ASSESSMENT OF UNIVERSITY STAKEHOLDERS' PRACTICES IN THE CONTEXT OF TRIPLE-LOOP LEARNING

By

Nabeela Shakur Abbasi

NATIONAL UNIVERSITY OF MODERN LANGUAGES, ISLAMABAD

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ABSTRACT

Thesis Title: Assessment of University Stakeholders' Practices in the Context of Triple-Loop Learning

The study was designed to assess university stakeholders' practices of triple loop learning, to examine the relationship between different factors of triple loop learning and to investigate the effect of external environment on triple-loop learning practices in the context of universities. The conceptual framework of the study was based on the Burke Litwin model of change (2003). Descriptive Quantitative research design was adopted to examine the phenomena under study. Population of this study included the stakeholders (Deans, directors, heads of departments and faculty members N=1683) only from Faculty of Social Sciences in public sector universities of Islamabad and Rawalpindi. Random Stratified sampling technique was used, and sample comprised of 168 randomly selected respondents. A standardized scale consisting of three factors namely transformational, transactional, and individual/personal was used for data collection. The collected data were analyzed by using statistical methods through SPSS. Inferential test techniques including regression analysis, correlation, and t-test were applied to assess the relationship of research variable of triple loop learning on organizational practices as outcome variable. It was concluded that external environment had a significant effect on triple loop learning. It was found that there was a strong relationship between different dimensions of triple loop learning. The findings of this research provided proof of a clear positive correlation among triple loop learning and university stakeholders' practices. It is recommended that university administration may introduce targeted programs to infuse elements of transformational learning, encourage faculty collaboration, foster a culture of continuous learning, and provide platforms for engaging in reflective practices among all tiers of university stake holders.

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LIST OF ABBREVIATIONS

Abbreviation	Terms
d.f	Degree of Freedom
Diff.	Difference
Fig.	Figure
H	Hypothesis
HEC	Higher Education Commission
HEIs	Higher Education Institutions
M	Mean
N	Number
OV	Outcome variable
p	Probability Value / Level of Significance
Q	Questions
R^2	Coefficient of Determination
RV	Research variable
Sig.	Significance
SPSS	Statistical Package for Social Sciences
SS	Social Sciences
t	Independent t-test value
TLL	Triple-Loop Learning

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ACKNOWLEDGEMENTS

Dedication

This thesis is dedicated to my parents, my Parents-in-law, my Husband (Imran Yaqoob), and especially to my Daughters Maryam, Fatima, and Zainab for their love. Additionally, I would like to acknowledge my special friend Dr. Ishrat Siddiqa Lodhi , who stood by me, offering endless support and encouragement.

CHAPTER 1

INTRODUCTION

1.1. Background of the Study

In the global scenario the world is continuously changing its nature of working at organizational level and improving with the adaptive changes that are the need of the century. Productive growth and compatible learning is a challenge for organizations along with strategizing the learning avenues to sort out the challenges in a very tactful manner. Learning new behavior in context of change practices is essential for organizational growth and the urge to initiate assessment actions which leads to the reflective practices for change (Glick & Gibbs, 2010). Diversifying learning approaches cultivates an adaptable organizational culture, fostering a more productive environment for learning and growth.

Learning cannot happen in organization without perceptive efforts therefore, identification of needs in order to introduce novel paradigms in the process of change resulting development, within the organization is necessary. To grow and thrive in a changing landscape, organizations must adapt to contemporary trends. This adaptation is crucial for meeting global challenges and requires a proactive assessment of future organizational needs. Creating an environment conducive to positive stakeholder practices becomes pivotal in motivating them to work collectively towards achieving common organizational goals (Ahmad *et al*., 2021).

Educational organizations must evaluate and adapt to changing needs, which is a crucial process facilitated by the concept of Triple Loop. This term serves as an indicator, guiding the assessment of current practices and prompting necessary changes to meet evolving requirements effectively. It has been observed that several organizational practices that represent positive change in the professional environment of the organization are

connected with triple loop learning factors. The boundaries that must be drawn between any action and its analysis are the focus of triple loop learning. Multiple researchers have found triple loop learning and organizational change practices as more associated with transactional factors as compared to Transformational factors. The triple loop learning recently have been found to have an influence on personal and individual dimensions as well (Yuthas *et al.*, 2004).

Triple loop learning practices provide a framework for the most crucial and substantial change processes in the universities. An assessment of the Triple loop learning practices at the university level aims to focus on the current organizational practices in term of change, as well as their assessment. Assessing organizational practices proves highly effective and necessary. It allows for critical reflection on policy implementations impacting employee performance. This assessment also highlights prevailing professional work environment practices shaped by the organization's norms and culture. Acquiring understanding, gathering information, processing knowledge, changing behaviors, updating skills, prioritizing values, rethinking attitude and willingness to apply the insight for productivity is the organizational learning (Flood & Romm, 2014; Peschl, 2006).

Moreover, if specifically indicating universities in terms of assessing current practices to see either they are meeting up with the challenges rigorous effort are required to assess them. In this context, the practices of triple-loop learning involve a comprehensive assessment procedure to gauge their impact on organizational processes. These practices prove instrumental in evaluating the current practices within the university setting (Shaikh, 2023).

Before going towards Triple loop learning it is important to understand the nature and working of this process. The iterative process of learning initiates with the conceptualization of a loop, which represents a structural framework delineated by a

progressive continuum. Within the context of learning loops, an intricate examination reveals distinct stages. The first loop involves a comprehensive understanding of the actions embedded within current organizational practices. The second loop involves reflecting on and assessing these practices based on received feedback. Meanwhile, the third loop identifies necessary changes, utilizing insights from both the first and second loops as evidence of existing practices. The phases of triple-loop learning justify actions, consequences, assessments, and aid in identifying and selecting optimal alternatives. In the context of the triple-loop phase, the process of transformation involves meticulous critical analysis and conceptualization, characterized by profound insight (Bell *et al*., 2022).

Assessing the process of triple loop learning on organizational level requires some research-based evidence which identify the variations to prevailing organizational practices towards improving and updating standards (Madden, 2022). Anticipating and comprehending these challenges before pursuing solutions holds a pivotal role in effecting change. Engaging in thoughtful problem analysis, devising strategies for resolution, and subsequently conducting a comprehensive assessment significantly enhance the effectiveness and productivity of problem-solving approaches. Looking into the possibilities of how the organization is productively growing by adopting the triple loop learning practices. Continuous change is necessary for the existence of an organization as stagnant environment cannot flourish. In the competitive world, organizations with new trends boost the achievement that leads towards progress and expansion. Organizational learning is the idea that brings change and advancement throughout the key aspect of organizations (Senge, 2006).

The influential factors within triple-loop learning practices notably impact the process, identifying discrepancies between present practices and desired outcomes, thereby offering a new framework for assessment. This assessment framework ultimately turns into

thinking, identification, and action to generate results. At initial level organization indicates the needs to improve and modify the urge for getting better results for change compels organization to identify and creating constructive environment for this process to take place. Assessment for learning at organizational level is a challenge for university management. An evaluation of triple-loop learning reveals insights into the trajectory of organizational learning and identifies emerging paradigms relevant to enhancing university practices. Various indicators of triple loop learning involve in the process to intervene organizational practices in terms of Transformational, transactional and individual performance levels (Burke *et al.*, 2006).

According to Argyris & Schön (1978), Triple-loop learning is a form of organizational learning that emphasizes on an organization's fundamental transformation providing a way forward to practicing the triple loop introduced loop learning and double-loop context. Single-loop learning is a process that works in a way that the organizations are capable to improve a learning without changing their action framework or their future approach completely. In the following context, Berg (2004) refers this process of learning as " an exchange inside the feature of trial and errors responses esoteric a set of selections." For that reason, loop learning is utilized by various universities for overcoming the problems and issues, keeping intact their pre-determined goals.

The systematic approach to learning in single loop results in universities for overcoming the problems in the initial stages along with properly adjusting to changes in the learning environment. Adhering to the single-loop learning process not only addresses deficiencies within universities but also signifies enduring changes linked to transformational processes. Assessment of triple loop is a systematic technique which divides the universities' framework into Transformational, transactional and individual levels regarding performance assessment (Bucic, Robinson, & Ramburuth, 2010).

With series shaped by curve is known as loop and considering the loops of learning first loop is the understanding and action for existing problem. Second loop is analyzing the action according to criteria whether it is right or not whereas third loop is learning about the analyses of the best solution to the problem. Combining learning, loops and series of first, second and third loop learning phases completely justify the action taken, its consequences and evaluation for finding as well as selecting best alternative (McClory *et al*., 2017). Single loop is followed where least alteration is required basically it is an attempt to tap the problem as questions are not intruded in this phase. Mental models are followed by inquiring the assumptions for solution of a particular problem. Critical analyses and conceptualization with deep insight refers to the process of transformation in third loop phase. Evaluating the process of triple-loop learning at an institutional level necessitates additional changes beyond those already undertaken (Kwon & Nicolaides, 2017).

Learning progression which demands change in the form that refers to great concentration and a modification along the lines of optimum performance. Such processes of learning seem to be what determines the difference between the opportunity to put into practice and the way it is implemented. In this technique the double-loop learning is distinct completely by way to identify the institutional research that redress the irregularities of the universities' standards by establishing performance targets and providing benchmark for the future goals or by restructuring the specifications taken by individual with innovative strategies.

A scalable change, particularly in the context of organizational learning, requires some analysis of the existing system. The demands of the current context highlight a deficiency in preparing future generations to meet their individual needs effectively (United Nations, 2010). As today's globalized changing situations demand continuous modifications of assessment practices related to university practices.

The first loop refers to the actions and results; the second loop takes place contextually, and the third loop critically analyzing the action plan to be changed for changing consequences. Considering various solutions taken into consideration may lead to the practical implementation of the knowledge acquired. Complex problems need critical dealing and maybe some creative alternative and innovative solutions. Organizational learning deals with requirements where the organizations will apply skill and knowledge and progress with the latest paradigms according to global trends. Overall universities learning environment is directly affected by the change practices (Watt, 2003).

The need for learning always has an imperative role in the organizational practices by identifying the gaps and providing assessment related to the quality learning in current practices. Transformation within an organization necessitates comprehensive understanding encompassing information, knowledge acquisition, learning processes, and interpretation of external factors. Furthermore, it involves a deep understanding of the organizational culture, missions, management approaches, beliefs, and individual factors that influence organizational performance. It is a process that is not only based on the change within the mission, principles and aspiration of the organization, but it is an effective transformation that affects any organization's frame of action. It can be summarized as "the triple -learning" (Boisjoly, 2014).

The assessment of loop learning necessarily involves significant reshaping of organizational change identification. "The third level of loop learning actually involves incorporating transformative procedures that used to be assessed, for re-thinking and resolving organizational conflicts and changing them according to the contemporary needs. It is not the universities' priorities, approaches, or structural features that needs to change, but rather modifying according to the needs and demands of the society too" (Lewis *et al.*, 2008). Keeping in view above arguments, these knowledge procedures could be related with

the practices, so they are listed below:

1. Assessment of learning-loop is the first step to find out the practices, needs for improvement and planning for future policies and procedures for the organizational change. However, at point, the modification may have comprised of changing the value based on the environment (McClory et al., 2017). Many organizations just function according to the first loop practices. Organizations change the course of action for the desired results. The significant difficulties universities may face for changing their practices are due to considering only action in relation to particular solution needed. Emphasizing rigid structural policies and procedures leads to changes solely within the framework of university practices, particularly when alterations yield results. However, this approach lacks long-term productivity benefits, necessitating further considerations and additional steps for sustained enhancement.

2. The Triple-loop learning impacts also include assessing, getting feedback, correcting and indicating the modifications that include amendment of the organizational structural framework and policies and related procedures for learning environment (Williams, 2014). The step to reconsider is diving into rules and a regulation by reflecting the modifications systematically justifies the reason to change. The learning requires unique pattern of thoughts and adaption for productivity. The rapid changes the context of globalization triple loop assessment provides the ways for adoption of new practices in terms of growth and organizational productivity. They are evolving according to universities need to increase effectiveness. The current context of the research work focuses on the assessment of university practices in context to change for triple loop learning. In Pakistan higher educational institutions are nevertheless looking for the ways to enhance university performances which

address stakeholders' practices and their contemporary needs in global perspective. At the organizational levels triple loop learning involves university's management as well as administrative and academic support systems, reducing stagnation by eliminating change obstacles as existing procedures and process (Armitage *et al*., 2008). The observations regarding change entails seeking assessment and feedback for the performances at departmental as well as individual level to make sure the attainment of the organizational goals. To successfully halt over the constraints to implement new policies, this requires flexibility, openness, institutional and organizational autonomy, as well as procedural freedom and the commitment of the stakeholders working in the universities.

3. The triple learning loop is based on a hybrid system which provides assessment feedback to the concerns for implementing, modifying and structuring the changes for future needs and demands in order to meet the global challenges. Triple loop assessment results in changing the rules, policies, and strategies and creating an impactful outcome for universities. The learning process turns into a different shape and more elaborative way to tackle the learning challenges.

In the dynamic and competitive landscape of academia, emerging trends play a vital role in facilitating the attainment of established objectives, thereby fostering progress and advancement. Organizational learning serves as a pivotal concept driving transformative changes and advancements within educational institutions. This significance is globally recognized and is notably observable within Pakistani universities. In line with its status as a developing country, continual assessment and adaptation remain imperative for addressing current global challenges. Triple-loop learning assumes a crucial role in this iterative process of assessment and adaptation within educational settings. The universities of Pakistan work more like the organizational structure to develop competition for learning

and development practices. Continuous change is necessary for the survival of universities, as stagnant environment cannot thrive well for more progress in higher educational institutions; they need to concentrate on continuous assessment of current learning practices to turn into realistic and advanced learning places.

The knowledge management through learning is effective for individual as well as universities (Bui, *et al.* 2010). The constant changes of learning practices are the contemporary needs of the globe in order to improve. Past research shows the assessment of learning in educational institutions as learning organization has ability to evolve with global dynamics (Liker & Franz, 2011).

Transformation in any organization needs information, knowledge, learning, and optimization of trends and practices. According to triple loop learning theory, any university can effectively utilize its resources, either human or other resources, to maximize its potential. Exploring potential with diverse practices of knowledge unifies the university's structural practices. Assessment of learning with a different and unique aspect of innovation that leads universities to be the best challenger in the marketplace. Transformational and transactional indicators involve many external factors which need to be studied and identified. Assessment of these practices will provide a direction to the universities that will help to reshape according to changing trends and needs of globalization with all related learning practices.

1.2. Rationale of the Study

An assessment of a university stakeholders' practices in the context of triple-loop learning brings up a different dimension of productive outcome for change. In Pakistan, there are challenges in effectively implementing and communicating policies, which can be addressed by bridging the existing practical implementation and communication discrepancies. (Fawcett *et al*., 2008). The focus of current research was to assess the

practices of stakeholders in the context of triple-loop learning, specifically examining Transformational, transactional, and individual or personal levels. This evaluation was carried out through comprehensive survey to gauge stakeholders' engagement and perspectives. Additionally, the study aimed to analyze the impact of the external environment as an intervening factor, exploring its influence on these practices.

In this study, stakeholders' are defined as key decision-makers and influencers within the Faculty of Social Sciences in public sector universities. These stakeholders encompass a diverse group of individuals, including administrators such as the Director of Academics, Director of the Office of Research, Innovation, and Commercialization (ORIC), Director of the Quality Enhancement Cell (QEC), and Director of Examinations. Additionally, Deans, Heads of Departments, and Faculty members from Social Sciences, actively contribute to shaping policies, implementing strategies, and fostering the learning environment within the academic institution. The delimitation of stakeholders aims to specifically identify and analyze the perspectives, roles, and practices of these influential individuals in the context of triple-loop learning for a comprehensive understanding.

The study identified two change factors, Transformational and Transactional, examining their impact on organizational change practices. The study delved into the ramifications in terms of both practice and policy, as well as theory.

An evaluation of stakeholders' practices within universities is imperative to maintain progress, identify deviations, adapt to evolving needs, and address gaps. The critical task of fostering linkages between academia and industry requires meticulous attention and concerted efforts for effective implementation. To float academia in the industry requires a review of the action, strategies/policies, evaluation, and re-evaluation of procedure universities are following. The latest trends in the industry are seized from creativity and innovation. Facilitating innovation within educational institutions involves a comprehensive

evaluation process aimed at identifying areas for improvement, ultimately fostering institutional development and subsequent transformation (Emiliani, 2008). In his research (Anthony, 2014) consider the double-loop, triple loop, the action and reflection in the corporate sector simultaneously and concluded that the continuous change is necessary for the survival of an organization as stagnant environment cannot thrive well. Numerous facets of mastery should not be perceived as unidimensional; rather, the more intricate aspects of acquiring knowledge inherently entail diverse levels of comprehension. Consequently, the interrelations among single-loop, double-loop, and triple-loop learning are inherently interconnected, necessitating comprehensive and integrated consideration (Finn & Geraci, 2012).

Lewis *et al*. (2008) advocated an optimistic view of universities as centers of learning, asserting that organizational participation in improvement and ongoing learning can significantly motivate individuals, thereby fostering job satisfaction in the workplace. This motivation arises from a collective desire among members to explore innovative realms and derive value from these discoveries. (p. 291). Structures and cultures that enable organizational learning are crucial for the success of both short-term and long-term efforts. Effective leadership and human resource practices are the keys to promote sharing of knowledge and cooperation. Main drivers of organizational learning, namely robust executive leadership and effective human resource management, have been acknowledged. These drivers are contingent upon sociological and cultural contexts. Within these contexts, several challenges to organizational learning have been identified and proposed (Kofman & Senge, 1995; Lewis *et al*., 2008). The terms mission and strategy, leadership, organizational culture, structure, management practices, system, task requirement, individual abilities, motivation and individual needs and values have been used to describe these challenges (Mulder, 2018).

According to Kulber & Sayers (2010), there is a lack of well-established practices for organizational learning in the higher education sector. Educational leaders face various challenges in fostering a culture of learning within their institutions. The authors Kulber & Sayers (2010) identified several factors that contribute to these difficulties, suggesting that more work is needed to establish effective strategies for promoting organizational learning in this context. Kulber & Sayers (2010) indicated that organizational learning is not particularly well established in the higher education sector, and they also identified a variety of issues that pointed to difficulties facing educational administrators. Shaw and Perkins (1991) presented an optimistic viewpoint regarding the university's role as a learning organization. They emphasized the significance of fostering opportunities for interaction and collaboration among experts, aiming to facilitate reciprocal research in relevant areas of expertise. Additionally, they highlighted the importance of cultivating a reflective attitude towards learning within this context.

Considering the arguments presented in the aforementioned studies, the endeavor involves crafting a theoretical framework aimed at comprehending and elucidating the mechanisms driving fundamental and progressive changes within diverse contexts. These contexts encompass individual, transformational, and transactional levels within organizational structures. This study endeavors to address a notable gap in the existing literature concerning the assessment of university stakeholders' practices in the context of triple-loop learning, particularly within the framework of Pakistani universities and their stakeholders' practices associated with change management. The research methodology employed focuses on employing and assessing triple-loop learning principles, utilizing the Burke-Litwin model of change adopted for this assessment. This approach intends to emphasize the interconnectedness between change practices and dynamic management strategies. However, the research reveals a limited body of work within Pakistan that

specifically evaluates change practices and delineates factors related to transformational, transactional, individual, and personal aspects within university contexts.

The existing body of literature has delved into various facets of organizational learning and knowledge management across different sectors in Pakistan. Shakir & Saleem (2013) focused on the learning processes within small firms in the manufacturing sector, highlighting potential efficacy gaps in their implementation. Sohaib *et al*. (2013) explored factors influencing organizational learning in the banking sector, emphasizing the positive correlation between these factors and organizational performance. Ali & Hussain (2018) investigated the landscape of student evaluations of teaching in higher education institutions, uncovering a significant gap in the closure of the feedback loop for meaningful improvements. Shaikh's (2023) dissertation explored Disaster Knowledge Management in rural construction in Pakistan, revealing challenges in transmitting technical knowledge and capacity-building. Bukhari *et al*. (2009) examined the impact of altruism, conscientiousness, and civic virtue on Organizational Citizenship Behavior in the corporate sector. Bell et al. (2022) focused on evolving water governance in Pakistan, challenging traditional constraints and introducing the concept of "problemsheds." Ahmad *et al*. (2021) investigated how organizations in the manufacturing sector improved performance during the Covid-19 crisis, emphasizing the role of organizational learning culture. Rana & Routray (2018) developed a multidimensional vulnerability assessment model for urban flooding in Pakistan. Mian's (2014) study scrutinized Pakistan's response to recurring floods, revealing a prevalence of single-loop and sporadic double-loop learning but an absence of triple-loop learning. Despite this rich array of studies, no research has specifically assessed the practices of university stakeholders in the context of triple-loop learning. This research aims to address this critical gap, providing a comprehensive understanding of how university stakeholders engage in and contribute to triple-loop learning processes.

1.3. Statement of the Problem

Assessing university stakeholder practices in Pakistan through the lens of triple-loop learning necessitates a thorough analysis of the higher education ecosystem. It entails not just assessing observable practices and policies, but also diving deeper into the underlying assumptions, attitudes, and beliefs that govern decision-making processes. This strategy necessitates a critical examination of how universities, teachers, and students shape and adapt to change in response to external and internal issues. Triple-loop learning fosters a transformational attitude, which is especially important in Pakistan, which is grappling with the need to align its higher education practices with global standards, manage resource constraints, and develop an innovative and adaptable culture. Finally, this evaluation aims to create a more thorough knowledge. Understanding of how stakeholders in Pakistani higher education institutions may participate in reflective and transformational learning processes to improve the quality and relevance of higher education in Pakistan.

Therefore, it is possible to evaluate the practices of university stakeholders in relation to organizational learning and use this information to drive improvement efforts (Daalhuize et al., 2019). Given the challenges of operating in a constantly evolving learning environment and the pressure to demonstrate tangible results, universities are increasingly interested in improving their organizational efficiency and effectiveness. The practice of organizational learning offers a useful framework for understanding how these efforts can lead to improved practices and outcomes within higher education institutions.

In Pakistan the competition to sustain globally urge universities to assess their organizational change practices to cope up with contemporary challenges. Educational institutions improve their performance through evolving its working culture, structures, and their learning processes. The assessment of triple-loop learning for change practices involves identifying related factors and analyzing their impact on the change process within

the context of university practices (Hill *et al*., 2023). To assess organizational practices in Pakistani universities regarding the triple loop learning process may require some alteration in managerial process (Ramish & Aslam, 2016). Assessment of triple loop learning at university level is not less than a challenge. in this regard Triple-loop learning deals with transformation of universities and when transformation is indicated it further includes these dimensions of transformation that are mission/strategy, and culture which are the important agents and include, structure, management practices and systems.

Universities need to motivate individuals by giving values to their ideas and work as well as take care of their workforce for the progressive performance. Alongside Transformational practices, transactional practices assume a pivotal role. Further sub-dimensions of transactional practices encompass systems, policies, and procedures, forming additional crucial components within this framework (Veysel, 2014). While focusing these two factors the importance of individuals and their performance cannot be neglected because systems are only made but they are run by individuals and skillful individuals perform effectively.

Following the three key factors, another crucial feature is the relationship between these three factors. Because all three are interconnected, the efficacy of one is dependent on the effectiveness of the other two. So, it is important to assess their relationship along with relationship of the sub dimensions. And lastly external environment plays a very important role so along all these three they are related with external environment in terms of challenges for designing new policies and their implementation for change keeping in view the global perspectives and challenges.

Although each of these levels represents a different model, progress can be expected from the assessment of deeper and more integrated triple loop learning in the general context of estimating the effects of interventions and in this regard the Burke-Litwin model of

change is the model which takes into care all above mentioned factors and sub dimensions and effect of external environment. The aim of this study is to make a valuable contribution to the existing body of knowledge on organizational learning. By conducting research and analyzing data on this topic, to deepen the understanding of how organizations can improve their learning practices and enhance their overall effectiveness. Through this contribution, ideas and suggestions that can be used in a variety of organizational contexts can be initiated, paving the way for better outcomes for stakeholders and entire organizations, and stakeholders' practices in the framework of the university by explaining the learning experiences of individuals engaged in university activities and enabling them individual and collective voices. This study examines the ongoing change practices and the variables that universities must consider when assessing stakeholders' practices in the context of triple-loop learning.

The core issue at hand revolves around comprehensively assessing the implementation and impact of triple-loop learning within the Faculty of Social Sciences in public sector higher education institutions. The study addresses the gap in comprehending how key stakeholders' practices influence organizational learning dynamics in the context of higher education, offering insights crucial for fostering a more adaptive and transformative learning environment.

1.4. Objectives of the Study

The following objectives have been formulated keeping in view the area of study.

1. To assess the stakeholders' practices of triple-loop learning factors in the context of university practices.

   1a. To assess the practices related to Transformational factors of triple-loop learning in the context of universities.

   1b. To assess the practices related to transactional factors of triple-loop learning

in the context of universities.

    1c.   To assess the practices related to individual and personal factors of triple-loop learning in the context of universities.

2. To assess the relationship between different factors of Triple Loop Learning in the context of universities.

    2.a.   To assess the relationship between Transformational and transactional factors in the context of universities.

    2.b.   To assess the relationship between Transformational and individual & personal factors in the context of universities.

    2.c.   To assess the relationship between transactional and individual & personal factors in the context of universities.

3. To examine the effect of external environment on triple-loop learning practices in the context of universities.

    3a.   To examine the effect of external environment on Transformational factors in the context of universities.

    3b.   To examine the effect of external environment on transactional factors in the context of universities.

    3c.   To examine the effect of external environment on individual & personal factors in the context of universities.

1.5. Research Questions

For the first objective research questions were formulated and they were

Q1:   How do university stakeholders, through the Assessment of University Stakeholders' Practices, engage in and contribute to triple-loop learning within the university context?

Q1a: What are the stakeholders 'practices related to Transformational factors of triple loop learning in the context to universities?

Q1b: What are the stakeholders' practices related to Transactional factors of triple loop learning in the context to universities?

Q1c: What are the stakeholders' practices related to individual and personal factors of triple loop learning in context to universities?

1.6. Null Hypotheses

The following hypotheses have been constructed in the light of research objectives number two and three:

H_{01} There is no significant relationship between different factors of triple-loop learning in the context of university practices.

H_{01a} There is no significant relationship between the Transformational and transactional factors of triple-loop learning in the context of university practices.

H_{01b} There is no significant relationship between the transactional and individual & personal factors of triple-loop learning in the context of university practices.

H_{01c} There is no significant relationship between the Transformational and individual & personal factors of triple-loop learning in the context of university practices.

H_{02} There is no significant relationship between different factors of organizational practices in context of universities.

H_{02a} There is no significant relationship between Transformational factors and individual and personal factors in context of universities.

H_{02b} There is no significant relationship between transactional factors and individual and personal factors in context of universities

H_{02c} There is no significant relationship between Transformational factors and transactional factors in context of universities.

H_{03} There is no significant effect of external environment on different factors of triple-loop learning in the context of university practices.

H_{03a} There is no significant effect of external environment on Transformational factors of triple-loop learning in the context of university practices.

H_{03b} There is no significant effect of external environment on transactional factors of triple-loop learning in the context of university practices.

H_{03c} There is no significant effect of external environment on individual & personal factors of triple-loop learning in the context of university practices

1.7.   Conceptual Framework

Conceptual framework of the study was based on the Burke Litwin model of change (Burke & Litwin, 1992) as triple loop results in change and assessment of change practices. In this model external environment has been taken as an research variable while the organizational change practices (Transformational, transactional, and Individual and personal) in the universities were treated as the outcome variable. To conduct this research, the Burke-Litwin model of triple-loop learning was adopted to align with the Pakistani context. The triple loop learning is further subdivided into three major factors and each

factor had sub dimensions which were, Transformational Factors, Transactional Factors and Individual and Personal Factors along with their relationship with External Environment that is taken as a whole variable of organizational practices for change.

The core reasons for a change initiative in any organization may create the need for identification of specific practices that needs to be replaced. In this model all three factors were related and their relationship with external environment was self-explanatory. The framework of organizational learning mechanisms establishes the theoretical standard used to comprehend and evaluate learning processes within an organizational context. These learning mechanisms differ depending on the nature of the social interactions between mission and vision stakeholders and other sub dimensions (Sinkula, Baker, & Noordewier, 1997). Therefore, using this model as it reveals what areas of organizational practice are affected and how they are linked in terms of three factors. The framework shows the hierarchy of elements and the effect that one element has on others and how all are affected by external environment.

The Burke-Litwin Model of Change (Burke & Litwin, 1992) was evolved into the Triple Loop Learning model (Mulder, 2018), which contains four important factors: transactional, transformational, individual, and environmental. This model provides a complete knowledge of how organizations may effectively learn and adapt to change.

Triple-loop learning is a concept founded in organizational learning theory that was propagated in management and Education by Chris Argyris and Donald Schon (Smith *et al*, 2017). It is based on the concepts of single-loop and double-loop learning. To achieve desired outcomes, single loop learning entails making gradual improvements to existing tactics and behaviors. Double-loop learning delves further, questioning the underlying assumptions and mental models that direct such actions and approaches.

External Environment
- Institutional Performance
- Rate of change
- Responsiveness towards parents/students
- Change in technology & economy

Transformational Factors	Mission & Strategy	Leadership	Organizational Culture
Transactional Factors	Structure	Management Practice	Systems
Individual & Personal Factors	Task Requirement & Individual Abilities	Work Unit Climate	Individual Needs & Values
		Motivation	
		Individual & Organizational Performance	

Figure 1.1: Conceptual Framework of Triple Loop Learning (Mulder, 2018)

Triple-loop learning extends on this by addressing not just the organization's concepts and approaches, but also the broader socioenvironmental and cultural context in which they operate. It involves not just inquiring "What practices need to be changed?" but also "For what reason change is needed? This level of learning is very reflective and transformational since it requires an eagerness to critically examine deeply rooted ideas and customs. It is particularly important in complex, adaptive contexts where adaptable, inventive answers are critical. Triple-loop learning promotes a systemic approach, with the goal of promoting more long-term changes in organizations and the community, rather than simply addressing current challenges or issues.

The conceptual framework has been enriched by incorporating relevant theoretical foundations that underpin the research, establishing a stronger theoretical support system. Additionally, within the framework, the sub-factors or dimensions of the 'External Environment' influencing the learning process have been detailed. These encompass socio-cultural, economic, technological, and political factors, which interplay with the learning environment, impacting the triple-loop learning process. By explicitly addressing these dimensions within the framework's description, this study aims to underscore the intricate relationship between the external environment and the learning dynamics within the academic context.

1.7.1. Transactional Factor

The transactional component represents an organization's day-to-day operations and activities. It contains routine duties, processes, and procedures that are critical to the stability and continuation of the organization. The transactional aspect in Triple Loop Learning focuses on detecting and addressing immediate difficulties and challenges through feedback and modifications. This component addresses the "single-loop" learning process, in which problems are identified and solutions are implemented inside the existing framework without questioning the underlying assumptions.

1.7.2. Transformational Factor

The transformational element covers an organization's deeper features, such as its culture, values, and long-term strategic vision. It includes significant organizational changes like as restructuring, cultural transformations, and strategy realignment. The transformational aspect in Triple Loop Learning is "double-loop" learning, in which organizations critically evaluate their fundamental assumptions and beliefs in order to make major changes in their strategies and approaches. This level of learning calls into question the status quo and allows organizations to adapt and survive in a fast-changing environment.

1.7.3. Individual and Personal Factor

The person element focuses on the organization's individuals, including their views, attitudes, behavior, and talents. It acknowledges that individual actions and decisions have an impact on overall organizational performance. The individual aspect in Triple Loop Learning emphasizes personal development and growth. Individuals must engage in "triple-loop" learning, which includes challenging their own mental models and learning to learn in addition to adjusting to change. Individuals can gain a better awareness of themselves and their positions in the organization through this form of learning, which fosters a culture of constant growth and adaptation.

1.7.4. External Environment

The external forces and situations that impact an organization, such as organizational dynamics, technical breakthroughs, legislative changes, and sociocultural impacts, are referred to as environmental factors. The environmental element in Triple Loop Learning emphasizes the need of recognizing and analyzing these external changes. At the organizational level, organizations must engage in "triple-loop" learning, in which they continuously scan their surroundings, challenge their core assumptions, and adjust their strategy as needed. This helps them to adapt to emerging opportunities and threats more quickly, increasing their overall resilience and competitiveness.

The Triple Loop Learning model, which is based on the Burke-Litwin Model of Change, takes a comprehensive approach to organizational learning and adaptation. Organizations can encourage a culture of continuous learning and development by taking into account transactional, transformational, individual, and environmental variables. This enables them to solve immediate difficulties successfully, implement transformative changes, and empower employees to grow and adapt, and remain sensitive to an ever-changing external environment. Organizations may flourish in dynamic and uncertain

environments by utilizing this triple-loop learning process, assuring long-term success and sustainability.

1.8. Significance of the Study

Triple loop learning, particularly at the level of stakeholders within higher education institutions, leads towards tremendous learning practices not only in terms of assessing their current effectiveness but also indicates the areas to be changed which is the third loop of triple loop learning. Starting from vision to transforming it into a progressive developmental university need to study and implement triple loop learning because generally the universities and organizations work on action and evaluation of the action which is the first and second loop. The triple loop learning focuses on change and this change has to be in three directions according to Burke Litwin model of change and those are Transformational, transactional and individual and personal. One of the prevalent and widely adopted trends in universities is triple-loop learning, involving the assessment of current practices to adapt them as necessary. This approach aids global organizations and institutions in advancement and fosters a profound comprehension of forthcoming challenges, potentially leading to paradigm shifts.

This study has significance in many ways, as it is an advanced and novel topic that needs to be focused especially in the context of universities' practices for change. The study will help to design new patterns for learning environment; as a result, there could be a paradigm shift to address all demanding situations, problems, and potentialities. Triple-loop learning can facilitate the development of innovative and effective strategies for addressing enduring or intricate issues. However, existing literature presents a gap in discussions concerning loop learning within the context of the Pakistan educational system. There is also less literature in the triple-looping learning for the universities, which surely needed a study that could fill the gap and contributed the literature. This study necessarily contributed

to the national and international literature as it is a unique and novel in nature addressing triple loop learning, especially from the perspective of Pakistan. There are many stakeholders but the ones included here were Administrators, Deans of faculties and Faculty members.

This study centers on stakeholders and their influence stemming from external environmental factors, encompassing student and parental roles as consumers, global competition, technological shifts, and economic requirements. Consequently, the study's findings will assist administrators in identifying these needs and formulating corresponding solutions.

As for the Deans of faculties and Head of departments this research will be helpful to keep a good connection with the staff specifically teachers to disseminate among them the vision, mission, structure and policies and systems in true sense though these are some very common practices but through triple loop learning the same things are done with a change. This change results in paradigm shift as per the need of industry can be initiated by higher education institutional organizations through the study and analysis of the existing practices in the light of triple-loop learning.

This study intends to contribute significantly to decision-making processes within universities, benefiting stakeholders such as students, educational institutions, higher authorities, autonomous committees, administration, and related concerns. It aims to offer factual evidence for policymakers to align policies with a paradigm shift. The findings, derived from a comprehensive system review, particularly focusing on the Transformational factor of organizational skill utilization and academia bridging, can inform educational policies. Emphasizing the importance of triple-loop learning, this study advocates for ongoing amendments in this critical area.

This study also offers potential contributions to the policy-making process by

delineating the three change factors and their interplay with the external environment. Furthermore, the research population and study results furnish valuable insights for crafting improved policies aimed at enhancing the learning process. Embracing global trends and keenly observing transformations through triple-loop learning practices could potentially drive the progression curves and precipitate paradigm shifts in Pakistani universities, aligning them with the contemporary needs of the time.

1.9. Delimitations

The study was delimited to:

1. Study was conducted within a limited time frame of one year, gathering responses from professionals engaged in university-level practice.

2. Public sector universities of Islamabad and Rawalpindi.

3. Departments under the Faculty of Social Sciences of sampled universities.

4. Stakeholders including administrators (such as the Director of Academics, Director of the Office of Research, Innovation, and Commercialization (ORIC), Director of the Quality Enhancement Cell (QEC), Director of Examinations and Registrar), Deans, HoDs, and faculty members.

1.10. Operational Definitions

Operational definitions of the study variables are provided below:

1.10.1 Single Loop Learning

Single-loop learning entails evaluating the execution of actions according to a predefined plan. It focuses on ensuring planned actions are carried out as intended, with swift adjustments made to rectify deviations. In the Pakistani context, it involves verifying the meaningful and effective execution of planned practices.

1.10.2 Double Loop Learning

Double-loop learning involves a thorough analysis to identify developing patterns and trends, spanning extended periods and various settings. It assesses the alignment of interactions with established standards, engaging in critical reflection on causal assumptions, change pathways, organizational norms, practices, and policies, addressing both 'what' (actions taken) and 'how' (execution)..

1.10.3 Triple Loop Learning

Triple-loop learning extensively examines organizational principles, including values, purpose, and long-term visions, going beyond success/failure analysis. It assesses the appropriateness of actions, aiming for a deeper understanding of reasons and organizational identity. It focuses on the 'why' behind actions and the ideal identity the institution aspires to embody. In essence, triple-loop learning centers on the 'who' (identity) and 'why' (rationale) aspects of organizational values.

1.10.4 Transformational Factors

Transformational factors induce significant changes in existing practices, encompassing idealistic influence, motivation, intellectual incentive, and individual consideration. They drive enduring transformations by influencing management and leadership policies, impacting organizational norms and values for progress.

1.10.5 Transactional Factors

Transactional factors include structural and institutional elements that sustain existing systems within an organization. Unlike transformative changes, transactional variations maintain the organization's current structure, involving daily operational routines and task execution.

1.10.6 Individual and Personal Factors

Individual and personal factors involve an individual's personality, work patterns, and behavioral traits that shape their lifestyle. These characteristics exhibit considerable variability from one person to another.

1.10.7 External Environment

The external environment includes all external conditions and influences affecting an organization's operations, encompassing performance of institutions, rate of change due to global influences, responsiveness towards parents/students and change in technology and economy.

1.10.8 Organizational Practices

Organizational practices encompass strategies and innovations to enhance operational efficiency, including team empowerment, training, quality enhancement, and technological integration. These practices shape organizational behavior, impacting productivity, employee satisfaction, and overall performance, aligning with the organization's culture, purpose, philosophy, priorities, and projections.

1.10.9 Organizational Structure

Organizational structure outlines how activities are managed to achieve objectives, including standards, responsibilities, and duties. It also governs the flow of information across different levels within the organization.

1.10.10 Systems (Policies and Procedures)

In an organization, systems comprise rules, practices, policies, and procedures that facilitate goal fulfillment. These elements ensure effective task execution, with policies reflecting the organization's views and values on specific issues, and procedures outlining step-by-step processes for daily operations.

1.10.11 Organizational Performance

Organizational performance evaluates work efficiency and employee satisfaction at both individual and organizational levels. It includes key elements influencing motivation, productivity, and overall performance, emphasizing their significance for achieving higher operational efficiency.

1.10.12 Organizational Stakeholder

In a university setting, stakeholders are individuals or groups with interests, legal obligations, or specific roles influencing decisions and outcomes. This study identifies Deans, Heads of departments, Administrators, and faculty members as stakeholders responsible for strategic objectives, policies, and institutional functionality. Academic Stakeholders contribute to policy formulation and the learning environment, while administrative stakeholders, including management, HR, and quality enhancement personnel, indirectly influence policies and the learning environment.

CHAPTER 2

REVIEW OF RELATED LITERATURE

Triple loop learning phases completely justify the action taken, its consequences and evaluation for finding as well as selecting best alternative. Critical analyses and conceptualization with deep insight refers to the process of transformation in triple loop phase. Assessing the process of triple loop learning on institutional level requires some research-based evidence which identify the variations to prevailing structural practices and shifts in norms and values (Yuthas *et al.*, 2004).

Looking into the possibilities of how the organization is productively growing by adopting the triple loop learning practices is imperative (Harris & Nelson, 2018). Knowledge about the problem helps in resolving it scientifically. Moreover, rigorous effort is required to assess the triple loop learning dimensions for organizational growth and problem solving. This involves a comprehensive assessment procedure to see the effect on the process of organizational practices in context of the universities. It becomes essential to view the university stake holders 'practices for this phenomenon so that organizational development can take place towards the right direction (Hawkins, 2012).

In the contemporary global landscape, organizations continuously undergo transformation to adapt to evolving operational paradigms, embracing adaptive changes deemed essential in the current era (Englehardt & Simmons, 2002). Balancing productive growth with effective learning poses a challenge for organizations. Strategically navigating these learning avenues is imperative to adeptly address these challenges. Implementing diverse learning methodologies can foster a culture of continuous learning within the organization, consequently nurturing more productive minds.

Facilitating factors in learning process influence it to a larger extent like gap

identification between actual or current practices and the desired outcome provides a new assessment frame for increased organizational growth (Moore Jr, Green, & Gallis, 2009). This evaluative framework ultimately leads to the identification of pertinent issues, thoughtful consideration, and subsequent action to yield tangible outcomes within triple loop learning among organizational members. At the initial stage, organizations recognize the imperative to learn and adapt, driven by the impetus to achieve improved outcomes. This compels organizations to identify and create an environment conducive to facilitating this evolutionary process of change management.

Sustained organizational evolution is essential for its survival, as a static environment inhibits growth and development. In today's competitive landscape, organizations leveraging emerging trends drive achievements that pave the way for progress and expansion. Organizational learning serves as the catalyst for change and advancement, playing a pivotal role in various facets of organizational dynamics (Stata, 1989).

Addressing organizational-level learning assessments remains a challenge for universities. The assessment of triple loop learning guides organizational learning direction and identifies forthcoming paradigms beneficial for enhancing universities' organizational practices (McClory, Read, & Labib, 2017). Various indicators of triple loop learning involved in the process to intervene organizational practices in terms of Transformational, transactional, and individual performance levels becomes significant.

2.1   Historical Standpoint with reference to Triple Loop Learning

One of the major key elements of Management is doing tasks smoothly. Effective management and organizational learning are the areas which are covered widely (Ahmad *et al.* 2021; Sheikh 2023). Both researches have emphasized on higher levels of organizational learning. Keeping in view this stance, it becomes imperative to take a panoramic view and historical perspective of the phenomenon under study.

In the 1990s, several practices, particularly those associated with management and organizational learning, gained recognition. The survey conducted by Crossan & Guatto (1996) serves as compelling evidence underlining the significance of assessing organizational practices. The research study emphasizes the significance of a pivotal concept i.e; triple loop learning within organizations, shedding light on its importance even before it gained widespread acknowledgment (Easterby-Smith & Lyles, 2003). Multiple studies (Bontis, Crossan & Hulland, 2002) have extensively elucidated the singular term "learning," highlighting its profound significance as a fundamental concept that holds relevance for universal comprehension.

Numerous articles on organizational learning based on Levitt & March (1988) and Huber (1991) studies were published in 1991. Philosophers and theorists in the 1990s observed a notable change in the conceptualization and discourse surrounding organizational learning. The members of an organization learn at their own pace. Even members of the group are at work, they conceive a plan and then consider how to bring that plan into action. This process denotes the individual's cognitive development. It encompasses learning to effectively convey ideas to organizations, requiring not only the articulation of concepts but also the execution and realization of their plans (Kim, 1993).

Organizational learning is also thought to be the most efficient way of producing, access, and apply that knowledge when increasing focus on goals of an organization (Kofman & Senge, 1995).The idea of improving organizational management and organization is developed by the concept of organizational learning the more responsive and practical location (Taylor & Bogdan, 1998). The contributions of Easterby-Smith & Araujo (1999) are regarded as essential since they help to clarify the differences between these two concepts. They believed that organizational learning is the result of the personal internal research and observation of a special process, and that this knowledge is commonly referred

to as organizational effectiveness.

Kululanga *et al*. (2001) explained the organizational learning in their own way. They said that organizational learning is a term which comes from the progression of performance to logical workforce of employees, over a responsive to a bold quickness in change, from dropping to obtaining power and to the consistent enhancement. The concept of "learning" is fairly broad. Several psychologists and philosophers have shared their perspectives on this idea. At the organizational level, the utilization of this concept is deemed significant for fostering education and facilitating the personal development of individuals (Roberts & Tennant, 2003).

Wang & Ahmed (2003) also regarded the "single loop," "double loop," and "triple loop" as the following critical concept in organizational learning. It was believed that the growing of market-based organizational learning could not be separated from organizational learning in the context of their assertions for loops.

Several definitions offer highly pertinent explanations of the term "learning." It involves the acquisition of skills attained through observation and contemplation of specific topics or theories (Dictionary, 2011).Many philosophers have discussed about how they define the term "learning." Learning is the process of acquiring knowledge through everyday exposure to various things that results in a modification of behavior (White & Weathersby, 2005). Organizational learning occurs through the collaborative effort of two or more individuals leveraging their collective experiences, leading to favorable transformations (Guba & Lincoln, 2005). The organizational norms must be changed to allow for the development of ideas if somebody else intends to assist the management towards development to encourage employees to brainstorm, contribute different insights, take chances, and create something original that will enable the organization to grow. In this approach, not only will the organization thrive, but also the individuals will have the ability

to think creatively.

Bukhari et al. (2009) examined the impact of altruism, conscientiousness, and civic virtue on Organizational Citizenship Behavior (OCB) within Pakistan's corporate sector. Building on previous research, they hypothesized and established a direct and substantial relationship between these antecedents and OCB. The results validated significant positive associations between altruism, conscientiousness, civic virtue, and OCB. The primary aim of the study was to encourage and promote a culture of Organizational Citizenship Behavior within Pakistani organizations.

The ongoing modification of a person's behavior is also a stage of experiential learning that helps one respond to a constantly changing environment (Stone, 2011).Balsam *et al.* (2014) explained learning in his own way. According to him "learning" has two main contexts. One of them is cognitive and the other one is environmental context. According to him, the knowledge gained before lies in the cognitive theme and the knowledge gained by the situations, patterns and particular trait lies in the environmental theme.

The study by Shakir & Saleem (2013) investigated the implementation of learning processes within small firms in Pakistan's manufacturing sector. Their research delved into various levels of learning—group, individual, and organizational—assessing influential variables impacting these processes. By comparing obtained scores with Garvin's scaled scores (Garvin *et al.*, 2008), the study suggested that while learning practices were present in these firms, their implementation might have lacked efficacy. The article was structured into seven segments, comprising an introduction, literature review, methodology, variable analysis, result interpretation, discussion, and conclusion, offering a comprehensive evaluation of learning practices within this context.

Sohaib *et al*. (2013) researched the banking sector in Pakistan, investigating factors

that influenced organizational learning. They utilized Marsick & Watkins' (2003) Dimensions of Learning Organizations Questionnaire (DLOQ) to analyze seven dimensions and their impact on organizational learning, measured through knowledge and financial performance indicators. Their study, based on a sample of 65 respondents, revealed a positive correlation between the seven dimensions of DLOQ and organizational learning. This empirical evidence strongly suggested that these factors played a significant role in enhancing learning within organizations, thereby contributing positively to their performance.

Mian's study (2014) scrutinized Pakistan's response to recurring floods, notably after the devastating events in 2010 and 2011. It aimed to understand how learning processes contribute to adaptive governance frameworks in addressing these complex challenges. Using key informant interviews and document analysis, the research revealed that while state actors continued to dominate flood governance, there was increased involvement from non-state actors during emergency management. The study highlighted the prevalence of single-loop learning for routine improvements among state actors in preventive measures, along with sporadic instances of double-loop learning among both state and non-state actors in emergency management. However, the absence of triple-loop learning, which facilitates paradigm shifts, constrained the overall impact of learning processes in transitioning towards more adaptive approaches to governance in Pakistan.

Ali & Hussain's (2018) study delved into the landscape of student evaluations of teaching (SETs) in Pakistani higher education institutions. Focusing on the feedback loop closure, the research explored whether the process of teaching evaluation reached completion and if feedback effectively circulated among students and teachers in these institutions. Utilizing a triangulation design, which combined qualitative data from website analysis of 130 HEIs with quantitative insights from 507 faculty members and 110

administrators, the study highlighted a significant gap. While Pakistani universities were mandated to gather student feedback through centralized systems, limited attention was paid to closing the feedback loop for meaningful improvements. The study emphasized the necessity for universities in Pakistan to earnestly engage with and act upon student feedback, emphasizing its role in enhancing quality assurance within these institutions.

Rana & Routray (2018) undertook an empirical study on urban flooding in Pakistan to develop a multidimensional vulnerability assessment model. They scrutinized five key dimensions—social, economic, physical/infrastructural, institutional, and attitudinal—across three flood-prone urban sites in Punjab Province. Using a household survey, they collected data and established indicators for each dimension, effectively quantifying vulnerability. Their adaptable methodology, demonstrated as effective across diverse spatial scales, holds promise for customization in various disaster scenarios, allowing for a nuanced comprehension of vulnerability.

Bell et al. (2022) focused on evolving water governance in Pakistan, specifically examining the phase after the significant repeal of the irrigation management transfer under the PIDA Act of 1997 in Punjab. They aimed to identify improvement opportunities and developed a conceptual model incorporating hydrology, infrastructure, management, governance, and learning to shape water supply. Their analysis challenged the traditional hydraulic constraints of the Indus Basin Irrigation System (IBIS) and introduced the concept of "problemsheds" to identify intervention scales and cultivate shared water interest communities, surpassing rigid hydraulic user groupings. The key recommendation stressed the necessity to transcend these limitations, enabling irrigators to contribute more effectively to local water governance, potentially at administrative levels like villages, unions, or tehsils.

While it is widely acknowledged that "learning" commences at the individual level,

the significance of interpersonal knowledge alongside organizational learning is not always emphasized. Consequently, there arose a notion that organizational learning required a more explicit and deliberate approach (Saldana, 2013; Ahmad *et al.* 2021). Additionally, organizational learning involves implementation and execution. It involves employing methodologies that facilitate organizational members' comprehension of intricate concepts, enabling them to apply and assess their learning effectively within the organization (Easterby-Smith, *et al*., 2021).Organizational learning has the advantage of being a two-way learning process. Organizations learn through their members in contrast to the organization's members learning through the organization. There are various situations in which learning occurs. One of them is when this or that circumstance arises, and the other is when an intentional act in an organization has an effect (Bell *et al.* 2022).

Ahmad et al. (2021) investigated how organizations in Pakistan's manufacturing sector improved their performance during the Covid-19 crisis. They surveyed 610 employees and employed a model examining how knowledge creation, driven by organizational learning culture, influenced organizational performance. Their findings revealed a sequential mediation effect, indicating that interpreting information, behavioral changes, and knowledge creation significantly contributed to enhancing organizational performance during challenging times such as the Covid-19 crisis.

According to Shaikh (2023) one crucial aspect that has been recognized as fundamental to organizational learning is its ability to capture the interest of philosophers, theorists, and psychologists from various fields. As a result, stakeholders can now better plan for their organizations, which will eventually lead to ongoing success. It has increased competitiveness amongst organizations. Shaikh's (2023) dissertation delved into Disaster Knowledge Management's (DKM) pivotal role in bolstering housing resilience, especially regarding seismic guidelines for rural construction in Pakistan. It highlighted the dearth of

expertise and established standards in rural construction, emphasizing the crucial need for effective Knowledge Transfer (KT) to disseminate seismic guidelines. Using a pragmatic constructivism approach, the study uncovered challenges in transmitting technical knowledge and capacity-building post-2005 rural reconstruction. The findings advocated for a KT framework to mitigate disasters, improve recovery planning, and foster resilient societies, particularly in earthquake-prone regions. This original work identified critical hurdles in implementing resilient construction practices and proposed a DKM framework beneficial for disaster-prone areas and communities in Pakistan.

2.2   Significance of Organizational Learning

The 21st century is thought to be the dawn of the digital age. Everything has now become digital, which has its upsides and downsides, however ICT tools are used extensively in every field to function efficiently. Also, it has an impact on organizational learning. Organizational learning basically entails the process of creating a business that flourishes by defining the goals that empower it to compete in the organizations and keep up with industry rivals for as long as possible (Dodgson, 1993).

As the world is becoming more digitalized, organizations compete fiercely with one another. To thrive in a highly competitive market, corporations require innovative personnel capable of adapting through the implementation of diverse strategic approaches or the introduction of novel products. It is thought to be crucial for management to implement policies that encourage creativity since, in the current competitive environment, the more inventiveness, the greater the chance of corporate market success. So, it is the internal resources' responsibility to implement changes that would enable their organization to compete with other organizations (Altman & Iles, 1998).

Presently, organizations are diligently striving to introduce new offerings into the market. Before launching their products, they are actively integrating processes that

facilitate the global commercialization of their commodities. Because the competition is so intense, every firm aspires to execute and respond instantly.

Organizations are also making an enormous amount of effort to enhance employee knowledge (Watson & Hewett, 2006). The management is implementing learning strategies because the success of the organization depends on employee learning, and the more progressive they seem to be in creative thoughts, the more new items may be developed. Every employee has access to learning tools that are unique and are not readily available to or accessible to competitors in the market. The organizations are attempting to implement various techniques while still leaving room for ongoing improvement and development (Abu-Khadra & Rawabdeh, 2006).

Learning helps the organization to accept change and minimize resistance for change thus fostering a positive approach. Organizational learning mostly works on two main rules that are as follows:

a. Positive change can be created within the organization and that change will help the organization to get the better results.

b. The goal of organization should be to make and follow the organizational learning that help them to achieve their target (Walker, 1980).

The philosophy of a learning organization is being accepted widely since every organization wants change and to be able to adapt to it. Learning is a flexible process that emphasizes constant change that results in improvement. Organizational learning brings about that change which focuses on a larger perspective. It is similar to how this notion brought about change and the cohesion of employees to think, share, and find ways to apply it in a newer dimension.

2.3   Concepts of Organization

An organization is created to carry out specific principles to obtain specified goals. It enables social interaction among a diverse population. The objective is to create a structured, administrative organization with clear and sound principles. Numerous studies have been conducted on how to manage a business, be successful, and compete fiercely with other businesses. Plans and strategies evolve over time for success and to keep up with other organizations. Nicolini (2018) asserts that an organization is created when two or more people begin cooperating to accomplish a certain purpose. Whereas learning in the organization starts when these human resource come together for the accomplishment of multi-dimensional objectives.

Before establishing an organization, it is imperative to adhere to certain guidelines, ensuring compliance with laws and regulations, which is essential for effective leadership. Plans have been established for several strategies, including how the organization will function, what must be done to achieve competitiveness, and how the task should be divided. Ensure that everyone is given responsibilities and that they are held accountable. The organization is basically a group of individuals that work more closely together to accomplish shared objectives that benefit every individual in the organization. Only someone who understands their own responsibilities, knows how to work, and can achieve the common goals will be able to accomplish these goals (Kulber, & Sayers, 2010).

2.4   Definitions Related to Organizational Learning

Various philosophers, theorists, and sociologists have provided numerous definitions of organizational learning, extensively covered across the literature.

A positive atmosphere ensues when employees exhibit positive behavior towards each another. A positive environment fosters change, and successful administration of an organization hinges on this premise. This is another method that organizations can learn.

The attitude change is caused by how people respond to practical or real-life situations (Doman, 2011). Organizations that focus on producing, disseminating knowledge, and forming their ideas to increase their chances of success can quickly capture success and the attention of their rivals. Positive change occurs within the organization itself because of individuals sharing ideas and adapting their conduct toward one another. Competitors are also challenged by this behavior.

Organizations can thrive by prioritizing coaching sessions for their staff over inundating them with new concepts from stakeholders. Employees generate novel ideas, yet it's pivotal to ensure their proper assimilation to foster diverse thinking among individuals. Success pivots on both understanding consumer needs and continuous learning, presenting the sole pathway to achieve it (Hawkins, 2012).

For an organization to run well, creativity is crucial. Along with creativity, practical application of ideas is equally important. The actions made by the staff members and groups will have a favorable outcome. It will demonstrate their abilities and their commitment to the task. Employees can also be denoted as learning agents. Training sessions are another way to impart new notions. Employees will think more creatively and broadly because of this information. In training sessions, their cognitive abilities would be improved (Hawkins, 2012).

Triple-loop learning is an organizational practice that focused on the fundamental transformation in any organization. Before triple-loop learning Argyris & Schön (1997) presented single- learning loop and double- learning loop. Single-loop learning is a process that works in a way that the organizations are able to improve learning without changing their action framework or their future approach completely. In his study, Balzer (2010) defines the process of learning as the modification of an error-correction response's attribute among various available possibilities. Thus, single learning loop is utilized by most of

institutions for overcoming the problem and issues, keeping intact their per-determined goals. The systematic approach to learning in single loop results in overcoming the problems in their beginning along with properly adjusting the changes in an institutional environment. In accordance to the single loop learning process not only overcomes shortcomings in any institutional organization but also triple loop to eliminate them. When an organization determines to evaluate its strategic objectives in alignment with its action plan, a double learning loop constitutes a deliberate and structured process. This learning style focuses on the confrontation of unexpected stress, contrary policies, and unwelcome changes, compelling educational institutions to adjust their mindset to effectively address these challenges, as per the underlying theory. Moreover, it emphasizes how this learning process prompts the organization to reassess its fundamental assumptions.

Similar to the simple loop learning, which mainly consists of changing strategies within a frame of reference and criteria of continual performance, double-loop learning is characterized as second stage learning, which means it is "a modification in all the possibilities" (Knoll, 2009). Such processes of learning which demands modification in the form that refers to great concentration and variation on the lines of maximum achievement. It is such learning process which differentiates the disagreement between the methods applied from the method chosen. In this way the interpretation of double-loop learning is as follows: "People will refer to organizational exploration that resolve the incompatibility of the organization's standards by establishing new priorities, reassigning the priority blocks of standards, or reorganizing the benchmarks themselves with new strategies and preconceptions as double-loop learning."

The structural process with series shaped by curve is known as loop and considering the loops of learning first loop is the understanding and action for existing problem. The second loop involves evaluating actions against specific criteria for their correctness, while

the third loop focuses on learning from the analysis to identify the best solutions to the problem. The integration of learning loops, including first, second, and third loop learning phases, comprehensively validates the actions undertaken, their outcomes, and the assessment conducted to identify and choose the optimal alternatives.

Single loop is followed where least alteration is required basically it is an attempt to identify the problem as questions are not intruded in this phase. Working models are followed by inquiring the assumptions for solution of a particular problem. Critical analyses and conceptualization with deep insight refers to the process of transformation in third loop phase. Assessing the process of triple loop learning on institutional level requires some other change "as it involves modifications to prevailing governance structures and shifts in norms and values" (Marshall, & Rossman, 2016).

In global and local context both, strategy for change regarding vision is considered as long term whereas the mission also requires some amendments and implementation of those leads to desired change. Triple loop learning and Burke Litwin model for educational institutions change together depict a comprehensive approach to think about change and mechanism to be followed for it. Components like strategy, vision, mission, leadership, structure, culture, individual and personal factors are considered to work in the light of triple loop learning practices. First loop proposes all these factors considered to be actionable, second loop insists on pointing and correcting the action taken and third loop refers to the review and rethinking on the components of change as well as devising it. Competitive environment all over the world increase the competitiveness between educational institutions that is based on human capital (learning and knowledge) as well as distinctions. The learning is the initial part of knowledge so the nature of learning organizations is to create knowledge to survive in competitive market (Bontis, Crossan & Hulland, 2002).

Triple-loop learning is concerned with the nature of "being" and reshaping our

intentions, purposes, and motives. If single-loop learning is concerned with the nature of "practicing" and determining what is most efficient way to accomplish goals, and double-loop learning is focused on the fundamentals of "understanding" and challenging what the appropriate goals are to be approached (Nicolini, 2018).

An intentional effort to change found way of being has an impact on our understanding and behavior Glene & Peshkin, (1992) described how the level of manifestation is included in the triple-loop learning domain. Similarly, Nicolini (2018) identified this transformation as a figure-ground shift from having a simplistic view of one's ontology or philosophy to integrating both simultaneously for the convenience of timely response. In addressing issues and challenges, it bridges both behavioral and cognitive reorganization and no longer focuses just on one or the other. It takes place at the highest level of the individual and is so effective that it unleashes individuals from their personal boundaries and enhances the possibilities that are built into both choices and behaviors. In this way, triple-loop learning is like completely reinventing itself. It is a process of discovering the unknown and a voyage of experiencing the unexplored. As soon as this existential change takes place within organization, people start to constantly be conscious of what they are performing.

The researchers labeled the experimental procedure as an analysis and action method. In contrast to reflective practices, commonly understood as learning from experience, interpretation diverges, constituting a process of learning within experience itself. In a triple-loop inquiry, action and reflection happen simultaneously while it continues to critically reflect on employees' prior activities in a double-loop process.

As a result, nurturing the organizational capacity for triple-loop learning and ensuring active employee participation therein, management can continually evolve in a sustainable manner. This continuity and sustainability quality is the reason why a significant

transformation emerges from triple-loop learning. It's essential to understand that this multidimensional approach to learning hierarchy does not solely concern competency.

2.5.   Significance of Triple Loop Learning

Despite the fact that triple-loop learning is occasionally more sophisticated than single-loop and double-loop learning and is therefore preferred, levels of learning are more intentionally exposed to more complex learning methods, including triple-loop learning (Yen & Li, 2003). In contrast to the hierarchical progression of knowledge from lower to higher levels, the multilevel approach to change posits that learning loops occur concurrently, continuously, and dynamically, rather than in a sequential fashion. The various facets of learning ought not to be regarded as fundamentally unidirectional or linear, but rather as forms of learning that progressively increase in complexity, with lower levels of complexity inexorably following higher levels of complexity. The potential for interdependence among single-loop, double-loop, and triple-loop learning necessitates a comprehensive approach that takes into account all relevant factors (Bryman, 2007).

Mechanism of learning pathway and analysis at the institutional level is imperative for outcomes (Madden, 2022). Learning new behavior in the context of change is vital for the university, and the first loop denotes the urge to initiate action. Learning only can't work to develop universities without insightful efforts, and the thinking needs to bring on in the process of development. Understanding the problem before attempting to solve it holds a crucial position in the process of change. Reflecting on the problem-solving approach and subsequently evaluating it for greater impact and productivity are essential in effectively addressing the issue. Ideas of Auerbach, & Silverstein (2003) of maintaining direction and identifying factors in the suitable framework of change for beneficial change as actually what is going to be changed and how the organization is getting benefited by it refers to a phenomenon of a triple loop learning model to be adopted and adapted likewise.

Feedback and amendments in the learning process increase effectiveness of the steps followed (Barker-Scott, 2011). Moreover, the behavioral change is not adopted without following a process of adoption completely and the effort is required on a critical element of the third loop identifying clearly. It requires a cognitive process to switch definitely with awareness and knowledge. Universities focus on position by their capital either symbolically, economically, or maybe socially as well as considering policies and implementations in the field by Francis (2014) rather it needs to understand learning and the process. Institutional learning encompasses acquiring understanding, gathering information, processing knowledge, adapting behaviors, refining skills, prioritizing values, reassessing attitudes, and fostering a willingness to apply these insights for enhanced productivity. A key goal of the university is development depending on many learning practices to enhance educational practices at the higher education level (Knoll, 2009).

The triple loop learning process particularly in the context of organizational learning, requires some analysis of the existing system. The requirements of the contemporary trends and practices "without surrendering the capacity of newer generations to meet their own demands". The first loop refers to the actions and results; the second loop takes place contextually, and the third loop critically analyzing the action plan to be changed for changing consequences (Yuthas, *et al*., 2004). Thinking upon other solutions yet not taken into consideration may lead to the practical implementation of the knowledge acquired. Complex problems need critical dealing and some creative alternative to an innovative solution.

Organizational learning deals with requirements where the organizations could apply skill and knowledge, and progress with the latest paradigms according to global trends. Overall institutional organizations, teams, and groups are affected by learning and change (Watt, 2003). The need for continuous learning plays a crucial role in addressing

organizational practice gaps by ensuring quality learning and effective evaluation. Transformation within an organization necessitates comprehensive understanding of external factors, internal missions, management strategies, organizational culture, structural components, managerial practices, and individual as well as personal factors, accompanied by information, knowledge, and ongoing learning.

It is a procedure that is not only based on the modification of the organization's mission, vision, and core values, but also an appropriate transformation which affects any organization's frame of action. It can be summarized as "A fundamental restructuring of organizational identification is necessary to facilitate the triple loop learning process. As per numerous researchers, the third level of learning involves a transformative process that demands analysis for decision-making and resolving interpersonal issues. Rather than altering the university's objectives, plans, or organizational structures, the emphasis should be on changing individual perspectives.

2.6   The Learning Process in Triple Loop Learning

Keeping in view the learning process in phenomenon of Triple loop learning can be properly understood through the following proceeding steps

Single-loop learning produces defect pointing and correction in the first level. At this point, the correction might involve modifying the value in accordance with the context. Many organizations just operate according to the first loop phenomenon. Institutes just change the action for the desired result (Bakacsi, 2010). The consequences universities face by solely focusing on action without considering the necessary solutions are significant. Focusing on rigid structural policies and procedures, as a result, the only action is changed under the shadow of the organization if the results are changed but not beneficial for long-term productivity, then there must be some more steps to take into consideration.

Directing and modifying the implications of learning in the initial double-loop at this

phase, the correction can also include modification of the basic plan (Dannemiller & Jacobs, 1992). Along with all this, questioning about organizations' norms and recognition of general framework is also done side by side. The step to reconsider is diving into rules and regulations and updating significantly and reflecting on the "why" of changing systematically justifies the reason to change. Learning necessitates a departure from conventional thought patterns and an adaptation geared toward productivity. The rapidly changing in triple loop environment in the context of globalization and the adoption of new practices also stresses to rethink. They are evolving according to institutional needs to boost competitiveness. Critical analysis, logical thinking, and amending accordingly sort more productive solutions (Burnes, Cooper, & West, 2003).

Combining the two single loop and double loop processes forms the basis of the third-order or triple loop learning process. Two loops together, first for following results and the second loop for changing the rules, policies, and strategies, create an impact outcome for educational institutional organizations (Tosey, Visser, & Saunders, 2012). However, there remain several steps yet to completely transform organizational actions. The learning process must adopt a more intricate and comprehensive approach to address the challenges of learning.

The learning how to learn phenomenon occurs in the third loop of learning. Amendments are based on the critical thinking and evaluation of the previously followed process. The reflection on the process "how" it was initiated, followed, results were changed, and the outcome was generated as well as "why" is also focused here deeply. The relationship of "how" and "why" in combination leads to a direction of emerging shifts needed to be followed to make the system completely productive.

Transformation in any organization needs information, knowledge, learning, and

optimization of trends and practices (Ordov *et al*., 2019). According to triple loop learning theory, any university can effectively utilize its resources, either human or other resources, to maximize its potential.

2.7 Organizational Practices: The systems View

Exploiting potential with diverse practices of knowledge unifies the university structural practices include exhibition of diverse processes of knowledge and this remains an ongoing process. Processing knowledge with a different and unique aspect turns into innovation that leads universities to be the best challenger in the marketplace. Transformational and transactional indicators involve many external factors which need to study and identify. Response or reaction of learning as a result of transformation. Assessment of these areas turns into a direction that is reshaping according to trends and needs of organization with all other practices.

In their ever-evolving, complex, and dynamic economic and social environments, the prevailing opinion is that organizations must realize that sustaining a competitive advantage necessitates harnessing greater levels of performance. In summary, "the capacity to acquire knowledge at an accelerated rate than its rivals can solely function as a sustainable edge. Overall, when confronted with a dynamic, complex, and ever-evolving environmental catastrophe, the level of research intensity increases and the scope of learning expands. In recent decades, there has been a notable surge in the scientific investigation of the level of publications (Bontis *et al*., 2002) and the diversity of learning within and between organizations, both of which are attributed to the significance of this metric for organizational performance. With regard to the conceptual distinctions and theoretical perspectives (Easterby-Smith & Lyles 2003; Antony *et al*., 2012). Similar to this compendium, the notion of the learning organization is comprised of a multitude of distinct viewpoints. Although several of these viewpoints provide a general description of the

organizational conditions that are deemed conducive to learning, the precise characteristics of that learning are frequently not specified.

Moreover, the strong interconnections between learning organizations and organizational learning may suggest that the theoretical variety of the latter is inadvertently incorporated into the former, thereby exacerbating the conceptual ambiguity and perplexity surrounding the essence of learning within a learning organization.

The objective of defining learning commonly has proved problematic or regarded to be unattainable (Barker-Scott, 2011). Systems-focused conceptions of organizational learning have grown popular in the lack of conceptual consensus (Caldwell, 2012a; White & Weathersby, 2005). The research mentioned here suggests that organizational development is an imperative variable to assess the efficiency of general administration. For improvement initiatives, the triple loop learning and developing technique, which was initially created for use in automobile production was employed. The university picked the Triple Loop Learning model based on board directive state government directives, and evidence of public-sector efficiency benefits (Narayanamurthy & Gurumurthy, 2016). Despite decades of theoretical development and academic study, there is still much to be learned about organizational learning. While many important insights and frameworks have been developed in this area, there are still many questions and challenges that remain.

As organizations continue to evolve and adapt to changing circumstances, it is crucial that we continue to deepen our understanding of how they learn and grow over time. Through ongoing research and analysis, we can build on the existing knowledge base and continue to make progress in this important field. There are disagreements about examples of institutional learning regarding organization. The major objective of defining organizational learning in general is elusive (Barker-Scott, 2011; Garwin, 1993) or considered hard to achieve (Kim, 1993). In the absence of clear theoretical frameworks,

definitions focused on systems within organizations gained prevalence. These definitions, as discussed in the studies, contributed to organizational learning by analyzing programs aimed at improving administrative effectiveness keeping in view the systems approach. Triple loop learning, an innovative method initially developed for use in automotive industry, has been widely used as the core for development in universities. Furthermore as the universities are a complete organogram following a systems approach which indicates that all units are coordinated together so, Triple loop learning is embedded in the systems approach (Caldwell, 2012b; Yang, *et al*., 2004).

The first process involves rectifying errors without altering the fundamental governing values. This particular approach is commonly known as adaptive learning. Mastering from mistakes is an instance but, while wondering the values of an organization, a person appears at troubles from unique angles, evaluates ideas from other contexts and experiments with new one's perspectives.

2.8   Concept of Learning and Organizational Learning

Learning is explained through a variety of concepts and training typologies in domains such as cognitive research, neuropsychology, and pedagogy in these domains, a very technical conception of learning has persisted over many decades. Loop learning is defined as the transfer of information from individuals who have it (such as teacher) to those without it (e. g., student). Education could be imparted as a students' learning progression and there are agreed-upon rules for doing so. Instructors bundle and integrate information by these principles (Marshall & Rossman, 2016).

Based on experiences gained in educational practice and recent advancements in humanities, this technical paradigm of reflection and self-inquiry learning is considered suitable for humans (Brown, & Duguid, 1991). Dickeson (2010) discussed how knowledge in social systems is purposefully acquired by accessing information from a wide range of

knowledge sources rather than being automatically communicated from a sender to a receiver.

The learning system is a collection of 'brought together' pieces of art to create an environment that facilitates a variety of learning processes. Learning organizations can take many forms - for example, paperwork, digital forums, processes, online forums, universities and academies. Most teaching systems provide different learning resources and descriptions of the methods used to achieve specific learning outcomes. The model is "a mechanism for describing the fundamental variables to be taken into consideration in any attempt to verify and describe the overall behavioral output of an organization, that's the most important interaction among those variables," and the way in which these variables interact with one another that they have an effect on organizational practices".

Organizational learning is the evolutionary process through which an organization matures over time, utilizing accumulated experience to construct and augment its knowledge base. The organization gains access to the cultivated expertise. Organizational learning is essential for everyone because growing, retaining and shifting understanding surrounded by the institute supports the organizations by all aspects. Knowledge occurs when the signals are given meaning, and some of them are transformed into information. The process change is a "variation" that affects the knowledge recipient, and learning is the process of identifying these changes.

Learning According to Bryman (2007) also entails a process of change about a past context. This process can occur at different levels, each of which is distinguished by how it handles experimentation: "Learning loop is the process of correcting errors by selecting from a limited number of options in a fixed situation. Learning is a modification and Acquisition of learning, implying either a corrective adjustment in the range of choices from which to choose or a modification in how the series of experiences is interrupted (Wenger

et al., 2002).

Learning requires an understanding of the circumstances in which actions occur. Although there is a basic human essence to learning, the learning process can be quite complex. Assessment involves three crucial components: questioning, communicating and participating. As our capability to suppose, speak and collaborate, so does our capacity to learn. Therefore, a learning organization is one which promotes and complements those activities for its members and contributions of the community conventional businesses change by using responding to occasions. The factors influencing change typically exist externally and are often rooted in past norms and beliefs. They are frequently viewed as incongruent with professional conduct. Educational institutions exhibit foresight and creativity; they orient themselves toward internal benchmarks, aspiring to shape the future. They accept change unresponsive because they see it as a way to learn and grow. Bui, & Baruch (2010) studied unpredicted situations and project administrator responses indicated that successful results can be obtained by combining three specific areas. First, the responsive and functional structure allows for faster decision making, access to resources and team empowerment. Second, relationships between good people ensure communication and flow of relevant information with all stakeholders. Third, experienced individuals provide strong leadership and control their emotions during pressure. They suffer from unforeseen circumstances, over-regulation of micromanagement and administrators, and lack of cooperation skills with shareholders and unsuccessful responses to top-down administration style (Finn & Geraci, 2012).

Palmer & Griggs, (2010) indicated that individuals' assets provide the stakeholder engagement, negotiation and leadership needed to effectively address unpredicted project results. Winch *et al*. (2022) highlighted the enduring challenge of organizational interface and the inadequacies in managing governance and resource matters, underscoring the

disparity between project-related and transient client issues. There is a debate that does not fully allow differences in authority related to the organization, project management and project manager level (Shaw & Perkins, 1991).

The necessity for collaborative team learning is acknowledged in theory but seldom implemented in practice.

i. The interdependence between inter-team learning and intra-team learning.

ii. Management and team leaders are occasionally unattainable to implement.

iii. Although isolated interventions, such as training programs, yield a favorable outcome, they fail to establish enduring behavioral changes.

iv. Behavioristic learning patterns are prone to intensify in situations where there is an immediate and compelling necessity to cease ongoing actions and investigate the underlying causes of the occurrence.

v. Joint and Collaborative Learning Development is characterized by fluctuations and trends.

Teams need to be able to create the necessary learning environment and respond appropriately to changing situations. Learning as part of a project workout is not considered an independent activity, although individuals on the team may differ based on their past experience. A research study emphasized on Team learning and team commitment in the following manner:

i. The provision of specific learning objectives alongside performance goals by a dedicated 'learning in learning' support team.

ii. The actions and decisions of management and team administrators affect the level of team learning their commitment and involvement are crucial to enhancing team learning.

iii. Team administrators should be an example to their subordinates.

iv. Coaching should provide team leaders with support for their team to strengthen collective learning behavior. (Narayanamurthy & Gurumurthy, 2016).

The significance of organizational learning is demonstrated by the numerous benefits organizations gain in cultivating a culture of learning:

1. Increase in worker job contentment

2. Low revenue proportions

3. Increase in efficiency, revenues and competence

4. Emerging leadership at all stages

5. Improved compatibility during the course of the organizations

As organizations invest time and resources in fostering a culture of learning and implementing organizational learning, they enhance their competitiveness. The enhanced ability to promptly respond to rapidly changing market conditions is fundamental to organizational learning. The organization that studies its procedures and practical expertise from failure through training could be extra informed and greater resilient about excellent practices (Masten, 2011). By fostering an environment where all staff engage as both educators and learners, there will be an equal exchange of information facilitating seamless collaboration for all involved.

2.9 Antecedents of the Learning Organization

The learning organizations are currently undergoing rapid and drastic changes. The ability of the organization to learn and adapt effectively enables the organization to stand out in the competition. Organizational learning is characterized and conceptualized in a variety of ways, but these all revolve around a few fundamental concepts of, interpretation, quantification, and administration. The lack of any one of these may result in compromise towards organizational learning (Smith, Hayes, & Shea, 2017).

Numerous scholars have taken varying views on what constitutes organizational

learning. For some, it is primarily concerned with the effective use of information management tools and techniques to support job performance. Others have focused more on the role of organizational culture or a shared community of interest in promoting learning and knowledge sharing. Despite these different perspectives, there is general agreement that organizational learning involves the acquisition, sharing, and utilization of knowledge and information within the context of an organization. By exploring these different perspectives and approaches, we can gain a more nuanced understanding of how organizations can foster a culture of learning and support ongoing development and growth for individuals and teams (Abbasi & Zamani-Miandashti. 2013; Smith *et al.*, 2017).

Organizational learning has been represented using a variety of metaphors. It has been related to an individual's learning capacity of cognitive and behavioral learning theories. The debate over how to define organizational learning has given rise to a new one about whether or not group meetings should be evaluated to ensure that learning (specific or communal) has occurred according to (Smith *et al.*, 2017). Associating organizational results to strategic planning has been regarded as dangerous owing to the complexity in showing a connection between management learning and organizational consequences. Learning organization and adjustment should be distinguished (Viar, 2018).

Technology advancements, employees' productive engagement core competencies, and organizational decision-making have all been used to describe learning organizations. An organization's learning strategy should involve learning investigation and learning exploitation. It has been proposed that businesses have teaching methods that should be addressed to achieve their full potential. Some research argue that it is preferable to admit that quantifying organizational learning is impossible (Schnipper *et al.*, 2015). Another study argued that organizational learning, as the "The relationship between organizational learning and organizational practices is vital, more tense than an analogy, because" the

relationship between learning and maintaining is essential, more tense than compatible. According to Antona *et al.*, (2008) there is a "missing connection" between personal and social learning. As well as conflicts between organizational learning models that place too much emphasis on personal learning will lead to "segmented training" for the organization at best (Raymond, 2010). To create an ongoing history of higher education learning organizations, it is important to study its Transformational approach and style of learning along with its past experiences.

Transformational learning is about learning how we think and see the world and re-evaluating everything we do, including our role in it, instead of learning to "do a little better than we ever did". This often means giving up our existing knowledge and abilities, realizing that they can prevent us from learning new things. It is a challenging and painful endeavor, and the history of learning brings us face to face with it. When compiling learning histories along with learning effort, the challenge and suffering of examining existing frameworks remains constant. But in order to make the best of "real-time" learning history, admitting and propagating mistakes should be seen as a symbol of strength. Uncertainty is no longer a sign of uncertainty because reflecting on the effort to learn inevitably causes people to think about complex, self-contradictory situations. Much work still needs to be done to establish the organizational context for the ongoing learning history so that it does not extinguish the fires of goodwill and resources of the organization.

2.10 Learning Organization: A Systems View

The learning perspective within universities has seen substantial discussion and adoption. However, the theoretical implications of the systems approach have not been thoroughly researched or extensively examined (Bui & Baruch, 2010). It represents an initial step in exploring organizational learning through a systems perspective concerning effectiveness. Senge (2007) and Caldwell, (2012a) depicted five essential disciplines

required for learning organizations: personal mastery, shared vision, team learning, mental models, and systems thinking. Frameworks thinking, as they defined it, entails an applied structure comprising accumulated knowledge and tools developed over time. These aid in elucidating complex patterns and guiding us in their effective transformation. The author provided examples illustrating the implications of systems thinking on organizational learning. Additionally, a recommendation was highlighted regarding the consideration of university management when implementing or designing such organizational learning approaches (Moore & Kearsley, 2011).

The perception of systems thinking varies based on the perspective of the observers or stakeholders involved. Expanding on the concept of systems thinking, Senge (2008) affirmed that "systems thinking" forms a fundamental basis for organizational learning. It involves stepping back and observing patterns that, when clearly observed, appear intuitive and easy to comprehend (Liao *et al.*, 2010).

Marshall & Rossman (2016) indicated in their research about the participants of their study that they had an intuitive understanding of organizational learning despite having varied definitions and theoretical Frameworks. Attia & Eldin, (2018) to elaborate on the notion of organizational learning from a multidimensional viewpoint, as well and how it should be based and verified. Luo *et al*. 2022 presented a view of organizational leaning based on Senge (2008) framework, but they added a theoretical framework that demonstrated how differentiated instruction led to organizational settings, as well as the system outcomes.

Furthermore, the implementation Triple loop leaning in higher education is a novel contribution to organizations that help individuals interested in studying elements of organizational efficiency in post-secondary schools (Moore & Kearsley, 2011). Senge (2008) argues that different ways of thinking in complicated situations are a major obstacle

to learning. He suggested that higher levels of understanding must be attained via a worked-on comprehension of triple loop as given by frameworks suspecting. According to Luo *et al.*, 2022, the Fifth Discipline gives the fundamental connection to different disciplines of hierarchical learning: individual authority, intellectual simulations, joint vision, and group teaching.

Nonetheless, this effectiveness of a framework's approaches for learning could be additionally developed because of the foundational elements laid out over, each learning circle can be related to the idea of a particular frame wok. Figure shows those associations for a nonexclusive instance of effect assessment, i.e. surveying the impacts of mediation (Wang & Liu, 2010). Vital values tell evaluative measures concerning problems of fairness and emancipate context to apply learning and implement in an impact manner is the component connected to cognition and interpretation of knowledge. Beyond the insight, reflection of the learning is essential component and following the fact that experience automates reflection. Somehow the experience relates itself to the context and nature of learning.

2.11 Characteristics of Triple Loop Learning

The first characteristic of triple loop learning involves reflection on learning and processing information. Behavioral effect has conscious occurring for students in higher educational institutions so the direction to be followed is the second characteristic of deuteron learning applies. The intent to apply learning to improve educational institutions performance is the third characteristic of learning.

Strategically and tactically planning educational institutions' learning processes can yield improved productivity. Organizational practices encompass various types, with organizations deciding between positive or negative practices, and choosing between triple loop or extrinsic approaches. Motivated by triple loop learning, students take ownership and

contribute to their university wholeheartedly, engaging their minds and efforts. Effective change requires a robust, efficient role that extends beyond mere communication of new strategies, policies, and plans (Burke and Litwin, 1992). Many other factors matter in the process to intervene otherwise "Triple-loop learning was found more adequate in terms of assess the productivity of organizational sequential scale that requires modifications (Johannessen *et al*., 2019).

Triple loop learning assessment includes assessment of knowledge creation, sharing of knowledge and culture for knowledge processing. It also constitutes maintaining organizational processes in universities that reflect for the mechanisms of change at transformational, transactional individual & personal levels. Reflecting on existing organizational learning practices can help in enhanced knowledge acquisition ,behavioral modification and better individual performances. This argument can be supported with the following theoretical steps given in Burke Litwin Model of change (Burke & Litwin, 1992).

Single-loop learning: Single-loop learning is established on the cognitive elements of an endeavor, which form the basis of the intervening rationale and can be acquired either directly or, more commonly, through intuition from the pertinent documents. Instrumental values are used to inform assessment criteria such as efficacy (does it work?) and 'effectiveness (does it operate well with the appropriate assets) (Hummelbrunner, 2015). Interconnections are emphasized, particularly between the performance and results at individual level. Reflexive adjustments, like altering tactics or tasks to better align with stated goals and objectives, are made when there are deviations from the initial intentions. The intervention's objective is not challenged, which is crucial at individual level (Hwang & Wang, 2016).

Double-loop learning: It elucidates and reproduces the inherent principles that underlie the various applications of a specific intervention. Examining the objectives and assumptions

will involve going beyond the success of the intervention and considering the diverse values held by stakeholders, encompassing individual, organizational, and social values. The assessment criteria of relevance' and 'effectiveness are the proper things getting fixed are informed by inherent qualities (Hummel Brunner, 2015).

The portrayal of beliefs and perceptions supporting an action is most effective when multiple viewpoints are evaluated, in accordance with the consideration outlined by the phenomenon of organizational learning (Matthies & Coners, 2018).

Triple-loop learning: Triple-loop learning can unveil crucial underlying values that influence behavioral and cognitive patterns within a given situation. These are frequently linked to power dynamics or concerns of competence and legitimacy, all of which may be examined when thinking about bonder decisions. Critical values guide assessment methods for equality (who gains from assistance and why') and sustainability (are the actors necessary for long-term impacts appropriately associated?). These relationships do not imply a one-to-one connection between types of values and education, as previously indicated. Values are seldom explicitly communicated, necessitating their enhanced visibility, especially as an integral aspect of the learning process. As a result, these connections highlight which types of value are best revealed with different learning styles. However, with a certain form of learning, more than one value type can be employed in an assessment. Double-loop learning might involve not just focusing on inherent value when reviewing objectives or beliefs but also instrumental values (Hummelbrunner, 2015).

The emphasis here is on the self-evaluation and self-reflection for newer learning avenues. Focusing on threshold decisions is extremely useful (and necessary) fox critically examining the norms and power structures that influence behavior and cognitive patterns in an organization. This includes investigating the power dynamics that shape the bounds of an intervention and is assessment (at individual and group level) in the organization. The role

of organizational evaluation is supervisors' feedback and appraisal which helps in attaining the degree of self-evaluation (Gupta, 2016). For example, triple-loop learning is more than simply looking at interconnection and knowing interrelationships may help with double-loop education as well, such as challenging assumptions about how things operate and questioning reasons or aims. Analyzing limits may also be valuable for reflecting on reasons or goals, making triple-loop learning more than merely a question of perspectives (Reynolds, 2014).

2.12. Elements of Assessment Techniques

The significant contributions of the systems field, as well as some illustrative methodologies regarding assessment techniques, have been expounded upon (Williams & Williams, 2011).

2.12.1 Interrelationship

This mechanism can assist in the assessment of inter relationships among non-linear attributes that offer a variety of exhibiting techniques consisting of various classifications of reflection, self-inquiry, surface level problem solving etc. (Hummelbrunner & Reynolds, 2013).

2.12.2 Perspectives

The study of systems has created an approach for examining issues from several perspectives. It also includes ways for communicating ideas across various stakeholders (e.g., Administrators, Deans, Directors and Faculty members) spherical conversation, systemic querying) and resolving disagreements (e.g., systemic ambiguity) (Matthies & Coners, 2018).

2.12.3 Boundaries

The study of systems provides a mechanism for evaluating the repercussions of threshold decisions. Furthermore, some solutions provide ways for dealing with specific

boundaries (Kim *et al*., 2010).

The assessment of organizational boundaries are a major responsibility of administrators so, that scope of organizational learning can be defined. Nevertheless, as with the forms of learning, the values that support an appraisal are frequently ambiguous and are seldom set explicitly in an assigned organizational task. As a result, these are mainly based on unspoken and unwritten procedures. As performance evaluation is a major part of organizational development more emphasis is required to set clear boundaries so that performance outcomes can be measured properly (Centobelli *et al*. 2019:Shaw & Allen, 2012).
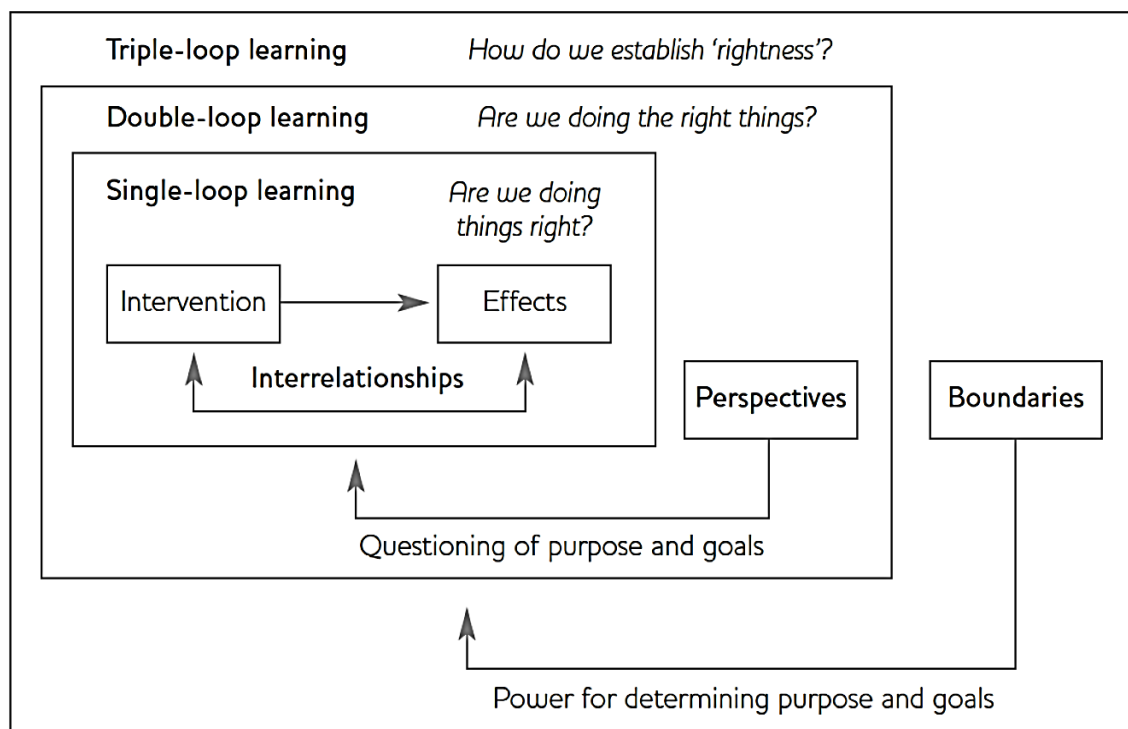
Figure 2.1: Types of Learning and Systems Concepts (Hummelbrunner, 2015)

The same organizational task performance can have triple loop value in addition to instrumental value; the two ideas are applicable to the same variable. If an employee's inherent valued input is acknowledged, and this value forms the moral cornerstone of fundamental employee rights. However, a person can also have triple loop worth if they act as an assessor for people looking for result oriented input. These are entwined with issues

of validity, competence, and power. Tanabe (2021) emphasizes democratic values like social justice and equity in substantial appraisal, while Dachler & Wilpert (2019) advise critical evaluation models to concentrate assessments on employee performance critique and structural injustices in the universities.

2.13. Framework for Assessing Coherence

Educational values and networked ideas are often examined independently, a tendency often reflected in assessment tasks. They can, nevertheless, be regarded jointly. "As has been stated in the previous section because they mutually impact one other or necessitate complementing activities. By combining categorizations (systems concepts, types of values and learning) and their consequences into a single framework, it should be able to explore the space in which these notions (systems concepts, types of values and learning) may interact. As a result, the three sets of classes are depicted as cube axes: X = education types, Y= system ideas. and Z= value types (Hummelbrunner, 2015).
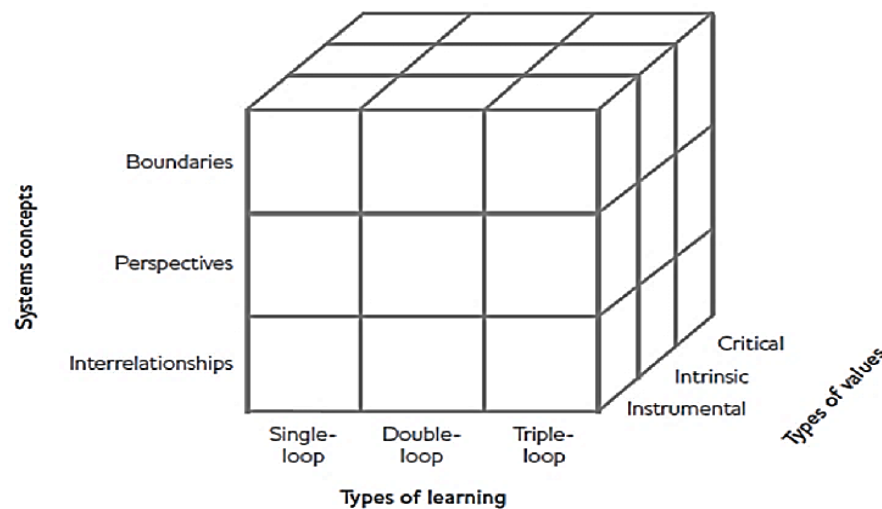
Figure 2.2: An Exploratory Framework for Assessing Coherence

(Hummelbrunner, 2015)

The paradigm may be used to investigate the consistency of the different aspects of an assessment task: for instance, is the learning planned by the evaluation's value base? Is it possible to change or increase the value base if a higher degree of learning is desired or

required? In consideration of system ideas, which do you perceive to hold greater significance? When making value judgments in an appraisal, is it appropriate to use? Three scenarios should be used to demonstrate how this framework nay be used: The terms of reference stale that an assessment should result in learning in multiple areas and that all analyses should be based on the project document's management rationale. By making the (instrumental) value basis plain, it becomes evident from the structure that this assessment can only assume single-loop learning (performing things correctly) and that the focus should be on interconnections.

Double-loop learning can be pursued, although it requires permission from the evaluators to delve into the interaction logic and explore the underlying principles guiding program design and implementation (Garrison, 2016). The operation tools to be stalled, and the connections and potential of action cannot be executed as planned owing to unanticipated developments, and the implementation setting appears to be chaotic and unclear.

Individuals endorsing the proposed changes are seeking suggestions to authorize a comprehensive assessment. In this context, triple-loop learning emerges as the optimal choice, facilitating a thorough exploration of the intervention's scope and limits (Vandembroucke *et al*., 2018). Because alterations are expected to continue in such a dynamic environment, the administrators' reflecting ability should be increased to better deal with this circumstance in the future. The cube paradigm may be used to investigate what one typology's position means for the proper application of networks principles and values. Another place to begin is with the nature of the problem to be assessed. Recently, leading theorists have argued that review is necessary. Strategies should be tailored to the specified circumstances. Furthermore, they present a situational paradigm that separates three sorts of interaction attributes (Ferbinteanu, 2019).

2.13.1 Simple

Stakeholders typically exhibit a high level of clarity and consensus regarding the actions to be taken. Attribution theory is a psychological concept that explores how individuals attribute causes to events and behaviors. It examines how people make sense of the world around them by assigning explanations to the actions of themselves and others. The connections within attribution theory are clearly defined, consistent, and controllable. This is the area of the known, where best practice 'recipes' may be reliably advised since there is a known proper response (within the current situation).

2.13.2 Complicated

There is uncertainty and debate surrounding what actions to take. Cause-and-effect relationships vary depending on the situation; they are neither evident nor foreseeable. There are several ways to create effects. The knowledgeable area is where excellent practices may be found and tested. On the other hand, solutions require thorough study, collaboration, and specialist expertise.

2.13.3 Complex

Links between causes and effects can only be seen in reflection and depend heavily on preceding settings. The contingency theory is more applicable, where every situation is unique and previous success offers inadequate guidance. The education profession is paying more attention to the contingency theory. It would have ramifications for selecting the sort of learning or systems concept when used in a review (Ferbinteanu, 2019). Single-loop learning is appropriate (and probably adequate) for examining simple characteristics, such as deviations from aims or failure of best practices. In more complicated situations, like enquiring about something, double-loop learning may be more suitable. To address conflicts and uncertainty, hypotheses may be necessary (McClory *et al*., 2017).

2.14. Domains of Triple Loop Learning

Triple-loop learning could prove effective in complex environments, as addressing substantial disagreements and uncertainties may involve not only confronting prevalent cognitive and behavioral patterns but also power dynamics. The system's notion of interrelationships appears to be the best fit for examining basic characteristics, such as cause-effect patterns and interrelatedness between an action and its setting (MeClory *et al*., 2017). For modeling more entangled or non-linear interactions, more detailed approaches may be required.

Using numerous viewpoints will be useful in this case, for instance, to examine or resolve disparities in aims, norms, or beliefs. Outcome and boundary reflection appeals to be essential for effectively analyzing complicated circumstances due to the domain's value in dealing with ambiguous or moving bonders (Ferbinteanu, 2019).

However, the domains imply broader implications and should not be interpreted as direct one-to-one communications. The cube structure (figure 2.2) can focus on appropriate learning kinds, systems ideas, and ideals if the situational method is used in a review and scenarios are defined correctly. The difficulties in assessing the impact of complicated initiatives in global development have prompted a reconsideration of the statistical and empirical technique' control. A broader range of alternatives might also widen the breadth of the sorts of education, values, and systems ideas used in evaluation research leading to more in depth analyses on how these relate to design methods (Smith, 2022).

The impact assessment solutions should be chosen through a procedure that aligns assessment methods with availability and program features. Considering the design decision, the cube framework (figure 2.2) might investigate appropriate learning. Based on the framework, the concept appear to be the most important implications for research and evaluation design methods: The assessment techniques that solely lead to single-loop

learning and are dependent on the intervention's cognitive factors (McClory *et al*., 2017).

Collaborative techniques can help with double- or triple-loop learning and can improve from the use of the viewpoints system. Some of these methods (for example, policy discussion and concurrent triple-loop analysis) focus on inherent value, while others emphasize the use of significance level i.e., a critical value used in hypothesis testing to determine the probability of obtaining results (Smith *et al.*, 2017). Theory-based techniques hold considerable promise for aiding in double-loop learning due to their focus on analyses of aims and beliefs. The system designs are mostly focused on cognitive factors and are primarily interested in understanding interconnections. Concepts related to causation can be employed to bring integral qualities to the surface by incorporating diverse perspectives (McClory, Read, & Labib, 2017).

"Case-based techniques" and "Explanatory techniques" are generally associated with research methods or approaches. Case-based techniques also offer the potential for engaging in double-loop learning. Structured approaches represent interdependent methodologies that typically stem from triple-loop factors. Explanatory techniques take into account a variety of viewpoints and can be utilized to uncover hidden values. Composite studies may incorporate all of the other design techniques, giving them the most flexibility. They all take into account many points of view, and some of them can help with triple-loop learning. This framework arose from existing theories as well as a more in-depth examination of the three components, their separate limits, and possible relationship (Watkins & Kim, 2018).

Researchers frequently confront irrational or conflicting criteria and objectives when engaged in the complex and nuanced process of evaluating and appraising research methods, findings, or approaches. This problem is not specific to the planning stage but can arise at any point during the assessment process, which is why there is interest in developing a criterion that can be shared with other participants and supported with basic but not naive

to the employees. This is ongoing framework is still exploratory and preliminary at this point: several links and their consequences may need more investigation. As a result, it would like to ask evaluation professionals and stakeholders to test this methodology with real-world assessment tasks, then share their findings with him and provide critical feedback or enhancement recommendations (Matthies & Coners, 2018).

2.14.1 Formal Institutional and Procedural Learning (Loop 1)

The initial step in addressing the pandemic problem involves documenting existing knowledge. Employing a formal approach is the most effective way to comprehend the information. They are the least capable of taking behavior, such as how Knowledge was used or neglected. The extent to which institutions have attempted to expand knowledge capture to the tacit level of design group engagement is generally unclear. The design thinking research program at Stanford University deviates from this norm. Here, student-designed software undergoes inspection within the parameters of the human-subject study procedure (Mishra, *et al.*, 2020). Catignani (2014) identified that specific aspects of organizational behavior, such as leadership styles, communication patterns, and team dynamics, serve as the foundation for motivation.

2.14.2 Design Process Learning (Loop 2)

Many initiatives aim to accelerate the inspiration and innovation process. Among the conceptual design principles, commonly referred to as design norms, is the emphasis on initiating rapid prototypes of transformations. These modifications can be assessed against user behavior through physical prototypes. The design process incorporates interactive technologies and establishes a physical space to enhance learning and facilitate cross-team brainstorming for quicker development (Teevasuthonsakul *et al.*, 2017).

2.14.3 Design Principles, Lessons from Learning (Loop 3)

Triple-loop learning can uncover important values or the values that underlie a situation's behavior and cognitive patterns. These are frequently linked to power dynamics or concerns of competence and legitimacy, all of which may be examined when thinking about border decisions. Significant values guide assessment methods for equality and durability (are the stakeholders necessary for long-term impacts appropriately implicated). While this exhibits organizational awareness, the participatory manifestations of the desired organizational-level actions in the study data, themes, and explorations are evident. These studies are predominantly associated with communication factors, the nature of systems, project methodology, and their interconnectedness. Study participants were asked questions about how values are generally accepted during development projects, how to enjoy better organizational flows than existing services, and how to map directly to shareholder needs. Sinha & Mishra, (2013) mentioned that the concept of lean must be applied on the organizational level: the beneficiary attitude, figuring out the manner go with the flow (Lean practices involve systematically eliminating waste, optimizing processes, and prioritizing customer value to enhance efficiency and quality across various industries). how to upload practical value to every step and manner), getting rid of a selection of wastes that don't upload price to the system, permitting the technique to glide smoothly, sports or offerings being 'pushed' with the aid of the provider instead of being 'pulled' through the provider and maintaining a continuous development and technique radicalization. Balzer, (2010) the writer elaborates at the significance of gaining knowledge needs to be enjoyable organizational desires, mentioning parallels inside the stories of long-serving personnel at different organizations which make a specialty of development. Achieved achievement by working together.

In his comprehensive work on development initiatives, Balzer (2010) outlines

documentation processes. He emphasizes the conceptualization of organizational learning as a dynamic system intertwined with the concept of learning organizational flow. Additionally, contributors provide clear guidance on how organizations should approach reform efforts, aligning with existing literature on absorption in education (Csikszentmihalyi, 1990).

Clayton (1995) outlines key achievement factors described with the aid of faculty and administrators. Those councils define first-rate by better know-how patron values (Hyun *et al*., 2011), growing specific specs, supplying products or services to these specs, and enhancing universal specifications by using decreasing prices to the patron. In Clayton's (1995) work, a university-extensive instructional initiative was released, in addition to information furnished about every of the numerous quality development tools.

Supporting individuals' views in defining organizational priorities for improvement in general, Comm & Mathaisel (2005a) defined a benchmarking framework used by public sector universities to decide the priorities of an employer. Enhancements can be made with the help of the learning environment and shareholders. Flumerfelt & Banachowski (2011) proposed priority for development known as the change model through policy making by taking the opinion of organizational managers.

Clayton (1995) concludes that organizational learning significantly enhances the abilities of managers and organizational personnel involved in overseeing improvement initiatives. Its impact on the belief and decision making of the organizational subculture changed into described with the aid of the contributors as supportive and immune to alternate.

The study's investigation into developmental initiatives underscores the significance of employing structured improvement projects and adopting a loop learning approach is of

less comparative importance than the challenge technique. Participants explained the numerous ways wherein improvement task priorities may be set up as well as the system interactions that arise within the business enterprise. Hines & Lethbridge (2008) recommended information-primarily based tactics to organizational reform, describing methods to seeking remarks inside an organization and peer agencies. He used the analogy of the iceberg to denote development tasks: overhead water, techniques, technology, equipment and technologies of enhancement are clear, even as underwater improvement techniques which include method, leadership and engagement are a good deal extra. He pointed out that for massive-scale development initiatives to achieve success, an excessive level of involvement between faculty and body of workers is required and that powerful communiqué suggests ways to acquire this engagement. It is possible to don't forget the official language to explain exclusive types of aptitude applications.

2.15. System Thinking, Learning and Assessment Practices

Sinha & Mishra (2013) proposed that to make reform projects practical, it is essential to establish the types of precursor skills required. This involves a thoughtful consideration of the skills needed to better delineate and assess the applicability of various reforms within the system. Several research studies (Kolb *et al*. 2014; Saunders *et al*. 2015), contribute to the understanding of certain subject matters, and the findings from these resources are pertinent to the study's exploration of organizational implementation. Particularly, the want for powerful conversation within an organization is a typically expressed belief concerning reforms beginning on the executive degree. Every other common concern is the use of size frameworks to evaluate organizational improvement or practice. A few take a look at people expressed the view that their university might benefit by using the usage of defining areas of development and associated actions which are seen to shareholders. Experience on the departmental level. Members had been clean about their argument that organizational

reminiscence and statistics switch are key enablers to make sure some success competency applications.

Doman (2011) provided a case study with departmental-level upgrades inside the departments of the universities as the result of policies and procedural stages for its implementation. The author suggests that the effective gaining knowledge of university college students can extensively make contributions to the initiation of educational changes. The change practices and new policy implementations are running side by side at the same time as the departmental administrative team of workers later accompanied the system. The author pointed out, as effective documentation of approaches is to facilitate the trade statistics. The participants expressed a desire for university officials to demonstrate support for reform through lean techniques (such as Kaizen, 5S System, Kanban etc.).

Finn & Geraci (2012) stated that organization executives undertake maximum crucial improvement in duties and usually in terms of employees' job descriptions and their related assigned roles. The authors report that using task groups with affected personnel is powerful whilst looking for departmental-level adjustments. Participants identified areas for the mapped out future reputation and evolved an implementation plan to position into impact modifications after which look into progress. Examine members preferred a systems approach to improve performance further to prioritize enhancements. Their reform efforts found a four-step technique: figuring out opportunities, growing solutions, implementing a manner of life of non-stop development, and keeping that culture. The organization used learning assessment techniques to decide the impact of reform applications.

Paris (2007) studied the critiques of various organizational cultures regarding the usage of lean for reform sets. The author explains how incredible structures are preserved reform, and the way communique efforts are initiated and maintained. Organizations commonly thing out that the participation of senior's reform is important to enhancing

change. Further, using strategic plans or vision engagement, beneficial and inclusive techniques, model to the values and lifestyle of higher training, and placement with accreditation applications are considered vital. In phrases of participatory perspectives, look at members were interested in knowledge the "why" within the lower back of the proposed ability enhancements.

Radnor & Bucci (2011) formed a conclusion by assessing the practices and procedure of improvement for the institutional growth in United Kingdom. The authors reported that universities are elevating consciousness effort for the universities to modify their practices into "alternate, regulate, and enable personnel to venture and query the way they work, approaches and practices which have not been touched upon over the years". They manifest that discussion and efforts by using senior executives had been powerful when engaged in conversations, consisting of how reform blessings are connected to the overall organizational approach. employees have visible the blessings of studying in the long run as they develop their own expert practice and come to be more engaged in their work as procedures enhance.

Roberts & Tennant (2003) found that United Kingdom organization management faculty in relation to the use of development techniques. The authors suggest that the tilt method was employed to promote individual and university learning alongside innovative problem-solving strategies. Based on the team's experience with organizational quality and credibility, the authors conclude that participants are effective in developing new visions, setting goals, reviewing processes, and embracing milestones. The employer ultimately opinions the character and effect of the changes and measures them by means of milestones. Those reviews regarding using organizational learning concepts in higher education have been determined to be much like the subject matters and findings of this look at from a departmental / unit perspective.

Finn & Geraci (2012) found, reform programs are frequently driven from the organization and that communications related to that organization are crucial. The 185 respondents encompass both human resources and engineering-based procedures, focusing on improvements regarding employee satisfaction and assessment. Effects in this segment the consequences of subjects of study and the approach and theory are supplied. Reconstruction of the conceptual framework of the examine is presented primarily based on a discussion of the have a look at factors and studies, organizational getting to know, competencies and previously mentioned studies with readiness in better schooling and reflective pastime.

Implications for organizational learning practice and policy are powerful and communication works as stated to be an essential management potential and fulfillment issue, folks that plan and / or enhance initiatives for the potential to engage them. In addition to the managerial and management abilities required for powerful conversation, organizational subculture need to be considered and evolved in order that workers feel that their views and offerings are valuable to the organizational task. With regards to organizational reform, it's miles vital to overtly and freely percentage information about what the organization is doing well and areas that need to be stepped forward.

The essence of improvement and the comprehensive utilization of policies linked to related projects are crucial in stakeholder communication (Centobelli *et al.*, 2019). Engaging in development becomes more achievable by streamlining methods to bolster the capacity to meet job demands and tailoring tasks to the learning abilities of project participants. Langer (2011) highlights that fundamental model frameworks are frequently employed in higher education settings. If effective procedure and structural reforms can be performed through means other than thinner, opportunity methods to reform tasks or initiatives should be followed in better education.

The admission costs increase when recruiting certified experts to initiate or lead organizational improvement initiatives, mainly due to their limited availability, particularly outside major metropolitan areas. Participants on this observe rarely talk approximately their enterprise or its goals or targets, or about how they for my part discovered earlier than or during capability-enhancing projects. In place of thinking about this as a limiting factor, the ones making plans or conducting competency development applications want to set up a clear relationship with the employer's goals and objectives and provide state-of-the-art aid for the expert nature.

The capacity benefits of reinforcing the partnership vision for improvement and learning for mission members and leaders need to be explored. The route to expert accreditation or the ladder of evidence from task control or certification may be seen as profitable at the same time as the important thing in improving performance is using based tasks with devoted resources, those have to be supplied to departments via the project control office. The triumph factors of the learning initiatives can then be well-defined and the effects can be measured later. The quantity of complete-time employees devoted to development initiatives should be taken into account, as well as for lengthy-term organizational education. Because of this long-serving employees have to be valued with all benefits and prices. In evaluation, the organizational area has more settlement with lean implementation unions.

Performance enhancements have been asked, however, the body of workers became now not extensively decreased and the ultimate employees were assured lifetime employment. It is this agrees with-primarily based employment dating that has made learning so successful. Owners who follow similar efficiencies without agree with-based totally relationships are looking to recreate business successes without the need for the identical device enters.

Sinha, & Mishra (2013) expressed the opinion that despite local or departmental efforts to enhance lean practices (Lean practices involve systematically eliminating waste, optimizing processes, and prioritizing customer value to enhance efficiency and quality across various industries) or efficiency, there appeared to be no formal conversation from the senior administration (president or vice chairman) throughout the look at duration for those members surely expressed the concept of the usage of organizational resources to make the organizational policies manageable, creating change and reform initiatives greater legitimate for got-stage conversation about the importance and capacity benefits of reaching talents. Helped in its efforts to improve effectiveness.

Endorsing these opinions, Francis (2014) explained how ideas together with government leadership, knowledge control, development and trainings, facts technology and task governance are had to build reform projects. Francis (2014) presented a theoretical framework thoughtfully and for reasons that informed the approach taken in the study. Knowledge that creates through learning is the positive feature of an organization that a learning organization holds and expands further with the global change.

2.16. Factors of Triple Loop Learning

An expanding organization constantly focuses on the improvement of individual, team, and organizational performance by adding transactional, Transformational or individual levels on prevailing changes in the organizational practices (Gustavson, 2008). Assessment of Triple-loop learning within the organization indicates that the transformation in operations, strategies, and beliefs has further importance rather than organizational managing practices and coordination (Burke & Litwin, 1992). Educational institutions have transformed their workforce, emphasizing competence and proficiency in their roles. Students in learning educational institutions need motivation and ambitions. Educational institutions need to motivate individuals by giving value to concepts for work and requiring

and addressing of their needs to satisfy them for advanced performance (Croson *et al.*, 2004; Elliott *et al.* 2011; Shipton, 2006). According to Friedman *et al.* (2005), the external factors of triple loop learning are area of theoretical misconception.

Hausman (2000) claims for a reconstruction of works on managerial engagement to acknowledge the scope of predispositions in the past work, whilst Ortenblad (2010) mentions managerial exercise for organizational cultural practices for the sake of work experiences in the same environment where the employees worked. Many educational organizations at higher level recollect the idea of institutional education as dialectical. In its unique, primary form Hausman (2000) defined it as happening in action-oriented, systematic and developing, current (psychological) frameworks, guidelines, policies and guidelines. Within the face of drastic modifications in the institutional environment, these students argue that a qualitatively unique, secondary training is wanted. It aims to transform (intellectual) frameworks, regulations, and workouts into daily tasks and workouts. In standard, its miles defined as extra and metaphorical at the 'better' or 'deeper' degree than the number one and secondary ranges.

Significant activities, suggesting significance of factors involve in triple loop learning. However, regardless of its significance, it does now not continually explain how the organizational learning principles relate to the primary or secondary paperwork. Scholars of institutional education might also first look at particularly conclude that triple-loop mastering is inspired by using the time period isn't clear of their assigned work. As needs to have significant validation, there is restrained agreement among employee's definition of triple-loop learning, with its important placing it in relation to single and double-loop getting to know (Argyris, 2010).

Furthermore, earlier research provide mere concept of triple-loop learning or similarities between competitive environments. This loss of unanimity or essential

communication hinders theoretical development and makes assessment of practices through research.

Cooperrider & Srivastava (1987) indicated the use of appreciative inquiry within organizations to instigate change. According to authors, the notion that focusing on what they are doing rather than lamenting over their shortcomings serves as a commendable starting point for organizations. In his view, laudable inquiry refers back to the introduction of subsequent successes from past successes, whilst deficit-based totally questioning, by contrast, focuses on those in which the organization is incapable. To illustrate this concept, it presents a brief semi-hypothetical scenario through which organizational directions can be conveyed when considering the competitive position in the organization.

According to Watkins & Kim (2018), the deficit-based tools within the concept of efficiency propose that a university or executive level mandate should focus on targeting capacity programs with substantial investments in the upcoming years. The study looked at all the work we can do to find out how organizations can maximize cost savings in relation to purchases, employee salary support and all related expenses. An admirable approach to improving efficiency appears in the form of a university executive-level mandate.

Universities are designed to facilitate research and inculcate the necessary tasks required by organizations. Historically, financing activities posed challenges, yet we are confident that our recent investments have been sound. Through the basic tool of organizational learning, through which our workforce identifies areas where we can improve and develop future outcomes to enhance the best learning experiences while satisfying stakeholders. Instead of demonstrating a Utopian perspective on how efficiency programs are designed, this semi-fiction example aims to provide an optimistic but symbolic example of how to initiate a new institutional discussion about efficiency. Participants in the study expressed optimistic views about the future of promoting meaningful work and positive

work culture development competency goals.

2.17. Theoretical Implications of Triple Loop Learning

The implications of the triple loop learning based on the four themes (transformational, transactional, individual and personal factors and external environment), a review of the relevant literature and a reflection on the conceptual framework of the study. However, this study applied potential upgrades to that conceptual framework. Capacity allows for the navigation of spatial challenges within the initiative, facilitating system observation. Although the efficiency methods presented through previous research studies (Elliott *et al*. 2011; Cunha *et al.,* 2019) were effective, overcoming philosophical concerns and the existence of a dedicated undertaking and gaining knowledge of assets had been taken into consideration greater essential. The introduction of performance initiatives has undeniably influenced organizational learning. Reflecting on these theoretical assumptions, several modifications were made in triple loop learning framework. For instance, this adjustment may stem from the acknowledgment that organizational learning is not only viewed as a system's output but is also integral as the substantive input into the system itself. Praise systems are a vital device used by the management to optimize employee motivation in priority approaches, similarly to enhancing overall performance and improving the overall performance of the organization.

The transactional factors specify matters that the worker deserves in particular. The reward system must have both high-quality and poor rewards to be at the top of the priority listing. Ruthless rewards, regularly taken into consideration punishment, commonly display themselves via the absence of effective rewards. Examples of fantastic rewards are autonomy, strength, growth of repayment, incentives and some negative rewards that hinder employment from superior, zero salary increases and no progress (Sims & Swenson, 2001). The test consequences display that universities provide their team of workers outside

(reimbursement, bonus and boost) and inner (popularity, appreciation, recognition and real gratitude) rewards.

According to Shakir & Saleem (2013), the outcomes indicated that employees were dissatisfied with the existing reward programs, citing that salary levels were inadequate and did not align with the basic cost of living within the organizational structure. The assessment revealed that internal (non-financial) rewards were not significantly effective for employees. Business banks perceive their reward system as inefficiently profitable, resulting in poor work visibility, absenteeism, and overall subpar organizational performance. The factors and conclusions of the have a look at are related to the conceptual framework of the take a look at. It's far offered by way of evaluating the outcomes of one hundred seventy studies and related guides on the usage of learning in organizational gaining knowledge of, efficiency and better training. Organizational studying and skills are reviewed as diagnosed in chapter two, and in the course of this studies, there has been a lengthy (and perhaps much less useful) discussion of ways organizational mastering is defined, conceptualized, and evaluated. When considering an extensive variety of standards about a subject location, you will derive benefits from the consideration of logical corporations related to those principles.

Ortenblad (2002) indicates a typology through which various publications related to organizational learning may be streamlined as suggested that courses about organizational getting to know (or older organizational learning) are basically involved with basic concepts inclusive of organizational reminiscence, the difference between individual and university getting to know (Hedberg, 1981; Kim, 1993), and concepts which include double. Loop gaining knowledge of (Argyris & Schön, 1978) may be in groups. Getting to know in assignment-grade publications that imply the usage of knowledge or training received within the place of work is basically linked to daily work activities (Marsick & Watkins, 2003). Determining whether publications acknowledge the organization's role in fostering

an effective, socially oriented learning culture (Brown & Duguid, 1990; Wenger, 2008) that facilitates the free flow of learning and information throughout the organization (Garratt, 1994). In due time, courses associated with the learning framework address the structural components within the organization that either facilitate or hinder the learning process.

Systems like these facilitate learning and the exchange of knowledge (Marsick & Watkins, 2003). Research studies that explore structural strategies for organizational learning are extensively available (Zeng *et al*., 2008; Yang, Watkins & Marsick, 2004) suit into this closing class of typology. While the subjects and explorations of the study are in comparison to the form of organizational getting to know, the point of interest shifts to how organizational mastering must be described or whether the idea is regular. In this study, the participants' practice under consideration does not necessitate further definition. Expanding on organizational practice here will enrich the discourse on performance enhancement. Factual summaries related to organizational learning have been compared to human practices to present alternative definitions. However, based on my understanding of the inquiry, it was considered a factor (Barker-Scott, 2011). Given that it is pointless to continue. With a more focus on management factors associated with character and organizational gaining knowledge of components and departmental degrees, look at participants appeared to be greater fully aware about the getting to know and developmental needs of their personnel participants. I accept as true with that observe members derived from Yang, Watkins & Marsick (2004) principles of structural degree whilst expressing and managing organizational gaining knowledge of within the place of work.

These authors described those principles as connecting the organizations with its environment, putting in structures for capturing and sharing studying, and imparting strategic management for gaining knowledge of standards about the learning environment are relevant to the investigation. With regard to the surroundings, the observations presented

through the look at of participants and the resulting dialogue subjects have been "the social lifestyles of records" (Brown & Duguid, 1990) however, in this examine, social life for learning became generally restricted to the departmental / unit (meso) organizational stage. However, relying on the study's data and my interactions with participants, it appears that individuals prefer to share their experiences within organizational settings or practice communities for further professional development. Some participants expressed their belief that social learning within their workplace diminishes over the course of their careers. They noted that in the past, they also spent more time engaging with colleagues from diverse backgrounds, including college directors. The identical with reference to the structure of learning, the structures approach to mastering is not eliminated from the concept of participants inside the take a look at.

However, it is reasonable to question whether the systems approach to organizational learning is the most suitable model, despite its significance. For instance, a mechanistic view might simplify everything as a machine-based model, overlooking the complexities and uncertainties within organizational dynamics. Sterman (2002) argues that the systems approach is suitable for organizational studying because it isn't the ideal version, however all other models are incorrect. The structures thought also can be seen as an unfairly advantageous model: Senge (2010) recognizes that it has its roots in engineering science and is primarily based on his graduate experiences (Forrester & Senge, 1980). At the same time as reviewing organizational learning concept, that many authors awareness on problems associated with organizational effect in preference to organizational competence. The criteria most strongly linked to organizational impact and efficiency are often associated. However, if researchers, university planners, or college administrators aim to perceive learning as a tool, they can strategize and oversee capacity programs aimed at enhancing performance and effectiveness. Core principles should be defined and prioritized.

Participants in the study articulated departmental and organizational goals differently concerning efficiency and effectiveness, leading to potential confusion regarding the metrics for assessing progress. Several approaches exist to connect the initial findings of the study with the foundational principles of organizational learning. From a leadership perspective, the idea of powerful making plans, communique and worrying for the aid wishes of the organizations is clear. De-Geus (1997) equated organizational schooling with organizational planning.

Fiol & Lyles (1985) suggest that learning involves an organizational adaptation to change. They propose that responses to change are evident in alterations within the organization's systems, its levels of organizational knowledge, or its capabilities. Bolman & Deal (2008) describes tensions within the studying corporation; specially, while there are differences between individuals' willingness to research and the employer's learning desires. This looks at envisions gaining knowledge of as a holistic and unique phenomenon that guides the inputs and outputs of efficiency efforts in resolving mistakes within the structure's version. Its miles possible to have a look at systems method to organizational studying through opportunity typology.

Meyer (1982) proposed four wonderful structures influencing organizational learning: method, shape, slowdown, and ideology on the subject of approach, take a look at individuals agreed that they discovered approximately the technique to their organization efficiency based totally on their stories running with centralized university personnel or experts. However, they expressed that understanding typically in the context of sports at the departmental (meso) stage. In my opinion, this did not occur because contributors were now not interested by organizational method; as a substitute, it is basically because of the lack of a standard vision of enhancing the efficiency of the organization or using learning as a method of fulfilling organizational desires. Contribution referred to senior college

government "zero" on organizational communication concerning efficiency enhancements and using learning methodologies.

Scholarly literature discussing change implementation in higher education also emphasizes the crucial role of early and consistent administrative support for reform initiatives within educational institutions. Regarding the organizational structure, participants in this study concurred that due to the nature of their roles and focus on departmental-level goals, engaging with the broader administrative framework of the organization isn't necessary to plan or enhance performance activities. Their branch further to receiving capital and control funding from massive organizations, every so often in regards to centrally provided specialists or group of workers, they were in a position to plot and enforce capacity enhancements with autonomy. Individuals expressed the view that greater verbal exchange among their department and the organizational degree of the organization would facilitate their development efforts. The concept of procrastination isn't always glaring inside the records, topics, or findings of the study. Slack indicates how a whole lot time is available to priorities recognized with the aid of employees or their departmental leaders.

In this study, the efficiency development aspect revealed that although participants acknowledged progress, specific criteria for improvement weren't consistently applied or integrated into the planned work. Theoretically, it might be interesting to remember the relationship between slack and organizational way of life. For example, what wouldn't it be like to paintings in an environment without specific slack? Are organizational performance packages ready to reduce slack to zero? What are the implications of such instructions for workplace making plans and culture? Ultimately, from an ideological point of view, the observe participants felt that there was a philosophical vision of their organization regarding technique improvement and organizational studying from leadership attitude.

However, members' opinions on how methods can and should be stepped forward consist of statements that benefit the character and the department by expressing such views from the most senior participants of the enterprise or its board. Guides on the usage of learning in Organizational training and higher schooling illustrate the importance of government leadership and conversation, as it relates to fostering a lifestyle of studying organization growth and development. In the literature review of this examine, ideas of performance (and related aspects along with high-quality) were reviewed, beginning with the writings of Weber (1947) & Taylor (1911) and extending to greater contemporary definitions and ideas prompted by way of the engineering and efficient environments. With reference to latest principles of efficiency inspired through systems questioning and first-rate development strategies, its miles feasible to compare them with organizational mastering types.

Ortenblad (2002) when viewing organizational gaining knowledge of from the perspective of a mastering shape, parallels can be drawn among it and system-primarily based performance thoughts. As an instance, efficiency courses on best warranty techniques often consult with systems which includes learning (George, 2002). Loop learning refers to a nice cyclical system method referred to as that lets in great assurance specialists to define, measure, analyze, and manage elements of a product in search of development in satisfactory. Recommends to do (George *et al.*, 2005). Determining the scope and stage of such cycles bobbing up in organizational making plans is of interest; for example, whilst evaluating whether or not performance has improved, should we measure it in cycles with quarterly or every year evaluation? Does the size cycle even exist in a few organizational reform programs? Similarly, there are organizational getting to know courses that communicate about concepts, gear, and / or measurements motivated by way of capacity tools. For instance, Kim (1993) explains an approach to organizational learning termed "the

cycle," wherein iterative phases involve examination, evaluation, design, and execution. In his research, he mentioned that cyclical systems are Livian (parallel to the overall medical method) in nature, and although they are commonly beneficial for summarizing the organization's most important studying activities, they do not represent the enterprise's getting to know revel in. no longer enough to get the suitable info. because the nature of getting to know starts with individuals, the behavioral elements of learning and working collectively have to be framed and models of enormously elaborate systems are needed to represent organizational getting to know. The second conclusion of the study, from a systems perspective, is that the ergonomics literature compares the ratio of the price of developing and operating communications to using such organizational communique techniques.

It echoes Stone (2012)'s definition of performance as "the ratio of an employer's inputs to its outputs" (p. 61). Study participants emphatically conveyed their viewpoint that employing consistent, standardized, and precise communication across all organizational levels during improvement initiatives could yield superior dividends. The theoretical notion of effective learning appears sound, yet the execution of communication demonstrates intriguing and, at times, unexpected outcomes. For instance, when a university president adeptly engages in social media, should they aim to supplement their communication efforts or rely on the existing communication department? Are the cycles of powerful conversation declining and, in that case, what are the results for enhancing college leadership and growing a significant work environment? Researchers reviewed how learning is carried out in higher schooling and distinguished it from their implementation on the organizational, departmental and private ranges. Reviews of those reviews are normally of a sensible nature, often presented as case research with supporting proof in place of suggesting propositions for the idea. However, it's miles useful to compare the consequences of this take a look at

with the current reviews of compactor organizations on the subject of departmental / unit and organizational gaining knowledge of revel in at the organizational stage. On this observe, individuals described most of their instruction and implementation for improvement tasks on the unit or departmental stage. despite the fact that this meso has an organizational stage focus, participant expressions of desired organizational stage sports are without a doubt inside the have a look at statistics, specifically from topics which includes communication, the nature of the systems, venture technique and the way to analyze beneficial improvement as undertaking input. examine members had been requested questions on how values are commonly regular in the course of development projects, how to enjoy higher organizational flows than present services, and the way to map at once to shareholder needs.

Balzer (2010) introduced a comprehensive approach to implementing learning at the organizational level. This included defining process value from the beneficiary's standpoint, mapping process flow considering both the beneficiary and organizational perspectives, determining process value addition at each stage, eliminating non-value-adding wastes, ensuring seamless process flow, adopting a 'pull' approach for services by the recipient, and achieving excellence through continuous improvement and process radicalization (Balzer, 2010) the author elaborates at the importance of getting to know in fulfilling organizational dreams, citing parallels within the studies of long-serving personnel at Organizations Motor Co., which focuses on development. Carried out achievement by operating together. Document tactics or improvement tasks aren't comprehensively described (Balzer, 2010). The author notes that the perception of organizational learning as a system is expressed someplace else in the literature approximately the advantages of mastering organizational drift (Csikszentmihalyi, 1990).

Participants also made clean tips approximately how college and university

administrative bodies have to prioritize reform efforts and these are much like the literature on absorption in better schooling. Clayton (1995) outlines key success elements for organizational reforms described through school and workforce councils. the ones councils outline first-class with the aid of higher expertise customer values, developing particular specifications for services and products, imparting products or services to these specs, and improving normal specs by using reducing charges to the client.

An academic initiative was initiated, focusing on raising awareness about quality and efficiency, alongside providing comprehensive knowledge on various quality improvement tools. Supporting contribution' views in defining organizational priorities for improvement in well known, Mathiesen (2000) defined a benchmarking framework used by public area agencies to determine priorities for an organization's clients. By means of surveying shareholders to make enhancements. Flumerfelt & Banachowski (2011) proposed similar answers that identify regions of priority for improvement (referred to as the tension version) via vote casting the opinion of organizational managers. The authors finish that organizational education may be beneficial in enhancing the capabilities of managers and organizational staff involved in overseeing improvement tasks. Its impact at the perception and selection making of the organizational subculture turned into described with the aid of the individuals as supportive and immune to change.

Langer (2011) observed that the collaborative nature of university management might restrict proactive and bold leadership concerning change initiatives. The study conclude that the conceptual framework based on higher education reform projects is much less advanced than production settings. This exploration of the nature of improvement initiatives helps the subject of the examine that using structured improvement initiatives is vital; and the use of a single advised method is of much less comparative significance than the assignment methodology. Members defined the diverse methods in which development

undertaking priorities can be established as well as the system interactions that occur in the organization.

Hines & Lethbridge (2008) advocated data-driven approaches for organizational reform, outlining methods to seek feedback within an organization and from peer entities. He used the metaphor of the iceberg to represent development tasks: above water, processes, era, device and technologies of development are clear, even as underwater improvement strategies together with strategy, leadership and engagement are a lot greater. Participants of the study emphasized that successful large-scale development projects require substantial engagement from both faculty and staff. They highlighted that effective verbal communication methods play a pivotal role in fostering this engagement. Additionally, considering the local language becomes crucial in articulating various types of proficiency programs.

Sinha & Mishra (2013) proposed that establishing precursor skills is essential to render reform initiatives practical, aiding in better defining the most relevant types of reforms. The authors emphasize that organizational reform should concentrate on how individuals perform their tasks, their interconnections, and the functionality of processes. effective communique isn't always pretty much raising attention of people and systems; It also guarantees that the reforms are in keeping with the corporation's lengthy - time period dreams and cling to a protracted - term method of improvement. Study members defined organizational gaining knowledge of as a whole and as a phenomenon to be looked at thru its component technologies.

Anthony (2014) recommended the incorporation of critical success factors as a strategy to enhance the effectiveness of sustainable development projects within universities. They describe: top-stage management help and commitment, effective communication in any respect ranges vertically and horizontally, growing strategic and

visionary management, organizational readiness / organizational sources and competencies, prioritizing initiatives, and thinking about organizational tradition. The authors additionally stated that any particular learning and 6 Sigma gear are great desirable for the sector of higher schooling. Those courses on learning's use in better schooling are viewed from an institutional attitude, overlaying an extensive variety of topics that resonate with engineering-primarily based strategies to human assets and university control. In assist of human useful resource coverage, Balzer (2010) refers that lengthy-serving worker studies assist development from a gaining knowledge of perspective, Clayton (1995) advocates for increased engagement and knowledge within employee groups, especially supporting the engineering approach, Comm & Mathaisel (2005b) defined the benchmarking framework introduced by university administrators as a facilitator for development, while Langer (2011) defined it as a capacity hindrance to enhance the problem of organizational collectivism. As defined. Specially, the need for powerful communique within an organization is a commonly expressed perception regarding reforms starting at the executive level is the use of dimension frameworks to evaluate organizational development or practice. a few examine members expressed the view that their college would gain by using defining areas of improvement and associated moves which are seen to shareholders. Revel in at the departmental stage. Contribution had been clear approximately their argument that organizational reminiscence and knowledge transfer had been key enablers to make certain a hit competency package.

Doman (2011) presented a case study detailing departmental-level improvements in the grade-admission system, led by a group of students. The author suggests that students' effective learning can significantly contribute to instigating essential changes. The transfer of that training took place while the departmental administrative team of workers later followed the process. The author factors out that the effective use of communication

simplifies the whole process, as effective documentation of processes is used to facilitate the exchange of statistics. The look at participants said that they would like to peer college officers explicit their help for reform via learning techniques.

Finn and Geraci (2012) noted that organizational executives usually spearhead critical development projects and often engage external consultants to assist in their implementation. The authors emphasize that employing project teams involving affected personnel proves effective when seeking departmental-level changes. The workforce contribution identified current deficiencies, mapped out future objectives, devised an implementation plan for effecting changes, and subsequently evaluated progress. Have a look at contribution wanted a structures technique to enhance performance in addition to prioritize enhancements.

Moore, Nash and Henderson (2007) delineated an organization's impetus for advancement, anchored in employee contentment and endorsement of organizational learning. Specifically, the plan aims to foster a culture where progress is regarded as a fundamental element of the operation, utilizing the same plan to identify the improvements that optimize organizational growth. Are underneath stress. Their reform efforts followed a 4-step manner: identifying possibilities, creating answers, enforcing a way of life of continuous development, and retaining that way of life. The organization used implementation to decide the effect of reform applications.

Paris (2007) studied the experiences of several organizations in North the US regarding the usage of learning for reform packages. The writer explains how distinct governance and administrative systems are used to sell and keep reform, and how learning and / or communique efforts are initiated and maintained. Organizations usually factor out that the early and energetic participation of senior executives in reform efforts is critical to improving achievement. Similarly, using strategic making plans or vision engagement,

cross-practical and inclusive strategies, variation to the values and way of life of higher education, and alignment with accreditation packages are considered essential. In terms of participatory perspectives, look at contribution had been interested in expertise the "why" in the back of the proposed ability enhancements. Radnor & Bucci (2011) compiled a record on the processes and practices which have not been touched upon over time" (p. 9). They stated that communique efforts by way of senior executives were effective while covered in communique, together with how reform advantages are connected to the general organizational strategy. employees have visible the benefits of gaining knowledge of in the end as they develop their own expert exercise and grow to be greater engaged of their work as techniques enhance.

Roberts & Tennant (2003) tested the reports of a business school when it comes to the usage of improvement strategies. In that observe, the authors defined how the tilt process become used to sell person in terms of brain drain and universities getting to know in addition to innovative procedures to problem solving. Based totally on the team's experience of organizational exceptional and credibility, the authors conclude that they're powerful in creating new imaginative and prescient, setting new goals, reviewing procedures and accepting milestones. The organization in the end opinions the character and effect of the adjustments and measures them by milestones. Radnor & Bucci (2011) explained the significance of worker engagement and effective communique at some point of reform applications.

Finn and Geraci (2012) discovered that reform packages are frequently pushed from the executive degree of the organizations and that communications related to that group are essential. 185 those reviews cover each human assets and engineering-based processes; Moore, Nash and Henderson (2007) describe development in phrases of worker satisfaction, but in assessment, Paris (2007) describes the importance of strong governance and mapping

capability to the described improvement scales.

These relationships do not imply a one-to-one connection between practices and education, as earlier mentioned (Allamanis *et al*., 2018). Values are seldom communicated clearly and must thus be made more apparent, such as part of a learning process. As a result, these connections highlight which types of value are best revealed with different learning styles. However, with a certain form of learning, more than one value type can be employed in an assessment. Double-loop learning, for example, might involve not just focusing on inherent qualities when reviewing objectives or beliefs (Lysaght *et al*., 2019).

2.18. A Framework for Assessing Loop Learning

Education, values, and network concepts are often assessed individually, reflecting their separate consideration within evaluation tasks. Nevertheless, as previously stated, it is viable to consider them collectively since they consistently influence each other or require complementary actions. For example, the desire to attain a certain sort of learning has ramifications for the use of systems ideas (and associated approaches) or the types of values that may be tackled (Lysaght *et al*., 2019).

The framework can be utilized to scrutinize the coherence among various elements within an assessment task; for example, assessing whether the intended learning aligns with the evaluation's foundational values? Is it possible to change or increase the value base if a higher degree of learning is desired or required? Which of the systems ideas would be more suited for making moral decisions in an appraisal? Three scenarios should be used to demonstrate how this paradigm may be used: The terms of reference state that a review should result in learning in multiple areas and that all analyses should be based on the initiative statement's intervening rationale (Allamanis et al. 2018).

By making the objective value basis explicit, it becomes evident from the structure

that this assessment can only assume single-loop learning (doing things correctly) and that the focus should be on interrelationships. Double-loop learning can be pursued, albeit it necessitates authorization from the evaluation to scrutinize the rationale behind the intervention and delve into the assumptions guiding the design and execution of the program (Dikova *et al*., 2010). The data gathered during the initial stages of an assessment, or from earlier monitoring endeavors, presents a diverse picture, encompassing several exceptions, discrepancies, and even puzzling elements. If the assessment relies on the intervention's cognitive factors, single-loop learning alone may prove inadequate to address this situation.

Significantly, it does not facilitate an investigation into the underlying reasons or processes responsible for the diversity in the data. As a result, the assessor should advise the client if the value basis may be altered and whether the bounds can be queried if this is insufficient (Lysaght *et al*., 2019).

2.19. External Environment

External environment represents any forces or situations out of doors of the organization that affected in the organizational operating approaches. An example is patron behavior or marketplace situations. External environment affects the overall output of the organization. This can be represented in many special methods typically turnover, productivity, and customer pride. The term "external environment" refers to the dynamic and ever-changing set of elements, forces, and situations that exist beyond the limits of an organization or educational institution in Pakistan, such as a university. This includes the variables that impact and form the higher education landscape, such as the political, economic, social, technical, latest trends and environmental. It entails recognizing the ever-changing difficulties and possibilities given by society as a whole, government policies, global trends, and the expectations of many stakeholders. Triple-loop learning encourages institutions to critically examine and challenge their underlying assumptions, values, and

strategies in order to proactively adapt and innovate within this multifaceted external context, ultimately increasing their effectiveness and relevance in a rapidly changing world.

2.20. Transformational Factors

Ingrained practices and features of the organization are Transformational forces. Any modifications to such components could have a significant impact on the organization as a whole. Additionally, it is true that each alternative would need those components to enter, which is why the arrows cross in both directions. Any of these factors that experience significant shift are likely to affect the employer as a whole. These elements will have the most impact on transactional elements and may be the ones most significantly impacted by the external environment.

2.20.1 Leadership

The organizational change factors state this factor 'the most crucial element of the organizational practices for change. People in management places are in charge for growing an apparition and encouraging the all the employees or subordinates of the organization for the set targets and achieving it.

a. **Missions and Strategies:** This factor describes the set targets and aims of the organization and also the techniques for the way it will be completed.

b. **Organizational Cultures:** The organizational culture articulates the norms and beliefs within an organization. These are often less formal in comparison to the strategic planning process, yet they permeate the organization indirectly.

2.21. Transactional Factors

Transactional factors pertain to the day-to-day operations within the organization. According to the authors, these factors are significantly influenced by management rather than leadership. Trade in those daily is handiest likely everyday main to long-lasting alternate if, in chance, the Transformational factors affecting the daily work practices.

2.22. Management Practices

A management practice generally pertains to the sequential procedures and advancements that administrators commonly employ to enhance the effectiveness of work structures. Common control practices include: empowering group of workers, education employees, bring together structures for improving daily, and introducing numerous types of new era. Daily additionally be described as "Behaviors and sports of managers, typically aligned day-to-day sporting out the overall method".

2.22.1. Structure

A managerial organization is a framework that outlines how specific resources are utilized daily to achieve an enterprise's objectives. Those activities can include guidelines, roles, and responsibilities. The organizational structure also determines how records flow between tiers inside the corporation. Structure of an enterprise will also be said as "The organizational structure, including the hierarchy, departments, and communication processes.

2.22.2. Systems (Policies and Procedures)

Organizational regulations and procedures serve to elucidate the organization's stance and values on specific matters to employees, prompting compliance or action if they are not adhered. Regulations comprise the standards dictating the conduct an organization ought to adhere, and tactics outline precisely daily do a mission or perform grade by grade an organizational device is that which outlines how certain activities are directed daily acquire the desires of an organization. Those activities can encompass regulations, roles, and duties. Those are the mechanisms put in vicinity every day help and help personnel. This can be illegitimate structures or reward structures, as an example.

2.23. Individual and Personal factors

The individual and personal factors refer to dimensions or aspects that significantly influence and effect any person's lifestyle and behavior, which tend to vary among individuals.

2.23.1 Work Unit Climate

Work Unit Climate encompasses various aspects such as the effectiveness of team contributions and collaborations, the comfort level individuals feel expressing themselves, and the establishment and recognition of successful goals.

2.23.2 Motivation

Motivation pertains to the needs or desires that drive behavior toward a specific goal. It represents an impetus to act or behave in a way that satisfies particular conditions, encompassing aspirations, objectives, or desires. Previous theories of motivation emphasized rational thought and purpose as the guiding factors in human motivation. However, contemporary psychological perspectives suggest that motivation can stem from fundamental impulses aiming to optimize well-being, minimize physical discomfort, and maximize satisfaction. This includes the strategic establishment of goals to inspire and guide employees.

2.23.3 Task Requirements and Individual Skills/Abilities

Aligning the job description with an employee's expertise, even a seasoned, senior-level employee might encounter difficulties when embracing new technologies or methodologies. The set of physical, operational, intellectual, and administrative needs must be safeguarded by the allocated resources: they serve as best criteria to approve suitability of assets. In other phrases, task necessities encourage the managers to pick out appropriate resources (manpower, gadget, materials, etc.) and assign them to a task to absolutely supply

it with everything appropriate to this work (assets, in order to be assigned, have to fit the project necessities).

2.23.4 Individual Needs and Values

Person values reflect how you show up to your life and your precise needs-the ideas you live with the aid of and what you keep in mind crucial for yourself-hobby. Character values include enthusiasm, creativity, humility, and personal success. Personnel will assume sure demands, which include pay, work/life balance, and obligation etc. to be met in their role.

2.24. Organizational Performance

Character and organizational performance approach the degree of the extent of performance in terms of productivity, customer delight, exceptional, and so on. These are the factors which are vital for motivation, production and consequently for better performance.

2.25. Organizational Practices

Organizational practices encompass the behaviors and actions within a corporation. The organizational practices translate the values and beliefs ingrained in an organization's culture into tangible actions and initiatives that sustain its active operation and, significantly, drive its progression in terms of business growth and profit margins. It is critical that an organization follows precise practices, which might be appropriate sufficient to sort things in area and to make certain the methods circulate inside the proper path and to make certain timely identity of issues for enhancements.

Several conceptual works in the literature on organizational learning promote the idea that institutions must frequently choose between devoting resources required to generate new information (examination) and pulling on resources made accessible based on

previously produced Knowledge (exploitation). This choice typically manifests in both for-profit and research-oriented domains.

2.26. Universities Practices in Organizational Context

The systems-based approach to conceptualizing knowledge culture exerts significant influence and is frequently acknowledged in research. However, the conceptual implications of the systems-based methodology have not been thoroughly investigated empirically (Shortle, 2006). This research is one step toward expanding current studies on the systems-based concept of organizational training. By watching originations, it has used an investigation grounded methods to understand Institutional development. Instead of questioning the reality of organizational development, this research offered a systemic structure-based on an organization's 'learning directions" (the dimensions though which learning happens) and "facilitating Variables. The immense gratitude well-developed core competencies underlying services and goods, the implementation of ongoing development, organization and the capacity refresh or revitalize tasks as significant enabling elements (Wang *et al.*, 2020).

According to the approach, organizational learning takes place in three stages. Thinking Skills developing skills, insights, und connections), information sharing and knowledge usage. Centobelli *et al.*, (2019) developed a set of assertions observations. They said that people learn in 'all organizations but not always in a regular and consistent pattern and that training aligns with and adapts to organizational culture. Like individuals, corporations encompass various types of learners, and by recognizing these, it's feasible to optimize a university's inclination towards development.

Considering the 'range of learning, there are universal ways for all business to develop. In specification to the terminology of learning perspectives, the businesses may recognize as well as create regions where learning arises as well as analyze how goods and

products, procedures of development are recoded. It should be analyzed analyze on the ways information is spread as well as concentration for institutional learning evaluate the value of procedures connected to products or service delivery, and promote general professional growth (Caldwell, 2012b).

The enabling characteristics of institutional learning are outlined as follows: organizations must constantly analyze surroundings, proactively identify loops. Appropriate system implementation to have an open mentality to innovation. Corporations must also develop an inclusive environment and a dedication to continual education, acknowledge that there are several techniques for management, and provide numerous champions for organizational learning." including active leadership.

Organizations ought to adopt a transparent systems perspective on learning. This approach entails managers ensuring that every department within the organization is taken into account during decision-making processes, aiming to prevent any unintended repercussions resulting from those decisions (Centobelli *et al*., 2019). Watkins & Kim (2018), perhaps the most prominent in the structures perspective of the organizational learning in the research, identified five core techniques (disciplines) that change must have to be deemed in learning organizations. It has been described that the systems approach as the 5th restraint. the master discipline that connects the others, describing it as 'a theoretical model, a scientific knowledge, as well as techniques that have been built up over the past 60 years to create the full trends clearer and to assist us to see how to modify them successfully" gave examples of how schemes rational related to the education group and in what way this suggested that high degrees of difficulty obligation be measured and organized when applying of studying structural education efforts.

Sidani & Reese (2018) broadened the systematic approach concept in personal and collective training to encompass the realm of emotions. Regarding the development of

professional practices, the authors advocated for the enhancement of work ethics, personality traits, and compassion. Students could attain higher levels of personal and collaborative educational proficiency through a deeper self-awareness. The writers advocated for a deeper awareness of our place in the wider scheme of things. This role integrates us into a broader framework that encompasses our personal and familial bonds, as well as our professional or intellectual engagement. The systems perspective is triple loop in all learners and may thus be developed at any step of the learning career. Another study conducted a comprehensive evaluation of the literature on Institutional education and developed a tool for describing the aspects of an education group, measuring a university's capacity for learning, and verifying findings (Wink, 2010).

The theoretical foundation of organizational learning, based on systems thinking, differentiated between interpersonal and intergroup learning. It proposed a necessary progression from individual to group learning events. According to Sidani & Reese (2018), as organizational learning surpasses conventional descriptions, there arises a specific necessity to develop an instrument for measuring work performance.

2.27. Assessment Restraints

According to Watkins & Kim (2018) recognized systems thinking, personal mastery. Models, shared vision, and team learning as the component Technologies necessary for businesses to genuinely become learning organizations. He described the holistic approach as the restraint, the restraint that helps connect others too, giving rise in workplace context where "people constantly broaden their kills to create the outcomes they really want, where fresh and expressive trends of thought are nourished, connected components is set of goals, and people are regularly learning around each other" The subsequent is a set of momentary clarifications concerning these constituent skills or restraints.

2.27.1 Individual Mastery

According to Nguyen *et al*. (2019), individual learning is not identical to organizational effectiveness, but it stands as a necessary condition for organizational learning. The emergence of organizational learning relies on the presence of individual learning phenomena. Senge's (2010) primary technique, however, predominantly focuses on an individual's inclination or preparedness to acquire new knowledge or skills within their work environment. Instead, he defined it as a dedication to individual growth and advancement in a variety of areas, including professional capability, spirituality, and social inclusion.

To enhance individual dominance, one must "treat one's life as a creative endeavor, experiencing life from a constructive rather than reactive standpoint." A University's discovery learning results in fresh (exploration-based) chances, whereas the learning method is responsive to strategic options or dangers. Independent learning is the vehicle via which one may engage in both forms of learning while managing the strain caused by assigning precious learning resources to each area.

The author mentioned the inevitable conflict that arises from introspective activity, which reveals a person's concept of where they want to be rather than the reality they now experience. This conflict is normal, and if managed properly, it may be extremely motivating to a person's learning method and efforts. As per Cunha *et al*. (2019), institutions can foster individual mastery by establishing and upholding an environment where individuals are encouraged to generate ideas, curiosity and truth-seeking are valued, and critique of the existing system is welcomed. Especially when the existing system involves concealing aspects of the present reality that individuals seek to evade (Nguyen *et al*., 2019).

2.27.2 Psychological Replicas

Organizations and individuals utilize mental models to reflect many realities

relevant to an organization's operations and constituent. There are many concepts, interpretation, and even emotion concerning a view point, regardless of its complexity degree. The usage of conceptual frameworks enables business and individuals to collaborate on sense connect and vigorously pursue solutions that value the institutions and its investors. When Janousek (2017) proposed mental models as a constituent of expertise or restraint in his outline for institutional learning; he sketched on ideas about mental models. In specific, he sketched on Mesbah (2021) work on distinguishing among a proclaimed philosophy and a philosophy in use, which is discovering gaps between what we believe an organization is doing and the ideas underlying its activities. The study has observed that firmly embedded or inflexible working models are transformative version for change the organizational practice towards the systems thinking. As revealed by Simon's (1969, 1991) concept of bounded rationality and the limitations of systems models, mental models ought to be regarded as "systematically flawed." (Kaiser, 1960).

2.27.3 Shared Vision

A vision statement is a set of common individual, social, and organizational goals for what an organization is or should do. It provides "attention and energy for learning." Adaptive learning may be conceivable in the absence of a common vision, but it will be hard to implement effectively, and shared vision begins with the promotion of individual vision, and it is the power of these great individual visions that leads to the possibility of a common vision. The processes of enrolment, engagement and compliance are followed by the dissemination of a common vision throughout an organization. Participation is the first and individual decision to get behind a goal, whilst dedication is when a person becomes accountable for creating the vision come true. Regulations related to a person's activities about seeing the advantages of the vision and doing everything they can to support it (Johannessen *et al*., 2019).

2.27.4 Team Learning

The group work refers to more than the sum of teammates' active learning: it is the organizational agreement needed to guarantee team members have been discovering and sharing the most appropriate things, trying to move toward a systems approach to overall organizational learning. When used correctly, team learning may assist businesses in overcoming some of the inevitable difficulties that all teams face. It has been provided crucial instances from the literature to back up his point of view. For instance, identifying protective practices as a hindrance to healthy discourse and group debate. Another supporting idea proposed was that the formation of new research is an ongoing debate supported by the suspension of preconceptions. A cooperative environment and a specified method of capturing dialogues (Antunes *et al.*, 2020).

2.27.5 Systems Thinking

The learning organization's five categories should be considered as ensembles rather than individual instruments, and that it should be used as a process to guarantee that the aggregate of the Knowledge exceeds the summation of its components discipline is that "incorporates the professions, dissolving them into a coherent body of theory and practice." Groups and individuals desiring this technique needed to transform as a positive change for organizations. This adjustment enabled us to more properly evaluate the gap between what generally have to look upon as an organizational capability and needs for more teaching (Mesbah, 2021).

2.28. Triple-loop Learning Methodology in Higher Education

There have been several practices for triple-loop learning or other continuous improvement approaches as they have been applied to higher education institutions that are related to performance assessment efforts and the impact these projects have had on university practices. The literature is provided in groups based on the degree of the

organization researched Greenhow & Lewin, (2021) contemplate on triple-loop learning and consider the ramifications that emerge with comprehensive education and the development of workplace diversity. While there is substantial consensus among academics on how to conceptualize. Triple-loop learning has been widely recognized as a type of learning that has the power to transform the very essence of an organization. It serves as the foundation of mechanisms for the most foundational and significant transformation (Peschl, 2006). For critical reflection on the principles and power dynamics that influence behavior and universities learning patterns, assessment of boundary determinations is particularly beneficial and essential. A selected behavioral exchange aimed toward resolving a hassle by using determining what the trouble is and how responsibilities could be accomplished more successfully, in place of thinking why the hassle occurs. Interest to triple-loop learning and its implications of complex aspects of management practices in the realm of handling range. Even though the conceptualization of triple loop learning is primarily based on a few strong sensible implementation control rules, the general perception of triple-loop getting to know is a sort of learning that has the ability to enhance the most essential areas of an organization. Triple loop learning assessment strategy which might be utilized for coordination to lead organization prudently for positive change, related to the validity of professional propositions to what are to be considered relevant.

2.28.1. Triple-loop learning in Higher Education: The Institutional Level

Anthony (2014) identified variables that would indicate institutions preparedness to implement organizational innovations using Triple loop learning. These components, according to the author, include leadership and vision, tying improvement to the university's goal, having a customer focus, and hiring the proper personnel. An adequate organizational place to start for Triple-loop lessons would be the fundamental upgrading of administrative operations. After the organization under stands further about Triple-loop learning and

positive effects are proven elsewhere within the institution, the improvement of strategic policies and practices will be addressed. Mesbah (2021) investigated the experiments, Impediments, achievement, criteria, and technologies utilized in the implementation of Triple loop learning in higher institutions.

While observations indicated a wider prevalence of Triple-loop learning applications, the authors highlighted that these enhancement approaches exhibit strength when implemented collectively. They contended that, while process improvement approaches are more commonly found in triple-loop loop settings, they may provide significant value for the crucial success criteria assessed in the academic institutions. Antunes *et al*. (2020) suggest that further empirical studies in this area could yield valuable insights. Johannessen *et al*., (2019) discussed several challenges that arose throughout the introduction of Triple loop Learning and practices for change overcome problems between the language used in triple-loop loop contexts and terminology used at universities, as well as the tendency for university concerns to be handled locally were mentioned as difficulties.

Executives, including academic management, often misinterpret Triple-loop Learning as a change approach and fail to provide the necessary management support or leadership. Despite its fundamental principles, Triple-loop learning might mistakenly be seen as a "quick fix" method or a way to reduce costs. According to the researchers, an intellectually gifted mind may not consistently thrive within academic circles, and such environments often do not cultivate harmonious relationships (Schwens *et al*., 2011).

There are several instances of college clientele being misinterpreted (notably, the needs of students, working hours, academic responsibilities). Finally, pervasive communication, staff training and time constraints were a substantial hurdle to triple loop learning installations, either individually or together. Antony *et al.* (2012) proposed that crucial success criteria be considered as a strategy of improving the effectiveness of

improving effectiveness at institutions. As examples, they listed unwavering upper management collaboration and inspiration. Effective Transformational leadership strategy and implementation, transforming organizational readiness skills and resources, prioritizing projects, and evaluating organizational behavior. Yi *et al*. (2020) specifically indicated particular practices of Triple-loop Education and Triple-loop learning that they deemed most applicable to the private or public education sector (Shortle, 2006).

In global and local context both, strategy for change regarding vision is considered as long term whereas the mission also requires some amendments and implementation of those leads to desired change. Triple loop learning and Burke Litwin model for educational institutions change together depict a comprehensive approach to think about change and mechanism to be followed for it. Components like strategy, vision, mission, leadership, structure, culture, individual and personal factors are considered to work in the light of triple loop learning practices (Cooper, 2015).

Learning loop proposes all these factors considered to be actionable, second loop insists on pointing and correcting the action taken and third loop refers to the review and rethinking on the components of change as well as devising it. Competitive environment all over the world increase the competitiveness between educational institutions that is based on human capital (learning and knowledge) as well as distinctions. The essence of learning lies in its initial phase, and for learning organizations, the imperative is to generate knowledge to thrive within competitive markets (Hult *et al*., 2003).

Balzer (2010) investigated Triple loop learning utilizations at universities and gave clear advice, research papers, and theories on how Triple loop learning must be applied. He described Triple loop students' learning as attempting to define the effectiveness of the process from the point of view of recipients, trying to identify the current process (from the viewpoints of recipients and suppliers, to decide as to if and how each step and action in the

process contributed), and eradicating the many kinds of waste that add no value to the process, making sure that the process runs smoothly, with actions or products drawn as required by the process (Vandenbroucke *et al*., 2018).

Jayaseelan and Mazumder (2015) formulated concepts in line with organizational theories, emphasizing the notion of flow more prominently. He noted that out even though they have been extensively discussed in other similar publications, Organizations itself did not formally implement assessment procedures of Triple loop learning principles. Jayaseelan & Mazumder (2015) provided source descriptions of Triple-loop learning, supplementing them with case studies and supported examples illustrated through flow diagrams that identified where processes fell in terms of lost material or wasted time for each example. He emphasized how Triple loop Learning may be useful in enhancing regularly seen activities on campuses that are excessively unproductive (i.e., student enrolment, the student move-in process for residences, and changes to the physical plant). Field (2005) investigated best practices for developing an organizational framework to support as well as the necessary cultural concerns and maintaining efforts. Full case study descriptions for efforts at the University of Central Oklahoma, the University of lowa, the University Greenwich State University were the institute who applied triple loop learning for organizational change. Field (2005) identified these assessment practices as highly effective in enhancing procedures within the university and college sectors, aligning well with the principles of Triple-loop learning.

Employees must be culturally sensitive and willing to collaborate across sectors and administrative levels. Institutional changes at Aston University in the United Kingdom, where a total quality management strategy was replaced with a Kaizen approach. Developed excellence set milestones on academic remodeling, brand strategy, structural rearrangement, enhanced educational services and support care, and the ability to recruit and maintain top

people and students (Carayannis & Campbell, 2011).

2.28.2. Triple Loop Learning in Higher Education: The Departmental Level

A case study about the implementation of a learning exercise run by students as a part of their undergraduate business curriculum was prepared by Doman (2011). An audit at Doman's university revealed that the grade input system is a problematic area by the office of the associate provost. Business students took up the assignment as a learning "exercise," a procedure integrating aspects of with the agreement of that office. At the start of the course, students were introduced to the learning philosophy and its associated technologies. The project path followed in the author's course was described, along with the pedagogical techniques employed to make sure students were prepared for the improvement project. Some of this was illustrated by him using flowcharts. A national council for assessment the university's quality initiatives, which described the performance as recognizing the user's value systems, constructing strict standards for the organizational change practices being able to deliver products or services exactly to specifications, and being able to improve requirements or reduce costs to the client faster than the contest. Buckley *et al.* (2018) discovered that the method of qualitative linked "highest tier" processes (i.e., critical service delivery) in connection to the university's goal and how quality circles may aid in their improvement.

The council then identified quality improvement projects (QIPs), as well as crucial success elements for each. A university-wide education campaign was undertaken to increase general quality awareness as well as provide understanding about each of the numerous lest improvement techniques. The study described that the method generated the required dividends for the university by accomplishing advancement, trying to improve research results, promoting a mutual sagacity of perseverance, improving teaching and

learning practices, employing and retentive outstanding staff, and maximizing benefits from its organizational practices in terms of their work facilitation (Polanco *et al.*, 2015)

Buckley *et al.* (2018) presented a methodology for assessing triple-loop training courses in state corporations. They argued that by modifying an institutional process, the preceding methods could be used in any business: constructing a Triple-loop Learning practices for identifying prospective stakeholders, trying to decide on the exploration plan of assessment the research methodology, optimization (finding the "best in class' practices), analyzing as well assessing research results, implementing concepts, and authentication protocol to see if desired results are obtained (Comm & Mathaisel, 2003). The report discusses the management required support for this strategy. Stressing that organizations have to be receptive to new tactics and adapt from their failures. The prevalence of Triple-loop learning in assessment loop contexts like educational institutions has risen owing to the necessity to operate on an international instead of a regional or national basis.

According to Moore, Nash, & Henderson (2011), the university established four pilot projects in the areas of facilities management (work order system), employment services (online hiring system), purchasing (online requisition process), and their budget office to begin the process of obtaining results through their learning approach (electronic monthly reports). Employee training requirements were consolidated and pilots were launched during five-day Kaizen events that made use of well-known learning methodologies like value stream mapping. Project outcomes were monitored based on the resources utilized before and after the Kaizen exercises; typical outcomes showed improvements in time and material utilization of between 80 and 90 percent (Emiliani, 2005).

Assessment key performance indicators are important in establishing standards of quality and are specific to sectors of the organization linked to the client, external, personnel and monetary perspectives (Buckley *et al.*, 2018). The notion of methodology, which is

similar to the technique described by Balzer (2010), is advised to assess areas that may be enhanced using triple loop learning.

The perspectives developed for the Triple-loop learning workplace assessment model were founded on Nightingale's (2000) operational concepts. They concluded that, in an era where post. Secondary demands have raised the adoption of clear evaluation and examination (i.e., student) expectations were critical to ensuring institutional progress. Kuchibhatla *et al.*, (2020) reported case study results from a lot of New Hampshire university that used triple-loop learning. The researchers concluded that, apart from a "per-student approach," there was no recognized assessment method present in post-secondary education at that time. The researchers sent a survey to executives at five state bodies and universities that have adopted Triple-loop Learning assessment. These same aspects in the survey refer to the extent of self-sufficiency attained, the extent of Triple-loop learnings attained particular Triple-loop learning advancements practices (such as cooperation and sourcing), aspects that inspire Triple-loop learning processes, the interaction of best practices, and application of the main principles. Comm & Mathaisel (2000) reported their findings as average for educational institutions, respectively, indicating a median performance level across various sectors within the educational landscape. Each segment was complemented with comments from the researchers. Empirical patterns relating to a participant's perception of the effect of Triple-loop learning efforts, as well as the relevance of top management engagement in learning practices (Williams, 2014).

The university's adoption of learning principles and practices led to a range of positive outcomes, including improved employee training, cost savings, increased efficiency, and enhanced morale among personnel. Employees reported feeling more engaged and invested in their work as a result of participating in the improvement process. However, the authors noted that there were some initial challenges associated with

introducing learning to the organization. Some employees were unclear about how it related to other continuous improvement programs already in place, which created some confusion and led to concerns about potential conflicts between initiatives. Overall, the study highlights the importance of clear communication and strategic planning when implementing new improvement initiatives within an organization.

Additionally, some employees weren't sure whether they should apply their training to other areas that needed improvement right away or wait for their division supervisors to give them the go-ahead.

2.28.3. Triple loop Learning in Education: The Individual Level

Doman (2011) developed a specific example about the deployment of a Triple-loop learning activity led by students as a result of their bachelor management program. The mark entering process was highlighted as a problematic issue at Doman's organization during an assessment undertaken by the assistant provost's office. With just that organization's agreement, management participants received the assignment as a Triple-loop learning 'exercise," a method that included parts of Triple-loop learning toolkit. Students received the Triple-loop Learning theory and tools at the start. The researcher described the programmed route utilized in his class and the educational tactics employed to guarantee participants were prepared for the transformation program.

According to Doman (2011), pupils decided that the mark entry procedure was an 'unattended" procedure where no member of staff claimed ownership. Participants are also ready to enact a more efficient and very well approach by using fifty-six of the Triple-loop learning tools. While pupils' learning was profound, the author suggested that more student was necessary than previously anticipated to enhance procedures. This initiative got finished in 56 days and was later taken over by a university departments executives dealing with grading difficulties as well as other computerized operations. Fin & Geraci (2012) created

a study belief about the deployment of Triple-loop learning in four institutions' financial dealings sections. They obtained details concerning why schools adopted Triple-loop learning strategy from the research as well as participants of an administrative forum dealing with university fiscal struggles. Researchers have observed a trend where Triple-loop learning initiatives are predominantly instigated by top-level executives, often involving the engagement of external consultants to oversee and evaluate the Triple-loop learning frameworks.

Organizations utilizing Triple-loop learning often sought to minimize the deal of time and energy necessary for procedures, standardize procedures throughout divisions, and/or increase quality performance. In all four categories, Triple-loop learning programs were supervised by a central body dedicated to quality efforts, staffed by professors or administrative personnel.

According to Finn & Geraci (2012), Triple-loop learning initiatives included the necessary stages: trying to assemble a 5 to 8 participant development team (such as employees immediately affected by the procedure in the inquiry), mapping the existing condition of the system whilst also trying to identify problematic regions, mapping the intended future outcomes, and constructing a plan which is convenient to putting into practice in order to enhance productivity and changes and later measures for the improvement.

The researchers initiate that Triple-loop classroom learning modification initiatives allowed organizations to reduce resources required to scaffolding in a process, raise the efficiency and correctness of part of the contract, and boost employee relationships and engagement. Divided by the total complexity of the project, they estimated that Triple-loop learning initiatives might take 2 to 8 weeks to mature. Kwon, & Nicolaides, (2017) wrote a dissertation at the university regarding a Triple-loop learning application. Resulting from

the combined financial restrictions, the higher management brought triple-lop learning to the university.

During focus group interviews, the university discovered that staff thought their processes were holding them back, costing them both time and morale. To shift the organization more towards a Triple-loop organizational context, a worker learning program was installed, and initiatives were developed in areas of utmost value to the university (Fleckenstein, 2013).

Recognizing the possibilities (university diagnosing challenges, issues, and possibilities), design document (attempting to create a template for achievement encompassing all staff members), application (using Kanban system, core team members, and performance measures to enforce and depict change) and quality improvement were the four phases envisaged for implementing what the authors referred to as Triple-loop learning university (Junior *et al*., 2010). According to another study, the university identified 4 projects to take on the task of getting the results through their Triple-loop learning academic strategy: maintenance services (service request system). Job placement activities, online recruitment systems, acquisition endeavors through internet-regulated processes, and the finance committee's role are noteworthy aspects within the context being discussed (Yagci, 2017).

Change activities were performed to start prototypes and condense essential staff training and frequently used Triple-loop learning approaches, such as value stream, were implemented. Outcomes for projects were monitored based on the resources utilized before and after the Kaizen activities: average results were 81-91 percent gains in terms of improved schedule and consumption. As a consequence of these initiatives and the University's broader Triple-loop learning attempts, the university saw positive effects on staff members' learning. Efficiency gains, improved productivity. Staff morale (due to

improved daily work quality and participation in the improvement process), news stories of faculty and student satisfaction. The researchers noticed when Triple-lop Learning first was presented: several employees remained unsure how it linked to certain other ongoing continuous improvement activities (producing some confusion and making some wonder if it conflicted with other initiatives) (Kolb, Boyatzis, & Mainemelis, 2014).

Moreover, many employees were unsure if they were supposed to apply their Triple-loop Learning training to certain other areas that needed improvement or to wait for direction from their divisional executives on future actions. Mulder (2018), on behalf of the National standards for Continuous Improvement, published a study that examined how organizations in the US, implemented improvement initiatives, such as Triple-loop learning, and how these organizations managed the leadership of these proposals. The research reveals significant variation across respondent organizations in terms, how practices and structure were conceptualized and executed. Institutional divisions to manage constant process change efforts were discovered in sixty-seven percent of responding organizations. However, the titles given to such units varied greatly, seventy four percent of these adjacencies reported providing strategic planning activities, while 66 percent reported continuing to provide extra services relating to institutional self-assessment.

One-half of participants said their department provided program management or constant improvement technique training, while only a minority said they provided training courses. In terms of governance, of the responded employed a coordinating or advisory committee to manages operations, and tied their projects to the campus-wide strategic plan. One-half of those polled said they utilized a website to display data about themselves or to keep the university more broadly informed about development efforts. Organizations were also questioned what criteria they thought were most important in guaranteeing the sustainability of improvement activities.

The most prevalent replies concerned a high degree of participation from top campus management, described as individuals with the higher management. Links to the business plan or goal were also mentioned as significant, as was the use of cross-functional and collaborative method, commotion with higher education culture and values, and connection with accrediting objectives. Participants were also asked to identify the change resistance and gradual growth (Harasim, 2017).

The most prevalent barriers to change, according to one-third of participants, are unfavorable faculty and staff attitude towards ongoing improvement and a lack of resources Institutional inertia, the size and complexity of their organization, decentralization, and a desire for teachers and staffs to preserve their "turf" were also highlighted as barriers to change.

Radnor & Bucci (2011) researched Triple-loop learning at UK business schools for the Association of Business Colleges, a school of the business advocacy group. The document focuses on research papers, as well as a synthesizing about what Triple-loop learning looks like in post-secondary. Learning, its origins, and the impact these interactions have had on these universities, along with a prospective view of the future of such initiatives. The researcher's devised research that included the distribution of surveys to university executives involved in Triple-loop learning efforts followed by the presenting of research papers depending on the replies. The semi-structured method is used to gather the research findings. The formulation of topics using transcriptions and the dissemination of important messages as applicable throughout the report were part of the data assessment (Goldie, 2016).

According to Radnor & Bucci (2011) the primary outcomes of Triple-loop processional learning often encompass gaining an understanding of the necessity for transformation, revising long-standing processes, and encouraging individuals to challenge

and question their methods of employment. According to the authors, triple-loop learning is still in its early stages in post-secondary learning, and we must continue to understand the advantages and disadvantages of other service organizations. Deployments of triple-loop learning are dispersed, making it impossible to measure all effects; nonetheless, early adopters noticed considerable results in terms of continuous improvement and employee engagement. Furthermore, organizations indicated that Triple-loop learning was sometimes misinterpreted; limiting the methods it might be used. General administration employees were the primary participants in Triple-loop learning because they were more likely to witness and feel the effects. Everyday interruptions from continuing job obligations were identified as a hindrance to utilizing Triple-loop learning by these people (Huang et al., 2017).

According to Radnor & Bucci (2011), organizations highlighted Triple-loop learning as a focused effort to enhance specific projects instead of focusing on developing a culture that supports Triple-loop learning. Recommended methods for attempting to make this possible include greater participation from the top leadership in linking Triple-loop learning activities to support strategic plan and a better understanding of the customers and internal processes, which would aid efforts to sustain Triple-loop learning in the long term. Employees in organization may regard Triple loop learning as bringing value to core operations and so helping oneself and their co-workers. Corporations acknowledged that additional work will be needed to relate the consumer perception of these advances to "clients." particularly students. Some organizations anticipated transitioning from projects to more comprehensive university initiatives to achieve more substantial achievements and spread a culture of Triple-loop learning.

Triple-loop learning tool that assists in a group's practices based are characterized as the mechanism through which projects are implemented. It is also used to execute an

innovation mission with clear definition objectives, in addition to the planning role. Assessment planning is comprehensive and complicated to represent an organization's overall strategy while applying basic strategies to assist team members in contributing to the plan and connecting elevated strategic plans to everyday job needs. Regarding the experiences of the Warwick quality and reliability team, the findings showed that was successful in defining a new strategy, establishing ambitious targets, assessing procedures, and deciding on milestones for the 1999-2004 time period. Benchmarks were thereafter evaluated monthly to gauge progress (Gupta, 2016).

Kuchibhatla *et al*. (2020) offered a hypothetical implementation of the Triple-loop learning approach to employee behavior at work. He claimed that considering the complexities required in behavioral interventions, prospective profits would be comparable to those achieved through manufacturing processes, owing to the harm that inappropriate behavior and speech create in the workplace.

Organizational practices are formulated by recognizing the capacity to refrain from unnecessary verbal or non-verbal cues during discussions. In contrast, work flow-inhibiting behaviors are akin to inefficient batches and queue mass manufacturing processes. These are known as "fat" habits, and they are described as activities that bring little value and may be avoided, they include the dissemination of illogical and misleading information, which causes delays of shutdowns, as well as the expression of unsubstantiated subjective views and beliefs.

An inefficient workplace behavior to packet production processes, claiming that it likewise damages the learning organization: "Knowledge gets kept hidden, information transmission is slanted toward consensus or good news, and development is hindered, resulting in a group's inability to effectively appraise its competitiveness. It was believed that Triple-loop learning methods could be expanded to address issues related to cognitive

control and its associated behaviors. According to Cooper (2015), Administration should think about standardizing significant leadership jobs and responsibilities, if the Triple loop learning process. Cooper (2015) cited organizational change method and effective instances of uniform leadership he also provided examples of business leadership in the United States where felt a lack of standards resulted in disastrous outcomes.

Triple loop learning techniques might be applied to enhance postgraduate business courses at university, the authors asserted the difficulty of Triple loop Learning and, as a result, the proclivity for businesses to adopt the technique just partially or improperly. It suggests that Process Improvement, an essential component of Triple-loop learning, can significantly aid in continuous enhancement. This approach particularly benefits a collaborative group of educators who, beyond the confines of specific university departments, possess industry expertise. They acknowledge ideas emerging from colleagues (rather than administrators), believe in the necessity for improvement, and embrace a culture of experimentation (Phan *et al*. 2020).

Emiliani (2008) stated that for Kaizen to be effective, top executives should create a "no-blame atmosphere" that is dedicated to not lowering staff. Individuals are usually hesitant or only participate halfhearted if they do not make this commitment and contended that most curricular creation for current postgraduate programmers was either done through widespread methods or evolved through years of random modifications (Allamanis *et al*. 2018). It supported a Triple-loop Learning strategy that focused on the corporate ethics taught by working culture, backed by compacted implementation about how the curriculum, compulsory reading, assignments, and tests were established and developed. The importance of methodically incorporating feedback from students, as well as providing "quick service" materials for learners to utilize for improving them remember of course content. All program parts were created to recognize the learner as a "client" (Matthies, &

Coners 2018).

2.29. Triple Loop Process and Stakeholders' Practices

The triple loop process relies on a transformation of the institutional actions frame of work, as well as a shift in the organization's principles and values. In this regard, it emphasizes that "the Triple-loop process of learning necessitates a radical rethinking of oneself." Several writers affirm in the same context that "education at level three involves integrating product development into our analyses, reasoning, problem-solving skills, and philosophies. The focus should be on altering one's personal perspectives and mindset, rather than modifying the organization's objectives, strategies, or framework (Huang *et al*., 2017). It is the growth of pure self, of questioning, of our cognitive structures, of establishing the significance we wish to give to our acts " These learning stages can be combined to form the following:

1. This discovery & repair of a mistake is the result of the first-order or single-loop learning process. During this phase, rectification may involve adjusting the practices to align with the learning environment and mitigate existing rule violations.

2. The assessment outcomes and suggested reforms result of the second or dual loop learning process. However, at this level, the adjustment may consist of changing the core plan; it is therefore distinguished by a questioning of organizational principles and rearrangement of the organizational system of interest.

3. To begin with, the simple loop learning approach allows for the refining of the current model, prevents recurrent crises, and ensures continuous organizational adaptation to the current environmental variability.

4. The integral controller or Triple-loop process of learning is a hybrid of the single loop and dual loop procedures.

5. The triple-loop, therefore, turns into "interrogation of the group's character and purpose for being, as well as the responsibility for satisfying of the leadership."

6. Building upon established theoretical frameworks, it can be asserted that three organizational crisis learning procedures could be applied, contingent upon the organization's readiness to embrace change and investigation.

7. To commence, the basic loop learning methodology enables the refinement of the current model, avert recurrent crises, and ensures the continual adjustment of the organization to prevailing environmental circumstances.

8. Ultimately, the active learning necessitates a genuine commitment on the part of management to assist employees inside the business to tackle the challenges produced by the patterns of thinking that led to the crisis. The triple-loop process is thus dependent on a significant shift in the organization and the leaders' mental functions.

2.30 Assessing Organizational Learning Variability

There are 3 phases of organizational learning, each of which corresponds to various degrees of change, dedication, and inquiry. This results in organizational learning processes with a single loop, a double loop and a Triple-loop, accordingly.

2.30.1 Organizational learning process measurement in a Single loop

Learning Loop Organization Training Phase is concerned with modifying, adjusting. Realigning, preserving the established order, achieving stability via error correction, or gradually altering the organization. This basic loop method allows the impacted group's activities to be restarted, progressively adjusting to changes in the environment whale maintaining its objectives.

2.30.2 Assessment of the institutional learning system's Double loop

The dual loop organizational process relies on a somewhat substantial shift in the organizational framework, which drives the organization to rethink its basic premises

2.30.3 Organizational learning process measurement in a Triple-loop learning

The triple loop process of transformation is built on a fundamental shift in a group's identification, mission, and survival as well as the psychological processes of its leadership. Virtual program evaluation focuses on context, mechanisms, and outcomes, in fact Burke-Litwin conceptual model of organizational performance and outcome (Burke & Litwin, 1992). Matthies, & Coners (2018) considered with the strong support of these pillars the performance analysis evaluation of organizational characteristics and achievements, the survey tool was developed and piloted. With questions relevant to the organizational practices by sampled group. More than 80% of institutions used triple loop learning for uninterrupted development at certain stage in execution.

Hybrid reform approaches have been proposed in the literature for public and private (Bhuyan, 2011; Xu *et al.*, 2010) and for multiple organizations to better fit results. Xu *et al.* (2010) supports this argument at the managerial level, reactions to closed-end assessment receive through response from employees, helping them to explain in order to verify detailed data. Quality of infrastructural supervision, capabilities, principles for allocation of several kinds of knowledge forms were already highlighted as being significant in collection the response.

The quantitative findings derived from the modeling in this study provide estimates of the correlation between continuous quality improvement and performance outcomes. These findings reveal significant differences across various predictor variables such as

average infrastructure age, level of understanding, applied criteria, motivation, and framework. Additionally, the congruent information further aligns the impacts on relationships identified in the study.

2.31 Exploring Organizational Achievements Linked to Strategic Change for Augmented Growth

Knowledge acquisition that enables performance appraisal, continuous development of university organizational processes to deliver quality plans and policies to the community and commitment to improve organizational productivity and learning practices.

Mechanism of learning pathway and analyses at the institutional level in terms of universities is imperative for outcomes (Norman *et al.*, 2017). Learning new behaviors in the context of change is vital for the universities, and for this the triple loop denotes the urge to initiate action and assess it. Learning only can't work to develop universities without insightful efforts, and the thinking needs to bring on in the process of development. Knowing the problem before going to solve it has an imperative place in the change and thinking on the problem how to solve and after all, evaluating to be more impact as well as productive best addresses the problem. Ideas of maintaining direction and identifying factors in the suitable framework of change (Adekeye *et al.*, 2018) for beneficial change as actually what is going to be changed and how the universities are getting benefited by it refers to a phenomenon of a triple loop learning model to be adopted.

After reviewing the cited literature and past studies, it is evident that organizational practices constitute the foundational system within any organization. Evaluating these practices consistently leads to improvements. Consequently, extensive research has been conducted in organizational learning. Triple-loop learning, recognized as an assessment tool for university practices, aims to facilitate change, this method assesses ongoing practices and concurrently identifies areas that require modification.

This Chapter comprises of definition of learning importance of organization learning, relationship of triple loop learning with organizational learning, different dimensions of triple loop learning and, importance of change. In this regard Burke Litwin model of change (Burke & Litwin, 1992) was most relevant which is based on the basic concept of Argyris and Schon's model of reflection (Argyris & Schön, 1978). Burke Litwin takes it further more than reflection in terms of change practices in the organizations and indicates three major factors which are Transformational, transactional, Individual and personal and along with that the effect of external environment on these which include university practices, including mission and strategy, leadership, and organizational culture and many more.

2.32. Related Researches

Numerous global studies have contributed significantly to understanding the dynamics of triple-loop learning within educational institutions. Senge's seminal work (1990) emphasized the transformative potential of triple-loop learning in fostering organizational change and adaptive learning cultures. Additionally, Argyris & Schön's theory (1978) provided foundational insights into the concept, highlighting the importance of challenging underlying assumptions for meaningful organizational learning.

However, limited research within Pakistan's educational framework necessitates a deeper exploration of triple-loop learning's applicability. Ahmad *et al.* (2021) delved into the role of triple-loop learning in enhancing educational practices, emphasizing its relevance within Pakistani organizations. Shaikh's research (2023) focused on stakeholder engagement and its impact on implementing triple-loop learning in disaster knowledge management, shedding light on the challenges and opportunities unique to this context.

Moreover, studies like Bell *et al.* (2022) have examined organizational change

dynamics within Pakistani governance. This research highlighted the pivotal role of stakeholders, including administrators in shaping organizational change initiatives.

Additionally, Shaikh (2023) utilized triple-loop learning concept and explored the influence of external environmental factors mainly Disaster Knowledge Management on organizational practices within Pakistan, providing valuable insights into the complexities of disaster management system.

CHAPTER 3

RESEARCH METHODOLOGY

This chapter highlights the practical framework being used for the analyses of the collected data. It comprises of the different stages of the Study; Research Approach, Research paradigm, Research Design, Population of the Study, Sample selected to carry out this research, Data collection techniques, Research tool and its validity and reliability analysis and data analysis techniques.

3.1. Research Approach

The present study was based on deductive research approach and was quantitative in nature. In adopting a deductive research approach, the study employed a structured framework to derive hypotheses and test them against collected data. The research's quantitative nature involved the systematic analysis of numerical data to draw statistical inferences and patterns within the context of university stakeholders' practices. As the research framework was based on Burke Litwin theory of change (Mulder, 2018) and hypotheses were formulated to assess the change practices.
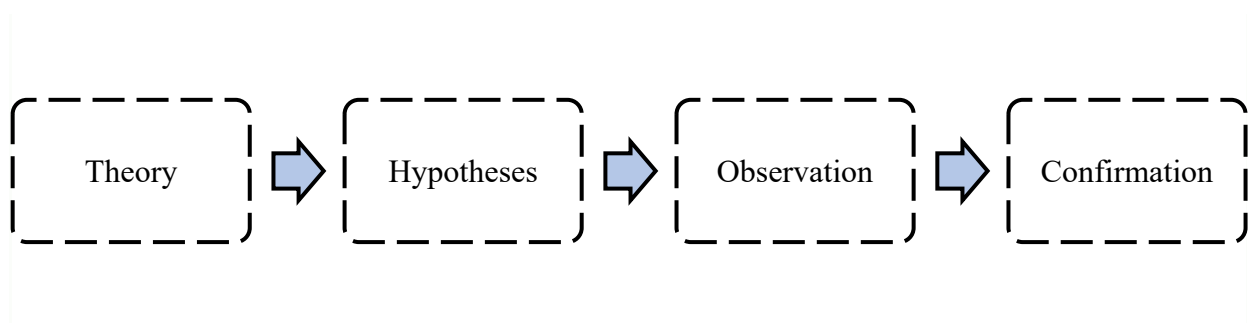
Figure 3.1: Research Approach

3.2 Research Paradigm

Positivism is a philosophical school of thought that emphasizes the use of scientific procedures to acquire an objective understanding of the universe. The researcher in this

paradigm takes a detached and objective posture and strives to discover universal rules and causal correlations between variables. The researcher's major focus is on observable and quantifiable events, and his or her function is to gather and analyze quantitative data in order to make conclusions and generalize findings.

This research study adopted the Positivism paradigm, aligning with a quantitative approach to systematically analyze numerical data. The positivist worldview promotes the objective examination of observable phenomena, emphasizing empirical evidence and statistical analysis in assessing university stakeholders' practices. This accuracy enables the determination of the degree and direction of connections between variables, allowing for a better understanding of causation and data patterns. Positivism is mostly based on quantitative data that is quantifiable and measurable. The collecting and analysis of numerical data using statistical techniques is a component of quantitative research methodologies. Studies aligned with positivism generally focus on identifying explanatory associations or causal relationships using quantitative approaches, where empirically based findings from large sample sizes are preferred--in this regard, generalizable inferences, replication of findings, and controlled experimentation are preferred. Through its assumptions and ideas, research paradigms influence scientific discoveries. Understanding paradigm-specific assumptions can assist reveal the quality of findings that support scientific investigations and uncover gaps in existing research. Keeping in view, the above details this study was designed as per positivist philosophy. Objectives, hypotheses, research instrument (5-point Likert scale questionnaire) data collection and analysis were done accordingly.

The positivist paradigm is well-suited for this quantitative research since it resonates with the nature of the research questions and the goal of identifying stakeholder practices of triple loop learning in university contexts. This paradigm, which employs empirical and

quantitative approaches, enables the researcher to analyze the practices of stakeholders in a methodical manner, providing trustworthy and valid insights into the issue under inquiry.

The positivist paradigm provides a solid foundation for this quantitative study, allowing for a thorough examination of stakeholders' practices connected to triple loop learning in the setting of universities. The research findings can give useful insights to the area by using an objective and empirical approach, informing stakeholders, educators, and policymakers about effective practices that promote learning and growth within the university setting.

Paradigm of the current research is the positivist paradigm, therefore, this research is quantitative in nature. This paradigm observes the view that only factual information is expanded through observation including measurement based on theory. In positivism the role of the researcher is limited to data collection and interpretation quantitatively. This is because empirical and quantitative methodology leads to the truth and explanation of the particular phenomenon.

In this quantitative study adopting the positivist paradigm, the research paradigm focuses on the 'why' by aiming to uncover causal relationships between variables through empirical observation and systematic analysis. The 'how' aspect involves employing structured methodologies and statistical tools to validate hypotheses and generate reliable, objective findings, ensuring a rigorous and systematic investigation aligned with the positivist paradigm's principles.

3.3   Research Design

Employing a descriptive design in the research methodology offers a comprehensive snapshot of university stakeholders' practices within the context of Triple-Loop Learning, allowing for an efficient examination of relationships and patterns at a specific point in time. The research design employed in this study adheres to a descriptive design, allowing for

data collection at a single point in time to capture a snapshot of stakeholder practices and organizational dynamics related to triple-loop learning. This design choice enables the assessment of relationships between variables at a specific moment, offering insights into the current state of affairs within the targeted universities' social sciences faculty.

Furthermore, this research design is more suitable for determining the levels of relationships of the variables in a statistical sample exhibiting a particular behavior, and formulating specific predictions related to these variables. It describes by the prior formulation of specific hypotheses. To analyze "the assessment of university stakeholders' practices in the context of triple-loop learning" the researcher used quantitative method for data collection. Descriptive design was being used in this research because the researcher assessed the correlational effect between the variables of the study.

3.4. Research Variables

The research included outcome variable that was university stakeholders 'practices and research variable included "triple loop learning". Triple loop learning was further divided into following dimensions i.e. " External environment", Transformational factor (which has further three sub divisions .i.e., leadership, mission and strategy and organizational culture), " Transactional factor" (has further three divisions which are management practices, structures and systems including policies and procedures) and the third dimension which is " Individual and Personal Factor" (having the subdivisions as: work unit climate, motivation, Task Requirements and Individual Skills/Abilities and individual needs and values).

Table 3.1

Description of Research variables

Outcome Variable (OV)	Research Variable (RV)
University Stakeholders' Practices	Triple Loop Learning

3.5. Research Population

Research population of this study included delimitation from Rawalpindi and Islamabad only. Justification of this inclusion is that within the twin cities, variability among sample exists in terms of designation levels, educational experiences etc. In addition to this time and resource constraints limited the scope of data collection from this population only. Furthermore, pandemic COVID-19 also restricted the data collection from the universities of Rawalpindi and Islamabad only. Total twenty-four public universities from Rawalpindi and Islamabad were selected as a population for the research purpose. The population of the study included all the university stakeholders (Administrators, Deans, HoDs and Faculty) of Rawalpindi and Islamabad. The population of the study was consisted of 1683 respondents included (Administrators, Deans, HoDs and faculty members of Faculty of Social Sciences) of the selected universities. Following table shows the total number of administrators and academicians who were the part of population in this research.

Table 3.2

Population of the Study

Sr. No.	Stakeholders' Designation	Population
1	Administrators	130
2	Deans/Directors	110
3	Heads of Departments	420
4	Faculty Members	1023
	Total	1683

In the list of breakdowns of total number of populations given in the list, 130 were administrators, 110 deans of selected faculties, 420 were the heads of departments and 1023 were the faculty members of the targeted population for the study.

Selecting universities from Islamabad and Rawalpindi was intentional due to various reasons. Firstly, these cities host a diverse range of public sector universities, particularly strong in the field of social sciences, providing a rich pool of stakeholders within the targeted faculty. Additionally, the geographical proximity of these universities facilitated easier access for data collection and ensured in-depth engagement with stakeholders, crucial for comprehensive insights into their practices regarding triple-loop learning. Moreover, this selection minimized regional disparities, allowing a more focused examination of factors influencing organizational learning within a relatively homogenous educational setting.

3.6. Sampling Technique

For the research, a probability sampling technique was chosen. Because the researcher may choose which variables to include in the sample using this technique, (Malhotra, 2008). Further Stratified Random sampling technique was used for the data collection. This method provides accurate estimate of population traits. Respondents were chosen since they are at the proper place and time. The complete population was distributed in four strata (Education, International Relations, Management Sciences, Applied Psychology) and from each stratum its 10 % which was (168) of the total population that was (1683) drawn randomly as sample.

3.7. Sample

Samples is drawn from populations because they offer a practical, cost-effective, convenient, and accessible means of collecting information. A sample of five universities was taken to conduct this particular study. Sample included Deans of faculty of Social

Science, Heads of Departments, Administrators, and faculty members. The sample of this study included all the stakeholders of selected sampled public sector universities of Rawalpindi and Islamabad. The size of the sample influences the extent to which the sample data accurately represent the population (Burns & Bush 2010). This study sampled below mentioned stakeholders (Administrators including Registrar, Director ORIC, Director Examination, and Director Academics, Director QEC, Deans of the faculties, Heads of departments and Faculty members from the departments) as the respondents of the survey. The questionnaire addressed to One hundred and sixty-eight (168) respondents from 5 sampled Universities of Rawalpindi and Islamabad.

Table 3.3

Sample for the Study

Sr. No.	Stakeholders' Designation	Number of Stake holders
1	Administrators	13
2	Deans	05
3	Heads of Departments	42
4	Faculty Members	102
	Total	168

According to the information given in the table, 13 were the administrators, 5 were the deans of faculty of Social Sciences, forty-two were the heads of departments and one hundred and two were the faculty members which were drawn as sample from the population.

3.8. Instrumentation

Malhotra (2008) describe the survey method as an information-gathering method based on survey questions. This study used standardized questionnaire because the questions were listed in a predetermined order and the respondents were informed for the purpose of the investigation. The variables (transformational factors, transactional factors, individual and personal factors and external environment) of the study were scaled at a 5-point Likert Scale. The standardized survey had been used and pilot study carried out. The standardized questionnaire for the chosen variables for this study have been primarily based on closed-ended statements and participants have been requested to select the options to express their perceptions by the way of choosing the selections given in line. The Questionnaire was divided into two main sections i.e., Section (A) Demographic information and Section (B) Related variables of Triple loop learning which was further divided into the sub dimensions as Transformational factors, transactional factors, individual and personal factors, and the external environment. A total of 12 construct of practices were identified under the triple loop learning practices and under each variable consisted various sub dimensions reflecting the identified areas. The respondents were asked to rate them under 5-point Likert scale for clear understanding and appropriateness.

In this research respondents of the study were university administrators, Deans of faculty of Social Sciences, Heads of the departments and faculty members. The designing of the questionnaire to assess the prevailing stakeholders' practices in the context of triple loop learning consisted of, further division of "External environment", Transformational factors (which has further three sub divisions i.e., leadership, mission and strategy and organizational culture), "Transactional factors" (further three divisions which are management practices, structures and systems including policies and procedures) and the third factor which are "Individual and Personal Factors", having the subdivisions as: work-

units environment, motivation**,** Job Requirements and Specific Abilities/Aptitudes and individual's requirements and standards.

3.8.1. Justification of using Standardized Questionnaire

The selection of the Burke-Litwin Survey as the primary instrument for this study stems from its established reliability and validity in assessing multifaceted organizational dynamics, aligning well with the complexities inherent in the triple-loop learning framework. This instrument offers a comprehensive assessment tool that captures various organizational dimensions crucial for understanding the interplay between organizational factors and learning processes. By utilizing a single robust instrument like the Burke-Litwin Survey, the study ensures methodological consistency and depth in data collection, enabling a focused and nuanced exploration of the intricate relationships between organizational factors and triple-loop learning within the university context.

Table 3.4

List of Items in Questionnaire

Scale: Triple Loop Learning		
Subsections	**Sub Sections**	**Items**
	Mission and strategy	4
Transformational factors	Leadership	4
	Organizational culture	4
	Structures	4
Transactional factors	Management practices	4
	Systems (policies and procedures)	4
	Task Requirements and Individual Skills/Abilities	4
Individual & personal factors	Motivation	4

Individual Needs and Values	4
External environment	4
Total	48

The standardized Burke-Litwin Survey was used due to its established reliability and validity in comprehensively assessing organizational dynamics. This tool was chosen for its robust structure, effectively capturing diverse organizational dimensions crucial to understanding the intricate interplay between factors influencing organizational learning, directly aligning with the study's objectives and context.

3.8.2. Validity of Questionnaire

Validity pertains to the extent to which the research instrument accurately measures what it is intended to measure. Prior to implementing the research tool, the researcher made a decision to assess the validity of the research instruments. The experts were asked to evaluate the content validity and face validity of the tool, ensuring that it accurately measures all facets of the construct. The construct validity of the questionnaire was ensured through standardization. Additionally, the researcher validated the questionnaire by seeking input from subject matter experts. The instrument utilized a triple loop learning scale to assess the practices of institutions as perceived by stakeholders. A pilot study was conducted to assess the validity of the research instrument. The instruments underwent face, construct, and content validation by experts in the field of testing and measuring. The validity of the information was assessed by three experts in the field.

3.8.3. Pilot Study

Prior to conducting research, pilot research was conducted. The pilot study was carried out in the Federal Urdu University of Science and Technology Islamabad and Fatima Jinnah Women University Rawalpindi. Experts were chosen through a careful short-listing based on their areas of competence and educational management degrees. Following that, these experts were approached via telephone and in-person visits in order to establish contact. Pilot study of 30 respondents was conducted to check the validity of the questionnaire's items, including their wording, structure, and content and it was assessed.

3.8.4 Reliability of Questionnaire

The research tool was utilized to assess the triple loop learning loop practices in context of universities. Cronbach Alpha was used to assess the questionnaire's reliability because when evaluating the internal consistency of a questionnaire (or survey) composed of numerous Likert-type scales and items, Cronbach's alpha is most frequently utilized (Cronbach, & Meehl, 1955).

Similarly, the extent of the internal organizational structures developed by Burke-Litwin was scaled based on twelve criteria, including technical structures, leadership, organizational culture, structure, individual desires/values, and management practices., external environment duties, individual and personal abilities, motivation. Cronbach alpha was applied the subsequent result was used to analyze:

Table 3.5

Results of Factors Item Reliability Analysis

Variables	Reliability
Triple Loop Learning	
i.　Transformational factors	.84
a.　Leadership	.73
b.　Mission and strategy	.81
c.　Organizational culture	.91
ii.　Transactional factors	.75
a.　Management practices	.73
b.　Structures	.76
c.　Systems including policies and procedures	.74
iii.　External environment	.79
iv.　Individual and personal factors	.73
a.　Work Unit Climate	.81
b.　Motivation	.61
c.　Task Requirements and	.76
Individual Skills/Abilities	.78

As a result, the Cronbach's alpha for the survey questions for continuous improvement and organizational dimensions is more than 0.7, indicating a consistent correlation between the variables for their respective scales. Other variables were external environment and performance outcomes; the dimensions were to be highly precise to each sub-dimension. As Cronbach Alpha for the tool was 0.862, which was additional than 0.7 so the reliability of the survey tool was very high. Further no items were deleted as all have the Cronbach Alpha Score more than 0.7. So the survey tool had high reliability.

Table 3.6

Reliability of Questionnaire

Scale	Items	Cronbach's Alpha
Burke-Litwin Survey	48	0.831

3.9. Data Collection

Survey Method was used for data collection. In order to gather data, the questionnaires were distributed via direct meetings, email, and Google forms as per prior permission of the respondents. The sampled members were identified in the different departments of Faculty of Social Sciences from the official website of the universities, and the respondents were requested to provide their response through provided structured close ended survey questionnaire. The respondents were selected from the universities randomly based on their demographics, the researcher mentioned in detail the context of the research to the respective sampled university's stakeholders and took permission from them. Due care was taken, to not to interrupt the duties and responsibilities schedule of the respondents and for this reason the responses were taken at their very own convenience. For this particular reason manually questionnaires distributed, Google-forms were sent through emails at their respective official addresses.

3.10. Data Analysis

The collected data was analyzed into two following segments

3.10.1 Section I: Descriptive Analysis

Information about the respondents' demographic factors is included in this section as a part of the research data. The method for analysis of the data used for study was descriptive analysis using percentages, mean for the demographic variables including the gender, experience, qualifications, designation, and administrative duties.

3.10.2 Section II: Inferential Analysis

Inferential statistics were used to analyze the data. Mean and standard deviation were applied to measures the dispersion within data. Inferential Statistical techniques such as, bivariate correlations were used to investigate the relationships between different aspects of the research and outcome variables without the researcher controlling or manipulating any of them and, multiple regression was used to predict and identify which research variables have impact in context to determine which factors matter most, and how these factors affect each other.

3.10.3 Assumptions of Regression Analysis

Regression analysis in this study operates under several fundamental assumptions crucial for its validity. These assumptions encompass linearity, independence of observations, homoscedasticity (constant variance), absence of multicollinearity among predictors, and normality of residuals. Ensuring these assumptions hold true enhances the reliability of the regression models, allowing for accurate estimation and interpretation of relationships between variables within the context of the study's analyses.

The data employed in the current study have been rigorously assessed, confirming conformity with these essential assumptions, thereby fortifying the reliability and

appropriateness of regression analysis for robust and accurate interpretation within this research context.

3.11. Ethical Considerations

On the basis of their informed consent, participants were requested to participate. According to the principle of informed consent, people were provided enough information and assertions about participating so they may comprehend the potential consequences and freely decide whether or not to do so. This decision may not be influenced by pressure or coercion.

The questionnaire statements underwent a thorough review to ascertain the absence of any language that could be considered derogatory, ambiguous, discriminatory, or otherwise inappropriate. Priority was given to the research participants and throughout the process dignity of research participants was maintained as well. Individuals and organizations' participating in the research were ensured for their anonymity. Participants' full consent was obtained before the study. Throughout the entire research process, participants' privacy was respected. The confidentiality of the research data was ensured. Throughout the research, conscious efforts were made by keeping discussions and analysis as objectively unbiased as much as possible. Furthermore, research goals and objectives were not exaggerated or misrepresented.

CHAPTER 4

DATA ANALYSIS AND INTERPRETATION

This chapter focuses on the interpretation and analysis of data collected through survey questionnaire and was analyzed by using SPSS. The targeted population for the research was 1683 from twenty-four public sector universities from Rawalpindi and Islamabad. Stratified random sampling was adopted for the sampled stakeholders' further divide into four major strata including Administrators, Deans, HoDs and Faculty Members from the various departments under Faculty of Social Sciences. Population was delimited to five universities. The Data were collected from respondents using structured close-ended questionnaire. Therefore, this chapter focuses on descriptive, inferential data analysis and divided into sections for data analysis based on objectives and hypotheses. The collected data were analyzed into two following sections.

The chapter contains the details of the Demographic variables of respondents, as a part of the research data. Descriptive statistics included mean, standard deviation, and the inferential statistics. T test and Pearson's correlation were applied to compare variables of study. In this study, inferential statistical techniques were applied to investigate relationships between research and outcome variables. Bivariate correlation was employed specifically to explore these relationships without any manipulation by the researcher. Additionally, multiple regression analysis was utilized to analyze the research variables in the context of the study. This method allowed for the assessment of which factors hold greater importance and how they interrelate.

4.1. Section I: Descriptive Analysis

4.1.1 Demographics of Respondents

Frequencies and percentage of the following Demographic variables considered under study.

Table 4.1

Gender wise distribution of Respondents

Gender	Frequency	Percent
Male	78	46.4
Female	90	53.6
Total	168	100.0

Table 4.1 depicted that, out of 168 respondents, 78 were male and 90 were female.

Table 4.2

Experience wise distribution of Respondents

Experience	Frequency	Percent
0-5 years	57	43.9
6-10 years	37	38.3
11-15 years	49	13.7
16-20 years	10	2.8
Above 20 years	15	1.4
Total	168	100.0

Table 4.2 depicted that, out of 168 respondents, 44% have Professional experience between 0-5 years, 38% have between 6-10 years, 14% between 11-15 years, 3% between 16-20 years and 1% above 20 years.

Table 4.3

Qualifications wise distribution of Respondents

Highest Academic Qualifications	Frequency	Percent
Post Graduate	95	53.7
Post Doctorate	73	46.3
Total	168	100.0

Table 4.3 depicted that, out of 168 respondents, 54% have post-graduate qualification while 46% have Doctoral degree.

Table 4.4

Designation wise distribution of Respondents

Designation as on present	Frequency	Percent
Deans (Professors / Associate Professors)	05	3
Head of the Dept.	13	7.7
Professors	08	4.8
Associate Professors	11	6.5
Assistant professors	26	15.4
Lecturers	63	37.5
Administrators	42	25
Total	168	100

Table 4.4 depicted that, out of 168 respondents, 3% are Deans, 7.7% are HoDs', 4.8% are Professors, 6.5% are Associate Professors, 15.4% are Assistant Professors, 37.5% are lecturers and 25% are administrators.

The following analysis (table 4.5 to 4.15) shows the Assessment of the level of triple-loop learning practices in context of   universities. The data were analyzed through frequency distribution and percentage. The tables focused on sub-scales of questionnaire.

4.1.2   Assessment of "Mission and Strategy"

Question 1:   What are the stakeholders' practices of triple loop learning factors in the context of universities?

Objective 1:   To assess the stakeholders' practices of triple-loop learning factors in the context of university practices.

Table 4.5

Assessment of Mission and Strategy in context of university

Statements	Frequencies and Percentages					
	Never	Almost Never	Seldom	Sometimes	Most Often	Almost Always
To what extent can employees articulate the University's mission, strategy, basic beliefs (i.e; values and aspirations (i.e., key elements of the university's philosophy)?	0	8	11	145	4	
	0 %	4 %	7%	86 %	3 %	
To what extent can employees identify the in competitive university's strengths (i.e., how it differs from competition)?	2	11	13	141	1	
	1 %	7 %	8 %	83 %	0.6 %	
To what extent can employees articulate the desired public university's image (i.e., how it wants to be perceived)	0	9	21	135	3	
	0 %	5 %	13 %	80 %	2 %	
How widely shared is the strategy among university's e.g. employees (i.e., how widely is it communicated?)	3	23	98	39	5	
	2 %	14 %	58 %	23 %	3 %	

Table 4.5 depicted that the statement "To what extent can employees articulate the University's mission, strategy, basic beliefs ; values and aspirations (i.e., key elements of the University's philosophy)?" about mission and strategy, majority of the respondents which is about 145 (86%) said they articulate the institutions mission, strategy, basic beliefs; values and aspirations often, 11 (7%) respondents stated that they sometimes articulate the institutions strategy, mission, basic beliefs ; values and aspirations. 0 % respondents mean there is not a person who almost never articulate the institutions mission, strategy, basic beliefs values and aspirations. The next statement about mission and strategy, "To what extent can employees identify the University's competitive strengths (i.e., how it differs from competition)?" most of the respondents about 141 (83%) said that they often identify the institutions competitive strength. Only "1" means 0. 6 % respondents were found who committed the identification of university competitive strength almost and only 13 (8%) respondents stated that they identify the institutions competitive strengths sometimes. The statement " To what extent can employees articulate the University's desired public image (i.e., how it wants to be perceived)" about mission and strategy, most of the respondents about 135 (80 %) expressed that they articulate the University's desired public image most often and 21 (13%) respondents indicated that those employees articulate the University's desired public image sometimes and 0% employees means there is no employee who did not articulate the University's desired public image almost never. The statement "How widely shared is the University's strategy among employees (i.e., how widely is it communicated?)" about mission and strategy, most of the respondents about 98 (58 %) reported that they University's strategy had been shared among employees most often, 23 (14 %) respondents expressed that the University's strategy had been shared among employees seldom and only 3 (2 %) respondents said that the institutions strategy had been almost never shared among employees.

4.1.3 Assessment of "Leadership"

Table 4.6

Assessment of "Leadership" in context of university (N = 168)

Statements	**Frequencies and Percentages**					
	Never	Almost Never	Seldom	Sometimes	Most Often	Almost Always
To what extent do senior faculty/Administrative staff promote ethics and integrity in the institution, i.e., what the university stands for, its purpose, its standing in the larger community?		2	17	15	130	4
		1 %	10 %	8 %	78 %	3 %
To what extent do the senior faculty/Administrative staffs of the university try to make an effort to keep in personal touch with staff at your level?		2	11	13	141	1
		1 %	7 %	8 %	83 %	0.6 %
To what extent do senior faculty/Administrative staff promote ethics and integrity in the university, i.e., what the university stands for, its purpose, its standing in the larger community?		10	135	11	9	3
		6 %	80 %	7 %	5 %	2 %
To what extent does the behavior of senior faculty/ Administrative staff demonstrate their beliefs in the values need for?		3	13	108	30	14
		2 %	8 %	64 %	18 %	8 %

Table 4.6 depicted that the statement "To what extent do senior faculty/Administrative staff promote ethics and integrity in the institution, i.e., what the university stands for, its purpose, its standing in the larger community ?" about leadership, most of the respondents about 130 (78%) said that senior faculty/administrative staff promote ethics and integrity in the university most often while 17 (10%) respondents expressed that senior faculty members administrative staff promote ethics and integrity in

the university seldom, and 2 (1%) respondents said that senior faculty members administrative staff promote ethics and integrity in the university almost never. The statement "To what extent do the senior faculty/Administrative staffs of the make a university effort to keep in personal touch with staff at your level?" about leadership, most of the respondents about 143 (83%) said that senior faculty members /administrative staffs of the university make an effort to keep in personal touch with staff at your level most often and a very small number of respondents i.e., 1 (0.6%) expressed that senior faculty and administrative staff of the make an eff university ort to keep in personal touch with staff at your level always almost. The statement "To what extent do senior faculty/Administrative staff promote ethics and integrity in the institution, i.e., what the university stands for, its purpose, its standing in the larger community ?" about leadership, most of the respondents about 9 (5%) said that leadership is not inspirational to promote ethics and integrity in the university most often, while a very small number of respondents which are 3 (2%) said that the senior staff always almost play an inspirational role to promote ethics and integrity in the institution, 135 (80%) respondents said that leadership is inspirational to promote ethics and integrity in the university seldom and 10 (6%) respondents said that leadership is always never inspirational to promote ethics and integrity in the institution. The statement "To what extent does the behavior of senior faculty members/ Administrative staff demonstrate their beliefs in the values need for?" about leadership, most of the respondents about 108 (64%) said that senior faculty/administrative staff demonstrate their beliefs in the values need sometimes, 30 (18%) respondents said that senior faculty members administrative staff demonstrate their beliefs in the values need most often and only 3 (2%) respondents' large extent senior faculty/administrative staff demonstrate their beliefs in the values need almost never.

4.1.4 Assessment of "Culture"

Table 4.7

Assessment of "Culture" in context of university (N = 168)

Statements	Frequencies and Percentages				
	Never / Almost	Seldom	Sometimes	Most Often	Always / Almost
To what extent does your university's culture value its owners (shareholders, members, taxpayers, etc.)?	2	11	25	126	4
	1 %	7 %	14 %	75 %	3 %
Do employees feel comfortable bringing up their issues and concerns?	2	17	13	136	0
	1 %	11 %	8 %	80 %	0 %
To what extent do employees learn from past experiences so that history does not repeat itself?	0	19	11	135	3
	0 %	11 %	7 %	80 %	2 %
To what extent is new knowledge transferred throughout the university quickly and efficiently?	3	13	108	39	5
	2 %	8 %	64 %	23 %	3 %

Table 4.7 depicted that the statement "To what extent does your university's culture value its owners (shareholders, members, taxpayers, etc.)?" about culture, most of the respondents about 126 (75%) said that large extent their university's culture value its owner most often, 25 (14%) respondents said that their university's culture value its owners sometimes and only 2 (1%) said that their university's culture value its owners almost never. The statement "Do employees feel comfortable bringing up their issues and concerns?" about culture, most of the respondents about 136 (80%) most often feel comfortable bringing up their issues and concerns, there are 0 % respondents means there is no respondent who

feel comfortable bringing up their issues and concerns while 17 (11%) seldom raise concerns for fear of negative consequences about their issues. The statement "To what extent do employees learn from past experiences so that history does not repeat itself?" about culture, most of the respondents about 135 (80%) learn from past experiences so that history does not repeat itself most often, 19 (11%) respondents seldom learn from past experiences so that history does not repeat itself and 0 % respondents means there was no respondent who almost never learn from past experiences so that history does not repeat itself. The statement "To what extent is new knowledge transferred throughout the university quickly and efficiently?" about culture, most of the respondents 108 (64%) expressed that sometimes new knowledge transferred throughout the university quickly and efficiently and only 3 (2%) respondents said that new knowledge transferred throughout the university quickly and efficiently always never.

4.1.5 Assessment of "Structure"

Table 4.8

Assessment of "Structure" in context of university (N = 168)

Statements	Almost Never	Seldom	Sometimes	Most Often	Almost Always
To what extent does the University's structure help different departments work together effectively?	3	16	25	120	4
	1 %	7 %	14 %	75 %	3 %
Does the structure support the accomplishment of the University's mission and strategy?	2	17	136	13	0
	1 %	11 %	80 %	8 %	0 %
To what extent does faculty/Administrative staff give employees the authority they need to accomplish their work effectively?	3	135	19	11	0
	2 %	80%	17 %	7 %	0 %
To what extent is faculty/Administrative staff in your institution, would you characterize the breadth and depth of responsibilities they are expected to manage	3	13	108	39	5
	2 %	8 %	64 %	23 %	3 %

The column headers span: Frequencies and Percentages

Table 4.8 depicted that the statement "To what extent does the University's structure help different departments work together effectively?" about structure, most of the respondents about 120 (75%) said that most often the institutional structure helps different departments work effectively, 25 (14%) said that the University's structure seldom helps different departments work effectively and only 2 (1%) admitted that the University's structure almost never helps different departments work effectively. The statement " To what extent does the University's structure help different departments work together

effectively ?" about structure, most of the respondents about 136 (80%) said that sometimes structure support the accomplishment of the University's mission and strategy, 0 (0%) means there was no respondent who said that structure almost always support the accomplishment of the University's mission and strategy and 17 (11%) said that structure seldom support the accomplishment of the University's mission and strategy. The statement " To what extent does faculty/Administrative staff give employees the authority they need to accomplish their work effectively ?" about structure, most of the respondents about 135 (80 %) said that faculty/administrative staff seldom give employees the authority they need to accomplish their work effectively, 19 (11%) said that faculty/administrative staff most often give employees the authority they need to accomplish their work effectively and 0(0%) means that there was no respondents who agreed that faculty/administrative staff almost always give employees the authority they need to accomplish their work effectively. The statement " To what extent is faculty/Administrative staff in your institution, would you characterize the breadth and depth of responsibilities they are expected to manage about structure, most of the respondents about 108 (64 %) said faculty members and administrative staff sometimes characterize the depth and breadth of responsibilities which they are expected to manage about the structure while a very less number i.e. 3 (2 %) committed that they almost never characterize the breadth and depth of responsibilities that are expected to be managed by them about the structure.

4.1.6 Assessment of "Management Practices"

Table 4.9

Assessment of "Management Practices" in the context of university Practices (N = 168)

Statements	**Frequencies and Percentages**					
	Almost Never	Seldom	Sometimes	Most Often	Always	Almost
To what extent does your manager recognize innovation?	2	11	25	126	4	
	1 %	7 %	14 %	75 %	3 %	
To what extent does your manager demonstrate a concern for the customer?	2	17	13	136	0	
	1 %	11 %	8 %	80 %	0 %	
To what extent does your manager encourage communication up, down and across?	0	19	135	11	3	
	0 %	11 %	80 %	7 %	2 %	
To what extent does your manager promote career development of employees?	3	13	108	39	5	
	2 %	8 %	64 %	23 %	3 %	

Table 4.9 depicted that the statement "To what extent does your manager recognize innovation?" about management practices, most of the respondents about 126 (75%) said that almost often managers recognize innovation, 25 (14%) expressed that managers recognize innovation sometime and there were only 2 (1%) who said that managers almost never recognize innovations.   The statement" To what extent does your manager demonstrate a concern for the employees?" about management practices, most of the respondents about 136 (80%) said that most often managers demonstrate concerns for the employees and 2 (1%) means that a very few respondents who said that managers

demonstrate   concerns for their employees. The statement "To what extent does manager encourage communication up, down and across?" about management practices, most of the respondents about 135 (80%) of the respondents said that sometimes managers encourage communication, up, down and across, 19 (11%) said that the managers encourage communication, across, up and down and 3 (2%) respondents committed that the managers encourage communications, up, down and across. The statement "To what extent does manager promote career development of employees? about management practices, most of the respondents about 108 (64%) of the respondents said that sometimes managers promote career development of employees, 13 (8%) respondents expressed that managers seldom promote career development of employees, 39 (23%) of the respondents claimed that managers most often promote career development of employees and only 3 (2%) said that managers almost never promote career development of their employees.

4.1.7 Assessment of "Systems"

Table 4.10

Assessment of "Systems" in context of university Practices (N = 168)

Statements	Frequencies and Percentages					
	Almost Never	Seldom	Sometimes	Most Often	Almost Always	
To what extent faculty/Administrative staff in your university is rewarded, what is the balance between results and how the managers (their behavior) achieve these results?	2	11	126	25	4	
	1 %	7 %	75 %	14 %	3 %	
To what extent do you feel informed about issues affecting the university as a whole?	2	17	136	13	0	
	1 %	11 %	80 %	8 %	0 %	
To what extent do you feel informed about issues affecting your division, function, area, or department?	0	19	135	11	3	
	0 %	11 %	80 %	7 %	2 %	
To what extent do you feel informed about issues affecting you and your jobs?	3	13	118	29	5	
	2 %	8 %	70 %	17 %	3 %	

Table 4.10 depicted that the statement " To what extent faculty/Administrative staff in your university is rewarded, what is the balance between results and how the managers (their behavior) achieves these results?" about systems, most of the respondents about 126 (75%) said that they sometimes rewarded for results and behavior, 2 (1%) respondents said that they almost never got reward and don't know about managers behavior, 25 (14%) respondents said that they were rewarded most often for results and behavior and 11 (7%) respondents claimed that they seldom rewarded for how they behave and the results they

achieved. The statement " To what extent do you feel informed about issues affecting the university as a whole?" about systems, most of the respondents about 136 (80%) of the respondents said that they were very well informed about issues affecting the university as a whole sometimes, 17 (11%) respondents claimed that they were seldom informed about issues affecting the university as a whole and 0 (0%) means there was no respondent who agreed to admit that the employees were almost always informed about the issues which are affecting the university overall. The statement "To what extent do you feel informed about issues affecting your division, function, area, or department?" about systems, most of the respondents about 135 (80%) said that sometimes they were well informed about the issues affecting area, division, function, or department and only 3 (2%) were agreed that they were almost always informed about the issues affecting the department, division, function and area. The statement "To what extent do you feel informed about issues affecting you and your jobs? "About systems, most of the respondents about 118 (70%) said that sometimes they were very well informed about the issues affecting them and their job, 29 (17%) claimed that most often they were informed about the issues which can affect them and their jobs and 5 (3%) expressed that they were almost always well informed about the issues affecting them and their jobs.

4.1.8 Assessment of "Work Group Climate"

Table 4.11

Assessment of Work group climate in context of university Practices (n= 168)

Statements	Frequencies and Percentages					
	Almost Never	Seldom	Sometimes	Most Often	Always	Almost
To what extent are work group members involved in making decisions that affect their work?	0	135	11	18	4	
	0 %	80 %	7%	10 %	3 %	
Is there cooperation and teamwork between you and your colleagues?	2	141	13	11	1	
	1 %	83 %	8 %	7 %	0.6 %	
To what extent does your work group make good use of individual differences of style, approach and skills?	0	109	21	35	3	
	0 %	65 %	13 %	21 %	2 %	
Is there trust and mutual respect between your work group and other groups inside the institution?	3	43	78	39	5	
	2 %	26 %	46 %	23 %	3 %	

Table 4.11 depicted that the statement "To what extent are work group members involved in making decisions that affect their work?" about work group climate, most of the respondents about 135(80%) said that work group members seldom involved in making decision that affect their work and 18 (10%) of the respondents claimed that the work group members are almost often involved in making decision which affect their work. The statement "Is there cooperation and teamwork between you and your colleagues?" about work group climate, most of the respondents about 141 (83%) said that work group members seldom have cooperation & teamwork among teams, 13 (8%) respondents expressed that

sometimes they found cooperation and teamwork and only few respondents agreed that they almost always found cooperation & teamwork with each other to get the job done. The statement "To what extent does your work group make good use of individual differences of styles, approach and skills?" about work group climate, most of the respondents about 109 (65 %) said that its seldom to make good use of individual differences of skills, styles and approaches while 35 (21%) respondents agreed that work groups make good use of individual differences of styles, skills and approaches most often and 21 (13%) respondents said that sometimes working groups make best use of individual differences of approaches, styles and skills. The statement " Is there trust and mutual respect between your work group and other groups inside the institution?" about work group climate, most of the respondents about 78 (46%) said that sometimes trust and mutual respect was found between work groups inside the institutions, 43 (26%) of the respondents said that trust and mutual respect between work groups inside the institutions is seldom while 39(23%) respondents told that trust and mutual respect between work groups inside the institutions almost often.

4.1.9 Assessment of "Task Requirements/ Individual Skills"

Table 4.12

Assessment of "Task requirements/ individual skills" in context of university Practices (n=168)

Statements	Never Almost	Seldom	Sometimes	Most Often	Always Almost
					Frequencies and Percentages
Do you feel challenged in your present job?	2	51	65	25	25
	1 %	30 %	39 %	15 %	15 %
To what extent do you believe your skills, knowledge, and experience appropriately fit the job you currently hold?	2	47	76	23	20
	1 %	28 %	45 %	14 %	12 %
To what extent are the right employees selected for promotion or assignment to projects in your institution?	0	29	105	21	13
	0 %	17 %	62 %	13 %	8 %
Do employees feel they can request formal training and development?	13	33	78	29	15
	8 %	20 %	46 %	17 %	9 %

Table 4.12 depicted that the statement "Do you feel challenged in your current job?" About task requirement/ individual skills, most of the respondents about 65 (39%) said that they sometimes feel challenged in their present job and 25 (15%) of the respondents said that they almost always feel challenged in the present job. The statement "To what extent do you believe your skills, knowledge, and experience appropriately fit the job you currently hold?" about task requirement/ individual skills, most of the respondents about 76 (45%) said that they sometimes believe on their skills, knowledge and experience that

appropriately fit o current job, 47 (28%) of the respondents said that they believe upon their skills, experience and knowledge that appropriately fit their current job. The statement "To what extent are the right employees selected for promotion or assignment to projects in your institution?" about task requirement/ individual skills, most of the respondents about 105 (62%) said that sometimes the right employees selected for promotion or assignment to project in university while 13 (8%) said that almost always the right employees selected for promotion or assignment to project in institution. The statement "Do employees feel they can request formal training and development?" about task requirement/ individual skills, most of the respondents about 78 (46%) said that the employees sometimes ask for training and development, 15 (9%) respondents said that the employees almost always ask for training and development, 13 (8%) respondents said that the employees almost never ask for training and development required for skill building and training.

4.1.10 Assessment of "Motivation"

Table 4.13

Assessment of "Motivation" in context of university Practices (n=168)

Statements	Frequencies and Percentages				
	Almost Never	Seldom	Sometimes	Most Often	Almost Always
To what extent you characterize employee morale?	2	23	72	53	18
	1 %	14 %	43 %	31 %	11 %
To what extent do you feel encouraged to reach higher levels and standards of performance in your work?	2	48	76	23	19
	1 %	29 %	45 %	14 %	11 %
To what extent do you feel your total motivational energies are being drawn on to support the University's mission and purpose?	0	29	110	21	9
	0 %	17 %	65 %	13 %	5 %
To what extent are other employees in your university motivated to do what is needed to achieve the University's mission and purpose?	13	36	75	32	12
	8 %	21 %	45 %	19 %	7 %

Table 4.13 depicted that the statement "To what extent you characterize employee morale?" About motivation, most of the respondents about 72 (43%) said that they sometimes characterize employee's morale, 53 (31%) said that they often characterize employee's morale in positive sense of commitment, confidence and motivation. The statement " To what extent do you feel encouraged to reach higher levels and standards of performance in your work?" about motivation, most of the respondents about 76 (45%) said

that they feel encouraged to achieve high levels and standards of performance in their work, 48 (29%) respondents said that they seldom feel encouraged to reach higher levels and standards of performance in their work and 19 (11%) respondents claimed that they almost always feel encouraged to approach higher levels and high standards of performance in their work. The statement " To what extent do you feel your total motivational energies are being drawn on to support the University's mission and purpose?" about motivation, most of the respondents about 110 (65%) said that they sometimes feel motivated towards institutions mission and purpose, 21 (13%) respondents said that they feel motivated towards institutions mission and purpose and 9 (5%) respondents said that they almost always feel motivated and committed towards institutional purpose and mission. The statement " To what extent are other employees in your university motivated to do what is needed to achieve the University's mission and purpose?" about motivation, most of the respondents about 75 (45%) said that they sometimes motivated to do what is needed by their university to achieve University's mission and purpose, 36 (21%) of the respondents said that they seldom feel motivated to do what is required by their university to achieve institutional mission and purpose, 32 (19%) respondents said that they feel themselves motivated most often to do what is needed by the university to achieve University's purpose and mission and 12 (7%) respondents replied that they were almost always highly motivated to do that is needed by their organization to achieve University's mission, and purpose both.

4.1.11 Assessment of "Individual Needs and Values"

Table 4.14

Assessment of "Individual needs and values" in context of university Practices (n = 168)

Statements	Frequencies and Percentages					
	Never	Almost	Seldom	Sometimes	Most Often	Almost Always
How meaningful to you is the work you are currently performing?	0	18	11	135	4	
	0 %	10 %	7%	80 %	3 %	
To what extent do you feel free to conduct your work the way you think it should be done?	0	141	13	11	3	
	0 %	83 %	8 %	7 %	2 %	
Do you feel valued as a person in your institution?	0	20	110	35	3	
	0 %	13 %	65 %	21 %	2 %	
Is there a healthy balance between your work and personal life?	3	43	78	39	5	
	2 %	26 %	46 %	23 %	3 %	

Table 4.14 depicted that the statement "To what extent do you think the work is meaningful to you which you are currently performing?" about individual needs and values, most of the respondents 135 (80%) said that almost often the work they are currently performing is very meaningful while 0 (0%) means that no one agreed upon that the task they currently performing is meaningful and 4 (3%) said that the work they are currently performing is very meaningful is almost always. The statement "To what extent do you feel free to conduct your work the way you think it should be done?" about individual needs and values, most of the respondents which are about 141 (83%) said that they seldom feel

free to conduct the work they are in the way they think it should be done and 11 (7%) said that almost often they feel free to conduct their task in the way they think it should be done and only 3 respondents means only 2 % of the respondents agreed that they almost always find themselves free to do their work in the way they feel that it should be done. The statement "Do you feel valued as a person in your institution?" about individual needs and values, most of the respondents about 110 (65%) claimed that they sometimes feel valued in their institutions, 35 (21%) said most often they feel valued, trusted and supported in the university they are working and only 3 (2%) said that they almost always feel valued in their institutions. The statement "Is there a healthy balance between your work and personal life?" about individual needs and values, most of the respondents about 78 (46%) said that they sometimes feel a healthy balance between the work and personal life, 43 (26%) respondents said that they seldom feel balance between their work and their personal life while few respondents i. e, only 5 (3%) almost always feel a balance between their personal life and their work.

4.1.12 Assessment of "Performance"

Table 4.15

Assessment of "Performance" in context of university Practices (n = 168)

Statements	Never	Almost	Seldom	Sometimes	Most Often	Always	Almost
To what extent is your institution effective at eliminating waste and inefficiency throughout the institution?	0	15	9	137	7		
	0 %	9%	5%	82%	4%		
To what extent does your institution make effective use of talented employees with standards?	0	135	15	12	6		
	0%	80%	9%	7%	4%		
To what extent does your institution earn recognition as a world class competitor in our industry?	0	25	105	31	7		
	0 %	15%	63%	18%	4%		
To what extent does your institution consistently meet revenue objectives?	3	43	80	36	6		
	2%	26%	48%	21%	4%		

Table 4.15 depicted that the statement "To what extent is your institution effective at eliminating waste and inefficiency throughout the institution?" about performance, most of the respondents 137 (80%) said that almost often institution effective at eliminating waste and inefficiency throughout the institution while 0(0%) means that no one agreed upon that institution effective at eliminating waste and inefficiency throughout the institution and 7(4%) said that institution effective at eliminating waste and inefficiency throughout the institution is almost always. The statement "To what extent does your institution make effective use of talented employees with standards?" about performance, most of the

respondents which are about 135(80%) said that they seldom feel institution make effective use of talented employees with standards and 12(7%) said that almost often institution make effective use of talented employees with standards and only 6 respondents means only 4% of the respondents agreed that they almost always find institution make effective use of talented employees with standards. The statement "To what extent does your institution earn recognition as a world class competitor in our industry?" about performance, most of the respondents about 105(63%) claimed that they sometimes feel institution earn recognition as a world class competitor in our industry, 31(18%) said most often institution earn recognition as a world class competitor in our industry and only 7(4%) said that institution earn recognition as a world class competitor in our industry. The statement "To what extent does your institution consistently meet revenue objectives?" about performance, most of the respondents about 80(48%) said that they sometimes feel institution consistently meet revenue objectives, 43 (26%) respondents said that institution consistently meet revenue objectives while few respondents i.e., only 6(4%) almost always feel institution consistently meet revenue objectives.

The following analysis (table 4.16 to 4.17) shows the analysis of Relationship between Triple Loop Learning and Organizational Practices. The data were analyzed through correlation.

4.2 Section-II: Inferential Analysis

4.2.1 Relationship between Triple Loop Learning and Organizational Practices

Objective 2:   To assess the relationship between different factors of Triple Loop Learning factors in the context of universities.

H_{01}:   There is no significant relationship of the stakeholders' practices of triple-loop learning in context of organizational (universities) practices

Table 4.16

Relationship of Triple Loop Learning and Organizational Practices (n=168)

Organizational stakeholders' practices Levels ⟍ Triple Loop Learning	Transformational	Transactional	Individual & personal
Transformational	.67	0.77	.71
Transactional	.68	.71	.72
Individual & Personal	.75	.68	.69

Significant at .01 or P < .01 (2-tailed)

Table 4.16 depicted that the relationship between Transformational factor and transactional factors is significant at $P < .001$ when it comes with departmental and organizational level. However, from the results it is clear that both dimensions of triple loop learning are positively correlated. The value of correlation is .77 which shows high and

positive correlation. Saunders, Lewis, and Thornhill (2007) highlighted that correlation values ranging from 0.35 to 0.59 indicate a moderate positive correlation between variables. Values between 0.6 to 0.79 signify a strong positive correlation, as established by Berg (2004), while values within the range of 0.8 to 1 denote a very strong positive association between variables. In the context of the triple learning loop, a correlation coefficient value deemed significant at $p < 0.001$ indicates high statistical significance. As described by Kirkwood and Sterne (2003), a significance level of $P < 0.001$ signifies a probability of less than one in a thousand of being incorrect. The findings support that Transformational and transactional factors are a highly significantly positively correlated to each other at departmental level as compared to organization.

Following analysis was being done to identify the relationship between variables of Transformational and transactional factors.

4.2.2 Relationship between Transformational Factors and Transactional Factors

H_{02} There is no significant relationship between different dimensions of Triple Loop Learning factors of organizational practices in context of universities.

H_{02a}: There is no significant relationship between the elements of Transformational factor and transactional factor of triple-loop learning in context of universities.

Table 4.17

Relationship between transformational factors and transactional factors (n=168)

Variables	R	Sig
Transformational factors & Transactional factors	.732	.000

Significant at .01 or P < .01 (2-tailed)

Table 4.17 indicated that both dimensions of triple loop learning are positively correlated. The value of correlation is .732 which shows high and positive correlation. As the correlation value lies between 0.6 to 0.79, which shows high and positive correlation (Saunders, Lewis & Thornhill, 2007). Further Field (2005) revealed that if correlation coefficient values of + 0.5 and – 0.5 shows large effect. The triple learning loop indicated that correlation value is significant at p<0.01 which means that it is highly significant or in other words it may be explained as "P < 0.001 means that less than one in a thousand chance of being wrong" (Kirkwood & Sterne, 2003). The findings support that Transformational and transactional factors are a highly significantly positively correlated to each other.

Following analysis (table 4.18 to 4.20) was being done to identify the relationship between sub variables of Transformational and transactional factors.

4.2.3 Relationship between Transformational factor "Leadership" with elements of transactional factors

Table 4.18

Relationship between Transformational factor "Leadership" with elements of transactional factors (n=168)

Variables	1	2	3	4	5
1. Leadership	1				
2. Management practices	.571	1			
3. Structures	.832	.632	1		
4. Systems including policies and procedures	.692	.672	.592	1	
5. Transactional factors	.492	.752	.825	.642	1

Significant at .01 or P < .01 (2-tailed)

Table 4.18 indicated the relationship between the Transformational factor "Leadership" and elements of transactional factor. Results depicted that leadership dimension of Transformational factor is positively as well as significantly correlated with Management Practices and value of correlation coefficient r = .571, Structures having value of correlation coefficient r = .832, Systems including policies and procedures having value of correlation coefficient r = .692 elements of transactional factors. Leadership is also

significantly positively correlated with transactional factor. Moreover, Transformational factor leadership showed moderate positive relationship with "management practices" and transactional factor itself, strong positive relationship with "systems including policies and procedures" while leadership has perfect strong positive relationship with structures. Saunders, Lewis & Thornhill (2007) informed that correlation coefficient ranges from 0.35 to 0.59 shows moderate and positive correlation between variables, correlation coefficient ranges from 0.6 to 0.79 shows strong as well as positive correlation. According to Sorenson, (1956) correlation values within the range of 0. 8 to 1 show perfect positive association between variables.

4.2.4 Relationship between Transformational factor "Mission and strategy" with Elements of Transactional factors

Table 4.19

Relationship between Transformational factor "Mission and strategy" with elements of transactional factors (n=168)

Variables	1	2	3	4	5
1. Mission and strategy	1				
2. Management practices	.511	1			
3. Structures	.432	.632	1		
4. Systems including policies and procedures	.712	.572	.402	1	
5. Transactional factors	.832	.452	.625	.742	1

Significant at .01 or P < .01 (2-tailed)

Table 4.19 indicated the relationship between the Transformational factor "Mission and strategy" and elements of transactional factor. Results depicted that Mission and

strategy dimension of Transformational factor is positively as well as significantly correlated with Management Practices and value of correlation coefficient r = .511, structures with value of correlation coefficient r = .432, Systems including policies and procedures having value of correlation coefficient r = .712 elements of transactional factors. Mission and strategy is also significantly positively correlated with transactional factor having value of correlation coefficient r = .832. Moreover, Transformational factor Mission and strategy showed moderate positive relationship with "management practices" and structures, strong positive relationship with "systems including policies and procedures" while Mission and strategy has perfect strong positive relationship with transactional factors itself. Saunders, Lewis, and Thornhill (2007) highlighted that correlation values ranging from 0.35 to 0.59 indicate a moderate positive correlation between variables. Values between 0.6 to 0.79 signify a strong positive correlation, as established by Berg (2004), while values within the range of 0.8 to 1 denote a very strong positive association between variables. In the context of the triple learning loop, a correlation coefficient value deemed significant at p < 0.001 indicates high statistical significance. As described by Kirkwood and Sterne (2003), a significance level of P < 0.001 signifies a probability of less than one in a thousand of being incorrect.

4.2.5 Relationship between Transformational factor "Organizational culture" with Elements of Transactional factors

Table 4.20

Relationship between Transformational factor "Organizational culture" with elements of transactional factors (n=168)

Variables	1	2	3	4	5
1. Organizational culture	1				
2. Management practices	.451	1			
3. Structures	.402	.422	1		
4. Systems including policies and procedures	.512	.612	.602	1	
5. Transactional factors	.713	.652	.415	.442	1

Significant at .01 or P < .01 (2-tailed)

Table 4.20 indicated the relationship between the Transformational factor "Organizational culture" and elements of transactional factor. Results depicted that Organizational culture dimension of Transformational factor is positively as well as significantly correlated with Management Practices and value of correlation coefficient r = .451, Structures with value of correlation coefficient r = .402, Systems including policies and procedures having value of correlation coefficient r = .512 elements of transactional factors. Organizational culture is also significantly positively correlated with transactional

factor having value of correlation coefficient r = .712. Moreover, Transformational factor "Organizational culture" showed moderate positive relationship with "management practices", structures and "systems including policies and procedures" while Organizational culture has strong positive relationship with transactional factors itself. Saunders, Lewis, and Thornhill (2007) highlighted that correlation values ranging from 0.35 to 0.59 indicate a moderate positive correlation between variables. Values between 0.6 to 0.79 signify a strong positive correlation.

4.2.6 Relationship between Transformational factor and Individual & Personal Factor

Objective 2b. To assess the level of relationship between Transformational factor and individual & personal factor in context of universities.

H_{02b} There is no significant relationship between the elements of Transformational factor and individual & personal factor of triple-loop learning in context of universities.

Table 4.21

Relationship between Transfojrmational factors and Individual & Personal Factor (n=168)

Variables	R	Sig
Transformational factors and Individual & Personal Factor	.812	.000

Significant at .01 or P < .01 (2-tailed)

Table 4.21 depicted that the correlation between Transformational factor and Individual & Personal Factor is significant at p< .001. Moreover, from the results it is clear that both dimensions of triple loop learning are correlating positively. The correlation coefficient is .812 which indicates perfect high and positive correlation. As the correlation

value lies between 0.8 to +1 which shows perfect high and positive correlation. Saunders, Lewis, and Thornhill (2007) highlighted that correlation values ranging from 0.35 to 0.59 indicate a moderate positive correlation between variables. Values between 0.6 to 0.79 signify a strong positive correlation, as established by Berg (2004), while values within the range of 0.8 to 1 denote a very strong positive association between variables. In the context of the triple learning loop, a correlation coefficient value deemed significant at $p < 0.001$ indicates high statistical significance. As described by Kirkwood and Sterne (2003), a significance level of $P < 0.001$ signifies a probability of less than one in a thousand of being incorrect. The findings support that Transformational and individual & personal factor are perfectly significantly positively correlated to each other.

The following additional analysis (table 4.22 to 4.24) was being done to explore the relationship between sub variables of Transformational factors and Elements of Individual & Personal Factor.

4.2.7 Relationship between Transformational factor "Leadership" and Elements of Individual & Personal Factor

Table 4.22

Relationship between Transformational factor "Leadership" and Elements of Individual & Personal Factor (n=168)

Variables	1	2	3	4	5	6
1. Leadership	1					
2. Work Unit Climate	.551	1				
3. Motivation	.602	.322	1			
4. Task requirements and Individual Skills/Abilities	.832	.412	.502	1		
5. Individual Needs and Values	.413	.772	.555	.642	1	
6. Individual & Personal Factor	.403	.552	.415	.442	.713	1

Significant at .01 or P < .01 (2-tailed)

Table 4.22 indicated the relationship between the Transformational factor "Leadership" and elements of Individual & Personal Factor. Results depicted that the Leadership dimension of Transformational factor is positively as well as significantly correlated with Work Unit Climate and value of correlation coefficient r = .551, with

motivation having value of correlation coefficient r = .602, with Task requirements and Individual Skills/Abilities having value of correlation coefficient "r = .832", Individual needs and values having value of correlation coefficient r = .413 elements of individual & personal factors. Leadership is also significantly positively correlated with individual & personal factor having value of correlation coefficient r = .403. Moreover, Transformational factor "Leadership" showed moderate positive relationship with "work unit climate", individual needs & values and "individual & personal factor" itself" while leadership has strong positive relationship with motivation and perfect association with Task requirements and Individual Skills/Abilities. Saunders, Lewis, and Thornhill (2007) highlighted that correlation values ranging from 0.35 to 0.59 indicate a moderate positive correlation between variables. Values between 0.6 to 0.79 signify a strong positive correlation, as established by Berg (2004), while values within the range of 0.8 to 1 denote a very strong positive association between variables. In the context of the triple learning loop, a correlation coefficient value deemed significant at $p < 0.001$ indicates high statistical significance. As described by Kirkwood and Sterne (2003), a significance level of $P < 0.001$ signifies a probability of less than one in a thousand of being incorrect.

4.2.8 Relationship between Transformational factor "Mission & Strategy" and Elements of Individual & Personal Factor

Table 4.23

Relationship between Transformational factor "Mission & Strategy" and Elements of Individual & Personal Factor (n=168)

Variables	1	2	3	4	5	6
1. Mission & Strategy	1					
2. Work Unit Climate	.551	1				
3. Motivation	.602	.322	1			
4. Task requirements and Individual Skills/Abilities	.832	.412	.502	1		
5. Individual Needs and Values	.413	.772	.555	.642	1	
6. Individual & Personal Factor	.403	.552	.415	.442	.713	1

Significant at .01 or P < .01 (2-tailed)

Table 4.23 indicated the relationship between the Transformational factor "Mission & Strategy" and elements of Individual & Personal Factor. Results depicted that the " Mission & Strategy " dimension of Transformational factor is positively as well as significantly correlated with Work Unit Climate and value of correlation coefficient r = .551, with motivation having value of correlation coefficient r = .602 with Task requirements and Individual Skills/Abilities having value of correlation coefficient "r =

.832", Individual needs and values having value of correlation coefficient r = .413 elements of individual & personal factors. Mission & Strategy is also significantly positively correlated with individual & personal factor having value of correlation coefficient r = .403. Moreover, Transformational factor "Mission & Strategy" showed moderate positive relationship with "work unit climate", individual needs & values and "individual & personal factor" itself" while Mission & Strategy has strong positive relationship with motivation and perfect association with Task requirements and Individual Skills/Abilities. Saunders, Lewis, and Thornhill (2007) highlighted that correlation values ranging from 0.35 to 0.59 indicate a moderate positive correlation between variables. Values between 0.6 to 0.79 signify a strong positive correlation, as established by Berg (2004), while values within the range of 0.8 to 1 denote a very strong positive association between variables. In the context of the triple learning loop, a correlation coefficient value deemed significant at p < 0.001 indicates high statistical significance. As described by Kirkwood and Sterne (2003), a significance level of P < 0.001 signifies a probability of less than one in a thousand of being incorrect.

4.2.9 Relationship between Transformational factor "Organizational culture" and Elements of Individual & Personal Factor

Table 4.24

Relationship between Transformational factor "Organizational culture" and Elements of Individual & Personal Factor (n=168)

Variables	1	2	3	4	5	6
1. Organizational culture	1					
2. Work Unit Climate	.451	1				
3. Motivation	.632	.422	1			
4. Task requirements and Individual Skills/Abilities	.542	.512	.502	1		
5. Individual Needs and Values	.813	.372	.511	.642	1	
6. Individual & Personal Factor	.413	.552	.425	.542	.413	1

Significant at .01 or P < .01 (2-tailed)

Table 4.24 indicated the relationship between the Transformational factor "Organizational culture" and elements of Individual & Personal Factor. Results depicted that the " Organizational culture " dimension of Transformational factor is positively as well as significantly correlated with Work Unit Climate and value of correlation coefficient r = .451, with motivation having value of correlation coefficient r = .632, with Task requirements and Individual Skills/Abilities having value of correlation coefficient "r =

.542", Individual needs and values having value of correlation coefficient r = .813 elements of individual & personal factors. Organizational culture is also significantly positively correlated with individual & personal factor having value of correlation coefficient r = .413. Moreover, Transformational factor "Organizational culture" showed moderate positive relationship with "work unit climate", Task requirements and Individual Skills/Abilities and "individual & personal factor" itself" while Organizational culture has strong positive relationship with motivation and very strong association with individual needs and values. Saunders, Lewis, and Thornhill (2007) highlighted that correlation values ranging from 0.35 to 0.59 indicate a moderate positive correlation between variables. Values between 0.6 to 0.79 signify a strong positive correlation, as established by Berg (2004), while values within the range of 0.8 to 1 denote a very strong positive association between variables. In the context of the triple learning loop, a correlation coefficient value deemed significant at $p < 0.001$ indicates high statistical significance. As described by Kirkwood and Sterne (2003), a significance level of $P < 0.001$ signifies a probability of less than one in a thousand of being incorrect.

4.2.10 Relationship between Transactional Factor and Individual and Personal Factor

Objective 2c.   To assess the level of relationship between transactional factor and individual & personal factor in context of universities.

H_{02c} There is no significant relationship between the elements of transactional factor and individual & personal factor of triple-loop learning in context of universities.

Table 4.25

Relationship between Transactional factor and Individual and Personal factor (n=168)

Variables	R	Sig
Individual and Personal factor & Transactional factors	.632	.001

Significant at .01 or P < .01 (2-tailed)

Table 4.25 depicted that the correlation between individual and personal factor and transactional factors is significant at P < .001. Moreover, from the results it is clear that both dimensions of triple loop learning are positively correlated. The correlation coefficient is .632 which shows high and positive correlation. As the correlation value lies between 0.6 to 0.79 which indicated strong and positive correlation (Saunders, Lewis & Thornhill, 2007). Further Field (2005) revealed that if correlation coefficient values of + 0.5 and – 0.5 shows large effect. The triple learning loop indicated that correlation value is significant at level of 0.001 which means that it is highly significant or in other words it may be explained as "P < 0.001 means that less than one in a thousand chance of being wrong" (Kirkwood & Sterne, 2003). The findings support that personal and individual and transactional factors are a highly significantly positively correlated to each other.

The following additional analysis (table 4.26 to 4.28) was being done to explore the relationship between sub variables of Transactional factors and Elements of Individual & Personal Factor.

4.2.11 Relationship between Transactional factor "Management practices" and Elements of Individual & Personal Factor

Table 4.26

Relationship between Transactional factor "Management practices" and Elements of Individual & Personal Factor (n=168)

Variables	1	2	3	4	5
Management practices	1				
Work Unit Climate	.551	1			
Motivation	.602	.322	1		
Task requirements and Individual Skills/Abilities	.832	.412	.502	1	
Individual Needs and Values	.413	.772	.555	.642	1
Individual & Personal Factor	.403	.552	.415	.442	.713	1

Significant at .01 or P < .01 (2-tailed)

Table 4.26 indicated the relationship between the transactional factor "Management practices" and elements of Individual & Personal Factor. Results depicted that the Management practices dimension of transactional factor is positively as well as significantly

correlated with Work Unit Climate and value of correlation coefficient r = .551, with motivation having value of correlation coefficient r = .602, with Task requirements and Individual Skills/Abilities having value of correlation coefficient "r = .832", Individual needs and values having value of correlation coefficient r = .413 elements of individual & personal factors. Management practices is also significantly positively correlated with individual & personal factor having value of correlation coefficient r = .403. Moreover, transactional factor "Management practices" showed moderate positive relationship with "work unit climate", individual needs & values and "individual & personal factor" itself" while Management practices has strong positive relationship with motivation and perfect association with Task requirements and Individual Skills/Abilities. Saunders, Lewis, and Thornhill (2007) highlighted that correlation values ranging from 0.35 to 0.59 indicate a moderate positive correlation between variables. Values between 0.6 to 0.79 signify a strong positive correlation, as established by Berg (2004), while values within the range of 0.8 to 1 denote a very strong positive association between variables. In the context of the triple learning loop, a correlation coefficient value deemed significant at p < 0.001 indicates high statistical significance. As described by Kirkwood and Sterne (2003), a significance level of P < 0.001 signifies a probability of less than one in a thousand of being incorrect.

4.2.12 Relationship between Transactional factor "Structure" and Elements of Individual & Personal Factor

Table 4.27

Relationship between Transactional factor "Structure" and Elements of Individual & Personal Factor (n=168)

Variables	1	2	3	4	5	6
1. Structure	1					
2. Work Unit Climate	.551	1				
3. Motivation	.602	.322	1			
4. Task requirements and Individual Skills/Abilities	.832	.412	.502	1		
5. Individual Needs and Values	.413	.772	.555	.642	1	
6. Individual & Personal Factor	.403	.552	.415	.442	.713	1

Significant at .01 or P < .01 (2-tailed)

Table 4.27 indicated the relationship between the transactional factor "Structure" and elements of Individual & Personal Factor. Results depicted that the "Structure" dimension of transactional factor is positively as well as significantly correlated with Work Unit Climate and value of correlation coefficient r = .551, with motivation having value of correlation coefficient r = .602, with Task requirements and Individual Skills/Abilities having value of correlation coefficient "r = .832", Individual needs and values having value

of correlation coefficient r = .413 elements of individual & personal factors. Structure is also significantly positively correlated with individual & personal factor having value of correlation coefficient r = .403. Moreover, transactional factor "Structure" showed moderate positive relationship with "work unit climate", individual needs & values and "individual & personal factor" itself" while Structure has strong positive relationship with motivation and perfect association with Task requirements and Individual Skills/Abilities. Saunders, Lewis, and Thornhill (2007) highlighted that correlation values ranging from 0.35 to 0.59 indicate a moderate positive correlation between variables. Values between 0.6 to 0.79 signify a strong positive correlation, as established by Berg (2004), while values within the range of 0.8 to 1 denote a very strong positive association between variables. In the context of the triple learning loop, a correlation coefficient value deemed significant at p < 0.001 indicates high statistical significance. As described by Kirkwood and Sterne (2003), a significance level of P < 0.001 signifies a probability of less than one in a thousand of being incorrect.

4.2.13 Relationship between Transactional factor "Systems including policies and procedures" and Elements of Individual & Personal Factor

Table 4.28

Relationship between Transactional factor "Systems including policies and procedures" and Elements of Individual & Personal Factor (n=168)

Variables	1	2	3	4	5	6
1. Systems including policies and procedures	1					
2. Work Unit Climate	.451	1				
3. Motivation	.632	.422	1			
4. Task requirements and Individual Skills/Abilities	.542	.512	.502	1		
5. Individual Needs and Values	.813	.372	.511	.642	1	
6. Individual & Personal Factor	.413	.552	.425	.542	.413	1

Significant at .01 or P < .01 (2-tailed)

Table 4.28 indicated the relationship between the transactional factor "Systems including policies and procedures" and elements of Individual & Personal Factor. Results depicted that the "Systems including policies and procedures" dimension of transactional factor is positively as well as significantly correlated with Work Unit Climate and value of

correlation coefficient r = .451, with motivation having value of correlation coefficient r = .632, with Task requirements and Individual Skills/Abilities having value of correlation coefficient "r = .542", Individual needs and values having value of correlation coefficient r = .813 elements of individual & personal factors. Systems including policies and procedures is also significantly positively correlated with individual & personal factor having value of correlation coefficient r = .413. Moreover, transactional factor "Systems including policies and procedures" showed moderate positive relationship with "work unit climate", Task requirements and Individual Skills/Abilities and "individual & personal factor" itself" while Systems including policies and procedures has strong positive relationship with motivation and very strong association with individual needs and values. Saunders, Lewis, and Thornhill (2007) highlighted that correlation values ranging from 0.35 to 0.59 indicate a moderate positive correlation between variables. Values between 0.6 to 0.79 signify a strong positive correlation, as established by Berg (2004), while values within the range of 0.8 to 1 denote a very strong positive association between variables. In the context of the triple learning loop, a correlation coefficient value deemed significant at p < 0.001 indicates high statistical significance. As described by Kirkwood and Sterne (2003), a significance level of P < 0.001 signifies a probability of less than one in a thousand of being incorrect.

4.2.14   Assessment of external environment

Objective 3:   To examine the effect of external environment on triple-loop learning practices in the context of university practices.

H_{03}   There is no significant effect of external environment on triple-loop learning in the context of university practices.

Table 4.29

Assessment of the effect of external environment on triple-loop learning practices in context of universities (n=168)

Research variable	Outcome variable	R^2	β(Coefficient)	t	F	Sig
External Environment	Triple loop Learning	.71	.24	13.41	4.61	.000

P<0.01
a. RV: Triple loop learning
b. OV: External Environment

Table 4.29 indicated that R^2 Value was 0.71. It represents that the research variable (external environment of the university) described 71 % variation in triple loop learning and the rest was due to other factors. While the coefficient (β= .24) showed that this effect was statistically significant at 0.05 level of significance. Thus, the hypothesis "There is no significant effect of external environment on triple loop learning in organizational practices in context of university practices" is failed to be accepted. Therefore, it is determined that the external environment of the university has a significant effect on triple loop learning. The results were significant at F=4.61, where p=.01.

4.2.15 Assessment of the effect of external environment on Transformational factor in the context of universities

Objective 3a. To examine the effect of external environment on Transformational factor triple-loop learning practices in the context of university practices.

$H_{03a:}$ There is no significant effect of external environment on Transformational factor of triple-loop learning in the context of university practices.

Table 4.30

Assessment of the effect of external environment on Transformational factor (n=168)

Research variable	Outcome variable	R^2	β(Coefficient)	t	F	Sig
External Environment	Transformational Factor	.61	.23	11.41	3.66	.040

P<0.01
a. RV: Transformational Factor
b. OV: External Environment

Table 4.30 indicated that R^2 Value was 0.61. It represents that the research variable (external environment) described 61 % variation in Transformational factor (a dimension of triple loop learning) and the rest was due to other factors. While the coefficient (β= .23) shows that this effect was statistically significant at 0.05 level of significance. Thus, the hypothesis "There is no significant effect of external environment on Transformational factors in organizational practices in context of university practices" is failed to be accepted. Therefore, it is determined that the external environment of the university has a significant effect on Transformational factor related to triple loop learning. The results were significant at F=3.66, where p=.01.

4.2.16 Assessment of the effect of external environment on transactional factor in the context of universities.

Objective 3b. To examine the effect of external environment on transactional factor triple-loop learning practices in the context of university practices.

H_{03b} There is no significant effect of external environment on transactional factors in the context of university practices.

Table 4.31

Assessment of the effect of external environment on transactional factor (n=168)

Research variable	Outcome variable	R^2	β(Coefficient)	t	F	Sig
External Environment	Transactional Factor	.69	.21	13.41	3.35	.003

P<0.01
a. RV: Transactional Factor
b. OV: External Environment

Table 4.31 indicated that R^2 Value was 0.69. It represents that the research variable (external environment of the university) described 69 % variation in Transformational factor (a dimension of triple loop learning) and the rest was due to other factors. While the coefficient (β= .21) shows that this effect was statistically significant at 0.05 level of significance. Thus, the hypothesis "There is no significant effect of external environment on transactional factor related to triple loop learning in context of university practices" is failed to be accepted. Therefore, it is determined that the external environment of the university has a significant effect on transactional factor related to triple loop learning. The results were significant at F=3.35, where p=.01.

4.2.17 Assessment of the effect of external environment on individuals and personal factors in the context of universities.

Objective 3(c). To examine the effect of external environment on individual and personal factor triple-loop learning practices in the context of university practices.

H_{03c} There is no significant effect of external environment on individual & personal factors of triple-loop learning in the context of university.

Table 4.32

Assessment of the effect of external environment on individual and personal factor (n=168)

Research variable	Outcome variable	R^2	β(Coefficient)	*t*	F	Sig
External Environment	Individual and Personal Factor	.59	.31	13.41	3.68	.000

P<0.01
a. RV: Individual and Personal Factor
b. OV: External Environment

Table 4.32 indicated that R^2 Value was 0.59. It shows that the research variable (external environment) mentioned 59 % variation in Individual and Personal Factor (a dimension of triple loop learning) and the rest was in result of mediating factors. The coefficient (β= .31) shows that this effect was statistically significant at p<0.05. Therefore, the hypothesis "There is no significant effect of external environment on Individual and Personal Factor in context of university practices" is failed to be accepted. Therefore, it is determined that the external environment of the university has a significant effect on Individual and Personal Factor related to triple loop learning. The results were significant at F=3.68, where p=.01.

4.23 Summary of Objectives, Hypotheses and Results

Table 4.33

Summary of Objectives, Hypotheses and Results

Research Question	Objectives	Hypotheses	Results
	Objective1: To assess the level of triple-loop learning factors of Organizational practices in context of universities.	H_{01}: There is no significant relationship of the stakeholders' practices of triple-loop learning in context of organizational (universities) practices	Articulating the organizational mission, strategy, basic beliefs and; values and aspirations often, identify the organization competitive strengths also sometimes, most of the respondents articulate the University's desired public image most often and most of the respondents agreed that University's strategy had been shared among employees most often.
RQ1: How do university stakeholders, through the Assessment of University Stakeholders' Practices, engage in and contribute to triple-loop learning within the university context?	**Objective 1a**: To assess the practices related to Transformational factors of triple-loop learning in context of universities	H_{01a} : There is no significant effect of Transformational factor on university stakeholders in context of university practices	Majority of the managers/ leaders make an effort to keep in personal touch with staff most often, leadership is inspirational to promote ethics and integrity in the university seldom. Respondents seldom feel comfortable bringing up their issues and concerns, most of the respondents learn from past experiences and said that history does not repeat itself most often, most of the respondents expressed that sometimes.
	Objective 1b: To assess the practices related to transactional factors of triple-loop learning in context of universities.	H_{01b}: There is no significant effect of transactional factors on university stakeholders in context of university practices**.**	Sometimes structure support the accomplishment of the University's mission and strategy, faculty/administrative staff seldom give employees the authority they need to accomplish their work effectively. Almost often managers recognize innovation, most often managers demonstrate

Research Question	Objectives	Hypotheses	Results
			concerns for the customers, and sometimes managers encourage communication, up, down and across.
	Objective 1c: To explore the practices related to individual and personal factors of triple-loop learning in context of universities.	H_{01c}: There is no significant effect of individual & personal factors on university stakeholders in context of university practices**.**	Most of the respondents about 135(80%) said that work group members seldom involved in making decision that affect their work and 18 (10%) of the respondents claimed that the work group members are almost often involved in making decision which affect their work.
	Objective 2: To assess the existing level of relationship between different elements of triple loop learning factors in context of universities.	H_{02}: There is no significant level of relationship between different elements of triple-loop learning factors in organizational practices in context of university practices.	The hypothesis "There is no significant relationship between different dimensions of triple-loop learning in the context of university practices" Is failed to be accepted. Therefor it is concluded that there is a strong relationship between different dimensions of triple loop learning. The relationship was found strong and positive.
	Objective 3: To examine the effect of external environment on triple-loop learning practices in context of university practices.	H_{03}: There is no significant effect of external environment on triple-loop learning in organizational practices in context of university practices.	The hypothesis "There is no significant effect of external environment on triple-loop learning in context of university practices" failed to be accepted. Therefor it is concluded that external environment has a significant effect on triple loop learning.
	Objective 3a To assess the level of relationship between Transformational and	H_{03a}: There is no significant relationship between the elements of Transformational factor and transactional factor	The hypothesis "There is no significant level of relationship between various dimensions of triple-loop learning and organizational practices existed in the context of university practices" is failed to be

Research Question	Objectives	Hypotheses	Results
	transactional factors in context of university practices.	of triple-loop learning in context of university Practices.	accepted and the correlation between Transformational factor and transactional factors is significant strong and positive.
	Objective 3b: To assess the extent of relationship between Transformational factor and individual & personal factor in context of university practices.	H_{03b}: There is no significant relationship between the elements of transactional factor and individual & personal factor of triple-loop learning in context of university practices.	The hypothesis "There is no significant level of relationship between various dimensions of triple-loop learning and organizational practices existed in the context of university practices" is failed to be accepted and the correlation between Transformational factor and individual & personal factors is significant strong and positive.
	Objective 3c: To assess the extent of relationship between transactional factor and individual & personal factor in context of university practices.	H_{03c}: There is no significant relationship between the elements of transactional factor and individual & personal factor of triple-loop learning in context of university practices.	The hypothesis "There is no significant level of relationship between various dimensions of triple-loop learning and organizational practices existed in the context of university practices" is failed to be accepted and the correlation between transactional factor and individual & personal factors is significant strong and positive.

CHAPTER 5

SUMMARY, FINDINGS, DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1. Summary

This study investigates the practices of university stakeholders in relation to different dimensions of Triple Loop Learning in the context of universities. Objectives of the study were to assess the stakeholders' practices of triple-loop learning factors in the context of university practices, to assess the relationship between different factors of Triple Loop Learning in the context of universities and to examine the effect of external environment on triple-loop learning practices in the context of universities. The conceptual framework of the study was based on the Burke Litwin model of change. Descritpive quantitative research design was used. Population of this study included 1683 stakeholders (Directors, deans, heads of departments and teachers) working in Faculty of Social Sciences at public sector universities of Islamabad and Rawalpindi. The sample size was 168 in number selected through random sampling technique. Sample selection was based on random sampling which manifested true representation without any biasness. The study delimitations and randomization has strengthened the generalizability of the findings of this study. Further to this, future recommendations have been given to address the enhanced generalization of this study findings. A standardized questionnaire was used in which there were three factors transformational, transactional, and individual and personal. Inferential test techniques included Regression analysis, correlation, and t-test were applied to the data. It was concluded that external environment had a significant effect on triple loop learning and along with that it was found that there was a strong relationship between different dimensions of triple loop learning.

5.2 Findings

The generalizability of the findings of the study depicts providing practical and actionable recommendations for local stakeholders. A concentrated study allows for the tailoring of insights and solutions that are contextually relevant to the specific challenges and opportunities present within the city. The findings of this descriptive study are generalizable to multiple contexts as random selection of sample was done from the target population.

1. Analysis of the statements on "Mission and strategy", indicated that majority of the respondents which is about 145 (86%) while the university's mission, strategy, basic beliefs & values and aspirations often leads the policies and procedure for working environment, to identify the universities practices related to triple loop learning factors it was found that, most of the respondents 98(58%) expressed and reported that the university's strategy had been shared among employees and it builds the organizational culture in terms of working capacities and defining roles and responsibilities of the employees (Table 4.5).

2. Analysis of the statements on "Leadership", indicated that respondents were in the opinion that Management policies plays a pivotal role i.e. 130 (78%) to promote ethics and integrity in the institution, majority 143 (83%) responded that senior faculty members /administrative staff of the university make efforts to keep in personal touch with staff most often, Majority 135 (80%) respondents found the leadership (Management and External environment) is a strong factor to practice organizational work culture. Most of the respondents about 108 (64%) said that senior faculty/administrative staff (coordinators and managers) responded that their beliefs in the values and need sometimes (Table 4.6).

3. Analysis of the statements on "culture", indicated that most of the respondents about

126 (75%) said that transactional factors are strong indicator to set their organizational culture, most of the respondents about 136 (80%) seldom feel comfortable bringing up their issues and concerns to the higher management , whereas most of the respondents about 156 (87%) learn from past experiences said that history does not repeat itself most often, most of the respondents 108(64%) expressed that sometimes new knowledge transferred through the institutional policies and procedure quickly and efficiently and Majority 120 (73%) thinks that most often the University's structure help different departments work effectively (Table 4.7).

4. Analysis of the statements on "structure", indicated that most of the respondents about 120 (75%) said that most often the institutional structure helps different departments work effectively, Most of the respondents about 136 (80%) said that sometimes structure support the accomplishment of the University's mission and strategy, most of the respondents about 135 (80%) said that faculty/administrative staff seldom give employees the authority they need to accomplish their work effectively, majority of the respondents 108 (64%) said faculty members and administrative staff sometimes characterize the depth and breadth of responsibilities which they are expected to manage about the structure (Table 4.8).

5. Analysis of the statements on "Management Practices", indicated that found that most of the respondents about 126 (75%) said that almost often managers recognize innovation, most of the respondents about 136 (80%) said that most often managers demonstrate concerns for the customers, most of the respondents about 135 (80%) of the respondents said that sometimes managers encourage communication, up, down and across, most of the respondents about 108 (64%) of the respondents said that sometimes managers promote career development of employees (Table 4.9).

6. Analysis of the statements on "Systems", indicated that most of the respondents about

126 (75%) said that they sometimes rewarded for results, most of the respondents about 136 (80%) of the respondents said that they were very well informed about issues affecting the university as a whole sometimes, most of the respondents about 135 (80%) said that sometimes they were well informed about the issues affecting area, division, function, or department and most of the respondents about 118 (70%) said that sometimes they were very well informed about the issues affecting them and their job (Table 4.10).

7. Analysis of the statements on "Work Group Climate", indicated that most of the respondents 135(80%) said that work group members seldom involved in making decision that affect their, most of the respondents about 141 (83%) said that work group members seldom have cooperation & teamwork among teams, most of the respondents about 109 (65%) said that its seldom to make good use of individual differences of skills, styles and approaches, most of the respondents about 78 (46%) said that sometimes trust and mutual respect was found between work groups inside the institutions (Table 4.11).

8. Analysis of the statements on "Task requirements/ individual skills", indicated that most of the respondents about 65 (39%) said that they sometimes feel challenged in their present job, most of the respondents about 76 (45%) said that they sometimes believe on their skills, knowledge and experience that appropriately fit o current job, most of the respondents about 105 (62%) said that sometimes the right employees selected for promotion or assignment to project in institution, most of the respondents about 78 (46%) said that the employees sometimes ask for training and development (Table 4.12).

9. Analysis of the statements on "Motivation", indicated that most of the respondents about 72 (43%) said that they sometimes characterize employees morale, most of the

respondents about 76 (45%) said that they feel encouraged to achieve high levels and standards of performance in their work, most of the respondents about 110 (65%) said that they sometimes feel motivated towards institutions mission and purpose, most of the respondents about 75 (45%) said that they sometimes motivated to do what is needed by their university to achieve University's mission and purpose (Table 4.13).

10. Analysis of the statements on "Individual needs and values", indicated that most of the respondents 135 (80%) said that almost often the work they are currently performing is very meaningful, most of the respondents which are about 141 (83%) said that they seldom feel free to conduct the work they are in the way they think it should be done, most of the respondents about 110 (65%) claimed that they sometimes feel valued in their institutions, most of the respondents about 78 (46%) said that they sometimes feel a healthy balance between the work and personal life (Table 4.14).

11. Analysis of the statements on "Performance", indicated that most of the respondents 137 (80%) said that almost often institution effective at eliminating waste and inefficiency throughout the institution while 0(0%) agreed and 7(4%) said that institution effective at eliminating waste and inefficiency throughout the institution is almost always. Most of the respondents which are about 135(80%) said that they seldom feel institution make effective use of talented employees with standards and 12(7%) said that almost often and only 6 respondents means only 4% of the respondents agreed. Most of the respondents about 105(63%) claimed that they sometimes feel institution earn recognition as a world class competitor in our industry, 31(18%) said most often and only 7(4%) said that institution earn recognition as a world class competitor in our industry. Most of the respondents about 80(48%) said that they sometimes feel institution consistently meet revenue objectives, 43(26%) respondents said that institution consistently meet revenue objectives while few respondents i.e.,

only 6(4%) almost always feel institution consistently meet revenue objectives (Table 4.15).

12. Results depicted that the relationship between Transformational factor and transactional factors is significant at P < .001 when it comes with departmental and organizational level. However, from the results it is clear that both dimensions of triple loop learning are positively correlated. The value of correlation is .77 which shows high and positive correlation. As the correlation value lies between 0.6 to 0.79 which indicates high and positive correlation (Table 4.16).

13. Results depicted that the correlation between Transformational factor and transactional factors is significant at P < .001. Moreover, from the results it is clear that both dimensions of triple loop learning are positively correlated. The correlation value .732 shows high and positive correlation. The findings support that Transformational and transactional factors are a highly significantly positively correlated to each other (Table 4.17).

14. Results explained the relationship between the Transformational factor "Leadership" and elements of transactional factor. Results depicted that leadership dimension of Transformational factor is positively as well as significantly correlated with Management Practices and value of correlation coefficient r = .571, Structures having value of correlation coefficient r = .832, Systems including policies and procedures having value of correlation coefficient r = .692 elements of transactional factors. Leadership is also significantly positively correlated with transactional factor. Moreover, Transformational factor leadership showed moderate positive relationship with "management practices" and transactional factor itself, strong positive relationship with "systems including policies and procedures" while leadership has perfect strong positive relationship with structures (Table 4.18).

15. Results explained the relationship between the Transformational factor "Mission and strategy" and elements of transactional factor. Results depicted that Mission and strategy dimension of Transformational factor is positively as well as significantly correlated with Management Practices and value of correlation coefficient r = .511, Structures with value of correlation coefficient r = .432, Systems including policies and procedures having value of correlation coefficient r = .712 elements of transactional factors. Mission and strategy is also significantly positively correlated with transactional factor having value of correlation coefficient r = .832. Moreover, Transformational factor Mission and strategy showed moderate positive relationship with "management practices" and structures, strong positive relationship with "systems including policies and procedures" while Mission and strategy has perfect strong positive relationship with transactional factors itself (Table 4.19).

16. Results explained the relationship between the Transformational factor "Organizational culture" and elements of transactional factor. Results depicted that Organizational culture dimension of Transformational factor is positively as well as significantly correlated with Organizational Practices and value of correlation coefficient r = .451, Structures with value of correlation coefficient r = .402, Systems including policies and procedures having value of correlation coefficient r = .512 elements of transactional factors. Organizational culture is also significantly positively correlated with transactional factor having value of correlation coefficient r = .712. Moreover, Transformational factor "Organizational culture" showed moderate positive relationship with "management practices", structures and "systems including policies and procedures" while Organizational culture has strong positive relationship with transactional factors itself (Table 4.20).

17. Results depicted that the correlation between Transformational factor and Individual & Personal Factor is significant at P < .001. Moreover, from the results it is clear that both dimensions of triple loop learning are positively correlated. The correlation value .812 shows perfect high and positive correlation. The findings support that Transformational and individual & personal factor are perfectly significantly positively correlated to each other (Table 4.21).

18. Results explained the relationship between the Transformational factor "Leadership" and elements of Individual & Personal Factor. Results depicted that the Leadership dimension of Transformational factor is positively as well as significantly correlated with Work Unit Climate and value of correlation coefficient r = .551, with motivation having value of correlation coefficient r = .602, with Task requirements and Individual Skills/Abilities having value of correlation coefficient "r = .832", Individual needs and values having value of correlation coefficient r = .413 elements of individual & personal factors. Leadership is also significantly positively correlated with individual & personal factor having value of correlation coefficient r = .403. Moreover, Transformational factor "Leadership" showed moderate positive relationship with "work unit climate", individual needs & values and "individual & personal factor" itself" while leadership has strong positive relationship with motivation and perfect association with Task requirements and Individual Abilities (Table 4.22).

19. Results explained the relationship between the Transformational factor "Mission & Strategy" and elements of Individual & Personal Factor. Results depicted that the " Mission & Strategy " dimension of Transformational factor is positively as well as significantly correlated with Work Unit Climate and value of correlation coefficient r = .551, with motivation having value of correlation coefficient r = .602, with Task

requirements and Individual Skills/Abilities having value of correlation coefficient "r = .832", Individual needs and values having value of correlation coefficient r = .413 elements of individual & personal factors. Mission & Strategy is also significantly positively correlated with individual & personal factor having value of correlation coefficient r = .403. Moreover, Transformational factor "Mission & Strategy" showed moderate positive relationship with "work unit climate", individual needs & values and "individual & personal factor" itself" while Mission & Strategy has strong positive relationship with motivation and perfect association with Task requirements and Individual Skills (Table 4.23).

20. Results explained the relationship between the Transformational factor "Organizational culture" and elements of Individual & Personal Factor. Results depicted that the " Organizational culture " dimension of Transformational factor is positively as well as significantly correlated with Work Unit Climate and value of correlation coefficient r = .451 , with motivation having value of correlation coefficient r = .632, with Task requirements and Individual Skills/Abilities having value of correlation coefficient "r = .542", Individual needs and values having value of correlation coefficient r = .813 elements of individual & personal factors. Organizational culture is also significantly positively correlated with individual & personal factor having value of correlation coefficient r = .413. Moreover, Transformational factor "Organizational culture" showed moderate positive relationship with "work unit climate", project requirements and Individual Skills/Abilities and "individual & personal factor" itself" while Organizational culture has strong positive relationship with motivation and very strong association with individual needs and values (Table 4.24).

21. Results depicted that the correlation between individual and personal factor and transactional factors is significant at P < .001. Moreover, from the results it is clear that both dimensions of triple loop learning are positively correlated. The correlation value .632 shows high and positive correlation. The findings support that personal and individual and transactional factors are a highly significantly positively correlated to each other (Table 4.25).

22. Results explained the relationship between the transactional factor "Management practices" and elements of Individual & Personal Factor. Results depicted that the Management practices dimension of transactional factor is positively as well as significantly correlated with Work Unit Climate and value of correlation coefficient r = .551, with motivation having value of correlation coefficient r = .602, with Task requirements and Individual Skills/Abilities having value of correlation coefficient "r = .832", Individual needs and values having value of correlation coefficient r = .413 elements of individual & personal factors. Management practices is also significantly positively correlated with individual & personal factor having value of correlation coefficient r = .403. Moreover, transactional factor "Management practices" showed moderate positive relationship with "work unit climate", individual needs & values and "individual & personal factor" itself" while Management practices has strong positive relationship with motivation and perfect association with Task requirements and Individual Skills/Abilities (Table 4.26).

23. Results explained the relationship between the transactional factor "Structure" and elements of Individual & Personal Factor. Results depicted that the "Structure" dimension of transactional factor is positively as well as significantly correlated with Work Unit Climate and value of correlation coefficient r = .551, with motivation having value of correlation coefficient r = .602, with Task requirements and

Individual Skills/Abilities having value of correlation coefficient "r = .832", Individual needs and values having value of correlation coefficient r = .413 elements of individual & personal factors. Structure is also significantly positively correlated with individual & personal factor having value of correlation coefficient r = .403. Moreover, transactional factor "Structure" showed moderate positive relationship with "work unit climate", individual needs & values and "individual & personal factor" itself" while Structure has strong positive relationship with motivation and perfect association with Task requirements and Individual Skills/Abilities (Table 4.27).

24. Results explained the relationship between the transactional factor "Systems including policies and procedures" and elements of Individual & Personal Factor. Results depicted that the " Systems including policies and procedures " dimension of transactional factor is positively as well as significantly correlated with Work Unit Climate and value of correlation coefficient r = .451, with motivation having value of correlation coefficient r = .632, with Task requirements and Individual Skills/Abilities having value of correlation coefficient "r = .542", Individual needs and values having value of correlation coefficient r = .813 elements of individual & personal factors. Systems including policies and procedures is also significantly positively correlated with individual & personal factor having value of correlation coefficient r = .413. Moreover, transactional factor "Systems including policies and procedures" showed moderate positive relationship with "work unit climate", Task requirements and Individual Skills/Abilities and "individual & personal factor" itself" while Systems including policies and procedures has strong positive relationship with motivation and very strong association with individual needs and values (Table 4.28).

25. Results displayed that R^2 Value was 0.71. It shows that the research variable (external environment of the university) described 71 % variation in triple loop learning and the rest was in result of mediating factors. The coefficient (β= .24) showed that this effect was statistically significant at p<0.05. Therefore, the hypothesis "There is no significant effect of external environment on triple loop learning in organizational practices in context of university practices" is failed to be accepted. Therefore, it is determined that the external environment of the university has a significant effect on triple loop learning (Table 4.29).

26. Results displayed that R^2 Value was 0.61. It shows that the research variable (external environment) indicated 61 % variation in Transformational factor (a dimension of triple loop learning) and the rest was in result of mediating factors. The coefficient (β= .23) shows that this effect was statistically significant at p<0.05. Therefore, the hypothesis "There is no significant effect of external environment on Transformational factors in organizational practices in context of university practices" is failed to be accepted. Therefore, it is determined that the external environment of the university has a significant effect on Transformational factor related to triple loop learning (Table 4.30).

27. Results indicated that R^2 Value was 0.69. It shows that the research variable (external environment of the university) described 69 % variation in Transformational factor (a dimension of triple loop learning) and the rest was in result of mediating factors. The coefficient (β= .21) shows that this effect was statistically significant at p<0.05. Therefore, the hypothesis "There is no significant effect of external environment on transactional factor related to triple loop learning in organizational practices in context of university practices" is failed to be accepted. Therefore, it is determined

that the external environment of the university has a significant effect on transactional factor related to triple loop learning (Table 4.31).

28. Results indicated that R^2 Value was 0.59. It indicated that the research variable (external environment) described 59 % variation in Individual and Personal Factor (a dimension of triple loop learning) and the rest was in result of mediating factors. The coefficient (β= .31) indicated that this effect was statistically significant at p<0.05. Therefore, the hypothesis "There is no significant effect of external environment on Individual and Personal Factor in organizational practices in context of university practices" is failed to be accepted. Therefore, it is determined that the external environment of the university has a significant effect on Individual and Personal Factor related to triple loop learning. Results depicted that the correlation between Transformational factor and transactional factors is significant at P < .001. Moreover, from the results it is clear that both dimensions of triple loop learning are positively correlated. The correlation value.732 shows strong positive correlation. The findings support that Transformational and transactional factors are a highly significantly positively correlated to each other (Table 4.32).

5.3. Discussion

From the results of this research, it was found that triple loop learning and its dimensions significantly influence university practices. The identified practices factors that are clearly identified by current results are (a) management commitment that looks like leadership, (b) employee needs and empowerment as motivation, and (c) performance related measures. Subsequent re-evaluation for feedback in the form of annual feedback and reviews, (d) systematic support for documented processes and policies, (e) communication to improve external environmental focus and external stakeholder support, and (f) motivational and individual traits or prevention of change in organizational culture issues in

terms of stakeholders' practices. A strong positive correlation was found between the different aspects of triple loop learning and also found that as cited in Ahmad *et al*., (2021) that there was a significant correlational effect of the external environment on triple loop learning and its dimensions such as transition, transaction and individual and personal. Institutional performance in universities has become one of the most versatile and complex phenomena.

The results of first objective indicated that the employees help their colleagues while they are absent or when they have a workload to solve the problems of the organization. Shaikh (2023) support these findings that external environment may be efficient for the organization because it helps the management to embed the contemporary needs and trends to incorporate the global challenges in order to development and growth of the organization in terms of professional behavior, policy making, implementing and execution of these practices and establishing work ethics in professional working environment. The individuals can utilize their time to help their co members. The findings support that Transformational and transactional factor are a highly significantly positively correlated to each other. Further analysis was being done to identify the relationship between sub variables of Transformational and transactional factors.

The findings of the study intimated that in triple loop learning practices teachers showed concern toward their organization by accepting the challenging tasks, following the rules and regulations, and perform their duty beyond their formal responsibilities. But on the other hand, management including academic managers and Heads 'responses show that that the external environment has a significant effect on triple loop learning in context to organizational practices. But regarding rule regulations, policies the response received was quite impressive. Based on the responses it could be concluded that organizational work culture is less practiced dimension of organizational practices than other factors of triple

loop learning e.g., Transformational and transactional factors. This dimension proved to be significant according to the response of the participants. Bell *et al*. (2022) acquiesce that an employee who practices policies implementation and involved in execution of those policies e.g., management, Deans and administration is more informed and up to date about the advanced information in comparison of faculty and other employees. The descriptive statistics disclosed that the average score of the responses of leadership and related sub dimensions and reflected the results that personal and individual factor is more significant as compare to the transactional and Transformational factors when it comes to the organizational practices. Result revealed that faculty possessed less interest in their organization by attending meetings, participating in training sessions, and volunteer work in universities' committees etc. the perceptions According to Graham (1991), it is the responsibility of the employees to follow organizational rules and responsibilities of the organization to create a better place to work. It is determined from the result analysis that the external environment of the university has a significant effect on Individual and Personal Factor related to triple loop learning. Results depicted that the correlation between Transformational factor and transactional factors is significant at P < .001. Moreover, from the results it is clear that both dimensions of triple loop learning are positively correlated with each other. The value of correlation is .732 which shows strong positive correlation. The findings support that Transformational and transactional factors are a highly significantly positively correlated to each other. Further analysis was being done to identify the relationship between sub variables of Transformational and transactional factors.

In their study Jacqueline *et al.* (2004) concluded that the practices related to Transformational factors are more helpful for the development of organizational

development in an organization as compared to other dimensions and these Transformational dimensions have a positive relationship. Other researchers also confirmed these findings in different contexts. The findings of the study of Swati *et al.* (2012) are identical with the current study as they confirm and direct the relationship between Organizational practices and different dimensional factors of triple loop (transactional and personal factors).

Konovsky & Organ (1996) study had similar findings, also Bukhari *et al.* (2009) study correlation results also show the relationship between Organizational practices and external environment. The results of correlation analysis rejected the null hypothesis. Also, the result of the regression analysis confirms the strong correlation between Transformational and transactional factors. Many authors have speculated on some other type of organizational practice, the most outstanding of which is the time period 'triple-loop' learning (Flood & Romm; 2018; Isaacs, 1993; Snell, 2002; Yuthas *et al.*, 2004). Effective change calls for powerful and sturdy students due to the fact the function of college students is a way more than absolutely communicating new strategies (Burke & Litwin, 1992). Educational institutions need to change the policies and working structure in order to address the global challenges for growth. Management structure needs to fill the gap of communication in order to implement and execute the policies with their true spirit. They formulate organizational polices and rules including their implementation and effect results. The studies additionally observed that the management style of universities'' management affects the performance of the universities both academically as well as administratively. Bennett & Durkin (2000) identified the negative consequences of employees' individual and personal factors. Consequently, it's far critical for managers to influence their subordinates, colleagues and higher management to inspire and support them in implementing their proposals, plans and decisions (Blickley et al., 2013). Sousa and Coelho,

(2011) additionally promotes organizational practices and its positive effects when triple loop practices followed by the universities when they were formulated the policies and project with the mutual interests of all the stakeholders. However, organizational commitment is one of the personal factors which is the determinant of employees' achievement toward the higher performance of the organization, which has been highlighted many times in preceding literature (Chin, Chan & Lam, 2008; Khan *et al*., 2011; Rana & Routray, 2018). The other dimension of triple loop learning is "personal and individual" in any organizational development and progress, which transfers productivity stage and performance through all the stakeholders of the organization. The positive significances of Transformational factors are mediated via the transactional elements. External environment seems more significant rather than transaction factors that appear to be crucial to encourage feedback-based assessment behavior.

It is evident with previous research that organizational practices varied and transformed through assessment and feedback system, when they apprehend their evaluation duties, experience open and continues assessments within the departments on the subject of assessment feedback practices and management included administrative and higher management encouraged those policies which made the employees including heads and faculty more accountable for their work responsibilities when implementing the evaluation. Assessment system helps the organizations in executing how assessment and feedback is to be carried out in the universities from their implementation in the organizational, departmental and individual levels to every stakeholder of the organization through triple loop factors (Boyle *et al*., 1999; Burke & Litwin, 1992; Huffman, 2006).

Findings depicted that the relationship between Transformational factor and transactional factors is significant when it comes with departmental and organizational level. However, from the results it is clear that both dimensions of triple loop learning are

positively correlated. The findings of Williams (2014) and Greenhow, & Lewin (2021) support that Transformational and transactional factors are a highly significantly positively correlated to each other at departmental level as compared to organization.

Findings indicated that both dimensions of triple loop learning are positively correlated. The value of correlation shows high and positive correlation. The triple learning loop indicated that correlation value is significant which means that it is highly significant. The study of Ramish, & Aslam (2016) and Gupta (2016) indicated that Transformational and transactional factors are a highly significantly positively correlated to each other.

Results indicated the relationship between the Transformational factor "Leadership" and elements of transactional factor. Results depicted that leadership dimension of Transformational factor is positively as well as significantly correlated with Management Practices, Structures, Systems including policies and procedures and elements of transactional factors. Liao et al. (2010) and Janousek (2017) informed that Transformational factor leadership showed moderate positive relationship with "management practices" and transactional factor, strong positive relationship with "systems including policies and procedures" while leadership has perfect strong positive relationship with structures.

Findings indicated the relationship between the Transformational factor "Mission and strategy" and elements of transactional factor. Results depicted that Mission and strategy dimension of Transformational factor is positively as well as significantly correlated with Management Practices, structures, Systems including policies and procedures. Mission and strategy is also significantly positively correlated with transactional factor. The results were in line with the study of Hummelbrunner (2015), Transformational factor Mission and strategy showed moderate positive relationship with "management practices" and structures, strong positive relationship with "systems including policies and procedures" while Mission and strategy has perfect strong positive relationship

with transactional factors itself.

The study also indicated the relationship between the Transformational factor "Organizational culture". Results depicted that Organizational culture dimension of Transformational factor is positively as well as significantly correlated with Management Practices and value of correlation coefficient, Structures, Systems including policies and procedures and elements of transactional factors. Greenhow, & Lewin (2021) also explored that, Transformational factor "Organizational culture" showed moderate positive relationship with "management practices", structures and "systems including policies and procedures" while Organizational culture has strong positive relationship with transactional factors itself.

Findings depicted that the correlation between Transformational factor and Individual & Personal Factor is significant. Moreover, from the results it is clear that both dimensions of triple loop learning are correlating positively. The correlation coefficient indicates perfect high and positive correlation. The findings of other studies support that Transformational and individual & personal factor are perfectly significantly positively correlated to each other (Cooper, 2015; Elliott, et al. 2011; Goldie, 2016).

Findings indicated the relationship between the Transformational factor "Leadership" and elements of Individual & Personal Factor. Results of Hyun et al. (2011) also depicted that the Leadership dimension of Transformational factor is positively as well as significantly correlated with Work Unit Climate, motivation, Task requirements and Individual Skills/Abilities, Individual needs and values and elements of individual & personal factors. Moreover, the results were contradictory with the study conducted by Kuchibhatla, et al. (2020), which indicated that Transformational factor "Leadership" showed low relationship with "work unit climate", individual needs & values and "individual & personal factor".

Findings indicated the relationship between the Transformational factor "Mission & Strategy" and elements of Individual & Personal Factor. Results of the study by Tanabe, (2021) also depicted that the " Mission & Strategy " dimension of Transformational factor is positively as well as significantly correlated with Work Unit Climate, motivation, Task requirements and Individual Skills/Abilities, Individual needs and values elements of individual & personal factors. Yagci, (2017) also mentioned that transformational factor "Mission & Strategy" showed moderate positive relationship with "work unit climate", individual needs & values and "individual & personal factor".

Results were also in line with the study conducted by Yi et al. (2020) indicated the relationship between the Transformational factor "Organizational culture" and elements of Individual & Personal Factor. Results depicted that the "Organizational culture" dimension of Transformational factor is positively as well as significantly correlated with Work Unit Climate, motivation, Task requirements and Individual Skills/Abilities, Individual needs and values. Organizational culture is also significantly positively correlated with individual & personal factor. Polanco, et al. (2015) also indicted that Transformational factor "Organizational culture" showed moderate positive relationship with "work unit climate", Task requirements and Individual Skills/Abilities and "individual & personal factor".

Findings depicted that the correlation between individual and personal factor and transactional factors is significant. Moreover, from the results it is clear that both dimensions of triple loop learning are positively correlated. The correlation coefficient shows high and positive correlation. The findings support that personal and individual and transactional factors are a highly significantly positively correlated to each other. The above results were found consistent with various studies with similar results (Rana, & Routray, 2018; Reynolds, 2014; Wang, & Ahmed; 2003).

Veysel (2014) indicated the relationship between the transactional factor

"Management practices" and elements of Individual & Personal Factor. Ordov (2019) also depicted that the Management practices dimension of transactional factor is positively as well as significantly correlated with Work Unit Climate, motivation, Task requirements and Individual Skills/Abilities,   Individual needs and values elements of individual & personal factors. Management practices is also significantly positively correlated with individual & personal factor. Ortenblad, (2010) conducted a study and found that, transactional factor "Management practices" showed moderate positive relationship with "work unit climate", individual needs & values and "individual & personal factor".

Shaikh, (2023) found relationship between the transactional factor "Structure" and elements of Individual & Personal Factor. Results depicted that the "Structure" dimension of transactional factor is positively as well as significantly correlated with Work Unit Climate, motivation, Task requirements and Individual Skills/Abilities, Individual needs and values elements of individual & personal factors. Structure is also significantly positively correlated with individual & personal factor. Shah et al. (2020) also found that, transactional factor "Structure" showed moderate positive relationship with "work unit climate", individual needs & values and "individual & personal factor".

The study conducted by Liao, et al. (2010) indicated the relationship between the transactional factor "Systems including policies and procedures" and elements of Individual & Personal Factor. Results depicted that the "Systems including policies and procedures" dimension of transactional factor is positively as well as significantly correlated with Work Unit Climate, motivation, Task requirements and Individual Skills/Abilities, Individual needs and values, elements of individual & personal factors. Systems including policies and procedures is also significantly positively correlated with individual & personal factor. A study by Rana, & Routray, (2018) indicated that Transactional factor "Systems including policies and procedures" showed moderate positive relationship with "work unit climate",

Task requirements and Individual Skills/Abilities and "individual & personal factor".

The study indicated that the research variable (external environment of the university) described high variation in triple loop learning and the rest was due to other factors. Reynolds, (2014) supports the findings of this study by indicating that showed that this effect was statistically significant. Therefore, it is determined that the external environment of the university has a significant effect on triple loop learning.

It was found that the research variable (external environment) described moderate variation in Transformational factor (a dimension of triple loop learning) and the rest was due to other factors. A study by Smith, et al. (2017) supports the current study's findings shows that this effect was statistically significant. Therefore, it is determined that the external environment of the university has a significant effect on Transformational factor related to triple loop learning.

Moreover the study indicated that the research variable (external environment of the university) described high variation in Transformational factor (a dimension of triple loop learning) and the rest was due to other factors. These results were in line with the study conducted by Watkins, & Kim (2018) which shows that this effect was statistically significant. Therefore, it is determined that the external environment of the university has a significant effect on transactional factor related to triple loop learning.

Results also indicated that the research variable (external environment) mentioned moderate variation in Individual and Personal Factor (a dimension of triple loop learning) and the rest was in result of mediating factors. Results shows that this effect was statistically significant. Therefore, it is determined that the external environment of the university has a significant effect on Individual and Personal Factor related to triple loop learning. The above findings were consistent with various studies with similar results (Kwon & Nicolaides, 2017; Hwang & Wang, 2016; Matthies & Coners, 2018; McClory, Read & Labib, 2017).

5.4. Conclusions

The study's descriptive analysis illuminated various stakeholder practices concerning triple-loop learning factors in university contexts. The conclusions drawn from the analysis indicated that factors related to the role of "Mission and Strategy" in organizational practices and initiatives of universities indicated that majority of the respondents agreed that employees more often articulate the University's mission, strategy, basic beliefs (i.e; values and aspirations (i.e., key elements of the university's philosophy). The assessment of "Leadership" in the setting of a universities indicated that majority of the respondents agreed that senior faculty/Administrative staffs of the university try to make an effort to keep in personal touch with staff at your level. The assessment of "Culture" in the setting of a universities indicated that majority of the respondents agreed that employees learn from past experiences so that history does not repeat itself and feel comfortable bringing up their issues and concerns. The assessment of "Structure" in the setting of a universities indicated that majority of the respondents agreed that University's structure help different departments work together effectively. The assessment of "Management Practices" in the setting of a universities indicated that majority of the respondents agreed that administrators demonstrate a concern for the employees and students. The assessment of "Systems" in the setting of a universities indicated that majority of the respondents agreed that employees informed about issues affecting you and your jobs. The assessment of "Work group climate" in the setting of a universities indicated that majority of the respondents agreed that there is trust and mutual respect between your work group and other groups inside the institution. The assessment of "Task requirements/ individual skills" in the setting of a universities indicated that majority of the respondents agreed that they feel challenged in your present job. The assessment of "Motivation" in the setting of a universities indicated that majority of the respondents agreed that administrators characterize employee morale.

The assessment of "Individual needs and values" in the setting of a universities indicated that majority of the respondents agreed that their official tasks are meaningful to them. The assessment of "Performance" in the setting of a universities indicated that majority of the respondents agreed that institutions are effective at eliminating waste and inefficiency throughout the institution.

The findings revealed that the Transformational factor's leadership dimension is positively and significantly correlated with moderate positive relationships with "management practices" and the transactional factor itself, strong positive relationships with "systems including policies and procedures," and perfect strong positive relationships with structures. Likewise, the Transformational factor "Mission & Strategy" had a moderately positive relationship with "work unit climate," "individual needs & values," and "individual & personal factor" itself, while Mission & Strategy has a strong positive relationship with motivation and a perfect association with Task requirements and Individual Skills/Abilities. It is concluded that the Transformational factor "Organizational culture" is significantly and strongly correlated with Work Unit Climate, Motivation, Task requirements, and Individual Skills/Abilities, Individual Needs, and Values elements of individual and personal variables. Individual and personal factors are also substantially connected with organizational culture.

Findings revealed that the Transactional Factor's Management Practices dimension is positively and significantly correlated with Work Place Environment, Motivation, Task Requirements, Individual Skills/Abilities, Individual Needs and Values, and parts of individual and personal characteristics. Individual and personal factors are also significantly associated with management techniques. While the transactional factors "Practices and policies" has a strong positive relationship with "overall organizational environment," "individual needs and values," and "individual & personal factor" itself, Management practices has a strong positive relationship with motivation and a perfect association with

Task requirements and Individual Skills/Abilities. The analysis indicates that the transactional factor's "Systems including policies and procedures" dimension is positively and significantly correlated with Work Unit Climate, Motivation, Task requirements, Individual Skills/Abilities, Individual Needs and Values, and elements of individual & personal factors. This study concludes that triple loope learning is a major variant for organizational excellence. Overall, this study reflects that transformational factors were manifested at a lower level, so these require to be addressed in the best interest of universities.

5.5. Recommendations

1. University management may consider introducing targeted programs to infuse elements of "Transformational" learning. These programs may include faculty development workshops interdisciplinary collaboration incentives, and innovative curriculum design to encourage transformative educational experiences.

2. University management may encourage and facilitate collaboration across departments and disciplines. This may involve creating platforms for knowledge sharing, interdisciplinary research projects, and cross-functional teaching teams to enhance both "Transactional" and "Individual & Personal" learning.

3. To effectively implement TLL within the university, it is crucial to engage all stakeholders at different levels, including administrators, faculty, staff, students, and external partners. This comprehensive engagement will ensure that diverse perspectives are considered, and a shared understanding of the TLL process is developed.

4. Fostering a culture of continuous learning within the university community may help in enhancing the process of triple loop learning among all stake holders. Encouraging open dialogue, constructive feedback, and a willingness to change.

5. University management may provide platforms for stakeholders to engage in reflective practices and knowledge sharing sessions. Regular forums, workshops, and seminars may be organized to enable stakeholders to critically analyze their actions, identify learning opportunities, and share insights from their experiences with TLL. These activities will contribute to the development of collective intelligence and an organizational learning repository.

Future Recommendations for enhanced generalizability:

1. Future studies may be carried out with different samples in context of public/private comparisons among universities of Pakistan.

2. Qualitative research design may be adopted for in-depth exploration of the existing phenomena.

3. Transformational factors with reference to triple loope learning may be explored further on different populations.

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APPENDICES

Appendix A

Topic Approval Letter

NATIONAL UNIVERSITY OF MODERN LANGUAGES
FACULTY OF SOCIAL SCIENCES
DEPARTMENT OF EDUCATION

ML.1-4/2017/Edu

Dated: 15-08-2018

To: NABEELA SHAKUR,
670-PHD/EDU/S17

Subject: **CHANGE OF PHD. THESIS TOPIC**

Reference Acad Branch's Notification No. ML.6-2/18-Syl/Acad dated 31st of July 2018.

1. The Faculty Board of Studies has approved change of topic for research vide its meeting held on 15th of May 2018. Now, your revised topic for research thesis is "**Assessment of University Stakeholders' Practices in the Context of Triple-Loop Learning.**"

2. Rest of the terms & conditions are same as of previously issued topic approval letter# ML.1-4/2018/Edu dated 15-05-2018.

Dr. Hukam Dad Malik
Head,
Department of Education

Cc to:
Dean F.S.S
Dr. Mariam Din (Supervisor)

Appendix B

Data Collection Reference Letter

DEPARTMENT OF EDUCATION
FACULTY OF SOCIAL SCIENCES
National University of Modern Languages
Sector H-9, Islamabad
Tel.No: 051-9265100 Ext: 2090

ML.1-3/2020-Edu

Dated: 10-3-2020

TO WHOM SO EVER IT MAY CONCERN

Ms. Nabeela Abbasi student of Ph.D Education, Department of Education, National University of Modern Languages is engaged in Research Work. She may please be provided relevant information for her research work.

The information shall not be divulged to any unauthorized person or agency. It shall be kept confidential.

Dr. Hukam Dad Malik
Head,
Department of Education.

<div align="right">**Appendix C**</div>

<div align="center">**Cover Letter for Validity Certificate**</div>

Assessment of University Stakeholders' Practices in the Context of Triple-Loop Learning

Subject: **Request for Validity Certificate**

Respected Sir / Madam,

I have attached my questionnaire adopted for the purpose of research titled as "Assessment of university stakeholder's practices in the context of Triple loop learning" It is a standardized questionnaire based on Burke Litwin model of change (1992).

Thus, there are 4 major sections in the questionnaire; in each section further sub sections have been made according to the nature of strategies. Following is the elaboration of this division.

Transactional Factors
Transformational Factors
Individual and Personal Factors
External Environment

Kindly check my questionnaire, its content and construction, provide your valuable suggestions for its improvement and certify its validity by filling the certificate attached at the end of the document.

<div align="right">
Nabeela Shakur Abbasi
Ph.D. Scholar, Dept of Education,
National University of Modern Languages,
Islamabad, Pakistan
</div>

Appendix D

Sample Validity Certificate

VALIDATION CERTIFICATE

Assessment of University Stakeholders' Practices in the Context of Triple-Loop Learning

This is certifying that I have assessed the standardized questionnaire adopted by the Nabeela Shakur (PhD Scholar, System ID #PD-EDU-AS17-ID-001) towards her thesis and I find it to have been designed adequately to explore "Assessment of University Stakeholders' Practices in the Context of Triple-Loop Learning".

It is considered that the research instrument, developed for the above-titled research, is according to the objectives. It assures adequate construct and content validity according to the purpose of the research, and can be used for data collection by the researcher with fair amount of confident.

Name

_____

Designation

_____

Institute

_____

Signature

_____

Appendix E

List of Experts for Tool Validation

1. Brig ®. Prof. Dr. Allah Bakhsh Malik
2. Prof. Dr. Allah Rakha Saghir
3. Dr. Ishrat Siddiqa Lodhi

Appendix F

Research Instrument Validation Certificate

CERTIFICATE OF VALIDITY

Assessment of University Stakeholders' Practices in the Context of Triple-Loop Learning

This is certifying that the standardized questionnaire adopted by the Nabeela Shakur (PhD Scholar, System ID # PD-EDU-AS17-ID-001) towards her thesis has been assessed by me and I find it to have been designed adequately to explore "Assessment of University Stakeholders' Practices in the Context of Triple-Loop Learning".

It is considered that the research instrument, developed for the above-titled research, is according to the objectives. It assures adequate construct and content validity according to the purpose of the research, and can be used for data collection by the researcher with fair amount of confident.

Name _____

Designation _____

Institute _____

Signature _____

VALIDATION CERTIFICATE

Assessment of University Stakeholders' Practices in the Context of Triple-Loop Learning

This is certifying that I have assessed the standardized questionnaire adopted by the Nabeela Shakur (PhD Scholar, System ID #PD-EDU-AS17-ID-001) towards her thesis and I find it to have been designed adequately to explore "Assessment of University Stakeholders' Practices in the Context of Triple-Loop Learning".

It is considered that the research instrument, developed for the above-titled research, is according to the objectives. It assures adequate construct and content validity according to the purpose of the research, and can be used for data collection by the researcher with fair amount of confident.

Name _Dr. Allah Rakha Saghir_

Designation _Professor (visiting)_
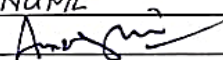
Institute _NUML_

Signature _____

VALIDATION CERTIFICATE

Assessment of University Stakeholders' Practices in the Context of Triple-Loop Learning

This is certifying that I have assessed the standardized questionnaire adopted by the Nabeela Shakur (PhD Scholar, System ID #PD-EDU-AS17-ID-001) towards her thesis and I find it to have been designed adequately to explore "Assessment of University Stakeholders' Practices in the Context of Triple-Loop Learning".

It is considered that the research instrument, developed for the above-titled research, is according to the objectives. It assures adequate construct and content validity according to the purpose of the research, and can be used for data collection by the researcher with fair amount of confident.

Name Dr. Ishrat Siddiqa Lodhi.

Designation Associate Professor.

Institute Fatima Jinnah Women University.

Signature _____

Appendix G

List of Universities

S#	University	S#	University
1.	International Islamic University Islamabad	13.	Quaid-e-Azam University, Islamabad
2.	Air University, Islamabad	14.	Shaheed Zulfiqar Ali Bhutto Medical University,
3.	Bahria University, Islamabad	15.	Fatima Jinnah Women university, Rawalpindi,
4.	COMSATS Institutes of Information Technology, Islamabad	16.	Pir Mehr Ali Shah Arid Agriculture University, Rawalpindi
5.	Foundation University, , Islamabad	17.	National University of Medical Sciences, Rawalpindi
6.	Institute of Space and Technology, Islamabad	18.	Rawalpindi Women University, Rawalpindi
7.	National Defense University, Islamabad	19.	National Institute of Psychology, Quaid-e-Azam University, Islamabad.
8.	National University of Modern Languages, Islamabad	20.	Pakistan Institute of Engineering and Applied Sciences, , Islamabad
9.	National University of Sciences and Technology, Islamabad	21.	Shaheed Zulfiqar Ali Bhutto Medical University, Inside the Pakistan Institute of Medical Sciences
10.	National University of Technology, Islamabad	22.	The Federal University of Arts, Science and Technology Islamabad
11.	Pakistan Institute of Development Economics, Islamabad	23.	University of Engineering and Technology Taxila, Rawalpindi
12.	Pakistan Institute of Engineering and Applied Sciences, Islamabad	24.	Rawalpindi Medical University, Rawalpindi

Appendix H

DEMOGRAPHICS

1. Gender
- Male
- Female

2. Professional experience in completed years
- 0-5 Years
- 6-10 Years
- 11-15 Years
- 16-20 Years
- above 20 Years

3. Highest academic qualifications

- Postgraduate
- Post Doctorate

4. Designation
- Dean
- Head of Department
- Professor
- Associate professor
- Assistant Professor
- Lecturer
- Manager
- Administrator

BURKE-LITWIN SURVEY

Triple-loop learning is also called transformational learning and BURKE-LITWIN survey is based upon institutional learning by keeping in mind 12 key concepts of institution

EXTERNAL ENVIRONMENT

The outside conditions or situations that influence performance of the institution (e.g., government policy, competition, consumers (students/ parents)).

1.	What is the rate of change your institution is currently experiencing?	Almost Never	Seldom	Sometimes	Most Often	Almost Always
2.	Does pressure from your institution's environment affect the day-to-day lives of employees who run the institution; i.e., how insulated are the employees who run the institution from the environment?	Almost Never	Seldom	Sometimes	Most Often	Almost Always
3.	How responsive do you think faculty/Administrative staff in your institution are to external factors; e.g., consumers (students/ parents), competition, changes in technology, the economy, etc.?	Almost Never	Seldom	Sometimes	Most Often	Almost Always

In the next question, consumers (students/ parents) refer to the immediate user of services or products provided by your institution

4.	How responsive do you think faculty/Administrative staff in your institution are to external factors; e.g., consumers (students/ parents), competition, changes in technology, the economy, etc.?	Almost Never	Seldom	Sometimes	Most Often	Almost Always

MISSION & STRATEGY

The mission is the overall purpose of the institution, what is wants to achieve, the strategy is the means by which the institution intends to achieve the mission.

5.	To what extent can employees articulate the institution's mission, strategy, basic beliefs & values and aspirations (i.e., key elements of the institution's philosophy)?	Almost Never	Seldom	Sometimes	Most Often	Almost Always
6.	To what extent can employees identify the institution's competitive strengths (i.e., how it differs from competition)?	Almost Never	Seldom	Sometimes	Most Often	Almost Always
7.	To what extent can employees articulate the institution's desired public image (i.e., how it wants to be perceived)	Almost Never	Seldom	Sometimes	Most Often	Almost Always
8.	How widely shared is the institution's strategy among employees (i.e., how widely is it communicated?)	Almost Never	Seldom	Sometimes	Most Often	Almost Always

LEADERSHIP

The most senior level executives in the institution

9.	To what extent do senior faculty/Administrative staff promote ethics and integrity in the institution, i.e., what the institution stands for, its purpose, its standing in the larger community?	Almost Never	Seldom	Sometimes	Most Often	Almost Always
10.	To what extent do the senior faculty/Administrative staffs of the institution make an effort to keep in personal touch with staff at your level?	Almost Never	Seldom	Sometimes	Most Often	Almost Always
11.	Do the senior faculty/Administrative staffs of the institution inspire employees to achieve the mission?	Almost Never	Seldom	Sometimes	Most Often	Almost Always
12.	To what extent does the behavior of senior faculty/Administrative staff demonstrate their beliefs in the values need for	Almost Never	Seldom	Sometimes	Most Often	Almost Always

CULTURE

The "way things are done around here"; this includes the values, beliefs, and norms that drive employee's actions.

13.	To what extent does your institution's culture value its owners (shareholders, members, taxpayers, etc.)?	Almost Never	Seldom	Sometimes	Most Often	Almost Always
14.	Do employees feel comfortable bringing up their issues and concerns?	Almost Never	Seldom	Sometimes	Most Often	Almost Always
15.	To what extent do employees learn from past experiences so that history does not repeat itself?	Almost Never	Seldom	Sometimes	Most Often	Almost Always
16.	To what extent is new knowledge transferred throughout the institution quickly and efficiently?	Almost Never	Seldom	Sometimes	Most Often	Almost Always

STRUCTURE

How the institution is designed (levels, roles, responsibilities, etc.) to achieve its mission

The following items refer to the structure of your institution; how it is currently organized to accomplish its mission and strategy.

17.	To what extent does the institution's structure help different departments work together effectively?	Almost Never	Seldom	Sometimes	Most Often	Almost Always
18.	Does the structure support the accomplishment of the institution's mission and strategy?	Almost Never	Seldom	Sometimes	Most Often	Almost Always
19.	To what extent do faculty/Administrative staff give employees the authority they need to accomplish their work effectively?	Almost Never	Seldom	Sometimes	Most Often	Almost Always
20.	For faculty/Administrative staff in your institution, how would you characterize the breadth and depth of responsibilities they are expected to manage	Almost Never	Seldom	Sometimes	Most Often	Almost Always

MANAGEMENT PRACTICES

Behavior that faculty/Administrative staff exhibit in the normal course of events on a daily basis

21.	To what extent does your manager recognize innovation?	Almost Never	Seldom	Sometimes	Most Often	Almost Always
22.	To what extent does your manager demonstrate a concern for the customer?	Almost Never	Seldom	Sometimes	Most Often	Almost Always
23.	To what extent does your manager encourage communication up, down and across?	Almost Never	Seldom	Sometimes	Most Often	Almost Always
24.	To what extent does your manager promote career development of employees?	Almost Never	Seldom	Sometimes	Most Often	Almost Always

SYSTEMS

The standardized policies, procedures, rewards, and information systems that facilitate and reinforce employee's work

25.	With respect to how faculty/Administrative staff in your institution is rewarded, what is the balance between results and how the manager (their behavior) achieves these results?	Almost Never	Seldom	Sometimes	Most Often	Almost Always
26.	How well informed do you feel about issues affecting the institution as a whole?	Almost Never	Seldom	Sometimes	Most Often	Almost Always
27.	How well informed do you feel about issues affecting your division, function, area, or department?	Almost Never	Seldom	Sometimes	Most Often	Almost Always
28.	How well informed do you fell about issues affecting you and your jobs?	Almost Never	Seldom	Sometimes	Most Often	Almost Always

WORK GROUP CLIMATE

The collective impressions, expectations and feelings that members of work groups have affect their relationships with each other.

29.	To what extent are work group members involved in making decisions that affect their work?	Almost Never	Seldom	Sometimes	Most Often	Almost Always
30.	Is there cooperation and teamwork between you and your colleagues?	Almost Never	Seldom	Sometimes	Most Often	Almost Always
31.	To what extent does your work group make good use of individual differences of style, approach and skills?	Almost Never	Seldom	Sometimes	Most Often	Almost Always
32.	Is there trust and mutual respect between your work group and other groups inside the institution?	Almost Never	Seldom	Sometimes	Most Often	Almost Always

TASK REQUIREMENTS/INDIVIDUAL SKILLS

The specific skills and abilities that employees need to do their work and how well these skills match the requirements of their jobs.

33.	How challenged do you feel in your present job?	Almost Never	Seldom	Sometimes	Most Often	Almost Always
34.	To what extent do you believe your skills, knowledge, and experience appropriately fit the job you currently hold?	Almost Never	Seldom	Sometimes	Most Often	Almost Always
35.	To what extent are the right employees selected for promotion or assignment to projects in your institution?	Almost Never	Seldom	Sometimes	Most Often	Almost Always
36.	Do employees feel they can request formal training and development?	Almost Never	Seldom	Sometimes	Most Often	Almost Always

MOTIVATION

Employees' desire to achieve both their own goals and the goals of the institution

37.	How would you characterize employee morale?	Almost Never	Seldom	Sometimes	Most Often	Almost Always
38.	To what extent do you feel encouraged to reach higher levels and standards of performance in your work?	Almost Never	Seldom	Sometimes	Most Often	Almost Always
39.	To what extent do you feel your total motivational energies are being drawn on to support the institution's mission and purpose?	Almost Never	Seldom	Sometimes	Most Often	Almost Always
40.	To what extent are other employees in your institution motivated to do what is needed to achieve the institution's mission and purpose?	Almost Never	Seldom	Sometimes	Most Often	Almost Always

INDIVIDUAL NEEDS AND VALUES

What employees believe to be important, good vs. bad, and what should guide daily behavior in the institution?

41.	How meaningful to you is the work you are currently performing?	Almost Never	Seldom	Sometimes	Most Often	Almost Always
42.	To what extent do you feel free to conduct your work the way you think it should be done?	Almost Never	Seldom	Sometimes	Most Often	Almost Always
43.	Do you feel valued as a person in your institution?	Almost Never	Seldom	Sometimes	Most Often	Almost Always
44.	Is there a healthy balance between your work and personal life?	Almost Never	Seldom	Sometimes	Most Often	Almost Always

PERFORMANCE

The outcomes, results, and indicators of individual and institutional achievement

45.	To what extent is your institution effective at eliminating waste and inefficiency throughout the institution?	Almost Never	Seldom	Sometimes	Most Often	Almost Always
46.	To what extent does your institution make effective use of talented employees with standards?	Almost Never	Seldom	Sometimes	Most Often	Almost Always
47.	To what extent does your institution earn recognition as a world class competitor in our industry?	Almost Never	Seldom	Sometimes	Most Often	Almost Always
48.	To what extent does your institution consistently meet revenue objectives?	Almost Never	Seldom	Sometimes	Most Often	Almost Always