chosen amongst the employees. The descriptive statistical tools such as frequency and percentage were used to see significant differences among responses of respondents. The finding shown that, organizational learning has a positive impact on organizational performance. Inquiry and dialogue which was found to be insignificant; however, five of them (continuous learning, team work, embedded systems, empowerment and leadership) were significant in relation to the organizational performance.

The study supported by Jyothibabu *et al.* (2010) their findings show that team learning or group level learning has a positive effect on organizational performance and does have direct influence on performance. Leadership plays an important role in enhancing the communication and the establishment of processes for shared learning. It empowers employees to challenge issues at their level within organizational context. And also, the results of their study highlight that the employees of higher education institutes are not empowered enough to take decisions on their own but rather rely on leadership for decision making.

Finally, the researchers finding showed that in higher learning institutes, organizational learning is playing a significant role in improving their performance. Since, HEI's in Pakistan are obliged to increase their financial resources therefore, organizational learning becomes essential to produce high returns on investment, and it is only possible when their performance will become up to the mark. Secondly, with the withdrawal of funding from the government, public sector institutes are under huge pressures to make adjustments and show performance to attract funding. The researchers concluded that in today's ever competitive environment, due to globalization and many other factors organizations belonging to any sector have to effectively respond towards these changes. The need to retain highly motivated staff is more important for higher learning institutes as they are the providers of learning opportunities for future leadership of any country.

A study conducted in Trukish by Matej *et al*., (2012) on organizational learning culture and organizational innovativeness. The changing research and academic environment has provided platforms for new competency expectation from organization employee such as organizational learning culture. The study conducted on the relationship between organizational learning culture and organizational innovativeness in Trukish organizations. The researchers were used descriptive survey research design of the ex-post factor type was adopted for the study and the data collected from 112 Turkish organizations employing more than 50 people. The researchers' findings showed that support for a very strong positive relationship between organizational learning culture and technical innovative, as well as for the indirect relation between organizational learning culture and administrative innovations via innovative culture. And also, the result shows that organizational learning processes can adequately positive influences on technical and administrative innovations.

Another study conducted by Škerlavaj et al. (2010) surveyed the link between organizational learning culture and innovativeness on a sample of South Korean organization. As they

suggested that organizational learning culture plays a crucial role in enhancing both elements of innovativeness (technical innovation and administrative innovations). Internally, more attention has to be paid to developing an organizational learning culture in order to improve organizational innovativeness. This can be accomplished by development an environment in which employees can and do frequently learn and share their knowledge.

An empirical study conducted in Iranian by Enayat A. and Nasir Z. (2013) on "*The impact of leadership, organizational culture and organizational learning in improving the performance of Iranian agricultural faculties*". The aim of the study was to investigate the impact of leadership, organizational culture and organizational learning in improving the performance of Iranian agricultural faculties and leading them to become learning organizations. The researcher adopted a descriptive survey design as research design. Questionnaire was used to gathering data as main tools. The researcher has taken a sample of 329 faculty members was selected using stratified random sampling methods with proportional allocations.

The gap of their study was, the researcher investigated that only two influencing factors on organizational learning and faculty performance (leadership and learning organizational culture). But these factors are not enough to measure faculty performance but also they should consider other factors including team learning, individual learning, organizational structure and organizational learning. The researchers finding showed that there was a positive and statically significant relation between contextual components (leadership and organizational learning culture) and process component (organizational learning).And also the researcher findings support that leadership and learning organizational culture with the effect on organizational learning process not only improve the agricultural faculty performance, but also change them to organizations learning.

Moreover, a research conducted by Shadi E. and Maziar S. (2014) on "*Organizational Learning Culture in Esfahan Islamic Azad Universities*". The main purpose of their study was to find the rate of developing the organizational learning culture and propose the possible ways to develop the organizational learning culture in Esfahan Islamic Azad Universities. In their study, the researchers categorizes factor influencing Organizational Learning culture in higher learning institutions in to dialogue inquiry ,continuous learning ,leadership, teamwork, embedded systems

and employee empowerment. The findings show that the rate of the development of organizational learning culture in Universities were advanced but in EIAU has been lower.

A study conducted by Seyed H. M. and Amir K. (2014) in Iran. The aim of the study was to investigate the impact of organizational learning culture on organizational innovation: Evidence from Bank Industry of Iran. The researcher said that to cope with the current external opportunities and threats, it is argued that organizations have to learn, that is, acquire new knowledge and skills that will improve their existing and future performance. Data were collected with questionnaire instruments. Model was developed and tested with structural equation model using data collected from the 273 Iranian bank employees. The results show that organizational learning culture has positive impact on organizational innovation and organizational performance.

A study conducted in Palestine by Haim H. & Mohammed S. (2014) on the influence of organizational structure and organizational learning on the performance of the higher learning Institutions. The study aims to investigate how organizational structure and organizational learning influenced on the organizational performance with specific focus on higher learning institutions in Palestine. The researchers generated a quantitative questionnaire data from 255 respondents representing the top, medium and low management level of the higher learning institutions in Palestine. Data were analyzed using the partial least squares-Structural equation model PLS-SEM.

Their findings demonstrate that organizational structure and organizational learning are meaningfully related to the performance of higher learning institutions in Palestine. First, the results demonstrate a significant relationship between the organizational learning and organizational performance. Thus, their finding was the organizational learning will influence the organizational performance and secondly, the result also to reveal a significant relationship between the organizational structure and organizational performance. Their findings to confirm the hypothesis that organizational structure will influence the organizational performance.

A case study conducted by Seyed *et al.* (2013) "*on the effects of organizational structure on financial performance of research organizations, in Iran*". Organizational structure plays an important role on survival of any organization units and it is important to understand different

factors influencing it. In this paper, we present an empirical study to learn the effects of two parameters including formality and centralization on organizational performance. The proposed study of this paper is implemented for one of research-based organization located in city of Qom, Iran. There were 120 employees working for this organization and the proposed study of this paper has selected a sample of 100 people, designed, and distributed a questionnaire among them. The results show that there are a positive and meaningful relationship between formality and centralization on organizational performance.

Another study conducted by Ann *et al*. (2015) on the effect of organizational structure on organizational performance of selected technical and service organization in Nigeria. The main aim of their study was to investigate the effect of organizational structure on organizational performance. Specifically, it focused on the effect of de-centralization structure and formalization structure on performance. Their findings show that, there was positive and a statically significance affects both de-centralization structure and formalization structure on organizational organization. And also, the findings show that de-centralization was found enhanced and still enhance better and more informed decision making in technical and service organization. This is in line with Stephen and Timoth (2012) that a de-centralization organization can act more quirkily to solve problems and more employees provide input in to decision. And another study supported by Hatch (2006), decentralized structure allows for innovation and is thus more suitable and beneficial when used in a changing environment with high requirement on adapting to the environment. He also suggested that, decentralized structure is characterized by communications that allow for share of tasks and work procedures. In such structure Hatch explains that employees rather seek advice from each other than give instructions.

A case study conducted by Tran and Pham (2016) in Vietnam University on organizational learning process in higher learning institutions. Organizational learning has been discussed by a number of scholars with the on focus the improvements of knowledge to solve problems and organizational performance. However, few of them have empirically addressed the issue in a learning context. The purpose of his study was to investigate organizational learning in higher learning by examining the impact of employee participation on the organizational learning process and the relationship between the organizational learning practice and performance of a public university in Vietnam. In fact, the practice can be defined as the process of knowledge acquisition, information distribution, information interpretation and organizational memory

(Huber, 2006). These processes are analyzed in the context of higher learning institutions. The study findings indicate that the organizational learning process is positively influenced by employee participation in decision making and significantly associates with the performance of the university.

Generally, the gap of the previous study shows, most of the scholars investigated on single i.e the relationship between organizational learning and performance, organizational structure and organizational learning or organizational learning and innovativeness that focuses on profit organizations. But currently, the researcher study by merged or combine organizational learning culture and structure with organizational performance and innovativeness at HLIs in Ethiopia because organizational learning culture and structure should be encourage in HLIs to increase organizational performance. This study was different from the previous researches because the current study conducted on the impact of organizational learning culture on organizational performance and innovativeness at Ethiopian public University and in their methodology most of the researchers were used only decretive methods. In addition, the main limitation of the previous studies was carried out the data by using interviews and literature review, relied upon qualitative perceptions. Thus, some bias may exist, and there is the probability that the facts may be different from one individual's perception to another.

2.3. Research hypothesis

This study aimed at answering the research question namely: What is the impact of organizational learning culture and structure on organizational performance and innovativeness? To answer this research question, the researcher formulated hypotheses.

H_{01}**:** Organizational learning culture has no significant effect on organizational performance.

H_{02}: Organizational learning culture has no significant effect on organizational innovativeness.

H_{03}: Organizational structure has no significant effect on organizational performance.

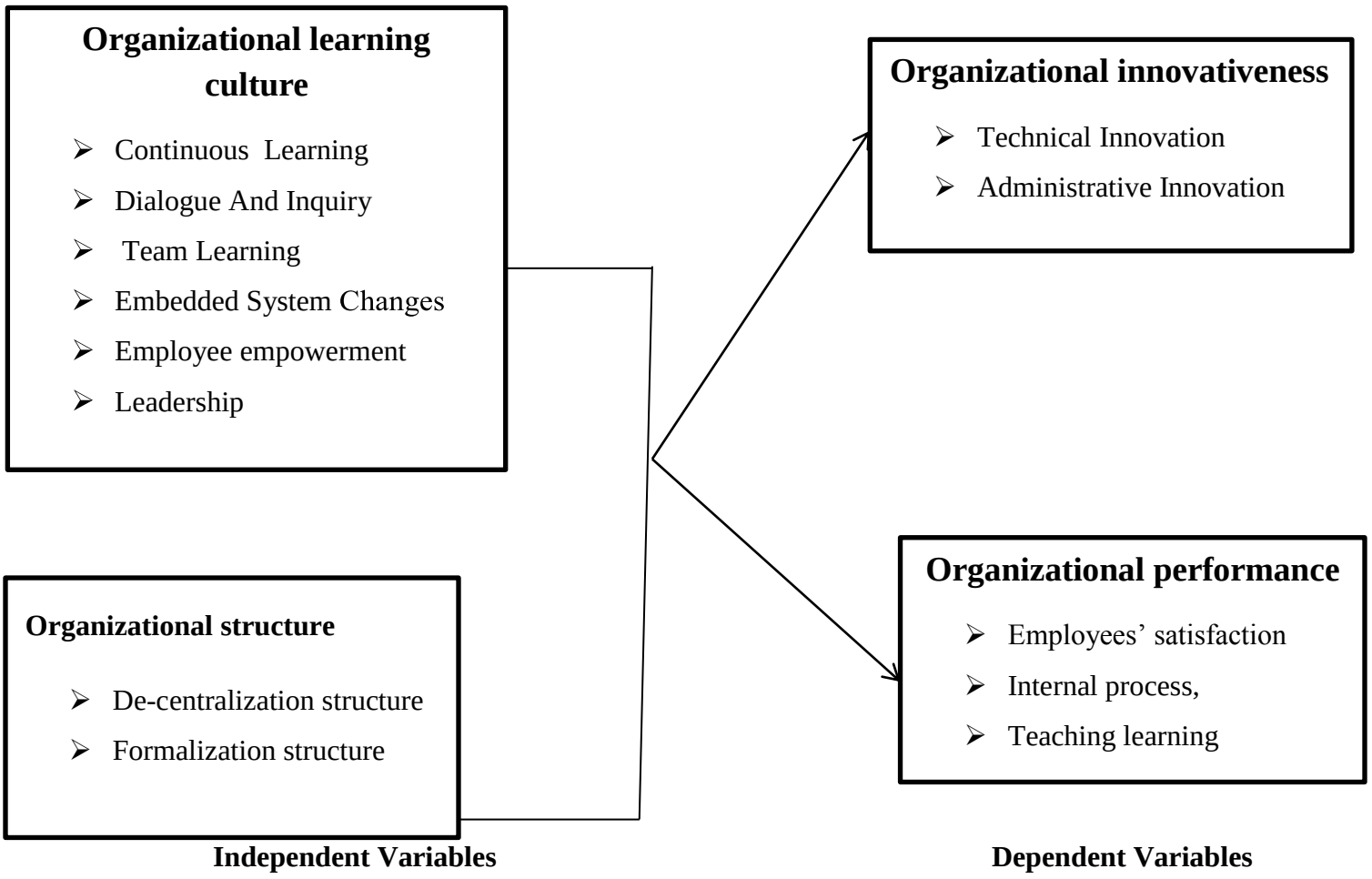
H_{04}: Organizational structure has no significant effect on organizational innovativeness.

H_{05}: Organizational structure has no significant organizational learning culture.

2.4. Conceptual Framework

Theoretical framework of a study is the system of concepts, assumptions, expectations, beliefs, and theories that supports and informs this research. It is a key part of design. Miles and Huberman (2011) defined a conceptual framework as a "visual or written product, one that explains, either graphically or in narrative form, the main things to be studied the key factors, concepts, or variables and the presumed relationships among them".

Therefore, based on theoretical aspects the conceptual framework of the study was merged and combined from different literature review with the four variables shown as follows:



Source: Modified from **(**Shoaib et al, 2011, Seyed and Amir, 2014).

Figure 2: 1: Conceptual Framework

CHAPTER THREE

3. METHODOLOGY

3.1. Description of the study area

The study was conducted at selected higher learning institutions in Ethiopia, namely Jimma University, Adama Science and Technology University and Wolktie University. The universities were selected using a stratified random sampling method with proportional allocation. Based on the stratification; all related universities were classified into four categories, based on their establishments. Therefore, the study consists of four strata. From which 10 were formerly established and categorized in the first generation, 11 were established somewhat later and categorized in the second generation, 12 were established after few years and categorized in the third generation and 11 were newly established and categorized in the fourth generation. But, the researcher has considered 1st, 2nd and 3rd generation for study and thus, the samples were taken from the three universities in these three generations. The reason why the study was limit in three generations was based on the status of established and the experience they have. After stratifying the university based on the generation, the researcher selected one university from each generation i.e. 1st, 2nd and 3rd generation purposively. The reason in using stratified random sampling was by assuming that there is similarity within each university and to thus ensured that, the universities with their different numbers of academic and administrative staff are well represented and determined by proportional allocation.

Jimma University (JU) is one of the oldest public Universities in Ethiopia. It was established in 1999 E.C. JU is located in Jimma city south west of Ethiopia and 355 km far from Addis Ababa. Moreover, JU is Ethiopia's first innovative Community Oriented Educational Institution of higher learning institutions. Adama Science and Technology University (ASTU) is 2nd Generation University located in Adama, the capital city of East Showa Zone of the Oromia Region. It was established in 1993 E.C. Adama Science and Technology University, previously known as Nazareth Technical College; Nazareth College of Technical Teachers Learning. The university has branches in Adama town, Asella, and Debre Zeyit , Oromia Region, Ethiopia. The University has also a branch campus in Addis Ababa (Winget campus). But, this research was conducted at the main campus of Adama Science and Technology University. As to Wolkite

University, it is the 3rd generation University which is located in South West of Ethiopia in Southern Nation and Nationality regional state, Gurage Zone about 200km far from Addis Ababa.

3.2. Research design

For the study, a cross-sectional survey design, employing both qualitative and quantitative methods was used. Cross-sectional survey design is used to study a group of people just one time, in a single session, particularly, to provide a picture of how things are performed at a specific time and thus for the present study, by focusing on organizational learning culture and structure, organizational performance and innovativeness at Ethiopia public universities.

3.4. Study constructs-variable

The following independent and dependent constructs-variables were identified for analysis of the data. Dependent constructs-variables are a variable that is affect or explain by another variable. An independent constructs-variable are a variable that causes change in another.

3.4.1. Independent constructs-variable

- Organizational learning culture
    - Continuous learning
    - Dialogue inquiry
    - Team learning
    - Employee empowerment
    - Leadership learning
    - System connection
    - Embedded system
- Structure
    - De-centralization structure
    - Formalization structure

3.4.2. Dependent constructs-variable

- Organizational performance
    - Employee's satisfaction

- Internal process
- Teaching learning process

- Organizational innovativeness
  - Technical innovation
  - Administrative innovation

3.5. Population of the Study

The target population in the current study was comprised both academic and administrative staff of higher learning institutions in Ethiopia with organizational learning culture and structure being measured directly by means of assessing the perceptions of such staff members. The total population of academic staff in JU is 1820; out of them 588 MSc. and 135 PhD and also the total population of administrative staff in JU is 6269, out of them 60 MSc. and 3 PhD which constitute the sample of the study (JU, 2018). Whereas Adama Science and Technology University has a total population of academic staff of 602, out of them 348 MSc. and 132 PhD holders. Totally 480 academic staff have MSc. and PhD. The total population of administrative staff in ASTU is 1655, out of them 40 MSc. and 1 medical doctor which constitute the sample of the study (ASTU, 2018).

The total populations of academic staff in WKU is 501, out of them 335 MSc. and 5 PhD, the total population of administration staff in WKU is 872, out of them 19 MSc. and 1 PhD which constitute the sample of the study (WKU, 2018). The target populations of this study are academic and administrative staff of public higher learning institutions. The total populations of academic and administrative staff of these three public universities are 1667 which constitute the population of the study (786 from JU, 521 from ASTU and 357 from WKU).

Table 3: 1: Population of the study

No	University	Academic staff profile			Administrative staff profile			Total
		MSc	PhD	**Total**	MSc	PhD	**Total**	
1	JU	588	135	723	60	3	63	786
2	ASTU	348	132	480	40	1	41	521
3	WKU	335	5	340	19	1	20	360
Total		-	-	1543	-	-	124	**1667**

Source: Human Resource Offices of (JU, 2018, ASU, 2018 and WKU, 2018.)

3.6. Sampling technique and Sample size determination

3.6.1. Sampling technique

In this research, the researcher used both purposive and simple random sampling technique. Purposive sampling technique was used to select respondents who have knowledge about organizational learning culture and structure for the purpose of conducting an interview. And simple random sampling techniques were used to select respondents from 312 samples for both academic and administrative staff. The detailed figure of sample size determination is discussed below specifically.

Based on this number (1667), the total sample size (312) was proportionally allocated to each academic and administrative staff in three Universities and from each academic and administrative staff the participants were selected using simple random sampling and distribute the questionnaires.

3.6.2. Sample size determination

In any survey research, taking a sample size is usually a serious issue. Based on the total population, sample size has taken. Therefore, the sample size is determined using the sample size determination formula and proportional allocation of subjects also done by (Kothari, 2004) formula. According to Asri (2016), it is practically impossible to take a complete and comprehensive study of the entire population, because of the nature and pattern of distribution of

the elements of the population. Therefore, the sample size was calculated using the formula proposed by Kothari (2004).

$$n = \frac{no}{1+no/N}$$

$$no = \frac{z\left(\frac{\alpha}{2}\right)^2 * p(1-p)}{d^2}$$

n= the desirable calculated sample size

Z (=0. 95 (95% confidence level for two sides)

p= proportion of population and barriers (50%)

d= degree of accuracy desired setting at (5%)

Therefore the value of n is calculated as follows

n_o = (1.96)2* 0.5(1-0.5) =384

(0.05)2

$$n = \frac{no}{1+no/N}$$

$$n = \frac{384}{1+384/1667} = 312$$

A. Jimma University

$n_1 = \frac{n*N1}{N}$, $n_1 = \frac{312*786}{1667}$ =147

Sample size allocation (proportional allocation for Academic staff and administrative)

$n_{1ac} = \frac{n*N1}{N}$, $\frac{147*723}{786}$ = 135 for Academic staff

$n_{1ad} = \frac{n*N2}{N}$, $\frac{147*63}{786}$ = 12 for Administrative staff

B. Adama science and Technology University

$$n_2 = \frac{521*312}{1667} = 98$$

Sample size allocation (proportional allocation for Academic staff and administrative)

$n_{2ac} = \frac{n*N1}{N}$, $\frac{480*98}{521}$ = 90 for Academic staff

$n_{2ad} = \frac{n*N2}{N}$, $\frac{41*98}{521}$ = 8 for Administrative staff

C. Wolkite University

$$n_3 = \frac{357*312}{1667} = 67$$

Sample size allocation (proportional allocation for Academic staff and administrative)

$n_{3ac} = \frac{n*N1}{N}$, $\frac{337*67}{357}$ = 63 for Academic staff

$n_{3ad} = \frac{n*N2}{N}$, $\frac{20*67}{357}$ = 4 for Administrative staff

Where, N1= Number of academic and administrative in each University

n = Total sample size & $n_{1, n2, n3}$ = Proportional for JU, ASTU and WKU respectively

n_{ac}= sample size of academic staff

n_{ad}= sample size of administrative staff

Therefore, the total sample size for this study is 312 academic and administrative staff, a number that is representative of the target population.

3.7. Data collection instruments

There are different types of data collection methods used for research studies. The selection of the data collection methods were depending on the research objective and research design. Data collection was done by questionnaire and interview in order to achieve the objective of the study.

3.7.1. Questionnaire

In order to meet the objectives of the study, questionnaire was used as one of the data collection instruments. Based on the nature of the basic questions, a close-ended item was developed. Closed ended items consists Likert's scale type questions. Moreover, few open ended items were included to provide an opportunity for the respondents to express their opinion, feeling and belief freely. The questionnaires were distributed and collected by recruiting data collectors at each university after giving training for the data collectors. The questionnaires were adapted from previous related research and individual questions formulated by the researcher and approved by advisors.

3.7.2. Interview

Interview was commonly used instruments for collecting data, Kothari (2004) and Koul (2006) explained it as a method of collecting data through oral communication (verbally). This method was employed in the study to acquire qualitative data about organizational learning culture and structure in higher learning institutions and obtain relevant data that was not handled by the questionnaire were carried out. The researcher was conducted interview with college deans, department heads and academic vice presidents namely, two respondents from JU and ASTU college of social science and humanities, one respondent from ASTU college of computing and informatics, two respondents from WKU department of governance and department of computer science and two respondents from JU and WKU academic vice presidents. The researcher has conducted interview with seven respondents. The reason why only seven respondents, the sample of respondents for the interviews were selected those who were willing to participate in the study. A number of the individuals who were initially targeted for such interviews turned down the request, mentioning lack of time as one of the reasons for them not to take part in the study. It is thus assumed that the information obtained from the seven volunteer personnel who take part is enough for cross-check with the quantitative data and they give the researcher an opportunity to inquiry for more details and to ensure that respondents understand questions in the way in which the researcher intended them to be understood, they enable interviewers to use their knowledge, expertise, and interpersonal skills flexibly in order to explore interesting or unexpected ideas about themes which are raised by respondents and also they provide an opportunity for the researcher to observe the non-verbal communication of the respondents.

3.8. Data collection procedure

After the defense of the research proposal, the researcher ensured gaining of a permission letter from the Jimma University information science department. When visiting each university the letter was submitted to the concerned person and their approval was taken. Then the questionnaires were distributed by using simple random sampling technique to both academic and administrative staff.

3.9. Source of data

In this study both primary and secondary data were used. Primary data is recognized as data gathered for a specific research in response to a particular problem through interview and questionnaires. These methods help to collected firsthand information through questionnaire from both academic and administrative staff. Additional data were obtained by secondary sources such as articles and previous researches studied were acquired.

3.10. Data Quality Control

In order to ensure quality, the collected data were checked out for the completeness and clarity by the investigator and main advisor. This quality checking was done daily during, before and after data collection and adjustments were made before the next data collection measure. Data clean up and cross-checking was done before analysis. Training was given to data collector on the purpose of, objectives and data collection process of the study by the investigator. In addition to the type, contents and intention of the questions, the data collectors was train on how to communicate and convince the respondents in order to enhance the interests of employees which is fundamental to get a valid data.

3.11. Data analysis and Presentation

The data was analyzed using statistical software, SPSS version 20 and both inferential and descriptive statistics were done. After collection of data, the researcher has classified, and then analyzes and interprets the output before the complete meaning of the study was given. Then, the data was described using percentage, frequency distributions. For qualitative data, written interview notes were identified. Further, inferential statistics (linear regressions) were used to analyze the effects of independent variables on dependent variables.

3.12. Ethical consideration

The proposed study findings should benefit and cause no harm to the participants and society. Privacy and confidentiality was maintained at all times, all findings were portrayed in a confidential manner no personal or identifiable information was recorded or printed in the study. No names will be recorded during the interviewing process. Ethical issues may arise at any point during any study regardless of the rigorous planning. Therefore, it is important that possible ethical issues are identified, prevented, and reviewed as best as possible prior to, during and after the study. Ethical principles provide direction to the possible issues not answers.

CHAPTER FOUR

4. Result and Discussion

4.1. **Results**

This chapter presents analyses and interprets the results as well as discusses the findings so that a conclusion is reached. All these are deducted from the research responses collected with regard to research objectives. Moreover, the results for the study by highlighting response rate and socio-demographic information, demographic analysis of the respondents of questionnaire, distribution of the respondents over three public universities, gender of the respondents, age group of the respondents, educational level of respondents, work experience of the respondents, analysis of questionnaire data regarding organizational learning culture and finally discussion was made.

Descriptive statistics on study variables were summarized in means, standard and deviation. The chapter also presented factor analysis and correlation of study variables using Pearson product moment correlation analysis.

The second part of this chapter presents results of tests of hypotheses. The chapter is organized in line with the research objectives and hypotheses of the study. In order to test the respective hypothesis, multiple regression analysis were conducted at 95 percent confidence level ($p<0.05$). All hypotheses tests were done on the null hypotheses.

The results of the inferential statistics were presented in tables showing the regression results as: model summary with Pearson correlation moment(r) showing the nature and strength of the relationship and coefficient of determination (R^2) explaining how much variation in the dependent variable is explained by the independent variable. The analysis of variance (ANOVA) shows the overall model significance. The model coefficients show the beta coefficients of each independent factor and whether the factor has a positive or negative relationship with the dependent variable.

4.1.1. Response Rate

The researcher hoped to consider responses from 312 respondents and hence gave out 312 questionnaires as explained in the sampling framework in the third chapter of this study. However, due to non- response by some, only 260 responded to the questionnaires and key informant interviews used in data collection, giving a response rate of 83 percent. This rate is good enough basing by Luutu (2015) who argues that response rates of 60 percent or more are regarded acceptable for research studies. Earlier studies on response rate found that on average, many studies considered response rate of 55.6 (Baruch, 1999) as cited by Kabuye, 2016. Based on these assertions, this implies that the response rate for this research was adequate for analysis. Table 4.1 below presents the participation level of the respondents from these three universities.

Table 4: 1: Response rates of samples

No.	Name of the university	Number of questionnaires		
		Distributed	**Collected**	**Percentage**
1	JU	147	120	82 %
2	ASTU	98	81	83%
3	WKU	67	59	88 %
Total		312	260	83 %

4.1.2. Socio-demographic Information

This section provides the social-demographic characteristics of the respondents that include the gender, age distribution of the respondents, their level of education and number of years they have been engaged with Ethiopia public university. The demographic results in the current study included the following:

4.1.2.1. Distribution of the respondents over three public Universities

Table-4.2 shows that among the 260 respondents about 120(46.2%) of the respondents were from Jimma university, 81(31.2%) were from Adama science and Technology university and 59(22.7%) respondents came from Wolkite University.

Table 4: 2: Distribution of the respondents over the three universities

		Frequency	Percent	Cumulative Percent
	JU	120	46.2	46.2
	ASTU	81	31.2	77.3
	WKU	59	22.7	100.0
	Total	260	100.0	

4.1.2.2. Gender of the respondents

The respondents were asked to state their gender in the questionnaire and the findings are as summarized in Table-4.3.

Table 4: 3: Gender of the respondents

		Frequency	Percent	Cumulative Percent
	Male	214	82.3	82.3
	Female	46	17.7	100.0
	Total	260	100.0	

This study intended to consider the perceptions and views of both males and females within the research survey study organization. The argument is that the appreciation of reality may differ depending on the respondent`s sex. The findings reveal as showed in Table 4.3 above, indicate that 46 (17.7%) of the female respondents participated in the research while the male respondents were 214(82.3%). Therefore, the majority of the respondents were male, a fairly true reflection of Ethiopia public universities. This implies that enhancing the organizational learning culture and structure most especially those that relate to gender issues within those organizations will involve a gender-awareness.

4.1.2.3. Educational level of the respondents

The researcher sought to establish the educational levels of the respondents about their highest education attainment in terms of the conventional higher education structure in Ethiopia. This was done because it was presumed that the education qualification could inform knowledge on the subject of study and general knowledge in organizational learning culture and structure and organizational performance and innovativeness, which were the foundation for this research. The respondents possessed the following academic qualifications as shown in Table 4.4 below.

Table 4: 4: Educational level of the respondents

		Frequency	Percent	Cumulative Percent
	Master's Degree	242	93.1	93.1
	Doctorate degree (PhD)	16	6.2	99.2
	Others	2	.8	100.0
	Total	260	100.0	

From Table 4.4 above, majority of the respondents were Master's, PhD; 242 (93.1%) were holders of Master's, 16 (6.2%) respondents were holders of PhD and 2 (0.8%) are holders of others (candidate PhD). This means that the majority of the employees have minimally PhD and others, there is a general notion that highly educated and trained people perform tasks within their professional competence.

4.1.2.4. Category Attached

Table 4: 5: Category attached

Category Attached		Frequency	Percent
JU	Academic staff	110	91.7
	Administrative staff	10	8.3
	Total	120	100.0
ASTU	Academic staff	74	91.4
	Administrative staff	7	8.6
	Total	81	100.0
WKU	Academic staff	56	94.9
	Administrative staff	3	5.1
	Total	59	100.0
Total	Academic staff	240	92.3
	Administrative staff	20	7.7

From above table, majority of the respondents were academic staff. 240 (92.3%) of the respondents are academic staff and 20 (7.7%) of the respondents are administrative staff.

4.1.2.5. Work experience of the respondents

Responses were received from the three selected public university staff regarding their work experience.

Table 4: 6: Work experience of the respondents

Year		Frequency	Percent	Cumulative Percent
	1-3	69	26.5	26.5
	4 -7	113	43.5	70.0
	8-11	61	23.5	93.5
	12-15	14	5.4	98.8
	Others	3	1.2	100.0
	Total	260	100.0	

Table -4.6 focuses that majority of the respondents that is 69 (26.5%) have 1-3 years of experience, 113 (43.5%) respondents have 4-7 years of experience while 61 (23.5%) respondents have 8-11 years of experience and 3(12%) respondents have other (above 16 years). These findings imply that the respondents are well informed on the topic of study.

4.1.3. Reliability Test

Reliability is the extent to which results are consistent over time. Reliability checks internal consistency of the instrument. Cronbach's Alpha coefficient was used to test the reliability of the study questionnaire. The reliability test point of 0.7 was adopted as the recommended by Yang, B. (2003). Table 4.8 shows the reliability results of Cronbach's Alpha test.

Based on the fact that the questionnaire had closed ended questions, using a Likert's Scale, the questionnaire was subjected to Cronbach's alpha to establish internal consistency how the items correlate among themselves. When the researcher has test the reliability of the questionnaires by using SPSS reliability analysis. The following table shows the reliability analysis of the questionnaires.

Table 4: 7: Reliability Test

	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Continuous Learning	.721	.831	3
Dialogue and Inquiry	.777	.783	3
Team Learning	.730	.732	4
Embedded Systems (Communication)	.826	.827	3
Employee Empowerment	.867	.870	4
Leadership	.893	.893	4
Organizational Performance	.870	.872	12
Organizational innovation	.790	.836	7
Organizational Structure	.844	.854	14

Table 4.7 shows that all the items under this study had Alpha coefficients value above the recommended 0.6 by Yang (2003); hence the instrument was considered reliable. George and Mallery (2003) contend that a Cronbach Alpha Coefficient greater than 0.9 is excellent, a coefficient greater than 0.8 is considered very good, 0.7 is good and acceptable, 0.6 is questionable while an alpha coefficient of 0.5 is poor while less than 0.5 is unacceptable. For this study all the items under study had above 0. 731 value hence a Cronbach Alpha Coefficient is greater than 0.7, i.e is acceptable. All the scales of the instrument were therefore believed reliable.

4.1.4. **Analysis of questionnaire data regarding organizational learning culture and structure**

Descriptive statistics was used to summarize and describe the respondents` perceptions regarding their degree of agreement or disagreement on the impact of organizational learning culture and structure on organizational performance and innovativeness at selected public universities of Ethiopia. The descriptive statistic values regarding the degree of agreement or disagreement on the organizational learning culture and structure were constructed as follows; while the inferential statistics were used Pearson correlation, linear regressions, and coefficient of determination. The results are presented below;

4.1.4.1. Indicators of organizational learning culture

There are different questions and organizational learning culture issues raised to know the factors of organizational learning culture of higher learning institutions.

The descriptive statistics on the organizational learning culture and structure in the Ethiopian selected public universities, the researcher asked the respondents to rate the questions on the base of the five Likert's scale. To analyze the results, the researcher considered the percentage corresponding to the mean (M) and the standard deviation (SD) of the scale for analysis respectively. To interpret the five Likert's scale the researcher adopted from Alston and Miller (2002) and Mohammad *et al.* (2014), they allocated the value as follow:

1.0- 1.49 Strongly Disagree, 1.5-2.49 Disagree, 2.5-3.49 Neutral, 3.5-4.49 Agree and 4.5-5 Strongly Agree.

Table 4: 8: Descriptive statistics results for the indicators of organizational learning culture

Indicators	Statements	Respondents' level of satisfaction					Central tendency	
		SDA F(%)	DA F(%)	N F(%)	A F(%)	SA F(%)	X %	SD %
Continuous Learning	Identify skills that the employees need for future work tasks	22 8.5)	19 (7.3)	92 (35.4)	64 (24.6)	63 (24.2)	3.49	1.181
	Employees help each other to learn	15 (5.8)	80 (30.8)	49 (18.8)	73 (28.1)	46 (16.5)	3.19	1.205
	Can get money and other resources to support their learning	22 (8.5)	89 (34.2)	53 (20.4)	77 (29.6)	19 (7.3)	2.93	1.127
Dialogue and Inquiry	In my organization, employees give positive and honest feedback to each other	20 (7.7)	81 (31.2)	61 (23.5)	73 (28.1)	25 (9.6)	2.47	1.136
	Whenever employees state their view, they also ask what others think	4 (1.5)	66 (25.4)	95 (36.5)	93 (35.8)	2 (.8)	3.09	.836
	In my organization, employees treat each other with respect	1 (.4)	42 (16.2)	43 (16.5)	144 (55.4)	30 (11.5)	3.62	.904
	In my organization, teams/groups, have the freedom to adapt (choose) their goals as	32 (12.3)	51 (19.6)	75 (28.8)	55 (21.2)	47 (18.1)	3.13	1.270

	needed							
Team Learning	In my organization, teams/groups, treat members as equals, regardless of rank, culture, or other difference	12 (4.6)	66 (25.4)	74 (28.5)	80 (30.8)	28 (10.8)	3.09	1.083
	In my organization, teams/groups, focus both on the group's task and on how well the group is working	5 (1.9)	40 (15.4)	69 (26.5)	124 (47.7)	22 (8.5)	3.45	.918
	Are rewarded for their achievements as a team/group	19 (7.3)	99 (38.1)	70 (26.9)	52 (20.0)	20 (7.7)	2.43	1.175
Embedded Systems (Communication)	My organization uses two-way communication on a regular basis, such as suggestion systems, electronic announcement boards and open meetings.	24 (9.2)	42 (16.2)	100 (38.5)	61 (23.5)	33 (12.7)	3.14	1.121
	My organization enables employees get their needed information at any time quickly and easily	2 (.8)	123 (47.3)	56 (21.5)	49 (18.8)	30 (11.5)	2.43	1.175
	My organization, maintains an up-to-date data base of employee skills	23 (8.8)	56 (21.5)	59 (22.7)	105 (40.4)	17 (6.5)	3.14	1.104
Employee Empowerment	My organization, recognizes employees for taking initiative	6 (2.3)	86 (33.1)	97 (37.3)	58 (22.3)	13 (5.0)	2.95	1.920
	My organization, Encourages employees to think from a global perspective	21 (8.1)	106 (40.8	42 (16.2)	69 (26.5)	22 (8.5)	2.87	1.150
	My organization, give employees control over the resources they need to accomplish their work	21 (8.1)	55 (21.2)	93 (35.8)	82 (31.5)	9 (3.5)	3.01	.996
	My organization, works together with the outside community (external environment) to meet mutual needs	4 (1.5)	91 (35.0)	48 (18.5)	90 (34.6)	27 (10.4)	2.49	1.071
Leadership	In my organization, leaders support requests for learning and training opportunities	19 (7.3)	103 (39.6)	38 (14.6)	89 (34.2	11 (4.2)	2.35	1.196
	In my organization, leaders share up to dated	26	81	59	79	15	2.99	1.117

	information with employees about the organization	(10.0)	(31.2)	(22.7)	(30.4)	(5.8)		
	In my organization, leaders share information with employees about organizational directions (strategies)	13 (5.0)	57 (21.9)	87 (33.5)	70 (26.9)	33 (12.7)	3.20	1.077
	In my organization, leaders empower others to help carry out the organization's vision	12 (4.6)	54 (20.8	63 (24.2)	113 (43.5)	18 (6.9)	3.27	1.016

The descriptive statistics in Table 4.8 above the respondents were neutral on the statement "Identify skills that the employees need for future work tasks, Employees help each other to learn and Can get money and other resources to support their learning" with (mean= 3.49, mean =3.19 and mean =2.93) respectively.

Correspondingly at a mean= 2.47 per cent the respondents were disagreed on the statement of "In my organization, employees give positive and honest feedback to each other". In addition, at a mean 3.9 and 3.62 respectively the respondents were agreed on the statement "Whenever employees state their view, they also ask what others think and in my organization, employees treat each other with respect". The results imply that most of the employees are state their view and also ask what others think for learning and also employees treat each other with respect on the organization.

According to the respondents response rate, the respondents were neutral on the statement "In my organization, teams/groups, have the freedom to adapt (choose) their goals as needed, In my organization, teams/groups, treat members as equals, regardless of rank, culture or other difference and In my organization, teams/groups, focus both on the group's task and on how well the group is working" with (mean= 3.13, mean= 3.09 and mean= 3.45) respectively. The results imply that the employees are treating as equals regardless of rank, culture or other difference on the organizations. Furthermore, at mean 2.43 the respondent disagrees on the statement "Are rewarded for their achievements as a team/group". The results imply that there wasn't rewarded for their achievements as a team/group. It may decrease employee's motivation or satisfactions.

From the Table above show that the respondents were neutral on the statement "My organization uses two-way communication on a regular basis, such as suggestion systems, electronic announcement boards and open meetings" with mean 3.14. And also, at mean 2.43 per cent of

the respondent disagrees on the statement "My organization enables employees to get needed information at any time quickly and easily". The results imply that the employees can't get their needed information at any time quickly and easily. The respondents were responded neutral on the statement of "My organization, maintains an up-to-date data base of employee skills and my organization, recognizes employees for taking initiative" with (mean= 3.14 and mean= 2.95) respectively.

Correspondingly, at mean 2.95, 2.87 and 3.01 per cent respectively the respondents were neutral on the statement "My organization, recognizes employees for taking initiative, my organization, Encourages employees to think from a global perspective and My organization, give employees control over the resources they need to accomplish their work" While, the respondents were disagree on the statement "My organization, works together with the outside community (external environment) to meet mutual needs" at mean= 2.49.

Furthermore, respondents were disagreed and neutral for the questioner "In my organization, leaders support requests for learning opportunities and training and In my organization, leaders share up to dated information with employees about the organization" with mean 2.35 and 2.99 respectively. The result shows that leadership in the organizations, there was share up to dated information with their employees about the organization but not more. In the same way, the respondents were neutral on the statement "In my organization, leaders share information with employees about organizational directions (strategies) and in my organization, leaders empower others to help carry out the organization's vision" with 3.20 and 3.27 respectively.

The major findings from the above table 4.9 was, employees not give positive and honest feedback to each other and not learn from previous problems, employees have not gotten rewarded for their achievements as a team/group work in line with this the researcher has gotten from qualitative data. As the respondents said, all employees didn't encourage or participate in any activities because there was shortage of budget. Employees can't get response or their needed information at any time quickly and easily, there was lack of training opportunities for employees to do new things or to develop their skills and there was shortage of money and other resources to support their learning. But, employees need to identify their skills for future work tasks.

4.1.4.2. Organizational learning culture and organizational performance

Table 4: 9: The descriptive results for organizational learning culture and organizational performance

Statements	Respondents' level of satisfaction				Central Tendency		
	SDA F (%)	DA F (%)	N F (%)	A F (%)	SA F (%)	X %	SD %
Employees in this organization are required to continuously upgrade and increase their knowledge and educational level	6 (2.3)	12 (4.6)	105 (40.4)	89 (34.2)	48 (18.5)	3.84	.868
Employees share their experiences and knowledge about work with other organizations in meetings	19 (7.3)	85 (32.7)	64 (24.6)	63 (24.2)	29 (11.2)	2.30	1.110
New employees are assigned mentors to help them on personal work	30 (11.5)	45 (17.3)	94 (36.2)	73 (28.1)	18 (6.9)	3.04	1.091
Employees spend time in personal conversations, but with others to help them solve work problems and to learn from them	16 (6.2)	93 (35.8)	64 (24.6)	73 (28.1)	14 (5.4)	2.93	1.060
In our organization employees often organize training	11 (11.5)	113 (43.5)	36 (13.8)	94 (36.2)	6 (2.3)	2.23	1.976
Organizational learning lead to development of organizational performance	1 (4)	33 (12.7)	44 (16.9)	149 (57.3	33 (12.7)	3.69	.860
Experiences of other organizations helped to improve our work programs	2 (.8)	36 (13.8)	88 (33.8)	65 (25.0)	69 (26.5)	3.75	.999
The college offers a number of new service (i.e. new courses, program and curriculum review) to improve organizational performance	4 (1.5)	86 (33.1)	52 (20.)	82 (31.5)	36 (13.8)	2.25	1.907
Top management contributes to the involvement of all the staff to develop	14 (5.4)	55 (21.2)	92 (35.4)	87 (33.5)	12 (4.6)	3.16	.993

competencies							
Academic excellence is top management objective (through an increasing publish articles in journals, scientific conferences, and scientific awards)	14 (5.4)	66 (25.4)	50 (19.2)	99 (38.1)	31 (11.9)	3.28	1.1 16

The descriptive statistics in Table 4.9 above the respondents were neutral on the statement "Employees in this organization are required to continuously upgrade and increase their knowledge and educational level" with mean 3.84. In line with, at a mean 2.30 the respondent were disagrees on the statement "Employees share their experiences and knowledge about work with other organizations in meetings". The result shows that the employees aren't sharing their experiences and knowledge about work with other organizations to learn. 3.04 per cent of mean the respondents were neutral on the statement of "New employees are assigned mentors to help them on personal work".

Correspondingly, at mean 2.93 the respondents were neutral on the statement "Employees spend time in personal conversations, but with others to help them solve work problems and to learn from them". In addition, the respondents were disagrees on the statement "In our organization, employees often organize training of our employees" with mean 2.23. The results imply that most of the higher learning institutions, they didn't organize training for their employees. The respondents agree on the statement of "Organizational learning culture lead to development of new programs and Experiences of other organizations desiderate to improve our work programs" with (mean= 3.69 and mean= 3.75) respectively. The result shows organizational learning culture lead to development of new skills or knowledge by working together.

Furthermore, respondents were disagreed on the statements of "The college offers a number of new service (i.e. new courses, program and curriculum review) to improve organizational performance" at a mean 2.25. The result shows, in the universities there was lack of new service and they didn't encourages staff to enhance their performance. The respondents were neutral on the statement "Top management contributes to the involvement of all the staff to develop competencies and Academic excellence is top management objective (through an increasing publish articles in journals, scientific conferences, and scientific awards)" with (mean= 3.01,

mean= 3.16, mean= 3.28 and mean= 3.28) respectively. The major findings from the above table was, employees they have lack of sharing their experiences and knowledge about work with other organizations and there was lack of offers a number of new service like, new courses, program and curriculum review. This also supported by qualitative data, as the respondents said, at the end of every module, they get feedback from your participants (students) on how to improve course delivery but still know not solved this problem.

4.1.4.3. Organizational learning culture and organizational innovativeness

Table 4: 10: The descriptive results for organizational learning culture and organizational innovativeness

Statements	Respondents' level of satisfaction				Central Tendency		
	SDA F (%)	DA F (%)	N F (%)	A F (%)	SA F (%)	X %	SD %
Individuals generate new insights on organizational improvement	4 (1.5)	32 (12.3)	103 (39.6)	91 (35.0)	30 (11.5)	3.43	.904
Top management is keen to adaption to new technology and new ideas	15 (5.8)	52 (20.0)	98 (37.7)	86 (33.1)	9 (3.5)	3.08	.947
In my organization, constantly emphasize and introduce managerial innovations (e.g. computer-based administrative innovations, new employee reward/training schemes, new departments or project teams	10 (3.8)	95 (36.5)	56 (21.5)	84 (32.3)	15 (5.8)	3.00	1.038
Encouraging employee to do work in new way	10 (3.8)	56 (22.7)	96 (36.9)	82 (31.5)	13 (5.0)	3.11	.942
Our new services or innovations are often perceived as very novel by customers	-	63 (24.2)	96 (36.9)	89 (34.2)	12 (4.6)	3.19	.857
There are systems and procedures for receiving and sharing information from outside the organization	42 (16.2)	90 (34.6)	46 (17.7)	41 (15.8)	41 (15.8)	2.48	1.723
Employees in our organization try to introduce innovative ideas and concepts to performing a given task	6 (2.3)	28 (10.8)	91 (35.0)	122 (46.9)	13 (5.0)	3.4	.836

The descriptive statistics in Table 4.10 above shows that the most response were neutral on the statements "Individuals generate new insights on organizational improvement, Top management is keen to adaption to new technology and new ideas and In my organization, constantly emphasize and introduce managerial innovations (e.g. computer-based administrative innovations, new employee reward/training schemes, new departments or project teams" with (mean = 3.43, mean = 3.08 and mean =3.00). In the same way, the high score rate were neutral on the statements of "Encouraging employee to do work in new way and our new services or innovations is often perceived as very novel by customers" with (mean= 3.11 and mean=3.19) respectively. Correspondingly at a mean= 2.48 and mean= 3.4, the respondents were disagreed and neutral on the statement of "There are systems and procedures for receiving and sharing information from outside the organization Employees in our organization try to introduce innovative ideas and concepts to performing a given task" respectively. The highest score of the respondents were neutral this shows that most of the employees in the universities try to introduce innovative ideas and concepts to performing a given task.

The finding shows, according to the respondents responded in table4 .10 above in the organizations, there are systems and procedures for receiving and sharing information from outside the organization, employees in organization try to introduce innovative ideas and concepts to performing a given task was declined at disagree. This implies that there is still low level of innovation, which is affected by different factors such as experience in using technology, lack of internet connection to increase organizational innovativeness.

4.1.4.4. Organizational structure and organizational performance

Table 4: 11: The descriptive results for organizational structure and organizational performance

Statements	Respondents' level of satisfaction				Central Tendency		
	SDA F (%)	DA F (%)	N F (%)	A F (%)	SA F (%)	X %	SD %
Employees participate in trainings on community service and quality management	6 (2.3)	136 (52.3)	44 (16.9)	62 (23.8)	12 (4.6)	2.46	1.093

Employees have enabling structures that allow for knowledge sharing and growth	2 (.8)	139 (53.5)	63 (24.2)	46 (17.7)	10 (3.8)	2.47	1.901
Managers and supervisors have a task of supporting the development of new competencies of their staff	14 (5.4)	45 (17.3)	94 (36.2)	90 (34.6)	17 (6.5)	3.20	.980
The administrative hierarchy and divisions in the institution are based on the scientific and administrative standards	16 (6.9)	44 (16.9)	98 (37.7)	80 (30.8)	20 (7.7)	3.15	1.021
The organization decision-making is based on the decentralization structure	21 (8.1)	102 (39.2)	38 (14.6)	56 (21.5)	43 (16.5)	2.33	1.097
There are training programs and events that clarify the duties and responsibilities towards developing the administrative work	6 (2.3)	46 (17.7)	93 (35.8)	86 (33.1)	29 (11.2)	3.33	.970
De-centralization structure improves effective decision-making	3 (5.0)	56 (21.5)	65 (25.0)	104 (40.0)	22 (8.5)	3.5	1.046
The working staff with experience and competency occupies advanced positions within the institution's organizational structure	18 (6.9)	37 (14.2)	88 (33.8)	94 (36.2)	23 (8.8)	3.26	1.036
There are lack of formal guidelines on how to deal with every operational activity/situation	2 (.8)	61 (23.5)	58 (22.3)	119 (45.8)	20 (7.7)	3.36	.951
In my organization, there is a clear procedure or communication to identify problems and solve it	45 (17.3)	70 (26.9)	65 (25.0)	69 (26.5)	11 (4.2)	2.49	1.054
There is formal orientation program about the aim of the organization for new members of staff	10 (3.8)	86 (33.1)	40 (15.4)	41 (15.8)	83 (31.9)	3.39	1.332
I do my work in an integrated functional department	3 (1.2)	47 (18.1)	74 (28.5)	108 (41.5)	28 (10.8)	3.43	.946
The structure or hierarchy in my organization is encouraging for innovation.	34 (13.1)	47 (18.1)	86 (33.1)	80 (30.8)	13 (5.0)	2.97	1.102

The descriptive statistics in Table 4.11 above shows, the respondents had chosen disagree on the statement of "We participate in trainings on community service and quality management and we have enabling structures that allow for knowledge sharing and growth" with (mean=2.46 and

mean= 2.47) respectively. The result revealed that the employees in the universities haven't structures that allow for knowledge sharing and growth. Respondents were neutral on the statement "Managers and supervisors have a task of supporting the development of new competencies of their staff and the administrative hierarchy and divisions in the institution are based on the scientific and administrative standards" with (mean=3.20 and mean=3.15) respectively.

The respondents' opinions were disagree and neutral on the statement "The organization decision-making is based on the centralization and There are training programs and events that clarify the duties and responsibilities towards developing the administrative work" at mean=2.33 and mean= 3.33 respectively. Moreover, at mean= 3.5, respondents were agree on the statement "De-centralization structure improves effective decision-making". Respondents were neutral on the statement "The working staff with experience and competency occupies advanced positions within the institution's organizational structure and there is lack of formal guidelines on how to deal with every operational activity/situation" with (mean= 3.26and mean=3.36).

In the same way, the respondents disagreed neutral on the statement of "In my organization, there is a clear procedure or communication to identify problems and solve it, There is formal orientation program about the aim of the organization for new members of staff, I do my work in an integrated functional department and The structure or hierarchy in my organization is encouraging for innovation" with (mean=2.49, mean=3.39, mean=3.43, and mean=2.97) respectively.

The major findings from the above table there were lack of employees' participating in trainings, on community service and quality management and also they have lack of enabling structures that allow for knowledge sharing and growth. And also, there was lack of de-centralization decision making on the organization. This was supported by qualitative data the respondents said that, universities were decision-making based on the centralization; this way is not participate to all employees or to all low levels. In the same way, from the quantitative data the result shows, de-centralization structure improves more effective to making decision. Moreover, there was lack of formal guidelines on how to do every operational activity/situation to staff.

4.1.5. Regression Analysis result

Factor analysis played an important confirmatory role in this study by confirming that. It was also useful in extracting thirteen factors which were continuous learning, dialog and inquiry, embodied system, employee's empowerment, team work, leadership, de-centralization structure, formalization structure, employee satisfaction, teaching learning perspective, internal process, technical innovation and administrative innovation.

The study aimed to establish the effect of organizational learning culture and structure on organizational performance and innovativeness of higher learning institutions in Ethiopia. The regression equation to be tested was as follows;

$Y = \beta o + \beta 1X1 + \beta 2X2 + \beta 3X3 + \beta nXn + \varepsilon i$

Where;

Y =Dependent variable

X= Independent variable

β0 = the constant term

β = Coefficient of independent variable

εi = The error term

4.1.5.1. Organizational Learning Culture and Organizational Performance

When to analysis the relation between dependent variable and independent variable, the researcher has considered high, medium and low value of R^2. As the previous study conducted, correlation coefficients were calculated using R^2, with the help of SPSS. Correlation analysis defines the relationships between two or more variables or independent and dependent variables, and shows the levels of significance of the relationship. When implement a moderation analysis, researchers evaluate their models based on r-square values or in other words affect sizes. According to Wilberforce (2011) if R-square value is .2 or below indicate low, between .2 to .5 values indicate medium, between .5 or above and above values indicate strong effect. To achieve objective of this study, hypothesis one was stated as follow:

H_{01}: Organizational learning culture has no significant effect on organizational performance.

The study set out to establish the effect of organizational learning culture on each of the three parameters of performance finally the impact of organizational learning culture on organizational

performance. Table 4.12 to Table 4. 14 show the results of organizational learning culture on organizational performance.

Table 4: 12: Organizational learning culture and employee satisfaction

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.605[a]	.361	.359	.153

a. Predictors: (Constant), Leadership, Continuous Learning, Embedded Systems, Employee Empowerment, Dialogue and Inquiry, Team Learning

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1.038	6	.173	72.241	.000[b]
	Residual	5.958	253	.024		
	Total	6.996	259			

a. Dependent Variable: Employee satisfaction

b. Predictors: (Constant), Leadership, Continuous Learning, Embedded Systems, Employee Empowerment, Dialogue and Inquiry, Team Learning

Coefficients [a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.002	.026		78.134	.000
	Continuous Learning	-.209	.032	-1.478	-6.626	.010
	Dialogue and Inquiry	-.001	.077	-.007	-.013	.080
	Team Learning	.002	.109	.014	.019	.040
	Embedded Systems	.001	.043	.006	.019	.050
	Employee Empowerment	.001	.069	.009	.018	.010
	Leadership	.213	.162	1.487	1.316	.014

a. Dependent Variable: Employee satisfaction

The results presented in Table 4. 12 indicate organizational learning culture has positive relationship and moderate effect on employee satisfactions. Organizational learning culture explains 36.1% (R^2 = 0.361) of the variation in employee satisfactions. R square indicates the variation in employee satisfactions (dependent variable) due to leadership, continuous learning, embedded systems, employee empowerment, dialogue and inquiry, team learning (independent variables). R square value is 0.361 which means that organizational learning culture has 36.1% influences on employee satisfactions. The regression model was significant at (F=72.241, p=0. 000). Since the calculated p-value was less than 0.05, null hypothesis was rejected and it was concluded that organizational learning culture has a statistically significant effect on employee satisfactions.

The model coefficients results show that t-tests has beta positive value at team learning, embedded systems, employee empowerment, leadership variable and p-values less than 0.05 while, t-tests has beta negative value at continuous learning and dialogue and inquiry variable and p-values less than 0.05 indicating that, individual organizational learning culture predictors had a statistically significant effect through team learning, leadership, embedded systems and employee empowerment but, OLC had no statistically significant effect through dialogue and inquiry continuous learning on employee satisfactions. This can be interpreted to mean that organizational learning does contribute to improvement of employee satisfactions in higher learning institutions.

Table 4: 13: Organizational learning culture and internal processes

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.709[a]	.424	.491	.140

a. predictors: (Constant), Leadership, Continuous Learning, Embedded Systems, Employee Empowerment, Dialogue and Inquiry, Team Learning

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	4.993	6	.832	82.664	.000[b]
	Residual	4.945	253	.020		
	Total	9.938	259			

a. Dependent Variable: Internal Process

b. Predictors: (Constant), Leadership, Continuous Learning, Embedded Systems, Employee Empowerment, Dialogue and Inquiry, Team Learning

Coefficients [a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.008	.023		214.566	.000
	Continuous Learning	.456	.029	-2.706	15.870	.045
	Dialogue and Inquiry	.005	.070	.030	.074	.004
	Team Learning	-.010	.100	-.061	-.104	.845
	Embedded Systems	-.004	.039	-.023	-.102	.441
	Employee Empowerment	.006	.063	.036	.099	.050
	Leadership	.434	.148	2.543	2.944	.004

a. Dependent Variable: Internal Process

The results presented in Table 4. 13 indicate positive and moderate effect between organizational culture and internal processes. Organizational learning explains 42.2% (R2 = 0.424) of the variation in internal processes. The regression model was significant at (F=82.664, p=0.000). Since the calculated p-value was less than 0.05, null hypothesis was rejected and it was concluded that organizational learning culture has statistically significant effect on internal processes.

The model coefficients results show that t-tests have has beta positive value and p-values less than 0.05 indicating that individual organizational learning culture measures has statistically significant effect on internal processes. This can be interpreted to mean that organizational learning does contribute to improvement of internal processes among higher learning institutions in Ethiopia. From the above table, dialogue and inquiry, Leadership and employee empowerment had statistically significant. However, t-tests has beta negative value at team learning and embedded systems variables and p-values greater than 0.05 indicating that those constructs are insignificant for internal processes.

Table 4: 14: Organizational learning culture and teaching learning perspective

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.565[a]	.338	.322	.328

a. Predictors: (Constant), Leadership, Continuous Learning, Embedded Systems, Employee Empowerment, Dialogue and Inquiry, Team Learning

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	13.852	6	2.309	67.492	.000[b]
	Residual	27.163	253	.107		
	Total	41.015	259			

a. Dependent Variable: Teaching Learning perspective

b. Predictors: (Constant), Leadership, Continuous Learning, Embedded Systems, Employee Empowerment, Dialogue and Inquiry, Team Learning

Coefficients [a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.053	.055		92.380	.000
	Continuous Learning	-.018	.067	-.052	-.264	.792
	Dialogue and Inquiry	-.035	.165	-.102	-.216	.829
	Team Learning	1.929	.234	5.537	8.257	.050
	Embedded Systems	.665	.092	1.920	7.260	.043
	Employee Empowerment	-.043	.148	-.122	-.289	.773
	Leadership	-2.529	.346	-7.288	-7.313	.048

a. Dependent Variable: Teaching Learning perspective

The result presented in Table 4.14 indicates that a positive relationship and moderate effect of organizational learning culture on teaching learning perspective. Organizational learning explains 33.8% (R2 = 0. 338) of the variation in teaching learning perspective. The regression model was significant at (F=67.492, p=0.000). Since the calculated p-value was less than 0.05, null hypothesis was rejected and it was concluded that organizational learning has a statistically significant effect on teaching learning.

The model coefficients results show that t-tests have p-values less than 0.05 indicating that organizational learning measures have statistically significant effect on teaching learning perspective. This can be interpreted to mean that organizational learning does contribute to improvement of teaching learning on higher learning institutions in Ethiopia. From the above table, individual organizational learning culture predictors had a statistically significant effect through team learning and embedded systems at t-tests has beta positive value and p-value less than 0.05 but, leadership at t-tests has beta negative value and p-value less than 0.05 and the

other factors like continuous learning, dialogue and inquiry and employee empowerment had no statically significant variable for teaching learning.

Table 4: 15: Organizational learning culture and organizational performance

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.796[a]	.502	.490	.179
a. Predictors: (Constant), Leadership, Continuous Learning, Embedded Systems , Team Learning, Dialogue and Inquiry, Employee Empowerment				

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	394.672	6	65.779	64.237	.001[b]
	Residual	4419.216	253	17.467		
	Total	4813.888	259			
a. Dependent Variable: Organizational performance						
b. Predictors: (Constant), Leadership, Continuous Learning, Embedded Systems , Team Learning, Dialogue and Inquiry, Employee Empowerment						

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.907	1.151		6.002	.000
	Continuous Learning	.011	.057	.526	.190	.048
	Dialogue and Inquiry	.681	.328	.316	2.077	.053
	Team Learning	.174	.073	.157	2.384	.018
	Embedded Systems	-.053	.104	-.033	-.503	.615
	Employee Empowerment	.009	.057	.438	.158	.034
	Leadership	.307	.333	.139	.921	.050
a. Dependent Variable: Organizational performance						

The results presented in Table 4.15 indicate that a positive and strong effect between organizational learning culture and organizational performance. Organizational learning culture explains 50.2% (R2 = .502) of the variation in organizational performance. R square value is 0.502 which means that organizational learning culture has 50.2% influences on organizational performance. The regression model was significant at (F=64.237, p=.001). Since the calculated p-value was less than 0.05, null hypothesis was rejected and it was concluded that organizational learning culture has a statistically significant effect on organizational performance in higher learning institutions.

The model coefficients results presented in Table 4.15 show that t-tests of continuous learning, dialogue and inquiry, team learning, employee empowerment and leadership had a beta coefficient was positive and p-value is less than 0.05, this indicates that organizational learning culture through the above variables has a statistically significant effect on organizational performance while, embedded systems was insignificant.

4.1.5.2. Organizational Learning culture and Organizational Innovativeness

The second objective of the study was to establish the impact of organizational learning culture on organizational innovativeness. To achieve objective of this study, hypothesis two was stated as follow:

H_{02}: Organizational learning culture has no significant effect on organizational innovativeness.

The study set out to establish the effect of organizational learning culture on each of the two parameters of innovativeness, the effect of organizational learning culture on cultural innovation (technical and administrative innovation) and finally on organizational innovativeness. Table 4.16 to Table 4.18 shows the regression results of organizational learning culture on organizational innovativeness.

Table 4: 16: Organizational learning culture and technical innovation

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.575[a]	.344	.341	1.119

a. Predictors: (Constant), Leadership, Continuous Learning, Embedded Systems, Employee Empowerment, Dialogue and Inquiry, Team Learning

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	14.425	6	2.404	68.690	.004[b]
	Residual	316.941	253	1.253		
	Total	331.365	259			

a. Dependent Variable: Technical Innovation

b. Predictors: (Constant), Leadership, Continuous Learning, Embedded Systems, Employee Empowerment, Dialogue and Inquiry, Team Learning

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.284	.187		22.927	.000
	Continuous Learning	.080	.230	.082	.347	.050
	Dialogue and Inquiry	-.340	.562	-.345	-.606	.627
	Team Learning	2.319	.798	2.342	2.907	.004
	Embedded Systems	.431	.313	.437	1.376	.170
	Employee Empowerment	.408	.504	.413	.810	.003
	Leadership	2.072	1.181	2.101	1.754	.001

a. Dependent Variable: Technical Innovation

The results presented in Table 4.16 indicate that positive relationship and moderate effect organizational learning culture on technical innovation. Organizational learning culture explains 34.4% (R2=0.344) of the variation in technical innovation. R square indicates the variation in technical innovation (dependent variable) due to leadership, continuous learning, embedded systems, employee empowerment, dialogue and inquiry, team learning (independent variables). R square value is 0.344 which means that organizational learning culture has 34.4% influences on technical innovation. The regression model was significant at (F=68.690, p=.004[b]). Since the calculated p-value was less than 0.05, null hypothesis was rejected and it was concluded that organizational learning culture has a statistically significant effect technical innovation in higher learning institutions.

The model coefficients results presented in Table 4.16 show that t-tests of continuous learning had a beta coefficient of 0.82 at (p=.050), team learning a beta coefficient of 2.34 at p=.004 and employee empowerment had a beta coefficient of 0.412 at (p= .003) and leadership had a beta coefficient of 2.101 at (p=.001). Since the p-value is less than 0.05, this indicates that organizational learning culture through the above variables has a statistically significant effect on technical innovation. The regression analysis results show that the association between, dialogue and inquiry and embedded systems was insignificant on technical innovation. This means the p-value was greater than 0.05 so, in this study those are not effect on the dependent variables.

Table 4: 17: Organizational learning culture and administrative innovation

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.518	.310	.302	1.119

a. Predictors: (Constant), Leadership, Continuous Learning, Embedded Systems, Employee Empowerment, Dialogue and Inquiry, Team Learning

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	14.425	6	2.404	61.901	.000[b]

	Residual	316.941	253	1.253		
	Total	331.365	259			

a. Dependent Variable: administrative Innovation

b. Predictors: (Constant), Leadership, Continuous Learning, Embedded Systems, Employee Empowerment, Dialogue and Inquiry, Team Learning

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.284	.187		22.927	.000
	Continuous Learning	.080	.230	.082	.347	.729
	Dialogue and Inquiry	-.340	.562	-.345	-.606	.545
	Team Learning	2.319	.798	2.342	2.907	.004
	Embedded Systems	.431	.313	.437	1.376	.001
	Employee Empowerment	-.408	.504	-.413	-.810	.419
	Leadership	2.072	1.181	2.101	1.754	.003

a. Dependent Variable: administrative Innovation

The results presented in Table 4.17 indicate positive and moderate effect of organizational learning culture on administrative Innovation. Organizational learning culture explains 31% (R^2 = .310) of the variation in administrative Innovation. R square indicates the variation in administrative Innovation (dependent variable) due to leadership, continuous learning, embedded systems, employee empowerment, dialogue and inquiry and team learning (independent variables). R square value is 0.310 which means that organizational learning culture has 31% influences on administrative Innovation. The regression model was significant at (F=61.901, p=0. 000). Since the calculated p-value was less than 0.05, null hypothesis was rejected and it was concluded that organizational learning culture has a statistically significant effect on administrative Innovation.

The model coefficients results show that t-tests has beta positive value at team learning, embedded systems, and leadership variable and p-values less than 0.05 while, t-tests has beta negative value at continuous learning, dialogue and inquiry and employee empowerment factors

and p-values less than 0.05 indicating that, individual organizational learning culture predictors had a statistically significant effect through team learning, embedded systems, and leadership but, OLC had no statistically significant effect through continuous learning, dialogue and inquiry and employee empowerment on administrative Innovation. This can be interpreted to mean that organizational learning does contribute to improvement of administrative Innovation in some extent.

Table 4: 18: Organizational learning culture and organizational innovativeness

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.603[a]	.379	368.	1.987
a. Predictors: (Constant), Leadership, Continuous Learning, Embedded Systems , Team Learning, Dialogue and Inquiry, Employee Empowerment				

ANOVA[a]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	358.445	6	59.741	80.625	.000[b]
	Residual	2256.859	253	8.920		
	Total	2615.304	259			
a. Dependent Variable: Organizational Innovativeness						
b. Predictors: (Constant), Leadership, Continuous Learning, Embedded Systems , Team Learning, Dialogue and Inquiry, Employee Empowerment						

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.046	.822		4.920	.000
	Continuous Learning	.088	.041	5.752	2.142	.033
	Dialogue and Inquiry	.259	.234	.163	1.104	.271
	Team Learning	.147	.052	.180	2.812	.045
	Embedded Systems	.139	.075	.118	1.860	.040
	Employee Empowerment	.086	.041	5.669	2.111	.036
	Leadership	.026	.238	.016	.109	.013
a. Dependent Variable: Organizational Innovativeness						

The results presented in Table 4.18 indicate that organizational learning culture has positive and moderate effect on organizational innovativeness. Organizational learning culture explains 37.9% (R^2 = .379) of the variation in organizational innovativeness. The regression model was significant at (F=80.625, p=0.000). Since the calculated p-value was less than 0.05, null hypothesis was rejected and it was concluded that organizational learning culture has statistically significant effect on organizational innovativeness.

The model coefficients results show that t-tests has beta positive value at continuous learning, team learning, embedded systems, employee empowerment, and leadership variable and p-values less than 0.05 while, t-tests has beta positive value at dialogue and inquiry but p-values is greater than 0.05 indicating that, individual organizational learning culture predictors had a statistically significant effect through continuous learning, team learning, embedded systems, employee empowerment, and leadership but, OLC had no statistically significant effect at dialogue and inquiry on organizational innovativeness. This can be interpreted to mean that organizational learning culture does contribute to improvement of organizational innovativeness.

4.1.5.3. Organizational structure and Organizational Performance

The third objective of the study was to establish the impact of organizational structure on organizational performance. To achieve objective of this study, hypothesis three was stated as follow:

H_{03}: Organizational structure has no significant effect on organizational performance

Organizational structure comprised Structure de-centralization and Structure formalization. The study objective set out to establish the effect of organizational structure on each of the three parameters of performance and finally, the main hypothesis on the effect of organizational structure on organizational performance was tested. Table 4.19 to Table 4.22 shows the regression results of organizational structure on organizational performance.

Table 4: 19: Organizational structure and employees satisfactions

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.670[a]	.401	.393	1.158
a. Predictors: (Constant), Structure de-centralization, Structure formalization				

ANOVA[a]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	38.168	2	19.084	80.071	.000[b]
	Residual	344.678	257	1.341		
	Total	382.846	259			
a. Dependent Variable: Employee satisfaction						
b. Predictors: (Constant), Structure de-centralization, Structure formalization						

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.861	.276		10.367	.000
	Structure de-centralization	-.148	.082	-.116	-1.812	.071
	Structure formalization	.360	.068	.342	5.329	.048
a. Dependent Variable: Employee satisfaction						

The results presented in Table 4.19 indicates that a positive relationship and moderate effect of organizational structure in employee satisfaction. Organizational structure explains 40.1% (R^2 = .401) of the variation in employee satisfactions. The regression model was significant at (F=80.071, p=0. 000). Since the calculated p-value was less than 0.05, null hypothesis was rejected and it was concluded that organizational structure has a statistically significant effect on employee satisfaction.

The model coefficients results show that t-tests has beta positive value at structure formalization variable and p-values less than 0.05 while, t-tests has beta negative value at de-centralization structure and p-values greater than 0.05. Individual, organizational structure predictors had a statistically significant effect through formalization structure but, had no statistically significant effect at de-centralization structure on employee satisfaction. The study can be interpreted to mean

that organizational structure does contribute to improvement of employee satisfaction in some extent.

Table 4: 20: Organizational structure and internal processes

Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	
1	.647[a]	.418	.414	.742	
a. Predictors: (Constant), Structure de-centralization, Structure formalization					
ANOVA[a]					
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	101.900	2	50.950	92.438	.000[b]
	Residual	141.654	257	.551		
	Total	243.554	259			
a. Dependent Variable: Internal Process						
b. Predictors: (Constant), Structure de-centralization, Structure formalization						
Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.123	.177		6.350	.000
	Structure de-centralization	.379	.053	.372	7.218	.010
	Structure formalization	.341	.043	.406	7.872	.049
a. Dependent Variable: Internal Process						

The results presented in Table 4.20 indicate a positive relation and moderate effect of organizational structure on internal process. Organizational structure explains 41.8% (R^2 = .418) of the variation in internal process. R square value is 0.418 which means that organizational structure has 41.8% influences on internal process. The regression model was significant at (F=92.438, p=0. 000). Since the calculated p-value was less than 0.05, null hypothesis was rejected and the study concluded that organizational structure has a statistically significant effect on internal process.

The model coefficients results show that t-tests has beta positive value at structure de-centralization and structure formalization variable and p-values less than 0.05 indicating that, individual organizational structure predictors had a statistically significant effect through structure de-

centralization and structure formalization on internal process. This can be interpreted to mean that organizational structure does contribute to improvement of internal process in higher learning institutions.

Table 4: 21: Organizational structure and teaching learning process

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.794[a]	.630	.628	1.476
a. Predictors: (Constant), Structure formalization, Structure de-centralization				

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	955.063	2	477.531	219.238	.000[b]
	Residual	559.783	257	2.178		
	Total	1514.846	259			
a. Dependent Variable: Teaching Learning						
b. Predictors: (Constant), Structure formalization, Structure de-centralization						

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.577	.386		6.667	.000
	Structure de-centralization	-.048	.022	-.086	-2.141	.033
	Structure formalization	2.482	.121	.817	20.439	.047
a. Dependent Variable: Teaching Learning						

The results presented in Table 4.21 indicate organizational structure has positive relationship and strong effect on teaching learning. Organizational structure explains 63.0% (R^2 = .630) of the variation in teaching learning. The regression model was significant at (F=219.238, p=0. 000). R square value is .630 which means that organizational structure has 63.0% influences on teaching learning. Since the calculated p-value was less than 0.05, null hypothesis was rejected and the study concluded that organizational structure has a statistically significant effect on teaching learning.

The model coefficients results show that t-tests has beta positive value at formalization structure variable and p-values less than 0.05 but, t-tests has beta negative value at de-centralization

structure indicating that, individual organizational structure predictors had a statistically significant structure formalization on teaching learning however, insignificant effect through structure de-centralization. This can be interpreted to mean that organizational structure does contribute to improvement of teaching learning in higher learning institutions.

Table 4: 22: Organizational structure and organizational performance

Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	
1	.506[a]	.308	.301	.143	
a. Predictors: (Constant), Structure formalization, Structure de-centralization					
ANOVA[a]					
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	401.948	2	200.974	65.514	.000[b]
	Residual	4411.940	257	17.167		
	Total	4813.888	259			
a. Dependent Variable: Organizational performance						
b. Predictors: (Constant), Structure formalization, Structure de-centralization						

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	6.782	.953		7.113	.000
	Structure centralization	.234	.054	.274	4.373	.050
	Structure formalization	.208	.308	.042	.674	.031
a. Dependent Variable: Organizational performance						

The results presented in Table 4.22 indicate that organizational structure has a positive relationship and moderate effect on organizational performance. Organizational structure explains 30.8% (R^2 = .308) of the variation in organizational performance. The regression model was significant at (F=65.514, p=0.000). Since the calculated p-value was less than 0.05, null hypothesis was rejected and it was concluded that organizational structure has statistically significant effect on organizational performance.

The model coefficients results show that t-tests has beta positive value at structure de-centralization and structure formalization variable and p-values less than 0.05 indicating that, individual organizational structure predictors had a statistically significant effect through structure de-centralization and structure formalization on organizational performance. This can be interpreted to mean that organizational structure does contribute to improve of organizational performance in higher learning institutions.

4.1.5.4. Organizational structure and Organizational Innovativeness

The fourth objective of the study was to establish the impact of organizational structure on organizational innovativeness. To achieve objective of this study, hypothesis four was stated as follow:

H_{04}: Organizational structure has no significant effect on organizational innovativeness.

Organizational structure comprised structure de-centralization and structure formalization. The study objective set out to establish the effect of organizational structure on each of the two parameters of innovativeness and finally, the main hypothesis on the effect of organizational structure on organizational innovativeness was tested. Table 4.23 to Table 4.25 shows the regression results of organizational structure on organizational innovativeness.

Table 4: 23: Organizational structure and technical innovation

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.630[a]	.397	.392	.787		
a. Predictors: (Constant), Structure de-centralization, Structure formalization						
ANOVA[a]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	104.636	2	52.318	84.445	.000[b]
	Residual	159.225	257	.620		
	Total	263.862	259			
a. Dependent Variable: Technical Innovation						
b. Predictors: (Constant), Structure de-centralization, Structure formalization						
Coefficients[a]						

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.993	.188		5.294	.000
	Structure de-centralization	.343	.056	.323	6.162	.046
	Structure formalization	.377	.046	.430	8.203	.039
a. Dependent Variable: Technical Innovation						

The results presented in Table 4.23 indicate positive and moderate effect of organizational structure on technical innovation. Organizational structure explains 39.7% (R^2 = .397) of the variation in technical innovation. The regression model was significant at (F=84.445, p=0. 000). R square value is .397 which means that organizational structure has 39.7% influences on technical innovation. Since the calculated p-value was less than 0.05, null hypothesis was rejected and the study concluded that organizational structure has a statistically significant effect on technical innovation.

The model coefficients results show that t-tests has beta positive value at structure de-centralization and structure formalization variable and p-values less than 0.05 indicating that, individual organizational structure predictors had a statistically significant effect through structure de-centralization and structure formalization on technical innovation. This can be interpreted to mean that organizational structure does contribute to improvement of technical innovation.

Table 4: 24: Organizational structure and administrative innovation

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.597[a]	.357	.352	.834
a. Predictors: (Constant), Structure de-centralization, Structure formalization				

ANOVA[a]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	99.099	2	49.550	71.286	.000[b]
	Residual	178.635	257	.695		
	Total	277.735	259			
a. Dependent Variable: administrative Innovation						

b. Predictors: (Constant), Structure de-centralization, Structure formalization						
Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.068	.199		5.376	.000
	Structure de-centralization	.385	.059	.353	6.525	.049
	Structure formalization	.327	.049	.365	6.732	.010
a. Dependent Variable: administrative Innovation						

The results presented in Table 4.24 indicate that a positive and moderate effect of organizational structure on administrative innovation. Organizational structure explains 35.7% (R^2 = .357) of the variation in administrative innovation. The regression model was significant at (F=71.286, p=0. 000). R square value is .357 which means that organizational structure has 39.7% influences on administrative innovation. Since the calculated p-value was less than 0.05, null hypothesis was rejected and the study concluded that organizational structure has a statistically significant effect on administrative innovation.

The model coefficients results show that t-tests has beta positive value at structure de-centralization and structure formalization variable and p-values less than 0.05 indicating that, individual organizational structure measures had a statistically significant effect through structure de-centralization and structure formalization on administrative innovation. This can be interpreted to mean that organizational structure does contribute to improvement of administrative innovation.

Table 4: 25: Organizational Structure and organizational innovativeness

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.603[a]	.379	.372	1.009
a. Predictors: (Constant), Structure formalization, Structure de-centralization				

ANOVA[a]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	289.121	2	144.560	80.625	.000[b]
	Residual	2326.183	257	9.051		

	Total	2615.304	259			
a. Dependent Variable: Organizational Innovativeness						
b. Predictors: (Constant), Structure formalization, Structure de-centralization						

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.900	.692		7.078	.000
	Structure de-centralization	.195	.039	.309	5.007	.050
	Structure formalization	.226	.224	.062	1.009	.014
a. Dependent Variable: Organizational Innovativeness						

The results presented in Table 4.25 indicate that organizational structure has a positive and moderate effect on organizational innovativeness. Organizational structure explains 37.9% (R^2 = .379) of the variation in organizational innovativeness. The regression model was significant at (F=80.625, p=0.000). Since the calculated p-value was less than 0.05, null hypothesis was rejected and it was concluded that organizational structure has statistically significant effect on organizational innovativeness.

The model coefficients results show that t-tests has beta positive value at structure de-centralization and structure formalization variable and p-values less than 0.05 indicating that, individual organizational structure predictors had a statistically significant effect through structure centralization and structure formalization on organizational innovativeness. This can be interpreted to mean that organizational structure does contribute to improvement of organizational innovativeness.

4.1.5.5. Organizational structure and Organizational learning culture

To achieve objective of this study, hypothesis five was stated as follow:

H_{05}: Organizational structure has no significant effect on organizational learning culture.

Organizational structure comprised structure de-centralization and structure formalization. The study objective set out to establish the effect of organizational structure on organizational learning culture.

Table 4: 26: Organizational structure and organizational learning culture

Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	
1	.548[a]	.300	.295	4.243	
a. Predictors: (Constant), formalization Structure, de-centralization Structure					

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1984.544	2	992.272	55.110	.000[b]
	Residual	4627.394	257	18.005		
	Total	6611.938	259			
a. Dependent Variable: Organizational learning culture						
b. Predictors: (Constant), formalization Structure, de-centralization Structure						

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.478	.976		5.610	.000
	de-centralization Structure	.541	.055	.540	9.876	.000
	formalization Structure	.144	.316	.025	.455	.049
a. Dependent Variable: Organizational learning culture						

The results presented in Table 4.26 indicate that organizational structure has a positive relationship and moderate effect on organizational learning culture. Organizational structure explains 30.0% (R^2 = .300) of the variation in organizational learning culture. The regression model was significant at (F=55.110, p=0.000). Since the calculated p-value was less than 0.05,

null hypothesis was rejected and it was concluded that organizational structure has statistically significant effect on organizational learning culture.

The model coefficients results show that t-tests has beta positive value at structure de-centralization and structure formalization variable and p-values less than 0.05 indicating that, individual organizational structure predictors had a statistically significant effect through structure de-centralization and structure formalization on organizational learning culture. This can be interpreted to mean that organizational structure does contribute to improve of organizational learning culture in higher learning institutions.

Generally, higher learning institutions are educational institutions that aim to provide the information and services to its employees and users in efficient ways. But still there was a problem to share knowledge and work experience among them and there was a lack of organizational learning culture indicators in the universities. The finding shows that, team learning, dialogue and inquiry, employee empowerment and de-centralization structure are more applicable to share knowledge and develop their skills with together and more affected organizational performance and innovativeness in higher learning institutions. Moreover, organizational learning culture has strong effect on the dependent variable but organizational structure has moderate effect on the dependent.

4.1.6. Correlation between independent variable and dependent variable

Pearson correlation was used to measure the strength or the degree of the relation between variables.

Table 4: 27: Correlation results of independent variable and dependent variable

Correlations											
		CL	DI	TL	ES	EE	LS	DCS	SF	OP	OI
CL	Pearson Correlation	1									
DI	Pearson Correlation	-.054	1								
TL	Pearson Correlation	.049	.238**	1							
ES	Pearson Correlation	.000	.150*	.354**	1						
EE	Pearson Correlation	1.000**	-.056	.047	.003	1					
LS	Pearson Correlation	-.060	.916**	.208**	.165**	-.062	1				
DCS	Pearson Correlation	.050	.168**	.259**	.180**	.048	.119	1			
SF	Pearson Correlation	-.020	.015	-.190	.289**	-.020	.047	.298**	1		
OP	Pearson Correlation	.161*	.056**	.047**	-.003	.086	.062**	.048**	.020*	1	
OI	Pearson Correlation	.085	.916	.208**	.165**	.081	.194**	.119**	.047*	.062**	1
**. Correlation is significant at the 0.01 level (2-tailed).											
*. Correlation is significant at the 0.05 level (2-tailed).											

Table 4.26 shows the results of using person correlation test to determine relationship between leadership, dialogue and inquiry, team learning, embedded systems, structure de-centralization and structural formalization as independent variable and organizational performance and innovativeness as dependent variable. As Table 4.26 show varied degree of relationship among study variables both positive and negative correlation. According to Cohen (1988) interpretation of correlation coefficients, 0.00 to 0.01 shows no correlation; 0.02 to 0.09 show very weak correlation; 0.1 to 0.29 show weak correlation; 0.30 to 0.49 show moderately weak correlation;

0.5 to 0.69 show moderately strong correlation; 0.70 to 0.89 show strong correlation; 0.90 to 0.98 show very strong correlation while 0.99 to 1.00 show almost perfect correlation.

The results presented in Table 4.27 shows that continuous learning have a statistically significant positive correlation with organizational performance. And also, leadership, dialogue and inquiry, team learning, structure de-centralization and structural formalization have a statistically significant positive correlation with organizational performance but, embedded systems and organizational performance have no correlation. In addition, among leadership, dialogue and inquiry, team learning, embedded systems, structure de-centralization and structural formalization have a statistically significant positive correlation with organizational innovativeness.

4.1.7. Qualitative analysis

As highlighted in chapter three of this research, it was considered necessary to carry out interviews with college deans, department heads and academic vice presidents namely, two respondents from JU and ASTU college of social science and humanities, one respondent from ASTU college of computing and informatics, two respondents from WKU department of governance and department of computer science and two respondents from JU and WKU academic vice presidents. The researcher has conducted interview with seven respondents. The reason why only seven respondents, the sample of respondents for the interviews were selected those who were willing to participate in the study.

The result of interview shows that all the office holders are working to achieve the university's goal and vision and sustain their respective competitiveness. They were in agreement that in universities have facilities such as computers, good internet connection and e-resources that facilitate organizational learning culture practices. But, competences and skills like communication, knowledge sharing and information literacy are very essential to use opportunities for organizational performance. On the question how do you evaluate organizational learning culture (OLC) in your organization? The respondents said that, organizational learning culture has much to do with training, and with providing learning opportunities to staff. They were seen to perceive organizational learning culture as occurring if staff members are given training opportunities.

Consistent with the view by respondents from WKU department head of computer science said that, organizational learning culture is roughly synonymous with training; the respondents highlighted the training opportunities which were provided to individual staff members as one way of promoting learning culture at an individual level. However, funding was insufficient for all academic employees to obtain training; "*We have been lucky to get scholarships for further studies, which have enabled some of our colleagues to acquire further studies up to PhD level. We have a staff training plan, to participate all employees, but still now it is not in practices, because of budget constraints*".

In the same way, one respondent from ASTU Dean College of computing and informatics stated that "*as higher education we are working with together to have behavioral and cognitive change in our university but, there is a lack of budget to participate all employees on new service. In my opinion we have limitations in creating platform to share knowledge among staff and disseminate new research works for future use. And also, as he said we have a plan to create training opportunities or to share knowledge among staff*".

One of the respondents from JU dean of college of social science said that "*to evaluate OLC practices in university, there are activities performed in our organization for the purpose of organizational learning culture like, workshop and community of practice." However, one respondent from WKU department head of computer science said that*" *We want to participate on training, community service and other research activities but, the organization didn't encourage rather than relating the issue with the budget concern and they are not as such interested to share their experience*".

One informant from ASTU collage of social science and humanity, in terms of specific activities which are carried out by university to enhance organizational learning, specific mention was made of the debrief meetings, which are regularly held by academic and administrative staff members. At such meetings, these staff members who have attended conferences or workshops have the opportunity to debrief these of their colleagues who did not attend such events. Another respondents also confirmed that workshops are a major source of learning, especially when they are well organized and facilitated by experts in the field and at least once every three months, one person from each department to attend such workshops.

Another question asked by researcher was: do you think organizational structure affects

employees need? How? All respondents responded to it yes; because if the organizations had not clear structure, the employees of the organization not motivated to do their job's effectively so organizational structure affected employees need mean that affected organizational performance. And also, one respondent from WKU department of governance, it can affect like the employees lack of work experience, in using technologies and level of the employees or educational level.

In addition, the researcher made interview with JU and WKU presidents of academic staff, about the criteria measurements of organizational performance in universities. As the respondents said, there are difference measurements of organizational performance but in university we consider based on customer satisfaction perspective, internal process perspective, research output perspective, community based service perspective and teaching learning perspective. Those are the main or core measurements of organizational performance in universities. And also, another question asked by the researcher was, which structural method is in use your organization? Is it centralization or decentralization? As the respondents said, now we use centralization structure but this method was participated few authorities so, we think for the future the organizational structure to be decentralization.

The respondents were also totally disagreement on the three universities, the question, would you categories your university as a learning organization? They did not believe that university is as learning organization because, where the university has not to take advice from its major stakeholders, including especially from its students, regarding improvement of course delivery. One respondent indicated the following example of university drawback to act as learning organization: "*At the end of every module, we get feedback from our participants (students) on how to improve course delivery. These recommendations are not acted upon, and the students raise the same issues over and over again. If we were a learning organization, such things would not happen*".

Moreover, the researcher also carried out open ended questionnaires from three universities. The respondents justify their view on the question" *Does organizational learning culture affects organizational performance?*" In the three universities most of the respondents answered "Yes" because in using technologies for multipurpose and the customer or concerned bodies knowledge, resource or facilities problem and others are affected organizational performance. One respondent from JU said that "*Yes, because the influence of organizational learning culture on organizational performance is the employees of the organizations. If the employees are not*

satisfied the organization also not performed because employee satisfaction is one of organizational performance measurement". In the same way respondent from WKU said that" *yes, organizational learning culture has a big contribution to organizational performance, if the organizational learning culture is good i.e organizing training opportunities, develop employees skill and recognize employees for taking initiative, the same to the organization is performed* ".

The respondents responded on the question "Is there relationship between organizational structure and organizational performance at your university?" The respondents answered yes, if the organizations have not clear structure and procedures to facilitation employees and if the employees not performed their works so the organizations can be affected their performance. Another respondent from WKU said that "*It is, I consider as a gift, because there is no clear instructors that shows the right person for the right position*." This leads to be poor performance of universities so organizational structure is affected organizational performance.

Correspondingly, the respondents were state their view on the question "How does your organization encourage employees to share experiences or learning?" From both JU and ASTU stated that by creating training opportunity, by organizing conference, work shop as well as by creating team work so, our employees can share their experience or learning culture. One respondent from WKU said that "*In my organization, employees not encouraged to share their experience with other because there is lack of budget". In the same way, from WKU said that" I have worked three year in this organization but, still now I didn't see any encouragement for employees to share their experience or to do new things*". Thus, the researcher concluded that there was lack of training opportunity at WKU for employees to share their experience or to upgrade their skills and to learn from other experience.

And also, the researcher obtained response from the respondents on the statement of" How does new service or innovation functional in your organization?" to create new service or innovation by participate our students and motivated servants or employees do cooperatively and do some innovating things. One respondent from WKU said that "*In my organization, there is not a clear procedure or communication to identify problems and solve it so; the organization should be consider it*".

4.2. Discussion

The current study intended to analyze the impact of organizational learning culture and structure on organizational performance and innovativeness of higher learning institution in Ethiopia. Thirteen variables have been identified to predict the organizational performance and innovativeness, these variables are: continuous learning, dialogue and inquiry, team learning, embedded system, empowerment, leadership, formalization structure, de-centralization structure, employee satisfaction, teaching learning perspective, internal process, technical innovation and administrative innovation. Correlation analysis was corporate to describe the strength and direction of the linear relationship between the two independent variables and the dependent variable. Work experiences relate to the length of the experience of organizational learning practices by employees. When an employee is employed, the employee will adopt organizational practices and share his/her skills and knowledge with other organizational members. Work experiences can influence organizational learning practices. In this study, the majority of the respondents that is 113 (43.5%) respondents have 4-7 years of experience.

The descriptive statistics results reveal that continuous learning, dialogue and inquiry, team learning, embedded system, employee empowerment, leadership affected the organizational performance of higher learning institution. Under team learning, the study finding shows that the respondents disagreed that they are not get rewarded or encouragement for their achievements as a team/group as shown mean= 2.43. In the same way, the researcher has gotten result from the open-ended data; there was lack of encouraging for employees to develop their skill or learning.

Under embedded system, the researcher found out that employee can't get their needed information at any time quickly and easily as shown mean=2.43. Under employee empowerment, the researcher found out that most of the university didn't work together with the outside community (external environment) to meet mutual needs. Besides, leadership in the organization is not support requests for learning and training opportunities as shown mean= 2.35 of the respondents were disagree. And also, most of the universities weren't organized training for employees, the colleges or departments not offers a number of new service (i.e. new courses and curriculum review) to improve organizational performance.

Under the organizational structure measurement's the researcher found out employees were not participate in trainings on community service and quality management and also they have lack of

enabling structures that allow for knowledge sharing and growth. The respondents said that the universities was decision-making based on the centralization, this way is not participate to all employees or low levels. In addition, most of the respondents said that, there were lack of training programs inside and outside the organization to provide or participates all employees and also there was lack of formal guidelines on how to deal with every operational activity/situation to staff and there was lack of formal orientation program for new members of staff.

4.2.1. Organizational Learning Culture and Organizational Performance

The result of regression finding shows that as follow:

The study established that organizational learning culture had strong effect and statically significant on organizational performance. This was expected given the many statements that organizational learning culture positively influences on organizational performance (Hadi V., 2010). The finding could also be due to different conceptualization of organizational learning culture.

The finding was consistent with (Ahmed *et al*., 2016) study findings that found statistically significant of organizational learning on organizational performance measures. In the same way, the current study findings were similar to their findings on organizational performance measures since their study reported positive statistically significant influence of organizational learning culture on organizational performance measures. Individual, organizational learning culture measures had moderate effect and a statistically significant through team learning, leadership, embedded systems and employee empowerment but, OLC had no statistically significant through dialogue and inquiry continuous learning on employee satisfactions

Organizational learning culture has moderate effect on internal processes explains 42.2% (R2 = 0.424) of the variation in internal processes with the remaining 57.8% explained by other variables at (F=82.664, p=0.000). From the regression result, dialogue and inquiry, Leadership and employee empowerment had statistically significant. However, t-tests has beta negative value at team learning and embedded systems variables and p-values greater than 0.05 indicating that, those are insignificant variable for internal processes. In addition, a statistically significant through team learning; embedded systems and leadership at t-tests has beta positive value and p-

value less than 0.05 and the other factors like continuous learning, dialogue and inquiry, and employee empowerment no statically significant variable for teaching learning. The study concluded that organizational learning has statistically significant effect on teaching learning.

The findings suggested that organizational learning culture had a positive and strong effect on organizational performance. The other three results were that the effects of organizational learning culture on organizational performance aspects. The first finding revealed that there was a positive and significant effect of organizational learning on internal internal process perspective. This was confirmed in other studies (Pornprom *et al*., *2017*). The second result indicated that organizational learning had a positive effect on employee's satisfaction. This result agreed with previous studies (Fang *et al*., 2016). The third result found a positive and significant of organizational learning on teaching learning perspective, which agrees with previous analyses (Pornprom *et al*., *2017*).

Organizational learning culture has a moderate effect on organizational performance at continuous learning, dialogue and inquiry, team learning, employee empowerment and leadership while, insignificant at embedded systems variable. Form the previous study Shoaib *et al.* (2012) supported that, continuous learning, dialogue and inquiry, team learning, employee empowerment and leadership learning is an individual effort and has greater impact on organizational performance. Leadership has a positive impact on organizational performance and has been accepted. This is an important tool for promoting collective thinking and communication leading towards organizational performance. And also the study was supported by Jyothibabu *et al*. (2010) their findings show that team learning or group level learning has a statistically significant effect on organizational performance and leadership has a positive impact on organizational performance and it plays an important role in enhancing the communication and the establishment of processes for shared learning.

In general, the finding showed that, there were lack of organizational learning culture indicators in HLI but those are more effected organizational performance and innovativeness like team learning, employee empowerment, dialogue and inquiry, leadership and continuous learning.

4.2.2. Organizational Learning culture and Organizational Innovativeness

Organizational learning culture and innovativeness both are considered valuable strategic management tools to boost up the performance of organizational. The core purpose behind this study was to explore relationship among organizational learning culture and innovativeness. The study established that the effect of organizational learning culture on organizational innovativeness revealed that organizational learning culture had a moderate effect on organizational innovativeness explained by 37.9% of the variation in organizational innovativeness.

The finding was consistent with Matej *et al*., (2012) finding that organizational learning and innovative culture within the organization have positive and strong association with organization performance. These factors are behaving like cornerstone to improve the organizational performance. Individually, Continuous leaning, team learning, empowerment, and leadership are a statically significance variable at p-values less than 0.05 while, dialogue and inquiry and embedded systems was insignificant on technical innovation at t-tests has beta negative value and p-values greater than 0.05. In the same way, organizational learning culture measures had a statistically significant effect through team learning, embedded systems, and leadership but, OLC had no statistically significant effect through continuous learning, dialogue and inquiry and employee empowerment on administrative Innovation.

Organizational learning culture measures had a statistically significant through continuous learning, team learning, embedded systems, employee empowerment, and leadership but, OLC had no statistically significant effect at dialogue and inquiry on organizational innovativeness. This can be interpreted to mean that organizational learning culture does contribute to improvement of organizational innovativeness. Moreover, organizational learning and innovativeness has positive link so there should be learning culture within the organization to enhance the innovative capabilities. Previous study confirmed by Škerlavaj et al. (2010) investigated the link between organizational learning culture and innovativeness. As they suggested that organizational learning culture plays a crucial role in enhancing both elements of innovativeness (technical innovation and administrative innovations).

4.2.3. Organizational structure and Organizational Performance

Organizational structure comprised Structure de-centralization and Structure formalization. The study objective set out to establish the effect of organizational structure on each of the three parameters of performance and then on organizational performance was tested. The findings of this study reported diverse findings on the effect of organizational structure on organizational performance. Organizational structure has moderate effect and significant on organizational performance at (F=5272.708, p=0.000).

The finding was consistent with (Haim and Mohammed, 2014) their findings show that organizational structure was influenced on organizational performance. In the same way, the current study findings were similar to their findings on organizational performance since their study reported positive statistically significant influence of organizational structure on organizational performance. Individual, organizational structure measures had a statistically significant through Structure formalization but, had no significant at Structure de-centralization on employee satisfaction. In addition, organizational structure measures had a significant through Structure de-centralization and Structure formalization on internal process and teaching learning. Generally, organizational structure measurements had a statistically significant through structure de-centralization and structure formalization on organizational performance. From the previous studied (Seyed *et al*., 2013 and Ann *et al.*, 2015) agree with the current study, their results show that there are a positive and a statically significance both structure formality and structure de-centralization on organizational performance. In line with Stephen and Timoth (2012) that a de-centralization organization can act more quirkily to solve problems and more employees provide input in to decision. Based on the results of hypothesis the study concluded that organizational structure measurements have statistically significant and moderate effect on organizational performance.

4.2.4. Organizational structure and Organizational Innovativeness

The core purpose behind this study was organizational structure a positive and moderate effect on innovativeness explains 35.7% (R^2 = 0.357) of the variation. The factors are behaving like heart to improve the organizational innovativeness. Individual organizational structure measures had a statistically significant through de-centralization structure and formalization structure on technical innovation and administrative innovation at p-values less than 0.05 with organizational

innovativeness. This can be interpreted to mean that organizational structure measurement's does contribute to improvement of technical innovation and administrative innovation. In addition, organizational structure measurements had a significant through de-centralization structure and formalization structure on organizational innovativeness. From the previous study supported by Hatch (2006), decentralized structure allows for innovation and is thus more suitable and beneficial when used in a changing environment with high requirement on adapting to the environment. He also suggested that, decentralized structure is characterized by communications that allow for share of new tasks and new work procedures. Therefore the study concluded that, organizational structure on innovativeness has moderate effect and positive link and it does contribute to enhance the innovative capabilities in the organization.

4.3. **Proposed a Framework for organizational performance and innovativeness**

A proposed framework is discussed as a set of wide ideas taken from relevant fields of analysis and used to structure a subsequent presentation. When clearly articulated a proposed framework has potential usefulness as a tool to support research and to assist a researcher to make meaning of subsequent findings (Smyth, 2004).

As organizational learning culture relates to individuals and relations between individuals in an organization as well as a supportive environment and managerial involvement, organizational learning culture and structure framework need to enhance organizational performance and innovativeness. Previous researchers have proposed models to investigate organizational learning practices. The models have either tried to explain a single aspect of organizational learning or have aimed to explain its relationships with other organizational aspects of performance. The models have thus shown only a single relationship between organizational learning and organizational performance.

This study adopts an integrated perspective of different variables. It integrates organizational learning culture, organizational structure, organizational performance and innovativeness into a single model. The proposed framework is based on reviewed theoretical and discussions presented in the literature review. It presents the researcher's schematic drawing of the study variables and shows how the study has been thought out. Generally, the proposed framework came after the current result and improvement suggestion of the respondents using this for solving the problem that is found in the organizational learning culture and structure. From the

current result continuous learning, dialogue and inquiry, team learning, embedded system, empowerment and leadership, structure centralization and structure formalization are the main input or factors to will lead organizational performance and innovativeness in higher learning institutions.

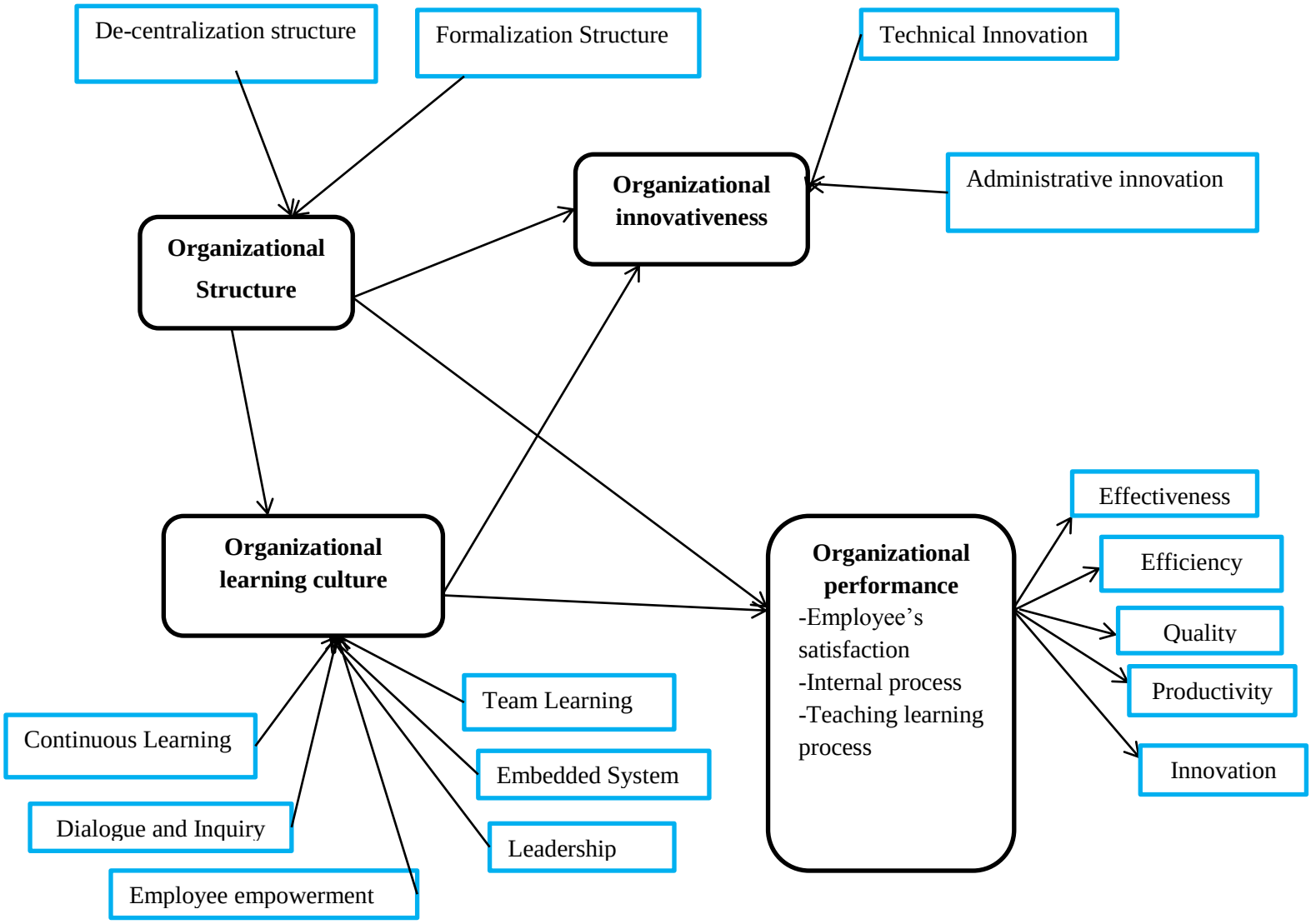


Figure 4: 1: proposed a framework for organizational performance and innovativeness

Source: modified and adopted from (Shoaib et al. ,2011, Matej et al., 2012).

Organizational structure: It is the main entities of the organization to contribute all activities and frequently uses teams of employees to accomplish works. It also focus on the structure of the organization, how institutions set priorities, how institutions make decisions, along with how the institutions improve in these area. This entity also focuses on how the institutions communicate the vision, mission, and value of the organization to all stockholders. If one organization to be structured it should be include both de-centralization structure and formalization structure.

Organizational learning culture: This is the other entities of the organization and it well contributes to both organizational performance and innovativeness. Moreover, organizational learning cultures with all of its dimensions influence different perspective of organizational performance. If the organization to have learning culture, it should be included continuous learning, embedded system, employee empowerment, leadership, team learning, dialogue and inquiry.

Organizational innovativeness: It supporting institution operations, examines the systems and process that support to create new service, learning and other day to day activities of the institution such as adopt new technology and facilities. It also requires one to transform and exploit extent knowledge, including the knowledge and information shared by the employees. Shrining of knowledge encourages innovation.

Organizational performance: It is a practice based framework that builds on the relationship of among organizational learning culture, organizational structure and innovations and results in the selectivity of impact and value. If the organizations are applied these activities, it should be effective, efficiency, quality, productivity and innovation or it should be performed. Because performance is the success of work, task or goals to a certain level of desired satisfaction.

Continuous learning: Refer to the occurrence of support and reward for learning to gain needed skills to survive with the changes in the work environment. Moreover, designing learning with work: so that employees can learn their task and opportunities provided along with job for ongoing educations.

Dialogue inquiry: Is the openness of all organizational members in communicating all aspects in relation to their organization. Employees obtain constructive skill in which they can express their idea and have ability to listen.

Team learning: Refer to the freedom of a team to complete tasks and reward team performance. Work is designed to use team to access several thinking, to access team learning, group members are expected to learn together and create collaboration culture that will be valued and reward.

Embedded system: Refer to the organizational conditions that allow organizational members to interact with their environment to gain knowledge.

Employee empowerment: Employee empowerment involving employees in decision making by giving them.

Leadership: Refer to a leader's attitude to supporting the continuous efforts of all organizational members. Reinforce for their employees to do new things and informed for them updated information about the organizations.

De-centralization structure: Refers to the concentration of authority at the top level of the administrative system or it occurs in organization when a high amount of authority is delegated. It allows employees participation in decision, increase the level of motivation and it provide greater learning opportunities to the employees of the organization at all hierarchal level.

Formalization structure: Refers to the degree or extent that organizational jobs have been standardized or it is the amount of preparing, recording laws, regulations, instructions, procedures, jobs description, clarifying duties of personnel and so on which are considered in an organization and are recorded. And also, it is the extent to which the employee's role defines by formal documentation.

Administrative Innovation: Occur in the administrative process and affect the social system of an organization i.e its rule, role, procedure, and structure that related to the communication and exchange between organizational employees.

Technical Innovation: Affect to services and the organizations production process or service operations.

Employee's Satisfactions: Is one of the organizational performance predictors, which employees satisfied in their job or work by sharing their knowledge with colleagues. If employees have satisfied by their jobs the performance of the organization should be high or increase.

Internal Process: Learning conditions of educational institutions based on the development of the internal process and improve quality of the process and results of higher education. For

example, how departments or colleges offer a number of new services to the users? (i.e. new courses, program and curriculum review) to improve organizational performance.

Teaching Learning Process: Shows an active process in which one person shares information with other to provide them and to make behavioral and cognitive change.

CHAPTER FIVE

Conclusion and recommendation

5.1. Conclusions

Higher learning institutions are educational institutions that aim to provide the information and services to its employees and users in efficient ways. To achieve their purposes, universities' should go through several learning culture to ensure that employees and users are satisfied and the universities' to be performed with the services provided. This research addressed a gap noted in the literature regarding there was a lack of comprehensive assessing study of an educational performance and innovativeness, from the perspective of employees of academic and administrative staff. The aim of the study was to investigate the impact of organizational learning culture and structure on organizational performance and innovativeness. It also addressed a gap related to the fact that there is a lack of research investigated on the area of organizational learning culture and structure of higher learning institutions in Ethiopian. The research used questioner and interview method to collect the data needed.

Organizational learning culture had a positive and strongly effect on organizational performance. Based on this finding, the study concludes that organization learning is an important resource package and it contributes to achievement of improved organizational performance. This encourages that when the organization is learned, it is better decisions are made leading to better performance.

And also, organizational learning culture had a positive and moderate effect on organizational innovativeness. This led to conclude that organizational learning culture influences organizational innovativeness. Continuous learning, team learning, embedded systems, employee empowerment, and leadership a statistically significant but, OLC had no statistically significant effect at dialogue and inquiry on organizational innovativeness. This finding led to the conclusion that appropriately organizational learning culture ought to be created for improved organizational innovativeness.

Moreover, there is statistically significant relationship between organizational structure and organizational performance. This study concludes that organizational structure has influence on performance of higher learning institutions in Ethiopian. The study also concludes that enabling

structures, adoption of latest technology, participative employees, continuous improvement and training are necessary organizational factors to consider in achieving high organizational performance. In addition, there is statistically significant effect of organizational structure on organizational innovativeness. The study concludes that the contribution of organizational structure on organizational innovativeness exists regardless of the state of organizational learning culture among higher learning institutions in Ethiopian. The study further concludes that organizational learning culture should be evaluated as an independent variable. Therefore, organizational learning culture and structure are well contributed organizational performance and innovativeness in HLIs.

This research has challenges, mainly during the data collection process. The first is related to the participants, most of them did not respond the questionnaire at the required time. And the facts that there are only few researches have been conducted on the organizational learning culture and structure of higher learning institutions at global level, and to the researcher knowledge none are available in Ethiopia that gave the researcher another challenge due to finding standard reference point. Therefore, most of the references in this study were based on research undertaken from other countries.

5.2. Recommendation

Based on the findings of this research, the researcher strongly recommends the following:

It is clear evidence that organizational learning culture and structure appears as the key function to improve employees' competency, to encourage them continuously learn, advancing their skill to achieve high level of competency. Thus, universities as the highest institutions in Ethiopia need to maintain and expand its capacity as learning organization to have change of employees learning behavior and cognitive change in learning culture with in organization. Farther, there was lack of employees' encouragement towards the universities to achieve their work so, it should be consider these problems

Based on the findings, organizational learning culture plays a key role in their direct effect on the relationship organizational performance and innovativeness. The study recommended that managers of universities should relook at their internal organizational environments. This indicates that there is need to create enabling organizational structures and learning culture,

technology or innovation, participative management style and hold a latest technology since they enhance organizational performance.

The study further justifies the importance of both organizational learning culture and structure measures of performance thus; universities should be focus on performance measurement's i.e on internal processes, employee satisfaction, teaching learning perspectives of performance. This gives a more holistic measure of organizational performance.

Universities are using centralization structure. However, to modify the organizational structure towards organizational performance and innovativeness, it is better to shift from centralization systems to decentralize. Because de-centralized is more form of structures as means of improving the decision making process and that employees should be empowered to be more innovative in caring out tasks and also encourage a better understood of the phenomenon problem that needs to be solved or situations is controlled by the individuals who are at the closet level to solve problem. Farther, the universities should be making available training programs about learning culture and innovation process for employees to improve their awareness as well as changing their attitudes towards organizational innovation through reasonable educational programs.

In higher learning institutions, team learning, dialogue, employee empowerment and inquiry, and de-centralization structure are more applicable to share knowledge and develop their skills with together and more affected organizational performance and innovativeness. Therefore, universities are encouraged to work towards those indicators to improve their performance and innovativeness.

Higher education institutions should fulfill their role as learning organizations by initiatives and organizational learning principles in the functioning of their organizations. By implementing such practices, they will be able to ensure that they become competitive and sustainable within the dynamic environment, which is characterized by ever- increasing competition for educational services. Such implementation involves putting in place resources, including sufficient time to support learning activities, and the creation of an enabling environment for knowledge sharing among the staff concerned.

Finally, from the theoretical perspective, the finding's proposed a framework to enhance organizational learning culture and structure within the universities perspective. The study provides a theoretical model that will help both academicians and administrative to formulate the

best strategies for maximizing the influence of learning culture and structure in organizations and organizations' performance. Therefore, universities should be formulating to implement organizational learning culture and structure based on the proposed model in order to achieve an excellent performance standard.

In general, all concerned bodies should be work together, all employees should be contribute new thing on the area he or she does and by creating conductive environment to instructors i.e giving recognition to highly strong staff and continuously learning or motivating and evaluating the concerned ones to their duties and creating fairness during position competition to performed organizational learning culture and structure practically to strengthen or improved organizational performance and Innovativeness.

The current study may provide necessary guidelines to understand the issues of organizational learning culture and structure and organizational performance and innovativeness. Also, the findings of this study provide an initial understanding of the way towards further research in this area. The researcher has taken only higher learning institutions so, future research should be focus on other areas such as school districts as well as public and private hospitals.

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Appendix

Jimma University

College of Natural Science

Department of Information Science

Appendix A

Dear respondents,

Firstly, I would like to thank you for spending your precious time to fill this questionnaire. The purpose of this this questionnaire is gathering information on "**The Impact of Organizational Learning Culture and Structure on Organizational Performance and Innovativeness: The case of Ethiopian public University**". There is no pledged compensation for participating in this study. However, your opinion will certainly contribute to the growing body of work on organizational learning culture as well as structure. Since, you're honest and timely responses are valuable in determining the reliability of the research outcome; you are kindly requested to fill carefully and return the completed questionnaire in the stated manner. The data will be used only for research purpose and will be confidential and name or address of the participant is disclosed.

Thank you in advance for your good cooperation!

Letensea Gereabzgi

Note: If you have any question about this study, please feel free to ask now or anytime throughout the study at the following address:

E-mail: **letshgereabzgi@gmail.com** Phone number: **0925797015**

Part I: Background Information

Please provide the answer by writing or ticking (√) appropriately in the provided brackets.

1. Which university are you from?

JU ☐ ASTU ☐ WKU ☐

2. What is your gender? Male ☐ Female ☐

3. Please select your educational level

Master's Degree ☐ Doctorate degree (PhD) ☐

Other (please specify)……

4. Which category are you attached to?

Academic staff ☐ Administrative staff ☐

5. How long have you spent working for the organization?

1-3 years ☐ 4 -7 years ☐ 8-11 years ☐

12-15 years ☐ other (please specify) ----------

Part II: Open ended Questions related to organizational learning culture and structure to enhance organizational performance and innovativeness

1. Does organizational learning culture affects organizational performance A). Yes B). No

1.1. If yes to Qn.1, what is the influence of organizational learning culture on the performance?

2. Is there relationship between organizational structure and organizational performance at your University? A). Yes B). No

2.1. If yes to Qn.3, what is the relationship between organizational structure and organizational performance at your University?

3. How does your organization encourage employees to share knowledge or learning culture?

4. What would be your recommendations on how practically the current organizational learning culture and structure can be strengthened or improved to ensure comprehensive organizational performance and Innovativeness?

Part III: organizational learning culture

Put a tick (√) mark on the corresponding box that you feel goes with your judgment/position regarding factors to affect effective implementation of **organizational learning culture** within your organization.

Identify statements as 1=strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree and 5= strongly Agree

No.	Statements					
A	**Continuous Learning**	1	2	3	4	5
	Identify skills that the employees need for future work tasks					
	Employees help each other to learn					
	Can get money and other resources to support their learning					
B	**Dialogue and Inquiry**	1	2	3	4	5
	In my organization, employees give positive and honest feedback to each other					
	Whenever employees state their view, they also ask what others think					
	In my organization, employees treat each other with respect					

C	**Team Learning**	1	2	3	4	5
	In my organization, teams/groups, have the freedom to adapt (choose) their goals as needed					
	In my organization, teams/groups, treat members as equals, regardless of rank, culture, or other differences					
	In my organization, teams/groups, focus both on the group's task and on how well the group is working					
	Are rewarded for their achievements as a team/group					
D	**Embedded Systems (Communication)**	1	2	3	4	5
	My organization uses two-way communication on a regular basis, such as suggestion systems, electronic announcement boards and open meetings.					
	My organization enables employee to get their needed information at any time quickly and easily.					
	My organization, maintains an up-to-date data base of employee skills					
E	**Employee Empowerment**	1	2	3	4	5
	My organization, recognizes employees for taking initiative					
	My organization, Encourages employees to think from a global perspective					
	My organization, gives employees control over the resources they need to accomplish their work					
	My organization, works together with the outside community (external environment) to meet mutual needs.					
F	**Leadership**	1	2	3	4	5
	In my organization, leaders support requests for learning and training opportunities					
	In my organization, leaders share up to date information with employees about the organization					
	In my organization, leaders share information with employees about organizational directions (strategies)					
	In my organization, leaders empower others to help carry out the organization's vision					

Part IV: Organizational Performance

Please response by a tick (√) if you agree or disagree to each of the following, where;

1= Strongly Disagree, 2= Disagree, 3= Neutral, 4=Agree and 5= Strongly Agree.

No	**Statements**	**Answer**				
2.		1	2	3	4	5
	Employees in my organization are required to continuously upgrade their skill or knowledge and educational level					
	We are sharing our experiences and knowledge about work with other organizations in meetings					
	New employees are assigned mentors to help them on personal work					
	We don't spend time in personal conversations, but with others to help them solve work problems and to learn from them					
	In our organization we often organize training of Employees					
	Organizational learning lead to development of organizational performance					
	Experiences of other organizations desiderate to improve our work programs					
	The College offers a number of new service (i.e. new courses, program and curriculum review) to improve organizational performance					
	Top management contributes to the involvement of all the staffs to develop competencies.					
	Academic excellence is top management objective (through an increasing publish articles in journals, scientific conferences, and scientific awards).					

Part V: Organizational innovation

Put a tick (√) mark on the corresponding box that you feel goes with your judgment/position regarding **organizational learning culture** within your organization

No	**Statements**	**Answer**				
3.		1	2	3	4	5
	Individuals generate new insights on organizational improvement					
	Top management is keen to adaption to new technology and new ideas					
	We constantly emphasize and introduce managerial innovations (e.g. computer-based administrative innovations, new employee reward/training schemes, new departments or project teams					
	Our new services or innovations are often perceived as very novel by customers					
	There are systems and procedures for receiving and sharing information from outside the organization					
	Employees in our organization try to introduce innovative ideas and concepts to performing a given task					

Part VI: Organizational Structure

Please response by a tick (√) if you agree or disagree to each of the following, where;

1= Strongly Disagree, 2= Disagree, 3= Neutral, 4=Agree and 5= Strongly Agree.

No	**Statements**	**Answer**				
4.		1	2	3	4	5
	Employees participate in trainings on community service and quality management					
	Employees have enabling structures that allow for knowledge sharing and growth					
	Managers and supervisors have a task of supporting the development of new competencies of their staff					
	The administrative hierarchy and divisions in the institution are based on the scientific and administrative standards					
	The institution decision-making is based on the decentralization					
	There are training programs and events that clarify the duties and responsibilities towards developing the administrative work.					
	De-centralization structure improves effective decision-making					
	There are training programs inside and outside the institution to provide the working staff with efficiency and administrative experience					
	The working staff with experience and competency occupies advanced positions within the institution's organizational structure.					
	There are lack of formal guidelines on how to deal with every operational activity/situation					
	In my organization, there is a clear procedure or communication to identify problems and solve it					
	There is formal orientation program about the aim of the organization for new members of staff					
	I do my work in an integrated functional department					
	The structure or hierarchy in my organization is encouraging for innovation.					

Jimma University

College of Natural Science

Department of Information Science

Appendix B:

Check list interview for college deans and department heads

1. How dose evaluate organizational learning culture (OLC) in your organization?
2. What activities are performed in you organization for the purpose of organizational learning culture (like workshop, team work and on-the-job training)?
3. How do you strengthen your staff's learning culture and allocating necessary resources?
4. Do you think organizational structure affects employees need? How?
5. Would you categories your university as a learning organization? Why?

Check list interview for academic vice presidents

1. Which structural method is in use for your organization? Is it centralization or decentralization?
2. What are the criteria's you have used to measure organizational performance?